Explaining Bargaining Impasse: The Role of Self-Serving Biases

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1. Introduction

- Economists, and more specifically game theorists, typically attribute delays in settlement to incomplete information.
- Bargainers possess private information about factors, causing them to be mutually uncertain about the other side's reservation value.
- Uncertainty produces impasse because bargainers use costly delays to signal to the other party information about their own reservation value.
1. Introduction

• This paper identifies a different and relatively simple psychological mechanism as a major cause of bargaining impasse

• This is the tendency for parties to arrive at judgments that reflect a self-serving bias

• self-serving assessments of fairness can promote impasse in at least three ways
  1. if negotiators estimate the value of the alternatives to negotiated settlements in self-serving ways, this could rule out any chance of settlement by eliminating the contract zone
1. Introduction

2. If disputants believe that their notion of fairness is impartial and shared by both sides, then they will interpret the other party's aggressive bargaining not as an attempt to get what they perceive of as fair.

3. Negotiators are strongly averse to settling even slightly below the point they view as fair.

• The evidence we review shows:
  – The self-serving bias, and the impasses it causes, occurs even when disputants possess identical information.
  – Private and incomplete information may not be as critical for non-settlement as is commonly believed.
2. Psychological Research on the Self-Serving Bias

• The self-serving bias is evident in the "above average" effect

• Ex.
  – when married couples estimate the fraction of various household tasks they are responsible for, their estimates typically add to more than 100%
  – People also tend to attribute their successes to ability and skill, but their failures to bad luck
2. Psychological Research on the Self-Serving Bias

• The self-serving bias affects not only individuals' evaluations of themselves, but also of groups they are affiliated with

• Ex.
  – individuals' judgments of penalties committed during a football game between Princeton and Dartmouth
  – Working hour, 7 vs. 10
3. An Experimental Investigation: A Texas Tort Case

- We developed a tort case based on a trial that occurred in Texas, in which an injured motorcyclist sued the driver of the automobile that collided with him, requesting $100,000.
- Subjects first receive a page explaining the experiment, the sequence of events, rules for negotiating and the costs they face if they failed to reach an agreement.
3. An Experimental Investigation: A Texas Tort Case

- Before negotiating, subjects are asked to write down their guesses of what the judge awarded.
- They are told they will receive a bonus of $1 at the end of the session if their prediction is within $5,000 (plus or minus) of the actual judge's award.
- They are also asked what they considered a fair amount for the plaintiff to receive in an out-of-court settlement.
- Delays in settlement are made costly to the subjects by imposing "court costs" that accumulate in each period in which the subjects fail to settle.
3. An Experimental Investigation: A Texas Tort Case

- At the beginning of a session, both subjects are paid a fixed fee for participating (for example, $4) and the defendant is given an extra $10.
- $10,000 dollars is equivalent to $1 for the subjects
- The experiment was designed to test for the effect of the self-serving bias
- Since neither party has private information about the judge,
- differences in estimates between defendant and plaintiff cannot be attributed to differences in information
3. An Experimental Investigation: A Texas Tort Case

Table 1
Probability of Impasse by Discrepancy Between Plaintiffs’ and Defendants’ Assessments of the Judge

<table>
<thead>
<tr>
<th>Pairs in which the discrepancy is:</th>
<th>Below the Median</th>
<th>Above the Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loewenstein, Issacharoff, Camerer and Babcock (1993)</td>
<td>.03</td>
<td>.30</td>
</tr>
<tr>
<td>(n = 80)</td>
<td>(.03)</td>
<td>(.09)</td>
</tr>
<tr>
<td>Babcock, Loewenstein, Issacharoff and Camerer (1995)</td>
<td>.05</td>
<td>.28</td>
</tr>
<tr>
<td>(n = 94)</td>
<td>(.03)</td>
<td>(.06)</td>
</tr>
<tr>
<td>Babcock, Loewenstein and Issacharoff (1996)</td>
<td>.04</td>
<td>.36</td>
</tr>
<tr>
<td>(n = 49)</td>
<td>(.04)</td>
<td>(.10)</td>
</tr>
</tbody>
</table>

Notes: Standard errors are in parentheses. All differences are significant at the .01 level.

- Non-settlement was strongly related to the discrepancy between the plaintiffs' and defendants' predictions of what the judge would award
3. An Experimental Investigation: A Texas Tort Case

- It is possible, for example, that there is a third factor,
- perhaps some element of personality such as aggressiveness,
- that causes certain subjects to misestimate the judge and to be unwilling to settle
- To avoid this problem, we introduced a manipulation to diminish the magnitude of the discrepancy in expectations
3. An Experimental Investigation: A Texas Tort Case

• In the control condition
  – the participants learned whether their role would be defendant or plaintiff before they read the case materials and offered their anonymous assessments of the judge and a fair settlement

• in the experimental condition
  – they learned which role they would play after reading the case materials and offering their estimates of the judge and a fair settlement
3. An Experimental Investigation: A Texas Tort Case

• Our prediction was that
  – the discrepancy between the plaintiffs' and defendants' assessments would be smaller for those who learned their role after reading the case,
  – because, not knowing their role when they read through the case, they would process the information in an unbiased fashion.
3. An Experimental Investigation: A Texas Tort Case

- The experiment was run with
  - 38 public policy students at Carnegie Mellon University
  - 120 law students from the University of Texas
  - 30 business students from the University of Pennsylvania

<table>
<thead>
<tr>
<th>Babcock, Loewenstein, Issacharoff and Camerer (1995)</th>
<th>Learned Roles Before Read Case</th>
<th>Learned Roles After Read Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discrepancy in Assessments of the Judge</td>
<td>$18,555</td>
<td>$6,936</td>
</tr>
<tr>
<td></td>
<td>(3,787)</td>
<td>(4,179)</td>
</tr>
<tr>
<td>.28</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>(.07)</td>
<td>(.05)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Babcock, Loewenstein and Issacharoff (1996)</th>
<th>Control</th>
<th>Learned about Bias and Listed Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discrepancy in Assessments of the Judge</td>
<td>$21,783</td>
<td>$4,674</td>
</tr>
<tr>
<td></td>
<td>(3,956)</td>
<td>(6,091)</td>
</tr>
<tr>
<td>.36</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>(.10)</td>
<td>(.04)</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Standard errors are in parentheses. All differences are significant at the .05 level.
3. An Experimental Investigation: A Texas Tort Case

• Might other experimental manipulations offer suggestions for practical ways of reducing the discrepancy in the parties' expectations and thus avoid impasse?

• Obviously, our experiment that gave subjects their role after reading the case materials has no practical implication, since parties to a dispute usually know their own roles from the outset.
3. An Experimental Investigation: A Texas Tort Case

- experiment with several interventions to "debias" as a way to promote settlement

1. subjects read the self-serving bias after they were assigned their roles and read the case
- but before recorded their assessments of fairness and their predictions of the judge's decision
- However, being informed of the bias had no effect on the discrepancy in the parties' expectations, nor on the likelihood of settlement
3. An Experimental Investigation: A Texas Tort Case

• asked subjects to guess their opponent's prediction of the judge
• Our results indicate that informing subjects of the bias made them more realistic about the predictions of the other party
• However, it did not cause them to modify their own predictions of the judge.
3. An Experimental Investigation: A Texas Tort Case

2. Before they negotiated, subjects were instructed to write an essay arguing the opponent's case as convincingly as possible

- Research suggested that people with better perspective-taking ability resolve disputes more efficiently
- This did change the discrepancy in expectations, and in a way that was marginally statistically significant, but opposite to the intended direction
- No significant impact on the settlement rate
3. An Experimental Investigation: A Texas Tort Case

3. research in psychology shows that biases diminish when subjects question their own judgment

• after being assigned their role and reading the case materials,

• Subjects were informed of the self-serving bias and told that it could arise from the failure to think about the weaknesses in their own case

• They were then asked to list the weaknesses in their own case

• The effect of this was to diminish the discrepancy in the parties' expectations about the judge
4. A Field Study: Public School Teacher Negotiations

• whether experienced negotiators would succumb to the self-serving bias

• we conducted a study to examine the bias and its impact on bargaining in a real-world setting
  – public school teacher contract negotiations in Pennsylvania
  – Since 1971, approximately 8 percent of all teacher contract negotiations have ended in a strike, with an average strike duration of 16.4 days.

• hypothesized that
  – both sides would have self-serving beliefs about which communities were comparable
  – and that impasses would be more likely as the gap between their beliefs widened.
4. A Field Study: Public School Teacher Negotiations

- surveyed union and school board presidents from all school districts in Pennsylvania
  - to obtain a list of districts that they viewed as comparable for purposes of salary negotiations
  - we found that both sides listed about the same number of districts as being comparable (about 4.5)
  - However, average salary in districts listed by the union was $27,633, while the average salary in districts listed by the board was $26,922.
  - The mean difference of $711 is statistically and economically significant
4. A Field Study: Public School Teacher Negotiations

• test for the effect of the self-serving bias on strikes

• regression suggests
  – a district where the average salary of the union's list is $1000 greater than the board's list will be approximately 49 percent more likely to strike

• Experience with bargaining does not seem to inoculate one against the self-serving bias
5. Reinterpreting Findings from Previous Bargaining Experiments

- Ex
  - bargained over lottery ($20 vs. $5)
  - shrinking pie
  - shrunk at the same rate for both individuals, the rejection rate was only 12% in the first round
  - shrunk at different rates for each subject, the rejection rate was 57% in the first round
  - consistent with the self-serving bias
  - subjects whose pies shrunk relatively slowly viewed this as justification for requesting a large fraction of the pie
  - but subjects whose pies shrunk quickly rejected the rate of pie-shrinkage as a criterion for allocating the pie
5. Reinterpreting Findings from Previous Bargaining Experiments

– ultimatum game

– in practice, the modal offer is typically half the pie, and smaller offers are often rejected

– rejections in these experiments can be explained by self-serving biases

– In one variant of the game, the roles of proposer and responder were determined either randomly or by the outcome of a trivia, the winner playing the role of proposer

– Offers in the contest condition were lower than in the chance condition, and the rejection rate was substantially higher.

– It seems that proposers in the contest condition felt self-servingly entitled to a higher payoff, but responders did not view the contest as relevant to the fair division of the pie
5. Reinterpreting Findings from Previous Bargaining Experiments

– another variant of the ultimatum game

– players earned a known dollar amount if the responder rejected the proposer's ultimatum offer

– For example, if the amount to be divided is $10, and, if the offer was rejected, proposers earned $4 and responders earned $3

– respondents in this situation consistently demanded more than half the "pie,"

– about half of the offers were rejected

– a rate of disagreement much higher than previous ultimatum studies.
6. Discussion

• the research discussed here presents strong evidence that the self-serving bias is an important determinant of bargaining impasse

• for the bias to occur, there needs to be some form of asymmetry in how the negotiation environment is viewed
  
  – This should not be taken to mean that the bias comes from asymmetric information
  
  – as soon as asymmetries are introduced between the parties
  
  – Ex different non-agreement values or costs of non-settlement, or subtle differences in roles
  
  – both parties' notions of fairness will tend to gravitate toward settlements that favor themselves
6. Discussion

• If job searchers have inflated evaluations of their productivity,
  – they will have unrealistically high reservation wages,
  – leading to longer unemployment spells
  – job search assistance programs lead unemployed workers to find jobs more quickly
  – One reason these programs are successful may be that, like our debiasing treatment described above,
  – deflate expectations, causing individuals to be more objective about their alternatives.
7. Will Experience and Learning Minimize the Bias?

• in the real world

  1. while naive experimental subjects might exhibit such a bias, trained professionals, such as lawyers, would be resistant

    – Pennsylvania teachers, which shows that seasoned negotiators are subject to the bias, other evidence also shows that professionals are not immune.
7. Will Experience and Learning Minimize the Bias?

2. the stakes involved in our experiments are too low
   – our subjects are insufficiently motivated to process the information in an unbiased way
   – these biases are observed in real-world settings in which the stakes are extremely high, such as the teacher contract negotiations described above
   – individuals are unlikely to be conscious of their biased processing of information so that increases in incentives will not cause them to be more conscientious
   – "high-stakes" experiments, such as those conducted by Hoffman, McCabe and Smith (1996), have not produced substantively different behavior than those with lower stakes
7. Will Experience and Learning Minimize the Bias?

3. they fail to allow for learning
   – all of our experimental subjects
   – especially the law and business school students, had numerous experiences with bargaining prior to participating in our experiment
   – but this experience did not seem to alert them even to the existence of the self-serving bias
   – let alone actually give them the capacity to counteract it
   – our results from the Pennsylvania field study are not consistent with the notion that experience will eliminate the bias