



Exploiting Bias in Negotiation

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(also includes some materials from
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Bounded rationality

Conception devised to address growing evidence of non-rationality in decision making; used in two rather different senses.

1. Rationality is limited by processing and informational requirements- sets of decisions involve such complexity in both that rationality affected.
2. Rationality systematically impaired by cognitive factors which cause patterned deviations from optimum.

Heuristics

- “Thinking is very hard and the mind tries to avoid it when possible”
- It is not so much that it is lazy as it is extremely busy...
 - The mind must constantly perform/monitor, e.g., and adjusting heart rate and breathing, and keeping muscles flexed etc.
- Our mind copes with this amazing amount of demand by ‘automating’ as much as possible. i.e, info processing through automation/routines
- The automation allows us to concentrate on one thing while performing another – we can multi-task
- To accomplish this, the mind has evolved short-cuts or **rules-of-thumb** to help it deal with complexity.

Heuristics

- Heuristics = short-cuts used to help make judgements and decisions in complex situations with minimal effort
 - Most of the time heuristics work well – and they’re necessary
- But rules-of-thumbs can lead to systematic bias / errors
 - Example: one way the mind assesses the likelihood of something happening is to use the simple rule – the easier it is to recall something, the more likely it is.
- The biases are systematic and **predictable**
 - The study of those systematic errors can be used in negotiation settings
 - Allows us to offer prescriptive advice (“you should do this...”)

Representativeness Heuristic

- People evaluate the likelihood of an uncertain event by the degree to which it
 - reflects the salient features of the process by which it is generated
 - similar in essential properties to its parent population

The Gambler's Fallacy

- People judge H-T-H-T-T-H as being more probable than H-H-H-T-T-T even though they have the same probability of happening.
- The first is more representative of what should happen with a random toss of a coin.
- This has to do with (i) the degree to which it reflects the salient features of the process by which it is generated.
- The process in this case is a random process, and HHHTTT doesn't look as random as HTHTTH; and thus, it is not as representative of our conception of being produced by a random process

The Gambler's Fallacy

- Negotiators, searching for information in an uncertain environment, will often base their perceptions of causes of behaviour on a very small number of clues from the other side.
- Beware of thinking that something is intentional just because it doesn't look random.

Non-Regressive Prediction

- People overestimate the possibility of maintaining an unusually high or unusually low measurement
 - Most measures are made up of some 'true' score, and error.
 - If a score is considerably above the person's own mean, then it probably means that they were 'lucky'
- People tend to ignore tendencies of regression towards the mean
 - The next time, given the probability of different levels of error, the score will more likely go down.

Non-Regressive Prediction (cont'd)

- Why do we often make mistakes along this line?
 - We take the first instance as representative of what should be expected next, and fail to account for regression effects due to chance.
- When negotiating over the value of something, be cautious that you do not put too much stock in performance above or below average levels.

The Conjunction Fallacy

- Imagine you conduct a survey in which $\frac{1}{2}$ of respondents are asked:
 - 1 (a) In the next ten years, what is the probability that Europe will experience a large scale, international war?
- $\frac{1}{2}$ of respondents are asked:
 - 1 (b) In the next ten years, what is the probability that the Civil war in the former Yugoslavia will spread to other regions in the area, finally involving many other countries and resulting in a large scale war in Europe?
- Which do you think elicits the highest probabilities?
 - 1(b)
- Can this logically be the case? NO

The Conjunction Fallacy (cont'd)

- 1(b) is a subset of all possible instances of 1(a).
- At the very most, the probability estimates should be equal – i.e. if the only possibility of a large-scale war in Europe was the spread of the civil war in the former Yugoslavia.

The Conjunction Fallacy

- Co-occurrence of two events is judged more likely than the probability of either event alone. Why an error?
- General finding: “As the amount of detail in a scenario increases, its probability can only decrease steadily, but its representativeness increases and hence its apparent likeliness increases.”

Availability Heuristic

- We often use the ease recalling events as a guide as to how often they have occurred. The easier something is to recall, i.e. how available it is in memory, the more common its occurrence
- But using this availability heuristic can lead to biases:
- Biases of ease of Retrievability: some events are easy to retrieve because of their salience, not their actual frequency – thus highly salient or vivid information can bias our probability estimates
 - Example: Northcraft & Neale (1986) find that negotiators systematically under value opportunity costs in comparison to direct costs

Availability Heuristic

- Bias of ease of Imaginability: same as retrievability, but instead of being highly salient, some things are more easily imagined than others, making them seem more likely to happen.
 - In negotiations, often more attention and efforts are made to avoid potential costs or achieve substantial gains that are easily imaginable than those that are more likely.
 - It is easier to imagine that you will succeed in a business than that you will fail, even though the likelihood of success is, on average, lower than that of failure.

Avoiding the Sandtraps of Negotiation

- Leaving money on the table (“lose-lose” negotiation)
- Settling for too little (the “winner’s curse”)
- Walking away from the table
- Settling for terms worse than your alternative (the “agreement bias”)

Common Biases & Errors in Decision-Making

- Overconfidence Bias
 - Believing too much in our own ability to make good decisions – especially when outside of own expertise
- Anchoring Bias
 - Using early, first received information as the basis for making subsequent judgments
- Availability Bias
 - Emphasizing info that’s most readily at hand (Recent , vivid info is most salient)
- Endowment Effect
 - Valuing things that we own more than those that we do not own

Biases are robust and likely to affect performance

Confirmation Bias

Tendency to search for or interpret information in a way that confirms one's preconceptions

Planning Fallacy

Tendency to underestimate one's own (but not others') task completion time

Contextual Effects

Tendency to change preference depending on other choices available or types of choices available

Randomness Error

Creating meaning out of random events – superstitions

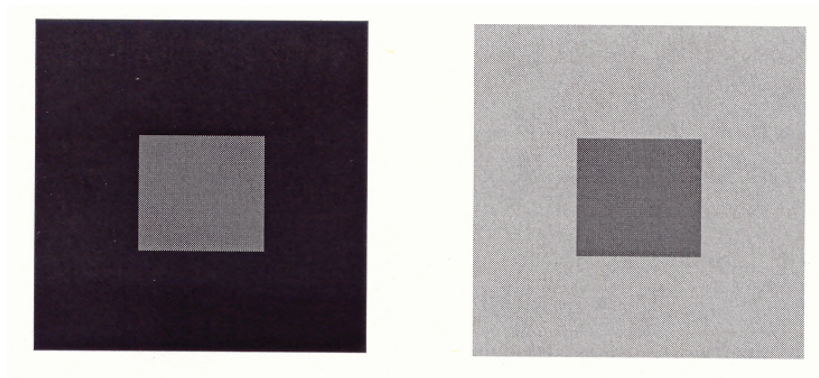
Bandwagon Effect

Tendency to do (or believe) things because many other people do (or believe) the same

Hindsight Bias

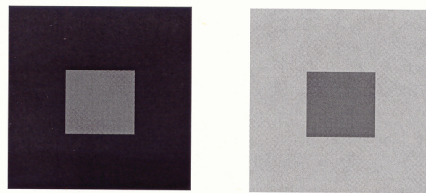
After an outcome is already known, believing it could have been accurately predicted beforehand

The Contrast Effect



The Contrast Effect

- Perception influences judgment and decision making
- The inner box on the left looks brighter than the inner box on right (even though really the same brightness)
- In a negotiation, use this to compare two options such that one seems more attractive than another.



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Anchoring and Adjusting

Example from Joyce and Biddle, 1981 who asked a number of accountants to estimate the amount of executive-level management fraud

One half of respondents were asked:

1 (a) Based on your audit experience, is the incidence of significant executive-level management fraud more/less than 10 in each 1,000 firms audited?

2 (a) What is your estimate of the number of firms per 1,000 that have significant executive-level management fraud?

MEAN RESPONSE = 16.5
(answer to 2a)

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Anchoring and Adjusting

Example from Joyce and Biddle, 1981 who asked a number of accountants to estimate the amount of executive-level management fraud

The other half of respondents were asked:

1 (a) Based on your audit experience, is the incidence of significant executive-level management fraud more/less than 200 in each 1,000 firms audited?

2 (a) What is your estimate of the number of firms per 1,000 that have significant executive-level management fraud?

MEAN RESPONSE = 43.11
(answer to 2a)

Anchoring and Adjusting

- This is an example of failing to adjust from an initial anchor.
- People estimate the value of unknown objects or events from some initial anchor value and then adjust from there.
- These anchors serve as initial orienting points but we don't change as much as we should given new information.

Anchoring and Adjusting

- Implications in terms of negotiations:
 - This may account for the failure to reach agreements when win-sets exists
 - Negotiators often concentrate on their target prices prior to negotiations. If they use this as an anchor they will likely fail to adjust adequately during the course of the negotiation thereby risking non-agreement.

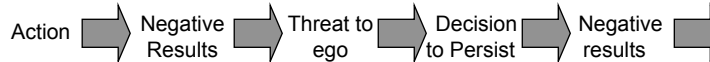
The Sunk Cost Fallacy

- Imagine you have spent considerable time and effort into carefully preparing for a negotiation.
- Once the negotiation process begins, it becomes long and drawn out.
- Finally, you are coming to the end of the negotiation.
- The final settlement is slightly below your BATNA.
- **To avoid having wasted** all of that time and investment in the negotiation, **you decide to accept** the agreement.

You have just committed the sunk cost fallacy.

The Persistence Bias to Escape Losses: Escalation Of Commitment

Decision to begin a project



- Threat to ego
- Sunk costs considerations
- Pressure from outside parties

Increasing commitment to a losing course of action in the face of evidence that it is wrong – *especially if responsible for the decision!*

The implication: Making decisions in public, or under accountability to others, can make some biased behaviours even more extreme.



Decision to Persist

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Source: Staw, 1976 and 1997
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An example of Mental Accounting

Imagine that you have decided to see a play where admission is £20 per ticket.

As you enter the theatre, you discover you have lost a £20 note. Would you still pay £20 for a ticket?

As you enter the theatre, you discover you have lost the ticket. Would you pay £20 for another ticket?

If lost £20 note: 88% say Yes
If lost ticket: 46% say Yes

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An example of Prospect Theory

Imagine that you are about to purchase a **jacket for £120**, and a **calculator for £15**.

The salesperson informs you that the calculator is on sale for £5 at another store located 20 minutes away.

The salesperson informs you that the jacket is on sale for £110 at another store located 20 minutes away.

Would you make the trip to the other store?

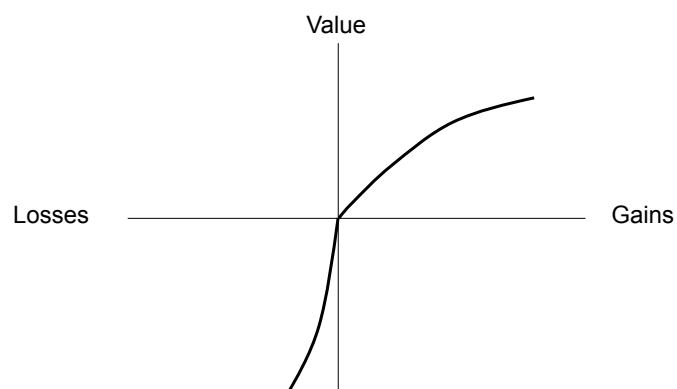
68% willing to drive for calculator
29% willing to drive for jacket

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Prospect Theory: Losses are more painful than gains are pleasurable



(Kahneman & Tversky, 1979)

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Prospect Theory: Losses are more painful than gains are pleasurable

- ...because of “diminishing marginal returns” and reference point
- The **value of £10 differs** depending on where our counterpart / the situation set our “zero” mark (our reference point)
 - £10 is “worth” less if reference point is £110 than if reference point is £5

Losses and gains are NOT valued symmetrically (we get more upset about losing £10 than we get happy about winning £10)

Therefore, more **willing to gamble** with losses:

- We are **risk averse for gains** (choose sure-win rather than gamble, because not much value added with bigger win)
- We are **risk seeking for losses** (choose gamble rather than sure-loss, because a lot of value added if reduce loss)

Try this out in a negotiation....

- Frame a loss as a gain (to get your counterpart not avoid wanting to risk losing it)
- Frame a gain as a loss (to get your counterpart to be willing to take a risk)

Prospect Theory is a “common pattern of choice”, not a universal.

- Remember the exercises we just did – never did 100% of the people choose one option
- “Consider a person who has spent the afternoon at the race track, has already lost \$140, and is considering a \$10 bet on a 15:1 long shot in the last race.
 - This decision can be framed in two ways, which correspond to two natural reference points:
 - If the **status quo** is the reference point, the outcomes of the bet are framed as a gain of \$140 and a loss of \$10.
 - On the other hand, it may be more natural to view the present state as a loss of \$140, for the betting day, and accordingly frame the last bet as a chance to return to the reference point or to increase the loss to \$150.
- Prospect theory implies that the **latter frame** will produce more risk seeking than the former.

Remember to adjust your reference point (don't chase sunk costs)

- People who do not adjust their reference point as they lose are expected to take bets that they would normally find unacceptable. This analysis is supported by the observation that bets on long shots are most popular on the last race of the day.”
- **Person A** “This long shot isn't worth \$10”: Adjusts reference point to return to **status quo (zero)** each time. Therefore, the \$10 bet seems less appealing because loss of \$10 from zero is worse than loss of \$10 on top of \$140.
- **Implicit choice = no change in money vs. gamble.**
- Person B “What do I have to lose?”: Reference point is **total amount spent**. The more you spend, the less \$10 seems in comparison. Winning back the \$140 lost feels larger than gaining \$140 from zero.
- **Implicit choice = sure-loss of \$140 vs. gamble > negatively framed, so risk-seeking.**

SUMMARY

- Heuristics can lead to biases in judgement. This does not mean we should avoid using heuristics - it is impossible. It does mean that we should be aware of possible biases and work to uncover them
- The representativeness heuristic can lead to the gambler's fallacy, non-regressive prediction and the conjunction fallacy. When evaluating the probability of certain outcomes, be aware of the fact that you will likely be influenced by how representative you think the potential outcomes are of some underlying process
- The availability heuristic can lead to biases based on the ease of retrievability or imaginability. Probability assessments of highly more salient, vivid or easily imagined outcomes will tend to be exaggerated
- Beware of the sunk cost fallacy. Assess the value of a settlement based on your present endowments, not on some historical reference point