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**Article**

## Alternative dispute resolution

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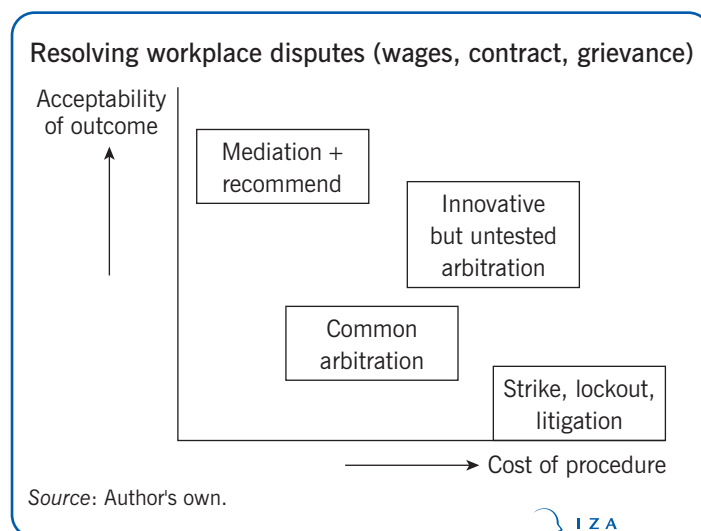
## Alternative dispute resolution

### How different procedures might succeed in settling disputes

Keywords: dispute resolution, arbitration, mediation, risk aversion, optimism

#### ELEVATOR PITCH

Alternative dispute resolution procedures such as arbitration and mediation are the most common methods for resolving wage, contract, and grievance disputes, but they lead to varying levels of success and acceptability of the outcome depending on their design. Some innovative procedures, not yet implemented in the real world, are predicted to improve on existing procedures in some ways. But controlled tests of several procedures show that the simple addition of a nonbinding stage prior to binding dispute resolution can produce the best results in terms of cost (monetary and “uncertainty” costs) and acceptability.



#### KEY FINDINGS

##### Pros

- + Binding dispute resolution guarantees a settlement.
- + A well-designed procedure can promote voluntary settlements.
- + A nonbinding stage to a dispute resolution procedure can help limit disputes caused by incomplete information.
- + Any procedure promoting voluntary settlement is likely to be beneficial in the long term.

##### Cons

- Common dispute resolution procedures increase dispute rates relative to such alternatives as strikes and lockouts.
- Poorly designed dispute resolution procedures may limit good faith bargaining.
- Settlements from a third party may be extreme and less acceptable than voluntary settlements.
- Dispute resolution procedures may be addictive, as reliance on them can increase over time.

#### AUTHOR'S MAIN MESSAGE

Dispute resolution procedures can be useful for workplace wage negotiations, contract disputes, or other grievances. The most helpful type uses a nonbinding stage (such as mediation) before any binding procedure (such as arbitration) to reduce unrealistic expectations and encourage voluntary settlement. Controlled laboratory tests show that adding a nonbinding stage is effective and easier to implement than complicated theoretical procedures. Policymakers should consider high-quality laboratory evidence, just as scientists do, so that conclusions or policy decisions are not based on misinterpretations of confounding factors typically present in naturally occurring field data.

## MOTIVATION

Alternative dispute resolution procedures are increasingly being used in many contexts, including contract disputes, civil and community disputes, and court-mandated alternative dispute resolution as part of tort reform in the US. Even high-profile salary disputes in US Major League Baseball are settled using final-offer arbitration. Mediation and arbitration also play a significant role in the workplace in such areas as labor–management disputes and grievance resolution. Alternative dispute resolution uses neutral and unbiased individuals to help determine a reasonable settlement, but this poses risks to the bargainers. The uncertainty over arbitrator decisions should promote voluntary settlement [1]. But that same uncertainty opens the door for unrealistic bargainer expectations, which may reduce settlement rates.

### Different types of alternative dispute resolution

Arbitration is a binding procedure that guarantees settlement. The two common forms of arbitration are:

*Conventional arbitration*, in which the arbitrator crafts an award based on the facts presented.

*Final-offer arbitration*, in which the arbitrator decides an award based on the demands and offers of the disputants.

*Mediation*, by contrast, is nonbinding and attempts to facilitate good faith negotiations.

## DISCUSSION OF PROS AND CONS

### The hypothesized benefits of alternative dispute resolution

When a labor–management dispute ends in a strike or lockout of workers, the cost is high. If disputes can be resolved more efficiently (at lower cost), and the outcomes are acceptable to the disputants, this is a win–win solution.

Binding procedures guarantee a settlement of some sort, so the uncertainty over whether a settlement can be reached is avoided when using binding alternative dispute resolution. Procedural rules can, however, differ greatly from one binding procedure to another, so these rules are an important determinant of a procedure’s effectiveness.

### Arbitration procedures may fail to live up to expectations

Binding arbitration often allows broad discretion to impose whatever settlement the arbitrator deems reasonable. This type of arbitration is commonly referred to as conventional arbitration.

Uncertainty about the likely outcome from arbitration is a type of “cost” that promotes voluntary settlement among risk-averse disputants, so changing the procedural rules of arbitration to increase outcome uncertainty should, in theory, improve voluntary settlement rates [1].

Final-offer arbitration can be seen as a way to increase voluntary settlements when arbitration looms. Under final-offer arbitration rules, at impasse, the disputants each submit final offers to the arbitrator, who is then constrained to choose one of the two

final offers as the arbitrated outcome. The procedure had a significant impact on labor policy in the US as several states implemented final-offer arbitration to settle public sector labor disputes [2]. Canadian transportation and fisheries industries have used it. So has US Major League Baseball to settle high-profile salary disputes.

Unfortunately, policy preceded theory and empirical evidence on final-offer arbitration. Theorists quickly showed that predicted final offers diverge [3]. Evidence is mixed as to whether final-offer arbitration promotes more voluntary settlements than conventional arbitration. And because procedures labeled conventional arbitration or final-offer arbitration in real world data may not even follow the same exact rules [4], the comparisons are not clean. For this reason, laboratory experiments offer controlled “wind-tunnel” tests of arbitration procedures and provide useful apple-to-apple comparisons of the relative effectiveness of different alternative dispute resolution procedures.

### Laboratory experiment

A *laboratory experiment* uses a standardized procedure where extraneous variables can be accurately controlled, and so the cause and effect relationship can be clearly established. Accurate results can therefore be recorded. The researcher decides where and when the experiment takes place, with which participants, and in what circumstances. Participants are randomly allocated to each independent variable group being studied.

Laboratory experiments are also called *controlled experiments* as they are conducted in a well-controlled environment which is not necessarily a laboratory.

Although laboratory experiments have the advantages of being easy to replicate as they follow a standardized procedure and of being able to clearly establish cause and effect, the artificial setting can produce unnatural behavior that does not reflect real life, and *demand characteristics* (where participants interpret the purpose of the experiment and unconsciously change their behavior to fit that interpretation) or the *observer effect* (where the researcher unconsciously influences the participants) can bias the results.

There are more pros than cons associated with conducting laboratory experiments (McLeod, 2012).

Source: McLeod, S. A. “Experimental method.” *Simply Psychology* (2012). Online at: <http://www.simplypsychology.org/experimental-method.html>

### The problem of bargainer overconfidence

One reason negotiations may fail is that disputants do not share a common and accurate belief about the likely outcomes from arbitration. Evidence shows that disputant beliefs are more important than their attitudes toward outcome risk when bargaining in the face of arbitration [5].

Arbitration procedures created to increase outcome uncertainty (and therefore reduce disputes) may create overconfidence, and this has been well documented in the context of bargaining [6]. Thus, while the uncertainty of arbitrated outcomes was originally thought to help promote voluntary settlements, that same uncertainty may inadvertently reduce settlement rates due to bargainer optimism [7].

## The narcotic effect of arbitration

Another concern with third-party alternative dispute resolution is that disputants might become dependent on the procedure. Labeled the “narcotic” effect of arbitration, this concern is particularly important where disputants face the possibility of recurring disputes, as with wage or grievance negotiations.

A study using laboratory negotiations of addiction to arbitration shows that learning is slower with arbitration [8]. Specifically, bargainers are found to learn from past disputes in the sense that additional past disputes decrease the likelihood of a dispute in the current decision round. However, when arbitration is available, some of this effect (the reduced dispute likelihood if bargainers have disputed in the past) is diminished, which the study refers to as a type of narcotic effect [8].

### Narcotic effect of arbitration

According to Wirtz (1963), the *narcotic effect* of arbitration is when “bargainers turn to arbitration as an easy and habit-forming release from the...obligation of hard, responsible bargaining.” In other words, the use of arbitration procedures has an addictive effect and increases the tendency of negotiators to rely on using such procedures in the future.

However, there may exist a negative narcotic effect: There comes a point when bargainers become unhappy with using arbitration procedures—due to the awards being disappointing or due to the initial novelty of the arbitration procedure wearing off—and so dispute rates fall (Bolton and Katok, 1998).

*Source:* Bolton, G. E., and E. Katok. “Reinterpreting arbitration’s narcotic effect: An experimental study of learning in repeated bargaining.” *Games and Economic Behavior* 25 (1998): 1–33.

Wirtz, W. “Address before National Academy of Arbitrators.” *Daily Labor Report* 23 (1963): F1-F4.

Others find a related but slightly different sort of narcotic effect with conventional and final-offer arbitration in the sense that past use of the arbitration procedure increases the probability of using arbitration in the present.

A benefit of using arbitration is that disputes get “settled” one way or the other, but bargainers are more likely to find acceptable an outcome they have negotiated themselves, not one determined by someone else [3]. In other words, a negotiated outcome, by definition, is mutually acceptable. Such may not be the case with an arbitrated outcome, particularly if the outcome is determined by final-offer rules that guarantee one bargainer’s final offer will be rejected by the arbitrator. Acceptability of the settlement outcome may be particularly important for long-term occupational relationships, as opposed to short-term relationships in temporary or seasonal occupations.

## The benefits of laboratory studies on dispute resolution

Naturally occurring field data are “messy” in the sense that many uncontrolled factors may differ from one dispute to another. For example, properly comparing the effectiveness

of conventional arbitration with that of final-offer arbitration, or with mediation, is impossible if only the most difficult disputes, or the disputes with more at stake, are channeled to one procedure over another. The only way to fairly compare the effectiveness of different procedures is to create an otherwise identical bargaining environment that differs only in the alternative dispute resolution procedure invoked at impasse.

Statistical methods can help control for the additional influences on bargaining from real world data, but that is possible only when such influences are quantifiable in a consistent way. Even the coding of a procedure used in the field is an issue at times. For example, procedures differing in important aspects may all be labeled as “final-offer arbitration” for purposes of an empirical summary [4].

In the end, the trade-off is that laboratory bargaining environments are more controlled but less real world than naturally occurring data. Even so, data from well-designed laboratory experiments contribute greatly to our knowledge in many arenas, and they can offer valuable and relatively inexpensive empirical evidence on a procedure’s effectiveness prior to implementation [9].

### Arbitration procedures compared

The interest in comparing the effectiveness of different arbitration procedures exists in both the field and the laboratory data literature. Canadian public-sector contract data have shown that disputes are more common with compulsory arbitration, but the relevant studies did not examine different forms of arbitration. Instead, the focus was on comparing compulsory arbitration with right-to-strike statutes.

#### Field experiment

A *field experiment* is carried out in the real-life environment of the participants and so, although the independent variable is still manipulated, the extraneous variables are not controlled and the cause and effect relationship cannot be clearly established.

Behavior in a field experiment is more likely to reflect real life than a laboratory experiment because of its natural setting, and is not likely to be affected by *demand characteristics* (particularly if the study is covert). However, the extraneous variables cannot be controlled and they may well bias the results. It is also very difficult for another researcher to replicate the experiment accurately as a standardized procedure is not used (McLeod, 2012).

Source: McLeod, S. A. “Experimental method.” *Simply Psychology* (2012). Online at: <http://www.simplypsychology.org/experimental-method.html>

Early experimental evidence indicated that final-offer arbitration promoted voluntary settlement. A common feature of the earliest arbitration experiments, however, is the use of mock negotiations. While a mock negotiation may seem desirable to create a more realistic environment, such experiments introduce confounding variables that are not easily quantifiable (such as nonverbal signals in bargaining).

The more recent literature based on controlled laboratory comparisons of arbitration procedures consistently shows that final-offer arbitration has lower voluntary settlement

rates than conventional arbitration. So, the laboratory evidence does not support the argument that final-offer arbitration, designed to increase the uncertainty costs to disputants, will promote fewer disputes. An additional drawback is that arbitrated outcomes are unsatisfactory to the losing party, which compromises the acceptability of final-offer arbitration outcomes.

Other rules of arbitration have been developed in an attempt to improve on both conventional arbitration and final-offer arbitration:

- Tri-offer arbitration. Similar to final-offer arbitration, but allows the arbitrator the choice of selecting a factfinder recommendation (based on the evidence presented) in addition to either of the disputants' final offers.
- Combined offer arbitration. Mixes the rules of conventional and final-offer arbitration to remove the possibility of an intermediate settlement between the disputants' final offers.
- Double offer arbitration. Asks disputants to submit a primary and a secondary final offer, with the secondary final offer valued in the arbitrator decision rule for its proximity to what the arbitrator views as a fair settlement.
- Amended final-offer arbitration. Similar to final-offer arbitration, but the losing disputant's final offer determines the settlement.

Some of these procedures produce a theoretical convergence of final offers, which would imply settlement without the need for arbitration. But the rules of these innovative procedures are not always straightforward, limiting their usefulness in the real world. Some innovative procedures have been tested in controlled laboratory experiments, but the evidence has not shown a significant improvement in dispute rates relative to the more commonly used conventional arbitration (some appear to improve settlement rates relative to final-offer arbitration).

So, theoretically innovative procedures do not appear to provide clear benefits in significantly improved settlement outcomes, yet they often also impose the additional costs of being rather complicated to understand and implement.

### **Overconfidence and the narcotic effect**

On the discrepancy between theoretical predictions and empirical evidence of existing arbitration procedures, a key variable is the bargainers' expectations of what the arbitrator deems a fair settlement. Divergent expectations will affect both theoretical predictions and empirical outcomes.

The problem of overconfidence with arbitration has been examined to a limited extent using field and laboratory data. While both the field and laboratory evidence indicate that optimism will increase dispute rates, just one study *directly* tests this proposition by eliciting actual beliefs about expected arbitrator decisions [7]. Deriving the theoretical predictions of final-offer arbitration under conditions of bargainer optimism, this type of overconfidence causes final offers to diverge. The study presents laboratory experiments showing both higher dispute rates and more divergent final offers in final-offer arbitrations [7]. Other research has shown similar effects of optimism on conventional arbitration



outcomes. The conclusion from these laboratory experiments is that optimism is a more serious impediment than risk attitude in terms of harming the chances of voluntary settlement.

While dispute rates may be the most important and commonly examined outcome measure in evaluating arbitration procedures, there is also legitimate concern over whether arbitration is habit-forming. In other words, repeated use of arbitration may cause dependency on the procedures in the future, which implies the bargainers would not engage in good faith negotiations because they would rather hold out for arbitration.

Another concern of repeated use of arbitration is that it might harm the ability to learn from the pain of past disputes. While sparse, some limited empirical evidence documents this so-called “narcotic” effect of arbitration. Field data research has been dependent on the statistical methods used, so again the laboratory offers useful complementary evidence that is easier to interpret.

The earliest controlled laboratory study examining the narcotic effect found that arbitration slowed bargainer learning over time [8]. The more traditional interpretation of the narcotic effect of arbitration is that past use of a procedure increases the likelihood of use for the current dispute, all else being equal.

Controlled laboratory experiments show that both conventional and final-offer arbitration may be addictive in this sense. This again highlights the importance of finding an alternative dispute resolution procedure that promotes voluntary settlement prior to the need to actually use the arbitration procedure. A nonbinding stage prior to binding arbitration may help accomplish this goal.

### **The benefits of a nonbinding stage in alternative dispute resolution**

As noted above, over confidence or optimism is a critical variable in determining whether disputants will reach a voluntary settlement in binding arbitration. Thus, any nonbinding alternative dispute resolution procedure that may provide information on the likely outcomes from arbitration could be a useful replacement or preliminary stage to any binding alternative dispute resolution procedure. In general, nonbinding mediation (and fact-finding by the mediator) is meant to help in this way and may help de-bias the bargainers.

To be fair, there is evidence that mediation is widely used and apparently highly successful in the real world. But one must be careful to note that mediation is often used for disputes that may not be considered as difficult to resolve as those sent to arbitration. So again, the laboratory provides a useful place where mediation and arbitration can be compared for otherwise identical disputes, with all other factors held constant.

Some laboratory research has examined nonbinding recommendations, as one might see in fact-finding procedures. Fact-finding typically provides a recommendation to the interested parties in the dispute, which is no doubt meant to give bargainers a settlement option or focal point for negotiations. Interestingly, a nonbinding recommendation serves to lower the outcome uncertainty for disputants, which may inadvertently raise the likelihood of dispute. But what is perhaps more important is that the recommendation may help de-bias overconfident bargainers and serve as a focal point to facilitate settlement. The empirical data have shown a dominant focal point effect, such that the



nonbinding recommendation treatments in experiments have lower dispute rates relative to conventional arbitration with no recommendation.

A follow-up study to the initial laboratory research included a treatment in which a nonbinding recommendation was completely ignored in the final stage of arbitration [10]. Even when the recommendation had no impact on an eventual arbitrated settlement, it helped draw the final bargaining positions together and lower the dispute rates relative to an otherwise identical treatment of conventional arbitration. This is consistent with the hypothesis that the recommendation helps provide beneficial information on what an arbitrator may view as a fair settlement, which reduces optimism.

In experimental treatment conditions where the recommendation was not ignored but could influence a final arbitrated settlement, dispute rates remained lowest when recommendations were either mostly ignored or mostly adopted. A first-stage recommendation that was given an intermediate weight in the arbitrated settlement was perhaps a more indecisive message to bargainers, which would have defeated the point of trying to remove uncertainty to facilitate settlement.

## LIMITATIONS AND GAPS

For all the benefits that laboratory studies of alternative dispute resolution may offer, they have the disadvantage of not being as “real world” as some would like. However, care has been taken in most laboratory experiment research to faithfully recreate the essential decision environment of interest; strip away any nonessential details that may serve only to confound results; and offer financial compensation in the experiment that varies with choices made. In the end, laboratory subjects are real people making real choices for real money. If an alternative dispute resolution procedure shows serious weaknesses in the lab, it can be assumed that it will not be a success in the real world.

The lab can help generate relatively low-cost data to test procedures prior to (premature) implementation. In this way, the laboratory research can be viewed as a useful first step in studying the effectiveness of arbitration and other dispute resolution mechanisms, but it should not be the only step to take.

Another gap in the literature, unfortunately, is the absence of field experiment research on alternative dispute resolution policy that would serve to build on laboratory insights. That is, the use of laboratory methods in the more realistic setting of the real world (or with a more natural subject pool) would help bridge the gap between naturally occurring but “messy” real world data, and clean but more artificial-feeling laboratory data. With the recent rise in field experiment research, this gap may be filled to some extent in the near future.

## SUMMARY AND POLICY ADVICE

Binding alternative dispute resolution procedures lower the cost of a bargaining impasse by guaranteeing a settlement, so it seems that all alternative dispute resolution mechanisms will likely increase dispute rates relative to high-cost alternatives, such as strikes or lockouts. The trade-off is that alternative dispute resolution implementation saves all stakeholders from the significant loss associated with these high-cost alternatives. So, the real issue is to find the alternative dispute resolution procedure that promotes the most voluntary settlement prior to the need to actually invoke the procedure.

Policymakers should seriously consider high-quality laboratory evidence to inform decisions much in the way a scientist studies a phenomenon first in the lab so that conclusions are not based on misinterpretations of confounding factors typically present in uncontrolled data generation.

While final-offer arbitration was suggested as a way to improve settlement rates over conventional arbitration by increasing the cost of dispute (the uncertainty costs), the empirical data from well-controlled and incentivized laboratory studies show the opposite. Dispute rates are typically higher in final-offer arbitration than in conventional arbitration. The reason seems to be that bargainers are typically overconfident about the likely outcome from arbitration, and final-offer arbitration leads to more overconfidence.

While the rules of arbitration have been creatively modified by several researchers in an attempt to improve on conventional or final-offer arbitration, the empirical evidence indicates that the simplest modification is to add a stage prior to arbitration that generates a nonbinding recommendation, which provides useful information on what an arbitrated settlement might look like. While this lowers uncertainty costs (possibly increasing dispute rates), it also reduces the opportunity for overconfidence. It would seem that removing unrealistic expectations in negotiations cannot help but improve the chance of settlement, whether or not there is the benefit of a dispute resolution mechanism at one's disposal.

A procedure that includes a recommendation is just a way to formalize this attempt at recalibrating expectations to reality. A recommendation stage in dispute resolution is not costless to implement, but there may be a significant payoff in increasing the rate of voluntary settlements and the acceptability of negotiated outcomes.

These laboratory findings may help explain the popularity of mediation as a nonbinding alternative dispute resolution procedure. However, the empirical research highlights the importance of an actual suggested or recommended outcome prior to binding dispute resolution. Thus, in terms of policy advice, mediation prior to arbitration seems a reasonable choice of alternative dispute resolution procedure, but workplaces should also be encouraged to empower mediators to offer an explicit suggested settlement that bargainers know will be shared with the binding arbitrator.

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## Competing interests

The IZA World of Labor project is committed to the *IZA Guiding Principles of Research Integrity*. The author declares to have observed these principles.

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