Should You Trust Your Gut?

Human psychological weaknesses when making decisions in the face of uncertainty

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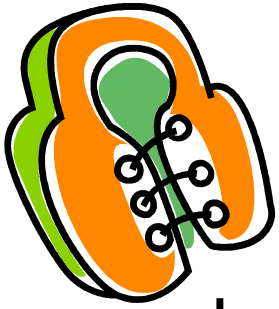
DECISION STRATEGIES

“Dead Guy in the Envelope”

A bit of psychology

When it comes to potential gains, people are generally risk-averse



When it comes to potential losses, people are generally gamblers

Example: the plague

A new disease is spreading in Houston, and it is estimated that 600 people will die as a result. Two alternative programs have been proposed to combat it:

With Program A, 200 people will be saved.

With Program B, there is a 33% chance that 600 people will be saved, and a 67% chance that no one will be saved.

Which would you choose?

Reference: Tversky and Kahneman

The plague (cont.)

Of the two programs, 72% of those tested chose A, 28%, B.

However, 2 new alternatives arise:

With Program C, 400 people will die.

With Program D, there is a 33% chance that nobody will die, and a 67% chance that 600 people will die.

With these choices, 78% chose D, 22%, C.

Reference: Tversky and Kahneman

The Framing phenomenon

If a project, decision, choice, situation, etc. is framed in terms of potential gains, most people are risk-averse

If the exact same project, decision, etc. is framed in terms of potential losses, most people become risk-seeking

This is true in financial situations, too!

Offered a choice between:

A: A sure-fire gain of $240

B: A 25% chance of receiving $1000

The vast majority choose A.

Offered a choice between:

C: A sure-fire loss of $750

D: A 75% chance of losing $1000

The majority choose D.

Comparison of the two portfolios:

A+D: 25% probability of +$240

75% probability of ($760)

EV = ($510)

B+C: 25% probability of +$250

75% probability of ($750)

EV = ($500)

When we create portfolios based on our personal preferences for individual projects, we generate sub-optimal value!

But – it all depends on the odds

- Two plaintiffs, Al and Ben, each suing for $10,000,000
  - Al has a 90% chance of winning; he is offered a $7.5 million settlement
  - Ben has a 5% chance of winning; he is offered an $800,000 settlement
- ***Who is more likely to settle?***
- When looking at potential gains, if the ***probability of success is low***, people become ***gamblers*** (risk-seeking)
- When looking at potential losses, if the ***probability of loss is low*** but the ***impact*** of loss would be ***significant***, people become ***risk-averse***

Reference: Daniel Kahneman

Is irrational decision-making in our genes?

- "Jungle economy" established
- Economic theory worked perfectly

⇒ Monkeys are rational consumers!

Reference: Keith Chen

Trading Regime 1

Salesman A: Offers and delivers 1 apple slice

Salesman B: Offers 2 apple slices, but half the time, only delivers one

Monkeys preferred Salesman B

Reference: Keith Chen

Trading Regime 2

Salesman A: Offers 1 apple slice, but half the time, delivers two

Salesman B: Offers 2 apple slices, but half the time, only delivers one

Monkeys preferred Salesman A

Reference: Keith Chen

Trading Regime 3

Salesman A: Offers and delivers 1 apple slice

Salesman B: Offers 2 apple slices, but only delivers one

Monkeys preferred Salesman A even more strongly

Reference: Keith Chen

Emotions and decision making

The Game:

2 Players

Player 1 gets $10, and gets to decide how to split with Player 2

Player 2 can accept or reject the offer

(no negotiation; one offer, one answer)

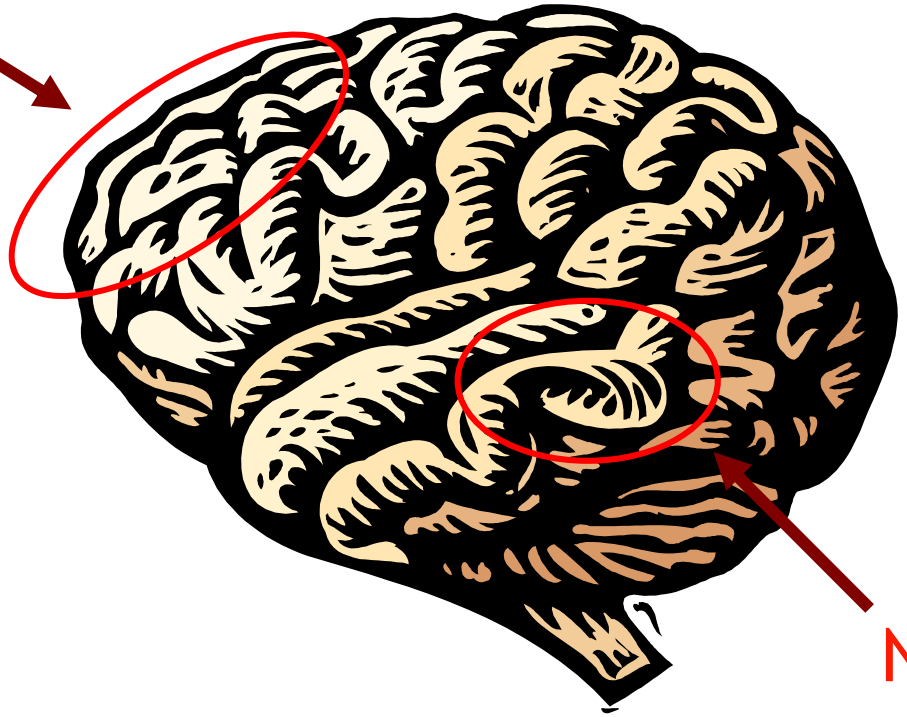
If Player 2 accepts, they get the money in the agreed split

If Player 2 rejects, neither player gets any money

What should Player 2 do?

Brain activity in Player 2

Logical reasoning



Negative emotions

Reference: Alan Sanfey

Brain activity in Player 2

Logical reasoning

As offer becomes more unfair…

Negative emotions

Reference: Alan Sanfey

So emotions are bad, right?

Apparently not

People with damage to that part of the frontal cortex that processes emotions…

Showed no change in IQ, language ability, etc.

Did not react to intense photos

Could not make a decision!

And even when the flaw was pointed out to them, they ***could not change*** their behavior

Reference: Antonio Damasio

Striking a balance

Logic is needed to comprehend and analyze the complexities of most business situations

Emotion is needed to incorporate one's subconscious instincts and to take action

But emotions aren't the only problem…

“Payments” or “Costs” are preferred to “Losses”

Game 1:

10% chance of +$95

90% chance of -$5

Game 2:

10% chance of +$100

90% chance of $0

Costs $5 to play

Game 2 was strongly preferred

Reference: Tversky and Kahneman

4 reasons it is so hard to kill a bad project:

1. Sunk costs

2. When faced with potential losses, people become gamblers

3. As long as the project is still alive, the funds spent are *costs*; as soon as we kill it, they are *losses*

4. Managing a killed project can be a CLM

The “Free!” phenomenon

- Scenario 1: People offered a choice:

One Lindt truffle	One Hershey kiss
$0.15	$0.01
	
73%	27%

Reference: Dan Ariely

The “Free!” phenomenon

- Scenario 2: People offered a slightly different choice:

One Lindt truffle	One Hershey kiss
$0.14	Free!
	
31%	69%

Reference: Dan Ariely

Additional revelations from Kahneman, Tversky, Thaler, and Ariely

- The Endowment Phenomenon
- The Immediacy Phenomenon
- Anchoring
- The pain of a loss is greater than the pleasure of a gain of equal size
- People under-weight events with probabilities less than one and greater than zero
  - Result: People over-pay for “certainty” in potential gains
  - Exception: Rare, high impact events

What is the rule?

2 4 6 8 10

Reference: P.C. Wason

Seeking validation

- People tend to actively seek out and believe information that reaffirms their currently held positions
- People tend to ignore – and sometimes actually fail to see – information that contradicts their currently held positions
- People fail to consider and plan for scenarios in which their predictions turn out to be wrong

Reference: Bazerman and Chugh

Or to put it more eloquently:

"Convictions are more dangerous enemies of the truth than lies."

- Friedrich Nietzsche

"What gets us into trouble is not what we don't know, it's what we know for sure that just ain't so."

- Mark Twain

Groupthink: the antithesis of diverse thought

"… 'groupthink' [is] the mode of thinking that persons engage in when *concurrence-seeking* becomes so dominant in a cohesive ingroup that it tends to override realistic appraisal of alternative courses of action."

- Irving L. Janis

Teams in groupthink often:

- Are comprised of highly intelligent, skilled individuals
- Feel a strong sense of purpose
- Display high levels of camaraderie
  - Mutual respect between members
- Have tremendous pride in their work and mission

Symptoms of groupthink

- An illusion of ***invulnerability***
- Warnings and negative feedback are ***rationalized*** away
- Unquestioning belief in the inherent ***morality*** of the ingroup
  - Leads to ignoring the ethical consequences of their decisions
- Enemies are viewed as ***stereotypes***
- ***Pressure*** is applied to individuals who express doubt
- ***Self-censorship***
- An illusion of ***unanimity***
  - Silence is interpreted as agreement
- Members of the ingroup act as ***mindguards*** to protect each other – and especially the leader – from information that might break their complacency

Reference: I. Janis

Results of groupthink

- Few alternative courses of action are discussed
- The agreed course of action is never reexamined
- Little to no time is spent discussing potential gains or costs that might have been overlooked
- Experts are not sought out, and may be ignored
- Facts that support the course of action are seized upon; facts that do not are ignored or suppressed
- Events or accidents that might derail the chosen course of action are not discussed
  - Contingency plans are not developed

Reference: I. Janis

Fighting groupthink

- The leader must encourage the open airing of objections and doubts
- Appoint a devil's advocate at each meeting
- The leader (especially) must accept criticism of his or her judgments
  - Opinions should be withheld initially
- Imagine train wrecks
  - Take a survey of warning signs
  - "What could cause this plan to fail?"
  - Pre-mortems
- Generate alternative courses of action

Reference: I. Janis

A wise thought

"Never hire or promote in your own image. It is foolish to replicate your strength. It is idiotic to replicate your weakness. It is essential to employ, trust, and reward those whose perspective, ability, and judgment are radically different from yours. It is also rare, for it requires uncommon humility, tolerance, and wisdom."

- Dee Hock

So when might it be okay to "trust your gut?"

- Four tests:
  - Familiarity: Do we have a lot of experience with similar situations?
  - Feedback: Did we get consistent, reliable feedback?
  - Equanimity: Were the situations emotionally charged?
  - Lack of Bias: Were and/or are we now potentially influenced by any inappropriate personal interests?

- ***If the situation fails even one of these tests, we should use a more structured decision process***

Reference: Kahneman and Klein

A word of warning

- It's tempting to assume that all of these foibles apply to "other people." Before you do, be aware of the fact that:

- People who lack expertise in a given area of endeavor tend to overestimate their abilities relative to their peers

- Those in the top quartile generally underestimate their relative abilities

Reference: Kruger and Dunning

Summary

- People (and monkeys) are often irrational when making decisions in the face of uncertainty
- In any given case, ask yourself, “Is this a situation in which I can safely trust my instincts?”
  - *Try to be objective*
- Avoid Groupthink; encourage constructive conflict
  - Maybe appoint a Devil’s Advocate at each meeting
- Listen to your gut, but don’t be ruled by it

“To be absolutely certain about something, one must know everything or nothing about it.”

- Olin Miller

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Questions?