Behavioral Economics

Student Presentations

Daniel Kahneman, *Thinking, Fast and Slow*
The main idea or concept of this chapter:

- **Diminishing Sensitivity**
  - When people have different amounts of wealth, their utility from a gain or loss is modified accordingly.
  - They also tend to react differently to a gamble.
    - When a person has less wealth, they will tend to go for the sure gain.

- **Loss Aversion**
  - Most people tend to be more risk seeking when they stand to gain from a bet and more risk averse when they could lose money.
  - People are about 1.5-2.5 times more risk averse for losses than for gains.

- **Neutral Reference Point**
  - Outcomes above the reference point are gains, below are losses.
  - Usually the status quo or what you feel entitled to.
Problem or Exercise:

Choose between a 90% chance to win $1 million or $50 with certainty.

The tendency is to choose the uncertain gamble because of the prospect of winning much more than the certain amount.

Choose between a 90% chance to win $1 million or $150,000 with certainty.

Possible regret plays a part in most people’s decision in this problem because they begin to question, if they don’t win the $1 million, whether they should have taken the certain amount and not have been so greedy.
The main idea or concept of this chapter:

- Tastes vary based on consumer’s reference point
- Bias toward current status (location on the indifference curve)
  - Risk adverse

Implications / Applications:

- “Normal” indifference curve is not accurate. A reference point is needed.
- A person highly values what he/she currently owns and thus rejects marginally beneficial trades.
  - Competitive/Pareto predicted outcome won’t necessarily occur.
Problem or Exercise:
The main idea or concept of this chapter:

• Individuals are more averse to a loss, or negative change in their utility
• An individual always prefers his initial point on an Indifference Curve
• Differences between experienced and inexperienced Traders:
  • Experienced traders act like “Econs”
  • Inexperienced traders are affected by:
    • Effect of “holding” a good
    • A difference between buying and selling a good
    • Interacting with different types of goods
      • Goods for use (wine, etc.)
      • Goods for trade (legal tender, etc.)

Implications / Applications:

• Financial Markets operate rationally
• Alteration to Endowment Effect
• Framing when applied to Economic Experimentation
Problem or Exercise:

Consumer A holds an initial endowment of 7 bottles of fine wine and 6 blocks of fine cheese. He is offered a trade of 3 blocks of cheese for a bottle of wine, a trade that would shift him up his Indifference Curve.

(a) Would A choose the new position on the Indifference Curve?

(b) If instead A were an experienced trader and valued wine more highly what would he do?

(c) What types of goods is he dealing with and would he be adversely effected if he had to first sell his goods in order to buy the new goods?
You are faced with making the two following decisions:

Decision 1:
- A: Handed $290
- B: 30% chance of $1000 and 70% chance of $0

Decisions 2:
- C: Lose $700
- D: 70% chance of losing $1000 and 30% chance of no loss

What would a risk-averse person decide for each situation?
Now, you are given this situation

- Option 1: 30% chance of winning $290, 70% chance of losing $710
- Option 2: 30% chance of winning $300, 70% chance of losing $700

Option 1: A,D  
Option 2: B,C

Narrow vs. Broad Frame
Behavioral Economics

Daniel Kahneman, Thinking, Fast and Slow
Chapter 31, Risk Policies

The main idea or concept of this chapter:
• Broad and narrow framing
• Samuelson’s problem
• Risk Policies

Implications / Applications:
• Decisions should be made jointly
• Most people take the narrow frame outlook ordinarily
Decision 1: choose between:
A. Sure gain of $240
B. 25% chance of gaining $1000 and 75% chance to gain nothing

Decision 2: choose between:
C. Sure loss of $750
D. 75% chance of losing $1000 and 25% chance to lose nothing

But when the options are weighed together:
AD. 25% chance of gaining $240 and 75% chance to lose $760
BC. 25% chance of gaining $250 and 75% chance to lose $750
Samuelson’s Problem: A utility maximizer who rejects a single gamble should also reject the offer of many.

Wrong!: In the long run, even including the larger change in utility from losing, it is better to take the larger expected value.

<table>
<thead>
<tr>
<th>Number of Tosses</th>
<th>Percentages</th>
<th>Expected Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50% lose 100</td>
<td>50% win 200</td>
</tr>
<tr>
<td>2</td>
<td>25% lose 100</td>
<td>50% win 100</td>
</tr>
<tr>
<td>3</td>
<td>12.5% lose 300</td>
<td>37.5% win 0</td>
</tr>
</tbody>
</table>
Framing

Humans by nature tend to prefer to look at problems one by one. However looking at the bigger picture tends to lead to some better outcome, or at least no worse.

Develop a risk policy.

Decision makers who are prone to narrow framing can be helped by having a risk policy that they follow when applicable.

An easy example is “Never buy an extended warranty”

Helps put thing in a broader perspective and is easier to follow.

So take a gamble when:

- They are truly independent of each other
- The possible loss will not worry you of your total wealth
- It is not a long shot

An example is given of Richard Thaler talking to the 25 division heads of large company. He asks them if given an opportunity of equal probabilities to lose an amount or gain double that amount if they would take it. All of them refused, then he turned to the CEO and asked him the same question and the CEO said that he would want each of them to accept this risk.
Risk Policies: Valuing the broad frame over the narrow

Samuelson’s Problem
- View of risk over single vs. multiple trials

Conditions:
- Independent “gambles”
- Loss does not effect total wealth
- Not a long shot of winning

Applications:
- Investors
- Insurance
- Division Managers vs. CEO
Application question: Mike Roe is a very smart and emotional/artistic entrepreneur. Two years ago Mike began a business that makes artwork and has been selling every piece that is painted. To expand into other styles of artwork he investigates sculptures and finds that they cost $1000. He estimates that he will be able to sell 50% of the sculptures he purchases at $2000 each. Since the business does not have enough money invest in these sculptures Mike has to put his own money into the expansion. This causes overall losses to double. Should Mike start selling sculptures? Fill out the table below for the purchase of three sculptures to explain your answer.

<table>
<thead>
<tr>
<th>Number of Sculptures</th>
<th>Percentages</th>
<th>Expected Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The main idea or concept of this chapter:  
When making financial decisions, human mental accounting considers emotional context. Regret and responsibility cause deviations from standard economic rational behavior.

Implications / Applications:  
The escalation of commitment to failing endeavors is a mistake from the perspective of the firm but not necessarily from the perspective of the executive who “owns” a floundering project.

People expect to have stronger emotional reactions (including regret) to an outcome produced by action than to the same outcome when it is produced by inaction.
Problem or Exercise:

Mr. Brown almost never picks up hitchhikers. Yesterday he gave a man a ride and was robbed.

Mr. Smith frequently picks up hitchhikers. Yesterday he gave a man a ride and was robbed.

Who will experience greater regret over the episode?

Who will be criticized most severely by others?
The main idea or concept of this chapter: **Preference Reversals**

An individual often will change his/her value of a situation when comparing two situations rather than reviewing an individual situation known as preference reversals.

**Implications / Applications:**

Preferences can change depending on the comparison that is made so someone could take advantage of that to increase their own welfare.

Policy implications tend to show that fines are usually sensible within a category but often not sensible between categories.
Behavioral Economics

Daniel Kahneman, *Thinking, Fast and Slow*
Chapter 33, Preference Reversals

Problem or Exercise:

“You are offered a choice between two bets, which are to be played on a roulette wheel with 36 sectors”

- Bet A: 11/36 to win $160, 25/36 to lose $15
- Bet B: 35/36 to win $40, 1/36 to lose $10

Most people prefer Bet B, but if told they “own” the bets and can sell them, they place a higher selling price on Bet A.

Consider this scenario: A man’s house burnt down and he decides to take the insurance company to court. Would the jury award the same monetary value to the man if he was a preacher as they would if the man was a felon?
Surgeons presented with predicted outcome of surgery:

**Phrasing 1:**
One-month survival rate of 90%
Result: 84% accept

**Phrasing 2:**
One-month mortality rate of 10%
Result: 50% accept
Organ Donation Rates Per Country

Effective consent rates, by country. Explicit consent (opt-in, gold) and presumed consent (opt-out, blue).
Example Exercise:

Terrence drives a gas-guzzler, which gets 12 mpg, and decides he wants to switch to a more economical vehicle getting 14 mpg. Phillip, however, loves glaciers and drives a 30 mpg sedan. He wants to extend his concerns to the polar bears too, so he switches to a newer model getting 40 mpg (possibly related to a hailstorm). Both travel an even 10,000 miles during a given period.

1. Based just on intuition, who do you think will save more money?
2. Calculate the actual number of gallons each person saved.
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Chapter 34, Framing Effects

Example Exercise:

Terrence drives a gas-guzzler, which gets 12 mpg, and decides he wants to switch to a more economical vehicle getting 14 mpg. Phillip, however, loves glaciers and drives a 30 mpg sedan. He wants to extend his concerns to the polar bears too, so he switches to a newer model getting 40 mpg. Both travel an even 10,000 miles during a given period.

<table>
<thead>
<tr>
<th>Terrance</th>
<th>Phillip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before: 10,000miles/12mpg = 833 gallons</td>
<td>Before: 10,000miles/30mpg = 333 gallons</td>
</tr>
<tr>
<td>After: 10,000miles/14mpg = 714 gallons</td>
<td>After: 10,000miles/40mpg = 250 gallons</td>
</tr>
</tbody>
</table>

Savings = 119 gallons
Savings = 83 gallons

3. Gallons per mile has been touted as a way of avoiding this error. Calculate each person’s gpm before and after their vehicle purchase.