The Value of Decision Analysis in Mediation Practice

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You are an experienced trial attorney who has recently gained an excellent reputation as a mediator of difficult cases. In the process of mediating a complex, high-stakes securities case, you have done everything possible to facilitate communication, provide an empathetic ear, and insure that the issues and interests of the parties are fully explored. The tension level and expressions of hostility between the parties have been significantly reduced over the course of the mediation. But very little progress has been made toward settlement.

The simple fact emerging from the joint mediation session and private caucuses is that the parties (together with their lawyers) have widely divergent views of the likely outcome of the case. Each side strongly believes it would prevail at trial. And, the defendants view the possible verdict range (in the unlikely event of a liability finding) as much lower than does the plaintiff, who anticipates a higher actual damage award, doubled or trebled as punitive damages. These views are held in good faith, and are based upon each party's and its lawyer's analysis of the factual and legal issues. You have "asked the difficult questions"; not a crack in the parties' armor has been acknowleged.

What's a mediator to do?

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When parties in a legal dispute are at a negotiation impasse caused by widely divergent assessments of the trial alternative, at least one of them is unrealistic. They cannot both be right. To break the impasse, the mediator

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must attempt to influence one or both parties' assessments, which should lead to movement in their settlement positions.[1] To do so, the mediator has three options:

1. Provide a "gestalt evaluation" — the mediator's overall sense of reasonable settlement value, without detailed feedback on each issue;

2. Provide detailed feedback on the strengths and weaknesses of the parties' positions on each issue, with or without relating it to a "gestalt" evaluation; or

3. Introduce a decision analytic approach to case evaluation, possibly using a computer software program to structure and perform the analysis.

As discussed later in this article, the first two options carry significant risks for the parties, the mediator, and the mediation process. Moreover, they often prove ineffective, particularly for resolving high-stakes, complex cases. The third option is both more powerful and less risky. A mediator using decision analysis to build and present a case evaluation is more likely to overcome impasse while avoiding damage to the mediation process

Option 1 — The Mediator's "Gestalt" Evaluation

The mediator almost inevitably forms an opinion on the various disputed legal, factual, and technical issues through the various stages of a mediation process: in preparation, preliminary private meetings, and joint mediation sessions, while reviewing documents and listening to counsel, the parties, and key expert or fact witnesses. Some arguments ring true, others seem disingenuous. One side's expert may seem particularly impressive, another untrustworthy. The mediator will develop views on how the jury (or other decision makers) would react. Is a judge likely to grant summary judgment? Is critical evidence likely to be admitted? How will a jury understand the experts? How will it allocate liability? What will it find as a fair measure of damages?

From all of this input, the mediator begins to have a sense of the gestalt; what the case might be "worth," and what might be a reasonable settlement range. Two problems can result when the mediator presents his or her gestalt-sense as a case evaluation. First, the mediator's judgment might be sufficiently powerful but just plain wrong. In a highly complex, multi-issue case with a range of potential outcomes, the mediator's gestalt-sense may be far from the result his or her decision analysis would yield. It is necessary to disaggregate the elements of the case and the steps likely to occur in the litigation process in order to understand the value of the trial alternative and to find a reasonable settlement range.

More common, I suspect, is a second problem: The mediator's judgment might be correct but insufficiently powerful. Even if the mediator is a well-respected former judge, achieving a substantial shift in the parties' positions based on a gestalt-sense evaluation can be extremely difficult. As soon as the evaluation is delivered, the mediator's credibilty is at risk to the

extent that the parties or counsel view the evaluation as negative. They may discount the evaluation and then justify their reaction: "He is less familiar with this legal area than we thought. . . hasn't really seen all of the witnesses. . . isn't familiar with all of the hundreds of exhibits" and so forth. The mediator sometimes undergoes an amazing metamorphosis from the "highly respected, indisputable neutral of unparalleled intellect" to "just another lawyer. . .and what does he know anyway?" Trial counsel, whose objectivity may be equally impaired by the advocate's role, often support the parties' unyielding belief in the strength of their case.[2]

Perhaps more damaging to the mediation process than loss of the mediator's credibility is the perception that the mediator is no longer neutral. Whenever a mediator provides an evaluation, he or she risks being viewed as favoring one side, and thus as an adversary by at least one party.[3] Providing a gestalt-sense evaluation can be particularly dangerous. In addition to the problem created by any evaluation's implicit rejection of at least one side's position, the gestalt evaluation can seem impenetrable and thus inseparable from the mediator.

Option 2 — The Mediator's Detailed, Issue-by-Issue Feedback

Why shouldn't the mediator simply give the parties and their counsel detailed "neutral feedback" on the strengths and weaknesses of each legal argument or on the weight of the evidence for each disputed factual issue?

Qualitative neutral feedback on disputed issues can be helpful. Unfortunately, it is often insufficient to move the parties across a significant negotiation gap. Absent an analytical structure for understanding a complex case, the parties have no mechanism with which to consider how the mediator's feedback on individual issues, if accepted, will affect their case's value. A company president may nod: "Yes, I can accept that this issue may be a bit more of a problem than I had thought, but I still want to get close to $x for my case."

In fact, when negative feedback is delivered on certain issues, the heart of the case often becomes a moving target. Party representatives and counsel intuitively or strategically begin to treat the case value as a constant, defensively shifting the relative weights of the issues. The strengths of the case will be used to justify the settlement position, and the weaknesses, if acknowledged, will be discounted as unimportant. The discussion becomes slippery and frustrating: the mediator's feedback never quite penetrates the parties' conception of reasonable settlement.

The apparent solution would be for the mediator also to provide an overall evaluation of what he or she considers to be a reasonable settlement, articulating the logical link between negative and positive feedback on particular issues and that evaluation. Presumably, the mediator has derived the evaluation from his or her views of the strengths and weaknesses of the parties' positions on factual and legal issues. If these views

are explained to the parties with some care, the evaluation may cause one or both parties to move significantly, overcoming the previous impasse.

Option 3 — A Decision Analytic Approach to Case Evaluation

It is true that a mediator's careful, thorough evaluation, persuasively and tactfully articulated, can be and often is the "but for" cause of settlement in a case. Mediators who provide such evaluations generally serve their clients well.

Why isn't that the end of the matter? Because, as noted earlier, in a reasonably complex case, the evaluation may be sufficiently powerful but insufficiently accurate. Human beings' cerebral software is limited. Given a sufficient number of interactive and independent variables, one's intuition about how various judgments of strength and weakness will play out may simply be wrong. If the parties will be persuaded by a mediator's evaluation, then the mediator should make every effort to insure that the evaluation is as accurate as possible.

Moreover, for the steamy mix of parties and lawyers and their emotional, personal, and professional dynamics and incentives commonly found in a mediation, using decision analysis can help overcome barriers to settlement. A mediator who presents an evaluation without considering the introduction of a decision analytic approach ignores a potentially invaluable device.

Why? How is decision analysis useful within a mediation process?

Integrity of the Mediator's Evaluation

Decision analysis permits confidence in the integrity of the mediator's evaluation. In a complex case, the mediator often faces a daunting, wide and tangled web of factual and legal issues when trying to arrive at an evaluation. The mediator may find it difficult or impossible to arrive at strong sense of overall case value.[4] Or, the mediator may have a fairly strong sense of the case value but be uncertain as to whether that sense is right or wrong.

Because intuition tends to be a poor predictor in complex cases, at a bare minimum, decision analysis can and should be introduced into the process by the mediator in formulating a case evaluation. The mediator might well make note of his or her gut sense, and then put it aside to work through a decision analysis. The gut sense evaluation and the decision analysis outcome can be compared. If they fall within a narrow range, the mediator can be confident in the integrity and power of both evaluations. If not, further thought, analysis, and recalibration should be undertaken before presenting any evaluation to the parties.

In some cases, the mediator may elect not to introduce decision analysis any further into the process — not to mention it to the parties or counsel. The mediator may sense that one or both will simply be unwilling or unable to understand and accept it as a basis for decision or discussion. Particularly where the mediator is a former judge or an experienced attorney playing a "senior statesman" role, the mediator's gestalt-sense — presented as an evaluation without reference to decision analysis — may be sufficiently powerful to cause significant movement in the parties' negotiating positions. In such cases, decision analysis will have played a quiet role in insuring the intellectual integrity of the evaluation, the mediation process, and its result.

A Neutral, Logical, and Shared Structure for Discussion

Once the parties have recognized that decision analysis is an inherently neutral and familiar logic, an evaluation built on that logic becomes extremely difficult to resist. The mediator's explicit introduction of a decision analytic approach provides a common structure for the parties to think about the case and possible settlement options.

The first challenge for the mediator is to help the parties understand that decision analysis simply reflects their own normal, rational thought processes and is, in fact, something they do in their everyday lives. This point can be illustrated with the simplest of examples: "Would you pay me 50 cents for a 50 percent chance of winning a dollar." Or, "If there is a 75 percent chance of rain, I should bother to bring that heavy umbrella." But, "If there is only a 50 percent chance of rain, I might not, depending upon how water resistant and how expensive my clothing is."[5]

Whether before or after the mediator has suggested using decision analysis to evaluate the case, neither counsel nor the parties can deny the importance of asking questions about what could possibly happen in the case before, during, and after trial. The mediator can walk the parties and counsel through a series of such questions which, in a typical case, might include the following:

> *Are there any motions to be ruled upon before trial? When?*
> *What are the possible outcomes of the summary judgment motion? Is partial summary judgment possible? Which issues are likely to survive?*
> *What could happen at trial? Is the admissiblity of any evidence in doubt? How could that affect the trial outcome?*
> *Is contributory negligence a possibility here?*
> *What are the damages likely to be? Would different theories dictate different damages?*

Through step-by-step questioning and discussion with the parties and counsel, the mediator sets up a neutral framework for discussion and decision making. Once the parties have accepted decision analysis as familiar and irrefutably logical, any evaluation built on its structure has a greater likelihood of acceptance.

Reducing the Risks of Evaluation

An experienced mediator knows that providing an evaluation is a difficult and delicate task because it is inherently risky for the mediation process. As

mentioned earlier, the party receiving the more negative evaluation may thereafter view the mediator as an adversary and no longer neutral. This renders the mediator ineffective; everything he or she does becomes suspect.

When providing an evaluation appears necessary to overcome an impasse, mediators have, or should have, strategies to reduce its inherent risk.[6] For example, while a mediator is bound to provide a consistent evaluation to both sides, my advice is to deliver the evaluation in private caucuses, so that the parties need not suffer loss of face in front of the other side. The mediator should consciously endeavor to soften the emotional/ego impact of negative feedback and to distance himself or herself from the evaluation.

Decision analysis is a technique for shifting focus from the mediator to an easel or computer screen displaying probability estimates and values. When discussing the expected value outcome of a decision analysis, the mediator can quite sincerely say to a party for whom it is unfavorable: "I wish I had better news for you. It's just that the numbers come out this way" and so forth. The evaluation tends to be less closely identified with the mediator; its source seems as much the principles of mathematics or computer programming as the mediator's judgment.

Decision analysis may even allow the mediator to avoid providing his or her own evaluative feedback while influencing the parties to alter their own evaluations of the trial alternative. How? The mediator builds the structure of the decision tree from the parties' (and counsel's) articulation of what could possibly happen at various stages of discovery, pretrial motions, and during trial. In private caucuses, the mediator then asks each party to state which probabilities and values it would assign at various points along the decision tree structure. In some cases, at least one party's separate decision analysis yields an expected value outcome far different from its articulated settlement position.

When a party has accepted the logic of the method and has determined all of the input, it is hard pressed to reject the outcome. Even if the party is sorely disappointed and resists altering its settlement position, the mediator suffers no blame. The parties' perception of the mediator's neutrality remains intact.

More often, the parties' separate decision analysis outcomes fall close to their settlement positions, recreating some or all of the negotiation gap. This is natural: it confirms that their settlement positions reflect the parties' considered judgments, partisan perspectives, and natural biases. Nevertheless, the mediator will nearly always find some of the probabilities or values assigned by the parties to be reasonable, even where others indicate a lack of objectivity. In such cases, the mediator can then "piggyback" onto each party's analysis (in private caucus), providing his or her evaluation only for selected probabilities or values.

Consider, for example, a case in which the mediator agrees with the defense's estimate of a 60 percent chance of liability verdict, a 50 percent chance of some contributory negligence finding, and the actual damages range. Assume that the mediator differs greatly as to the contributory negligence percentage (by which damages would be reduced) and the probability of a punitive award. The mediator would perform the decision analysis using his or her evaluation only on the contributory negligence and punitive damages issues. If the mediator's reasoning on these issues is at least somewhat persuasive to the defense representative and counsel, it will be difficult for them to wholly reject the expected value outcome. After all, it was derived from their own evaluation on many of the probabilities and values, and only limited evaluative input from the mediator. It is easier for a party to acknowledge that its views might be "a little bit colored" by its position in the case than to admit to being "completely wrong." Where the mediator's evaluation rides "piggyback" on a party's evaluative input, its acceptance is less painful. Once again, the danger of the mediator being viewed as the adversary is greatly reduced.

The "Black Box" Quality of Decision Analysis

During the mediation, as the mediator builds the decision tree structure and presents a step-by-step evaluation that assigns probabilities or values to each issue on the tree, the outcome of the decision analysis is not yet apparent. This makes the parties less resistant to the mediator's reasoning on each issue. If the mediator's evaluation was persuasive when disaggregated into its component parts, it will be difficult to resist when reaggregated and "rolled-back" to the expected value outcome in a decision analysis.

The step-by-step process of building the tree and inserting probabilities and values also eliminates the particular credibility problem created when a mediator's evaluation falls toward the middle of the negotiation gap. Mediators often battle clients' suspicion that they will "split the baby" or seek a middle-ground compromise no matter what the merits of a case. Therefore, when a mediator presents an evaluation that puts case value at or close to the midpoint between the previously stated settlement positions, many parties and counsel may discount the mediator's sincerity and the credibility of the evaluation. However, for all but the most skeptical, where a mediator has committed to the decision analysis process, built the structure with the parties, and articulated and inserted the probabilities and values "before their very eyes," a midpoint outcome will not be suspect. The mediator thus retains credibility and the mediator's evaluation retains its power.

Transforming the Dispute

Decision analysis in general and on the computer in particular assists in the transformation of the dispute from a battle to a business problem. The

intellectual exercise of building a decision tree structure and mounting it on a large paper easel or blackboard (or, better yet, on a large computer screen) creates distance from the parties' and counsel's ego and personal investment in a case. To the parties, adopting a decision analytic approach feels neutral, rational, and intelligent. Allowing its outcome to influence one's settlement position becomes an acknowledgment of the power of mathematics and computer chips rather than a concession to the power of an opponent.

In many business disputes, it is most effective to use computer software to perform the decision analysis because many business people have confidence in the computer's ability to generate valuable data. Many MBAs were introduced to the use of decision analysis for business strategy choices in business school. Decision analysis on computer software for evaluating legal/business disputes applies a familiar method in a technology they trust. For other people, who view computers as alien and suspicious, using the software may be counterproductive. The wise mediator considers the appropriate level of technology for the particular audience and how best to introduce it within the process.

Avoiding Attribution of Fault

As decision analysis creates distance from the evaluation, it removes another common reason for a party's resistance to settlement — fear of personal attribution of fault. For example, assume that a company's general counsel authorized a company action which is cited as grounds for the legal complaint in a case. For the general counsel, a central participant in the mediation, the personal attribution of error creates understandable resistance to settlement. (Imagine that the general counsel sees himself or herself reporting the settlement to the CEO, who questions whether the company is paying such a high price to cover his or her blunders.) A sufficiently complex decision tree structure displayed on an easel or computer screen might graphically demonstrate the insignificance of the general counsel's original authorization as the issue of authorization is visually overwhelmed by a myriad of other variables and branches in the tree. This avoids the attribution of fault to the general counsel for the outcome of the analysis, and consequential injury to ego, personal or professional status.

The preferred scenario is that the expected value outcome of the analysis will not be overly sensitive to the general counsel's difficult issue. The mediator can then perform a decision analysis which adopts the general counsel's view on that issue, and nevertheless justifies significant movement toward settlement. Having seen that the outcome (and the wisdom of a larger payment in settlement) is attributable to a different and larger set of circumstances, the general counsel feels free to seek a business solution rather than personal vindication in the courtroom.

The Added Value of Computer Software

As the complexity of the mediated case increases, so does the value of decision analysis software. If a mediator provides a case evaluation using decision analysis and if it is likely that the parties will pay serious attention to it, all involved have an interest in the rigor of the analysis. Using the software prevents mathematical error; it insures that the probabilities total 100 percent where necessary, and so forth. In other words, using decision analysis software insures that the underlying structure of the tree is correct.

The software also adds value where "neatness counts." After a mediator's evaluation is presented and discussed in a mediation session, the mediation process sometimes adjourns for a period of time to allow the parties and counsel to discuss the mediator's evaluation with the appropriate committee or other internal authority or expert. While the mediator may articulate his or her evaluation in prose, it should also be communicated in decision tree format for all of the reasons that the easel or computer screen was important in the mediation session. Particularly when taken back to a business setting, the printout of a computer-generated analysis lends additional credibility.

The software also serves as a medium of dialogue between the mediator and a party or counsel. Its ability to perform formal or informal sensitivity analyses both quickly and easily allows joint, dispassionate examination of the effect of controversial evaluative judgments on the case's expected value. For example, in a case I mediated not long ago, I had not mentioned decision analysis when providing some gentle issue-by-issue feedback during an initial mediation session. The rather frail emotional state and limited mental capacity of the plaintiff made it unwise to suggest a decision analytic approach. I had found the case extremely difficult to evaluate, not because of complexity in the tree structure but rather because of the difficulty of assigning values and probabilities to the various issues. I played around with the software to work through my own decision analysis during a week's hiatus between mediation sessions. As I thought more about the case, I called the in-house attorney for the defense to discuss certain issues. During the course of that call, I mentioned that I had performed a decision analysis using *TreeAge*, a decision analysis software designed for litigation. He stated that he had done a decision analysis of the case as well, using a different software. We discussed the structure of our respective trees and the probabilities and values we had each assigned at various branches.

It happened that we disagreed somewhat on the probability assigned to one critical issue, where he had estimated that his client had a 75 percent chance of success. I agreed that his was the better side of that issue, but thought the probability estimate should be 65-70 percent. "Are you sure it's 75 percent? Couldn't it be 70 percent?" I asked. "Or 65 percent?" He thought 65 percent was too low, but agreed that he could not really

argue against 70 percent vs. 75 percent. In fact, the expected value outcome was extremely sensitive to that probability estimate. I suggested performing the analysis using a 70 percent probabiliy with his damages estimates (which were lower than mine): the expected value outcome was nevertheless significantly higher than his previously stated settlement boundary. I then suggested running the analysis using his 75 percent probability and my damages estimates. Once again, the expected value outcome was significantly higher. The software became a language and a medium with which to push and probe at acknowledged "soft spots" in counsel's analysis. Yet, the probing felt neutral, it did not give rise to a defensive response. As a result, defense counsel was persuaded to put enough on the table to settle the case.

In a case of any complexity, the easel and the hand-held calculator are no substitute for a computer-generated decision analysis. Once the software tree has been built, the mediator can allow either or both parties to disagree with any piece of the evaluation, and demonstrate the result — informally testing the sensitivity of the expected value outcome to judgments on disputed issues. Or, you can explicitly explain and perform a sensitivity analysis, and discuss its implications for settlement. The expected value outcome's lack of sensitivity to a disputed issue helps quiet controversy on that issue; discussion or additional information-gathering can then be directed toward other issues. On the other hand, recognition of tremendous sensitivity to a particular issue tests the parties' confidence in their judgments on that issue.

The software's ability to display the distribution of possible outcomes predicted by a particular decision analysis can be used to test the parties' tolerance for risk. The possibility of a "zero verdict" or a "bankrupt-the-business" outcome may not seem real to the parties until the software demonstrates, in plotted graph or bar chart format, that 30 out of 70 possible outcomes fall within an intolerable range under the mediator's (and perhaps the parties') analysis. The points on the graph or the bar chart dimensions are hard to ignore.

When a mediated settlement cannot be reached, the other capabilities of the decision analysis software can lead the parties to other settlement methods. For example, in a complex, high stakes case I co-mediated, the parties reached impasse in the medation despite the use of a decision analytic approach. They then agreed to settlement through a bracketed or "high-low" arbitration process, setting the award limits at points which eliminated the equivalent distribution of outcomes for each side as reflected in the mediators' decision analysis. Without the software's graphic demonstration of the distribution of outcomes predicted by the decision analysis, reaching agreement on such limits would have been difficult or impossible.

Conclusion

To be constructive and effective within the mediation process, a mediator's case evaluation must be carefully derived and reasoned, persuasively articulated, and tactfully delivered. A decision analytic approach allows the mediator to structure and present an intellectually rigorous evaluation while minimizing the risk of perceived loss of neutrality. This approach can enhance the mediator's ability to unlock or redirect participants' emotional and professional investment in litigation and to remove personal and organizational incentives for entrenchment in adversarial and costly disputes.

In a particularly complex case, using computer software for decision analysis offers added value by facilitating discussion of the evaluative analysis among additional decision makers who were not at the table. It provides a neutral language and method with which the mediator can probe and challenge the parties' stated positions and tolerance for risk. By helping people focus more clearly and dispassionately on the choices they face, a decision analytic approach and its presentation on computer software should enable them to achieve intelligent settlements.

NOTES

1. Of course, if circumstances allow, the mediator may be able to suggest creative options, moving the basis for settlement away from a rights-based analysis. This discussion assumes a case which lacks opportunities for creative options sufficient to resolve the dispute, at least at this juncture. In my experience, parties are often unwilling to consider creative options until after they have been persuaded that their trial alternative is less attractive than previously thought, and the legal rights/dollar based gap has narrowed.

2. This problem may not ocurr if the evaluation happens to fall close to the middle ground. In that case, however, the mediator may then be suspected of merely "dividing the difference" to achieve settlement, and his or her evaluation viewed as less credible.

3. Although a mediator is advised to employ techniques to distance himself or herself from the evaluation, including but not limited to framing the evaluation as "not the outcome I would choose, but based upon my experience, what I think a jury would do, [etc.]," this is extremely difficult to accomplish.

4. Generally, when attorneys speak of the value of a case, they are referring to the litigation alternative — to some sense of what will happen at trial, the likelihood of a liability finding, the magnitude of damages, and the attendant costs and risk. Undeniably, worth has an individual, personal aspect as well. Lawyers would recognize that it might be "worth it" to one client to settle the same case at a given price, but not worth it to another, depending on their tolerances for risk, current and future needs, level of comfort or discomfort with the trial process, etc. — factors one would put into a utility analysis.

5. A separate article could be written on tricks and techniques for a mediator introducing decision analysis to parties and counsel unfamiliar with the approach. Sufficed to say here that it should be introduced in simple, common sense terms.

6. Whether this is done in private caucuses or in joint session is a matter of mediator judgment and some considerable subtlety. Techniques and strategies mediators can use to mitigate the risks of providing an evaluation merits more complete discussion in a separate article. This discussion merely sets forth ways that decision analysis can be useful toward that end.