Decision Strategies

Confidence through Clarity

Should You Trust Your Gut?

Psychological weaknesses in human beings when we try to make decisions in the face of uncertainty

Pat Leach, DSI

Decision Strategies

“Dead Guy in the Envelope”

Decision Strategies

A Bit of Psychology

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

When it comes to potential losses, people are gamblers

Decision Strategies

Example: The Plague

A new disease is spreading in Baltimore, 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

Decision Strategies

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!

Is irrational decision-making in our genes?

"Jungle economy" established

Economic theory worked perfectly

⇒ Monkeys are rational consumers!

Reference: Keith Chen

Decision Strategies

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

Decision Strategies

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

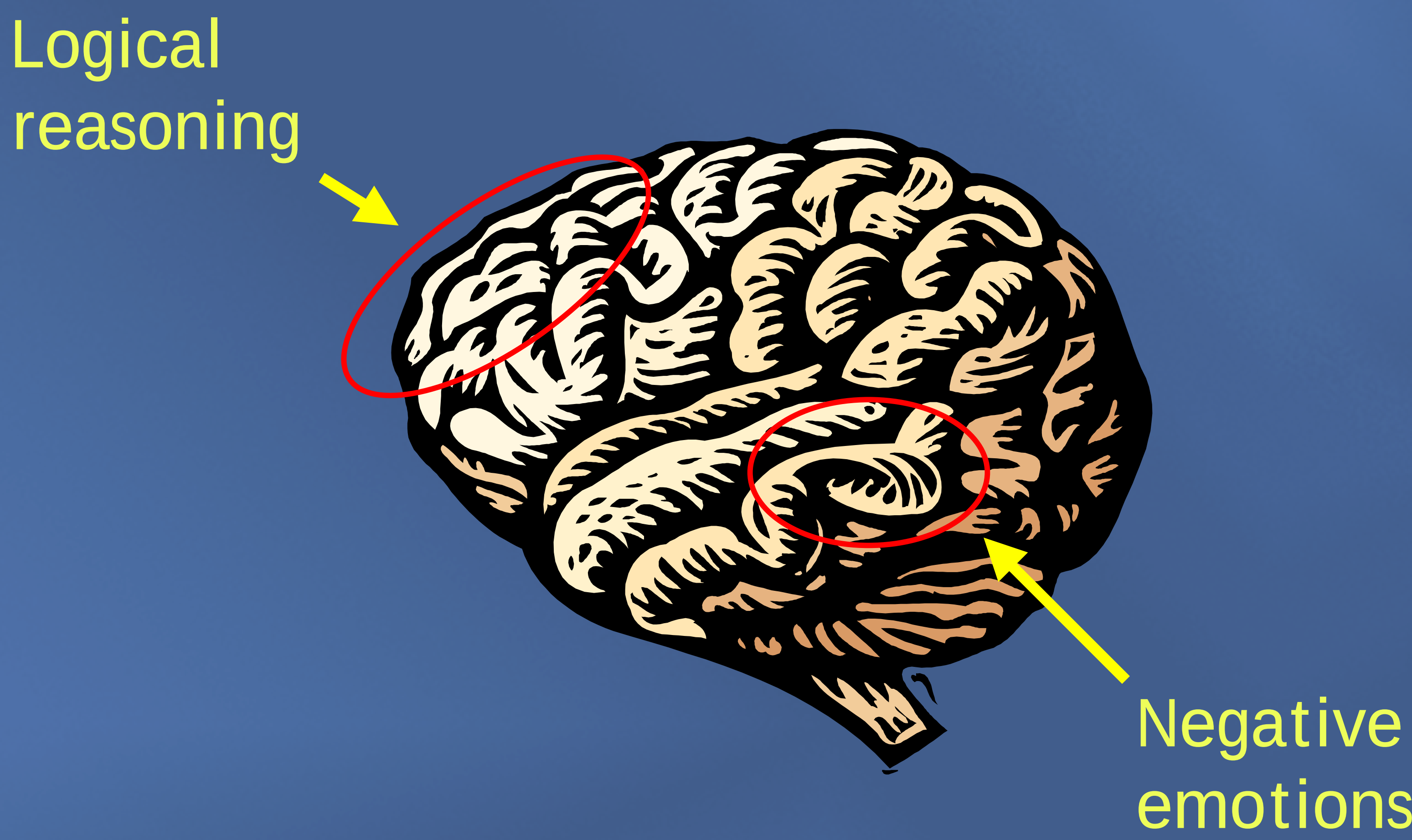
Player 2 can accept or reject the offer (no negotiation; one offer, one answer)

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



Reference: Alan Sanfey

Brain activity in Player 2

As offer becomes more unfair…

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

Decision Strategies

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

Another Revelation from Kahneman and Tversky

"Payments" or "Costs" are preferred to "Losses"

What is the rule?

2 4 6 8 10

Decision Strategies

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

Summary

People (and monkeys) are often irrational when making decisions in the face of uncertainty

Listen to your gut, but don't be ruled by it

Decision Strategies

References

Kahneman, Daniel, and Tversky, Amos, ed., 2000. Choices, Values, and Frames. Cambridge, U.K.: Cambridge University Press.

The Economist, June 25th, 2005, pp. 80-81.

Harvard Business Review, Vol. 84, No. 1, pp. 98-107, January 2006.

Any Questions?