

**Howard Raiffa, *The Art and Science of Negotiation* (Cambridge: Harvard University Press, 1982), pp. 1-19, 44-65.**

In describing the nature of disputes, Raiffa highlights some pertinent questions. These include:

- the number of the parties since bilateral bargaining is different from multilateral
- whether the parties are unitary since if not then internal conflicts play a role
- whether the bargaining is repetitive since then behavior becomes important
- whether issues can be linked since linkage can improve the chance of a deal
- if there is more than one issue in a single dispute which increases the “room” for co-operation
- whether an agreement or subsequent ratification is essential,
- whether threats can be made including the threat to walk away
- the nature of time as a cost or constraint, those in a hurry are at a disadvantage
- whether an agreement can be broken easily which might cause one side to want faster payoffs increasing uncertainty
- whether the negotiation is public especially when unpalatable compromises appear necessary
- whether the parties have shared norms and feel part of a co-operative or antagonistic process
- whether third parties are an option.

When two agents come to bargain, if the seller’s lowest acceptable price is lower than the buyers highest price, then there is a zone of agreement and a deal is possible. The task of negotiation is to find that zone of agreement. One important factor seems to be the equitable sharing of concessions. Standing firm leads to less agreement. If both sides know each others reservation (final) price, then nearly always the mid-point is agreed upon. Asymmetry leads to power confrontation, which reduces the chance of agreement. Asymmetries can take the form of differences in time-based costs, in determination, in marginal valuation, in needs, in numbers of people and in initial wealth.

The classic case of bargaining is when each side has only limited information about the other’s reserve price. As before, the spread of prices must overlap for agreement to be found. In laboratory conditions, even small zones of agreement were found. In these cases, informal, unstructured bargaining is efficient in finding agreement.

If both sides decide to reveal their reserve prices simultaneously, there is a strong incentive to cheat and attempt to maximize profit. The author examines various strategies for what the two sides should claim given their true prices. In the simulations run by the author, players tended to exaggerate too much and fail to agree even when there was a true zone of agreement. Interestingly, players who exaggerated a little did better than those who exaggerated a lot. The increased likelihood of a deal over-riding any loss from a more modest position. An “equilibrium strategy” is a pair of strategies for the buyer and seller such that if one side pursues it, it is in the other side’s interest to follow suit. However, both sides telling the truth is still a more efficient outcome. One advantage of the

simultaneous strategy is that it is fast. In time-dependent negotiations, this advantage may outweigh the drawbacks.

Finally, the author describes how a third party, by compelling both sides to offer side payments which increase as each side approaches its true reserve price. It is therefore in the interests of both sides to tell the truth, while the third party can adjust the functions describing these side payments so that they cancel out, so net side payments are zero, leaving only the highly efficient agreement. This is possible only if the two sides' reserve prices are genuine and the negotiator knows the probability distribution each side uses to estimate the other's reserve price in order to calculate the best side payment functions. This process, if accomplished is more efficient than the simultaneous reserve revelation method.