

Decision-Making Under Certainty

IEBE

We'll start with...

- ▶ ... a test!

“Under Certainty”

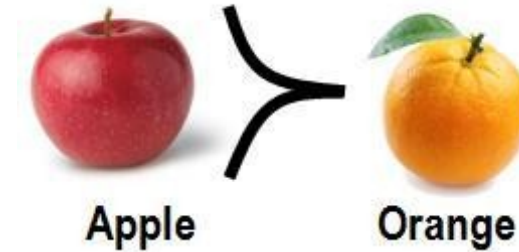
- ▶ There is no doubt as to which outcome will result from a given act
 - ▶ “If I do X, Y happens“

- ▶ **Risk:** “If I do X, there is 50% probability Y happens“

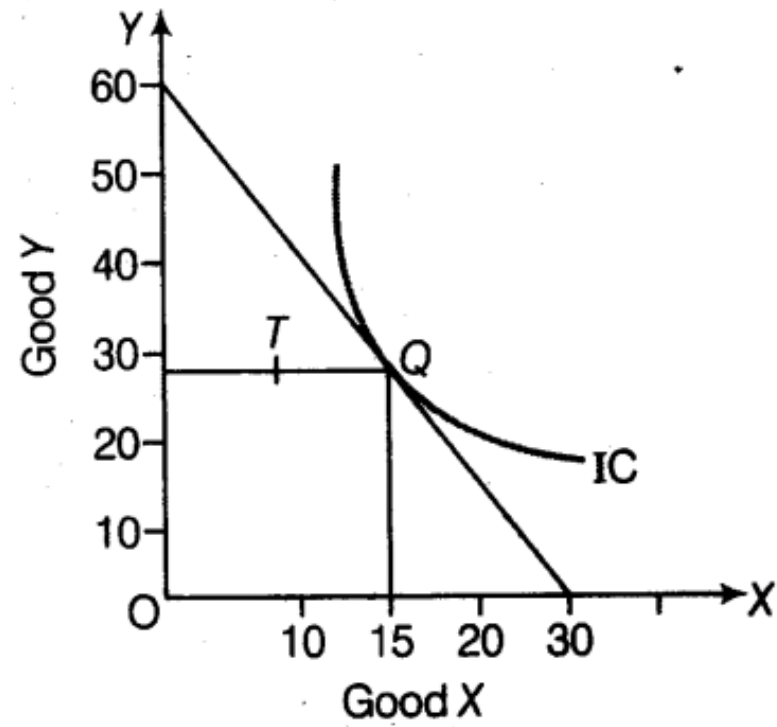
- ▶ **Uncertainty:** „If I do X, Y may happen. Or maybe not.“

Preferences

- ▶ What is a preference?
- ▶ “a greater liking for one alternative over another”
 - ▶ Being able to say “I like bananas more than apples”
 - ▶ A is preferred to B OR I am indifferent between A and B

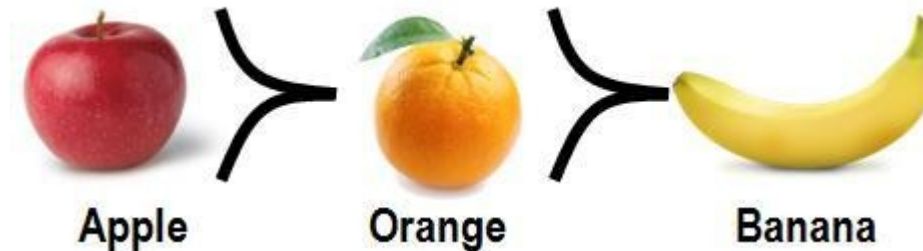


Preferences



Rational preferences

- ▶ Complete
- ▶ Transitive
- ▶ Violations?
- ▶ Utility
 - ▶ $u(\text{apple}) > u(\text{orange})$
 - ▶ $u(\text{apple}) > u(10 \text{ Kč})$



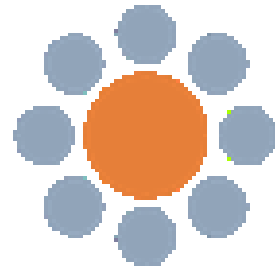
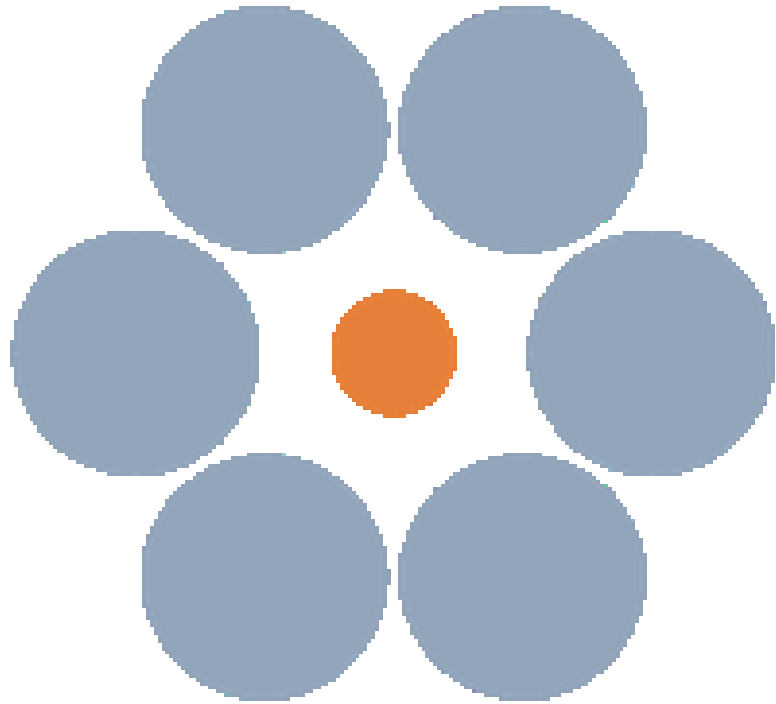
Rational choice

- ▶ *the action chosen by a decision-maker is at least as good, according to his/her preferences, as every other available action*

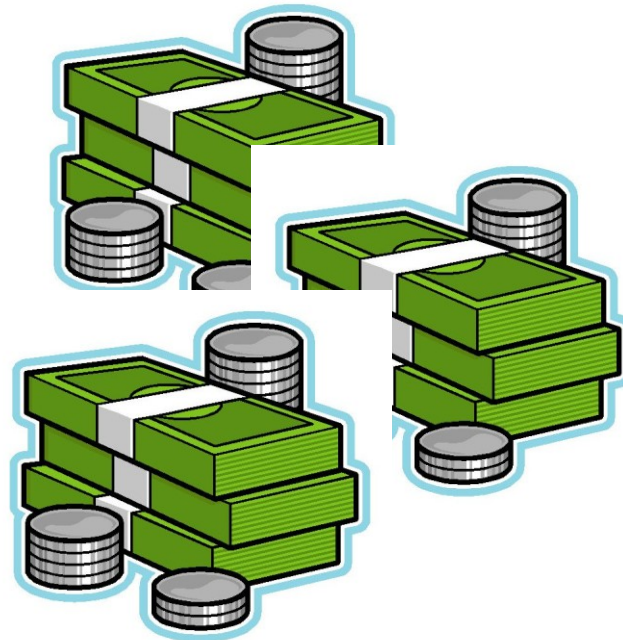
Preferences

- ▶ Inherent?
- ▶ Constructed?

- ▶ “In experiments, people are unable to estimate “fair” prices accurately and are strongly influenced by the unconscious and irrational.” (W. Poundstone)



Rational = consistent



Rational?

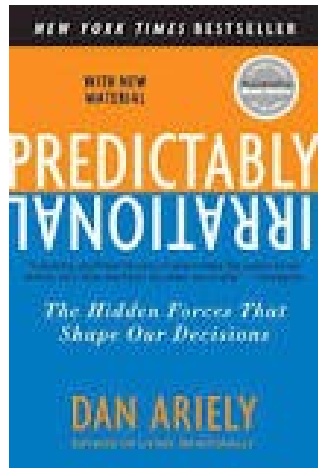


Rational?

▶ Wine bottles:

- ▶ 100 - 120
- ▶ 120 - 140
- ▶ 160 - 180
- ▶ 180 - 200
- ▶ 200 - 220
- ▶ 220 - 240
- ▶ 240 - 260
- ▶ 100 - 260





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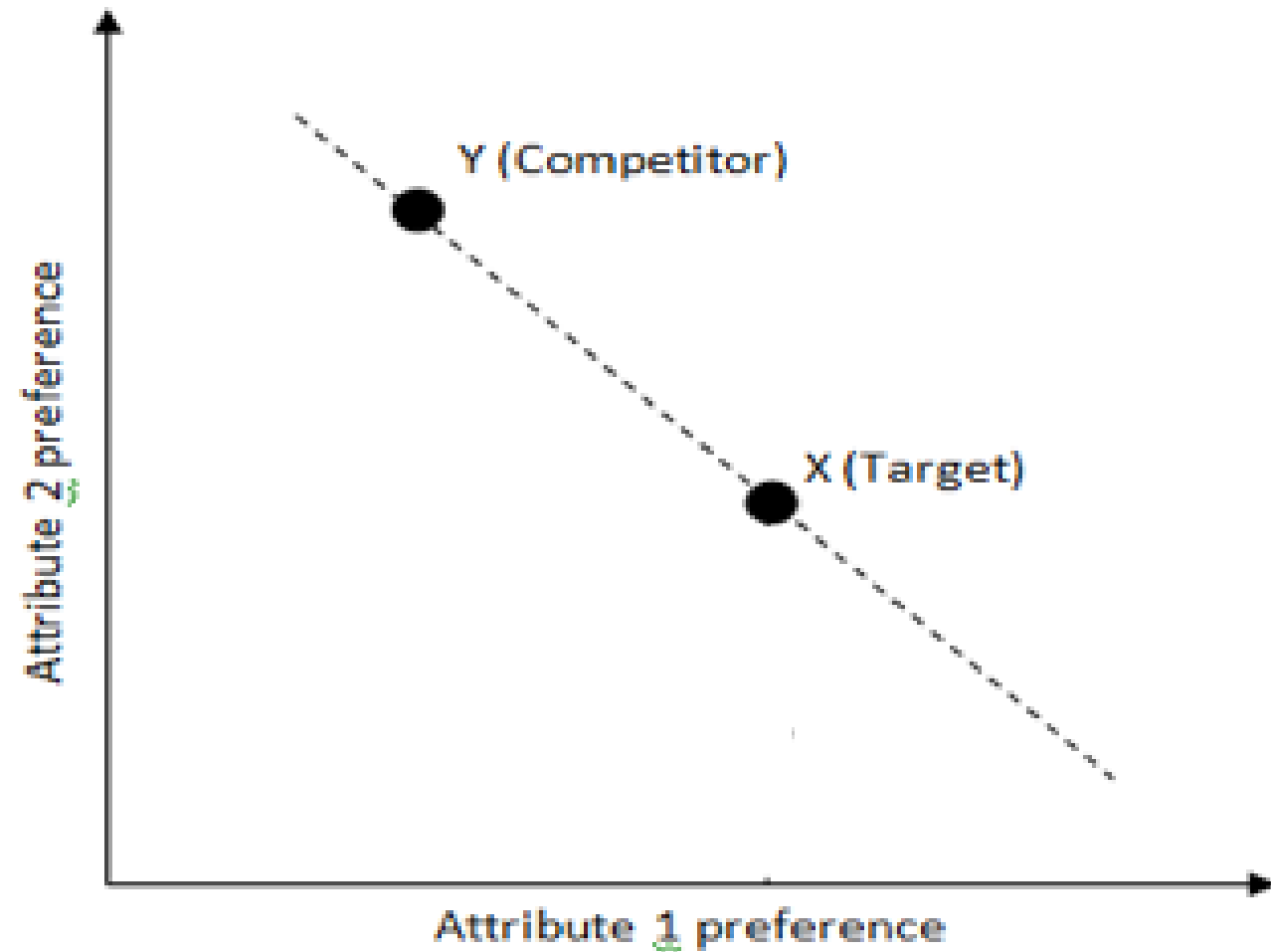
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Decoy effect

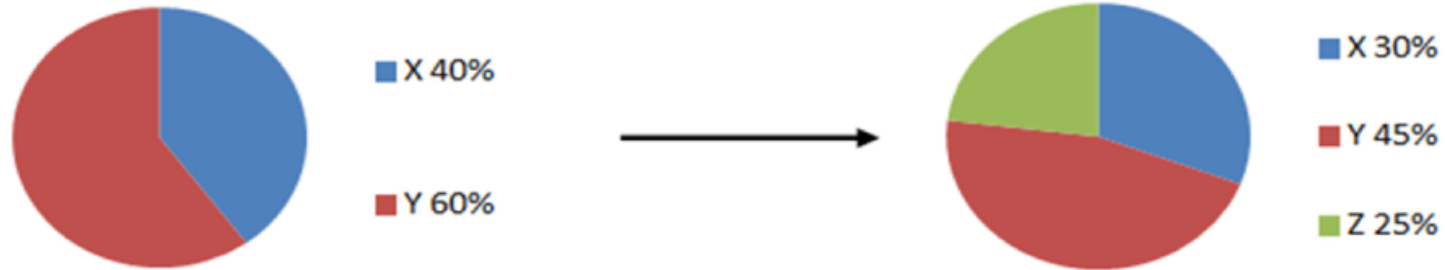
- ▶ Consumers tend to have a specific change in preference between two options when also presented with a third option that is *asymmetrically dominated*.
 - ▶ An option is asymmetrically dominated when it is inferior in all respects to one option; but, in comparison to the other option, it is inferior in some respects and superior in others.

Decoy effect

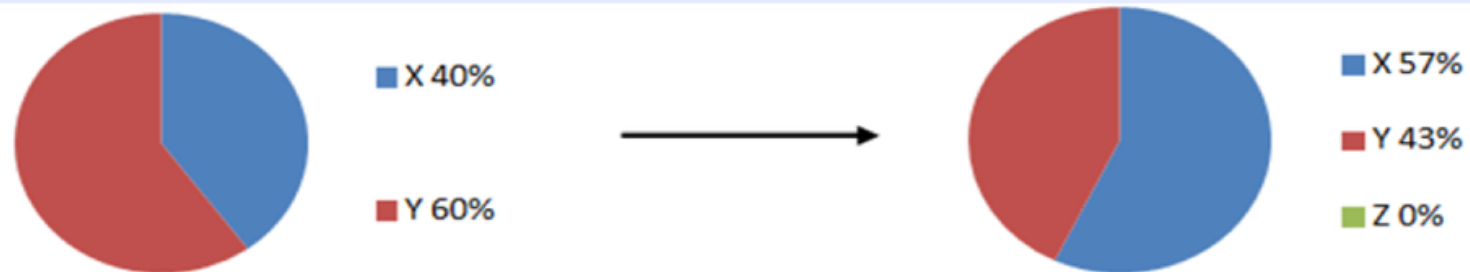


Decoy effect

Third option added to a choice set of two options normally “eats up“ the



When the decoy effect takes place, the third option is not chosen, but its presence causes one of the original options to increase in popularity:



Decoy effect

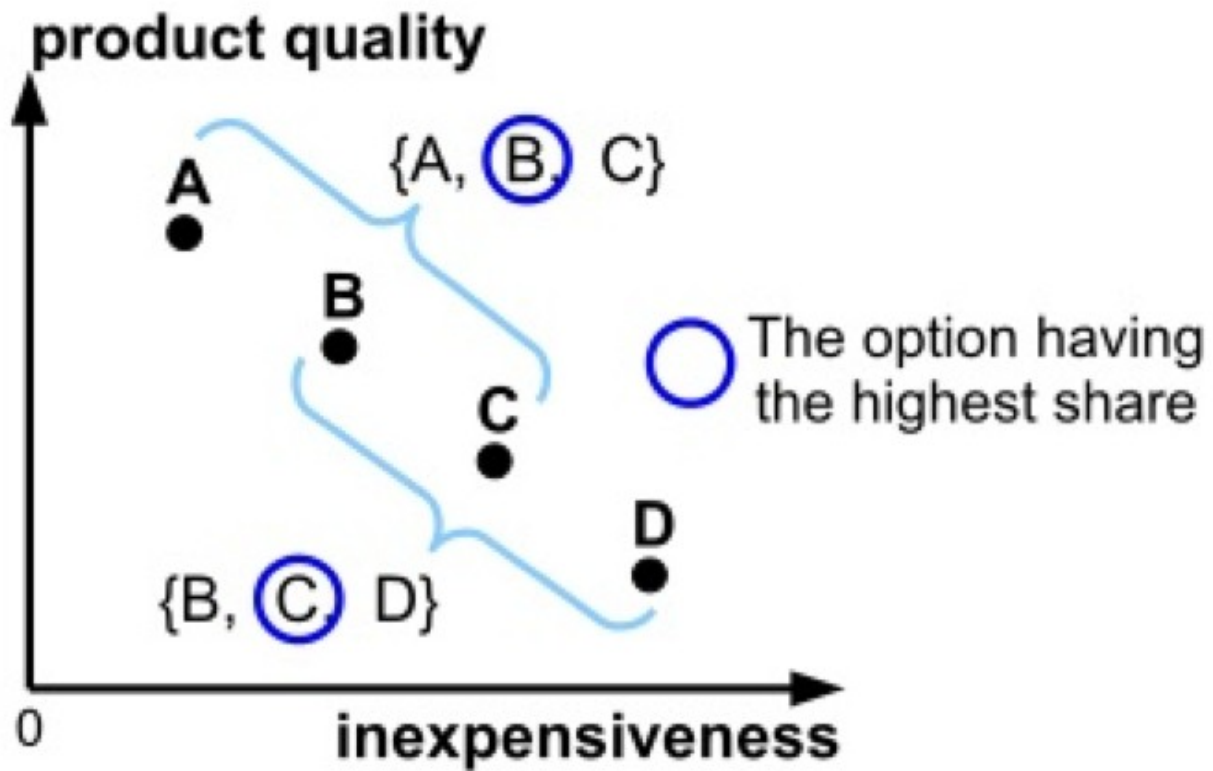
Works with people too- you can make yourself more attractive by hanging around the right people



Compromise effect

- ▶ Items can gain market share when new options are added to the market when they become the compromise or middle option in the choice set.

Compromise effect



Compromise effect



50%

50%

Compromise effect



30%

60%

10%

Context dependent preferences

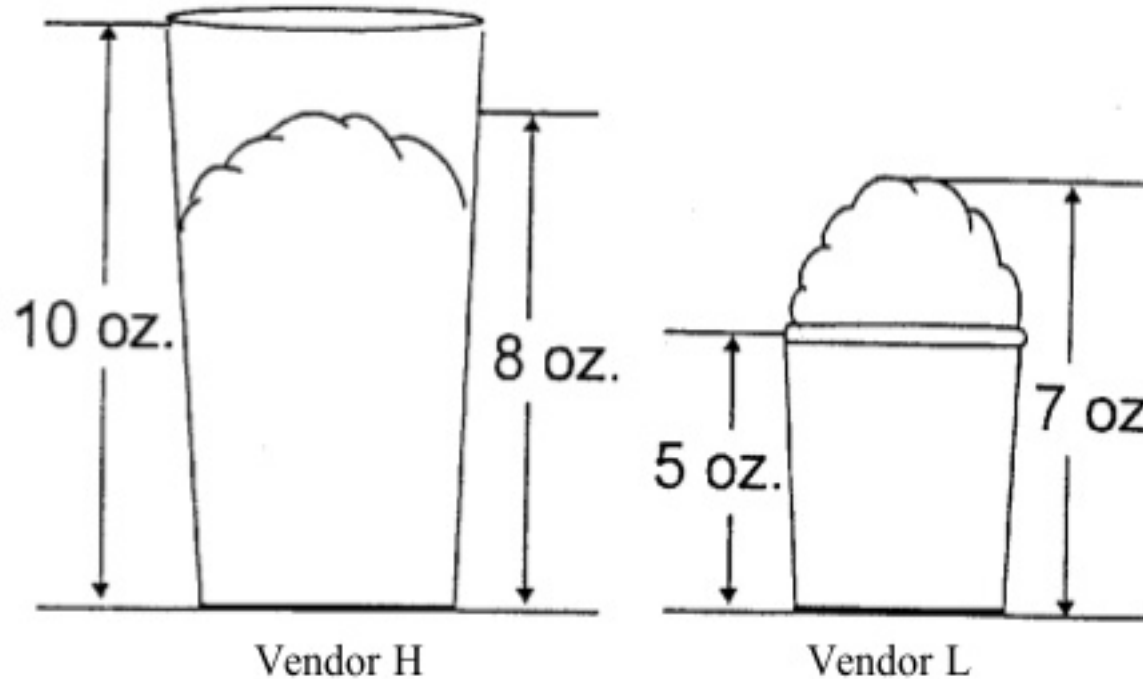


Exhibit 1. Drawings in Study 2

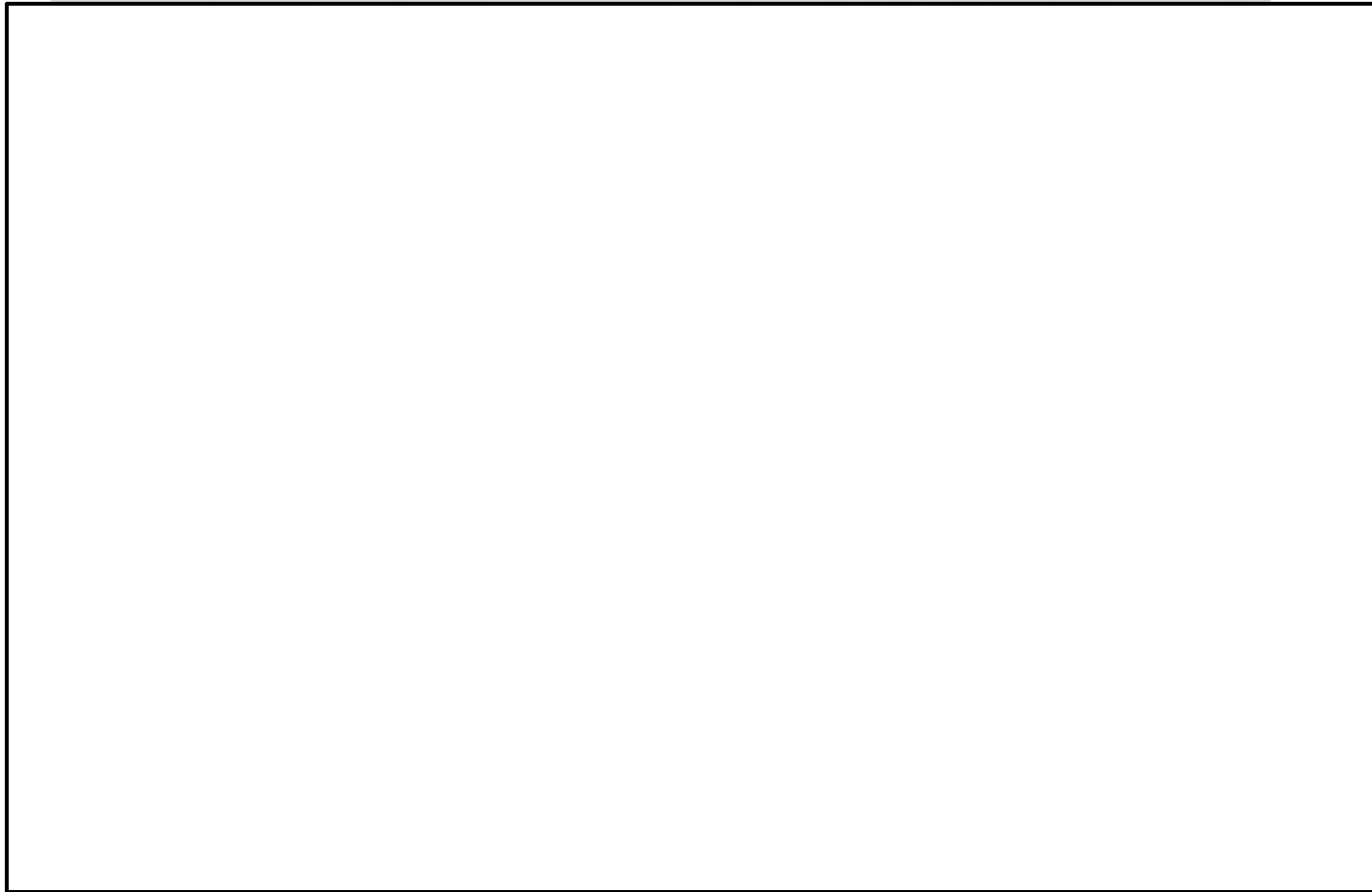
WTP prices for Vendor H's and Vendor L's Servings in Study 2

Evaluation Mode	Vendor H's	Vendor L's
Separate evaluation	\$1.66	\$2.26
Joint evaluation	\$1.85	\$1.56

Cheerleader effect

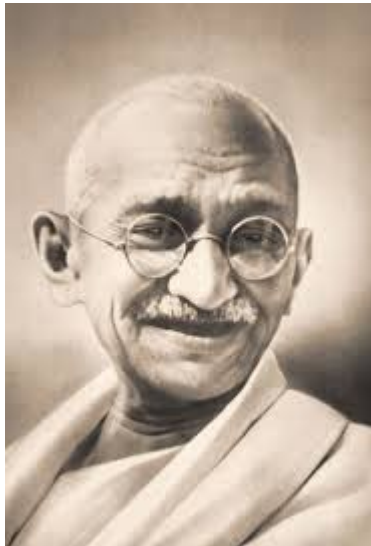
- ▶ Hierarchical Encoding Makes Individuals in a Group Seem More Attractive (Psychological Science)



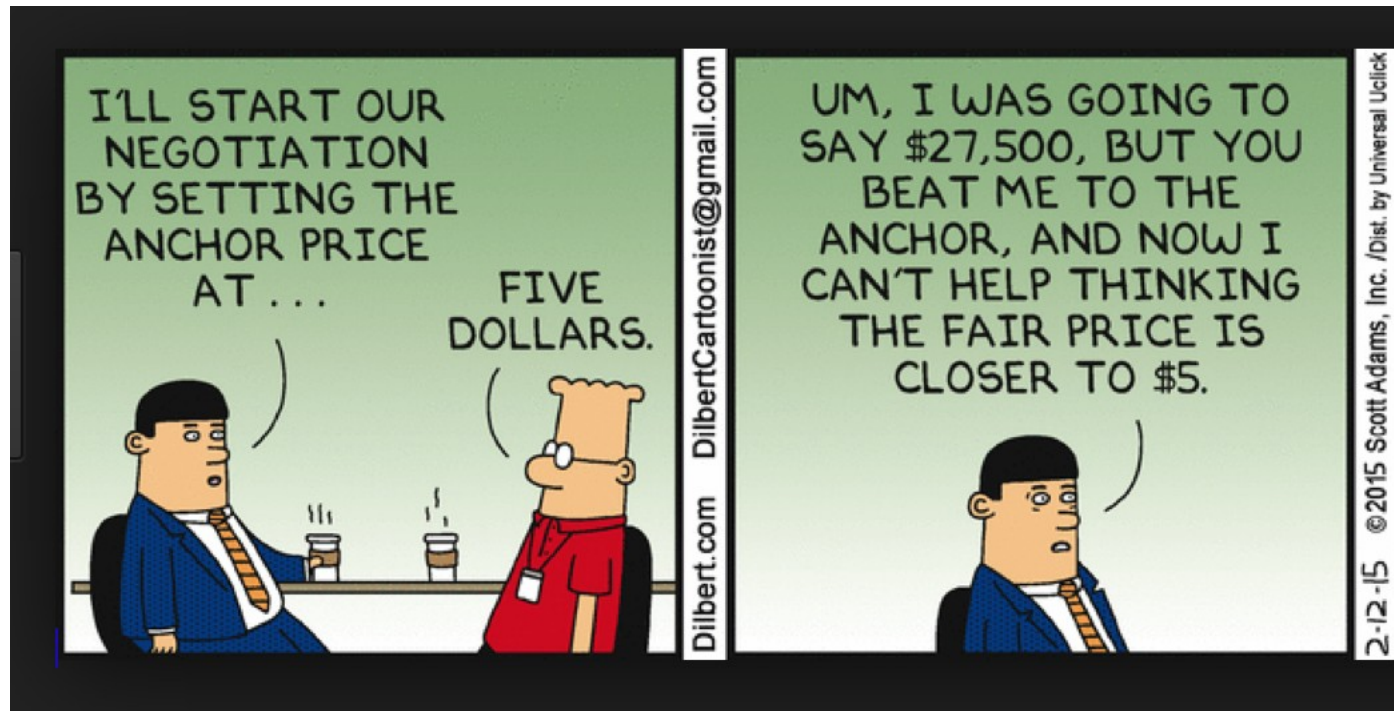


Anchoring effect

- ▶ Human tendency to rely too heavily on the first piece of information offered (the "anchor") when making decisions



Anchoring effect

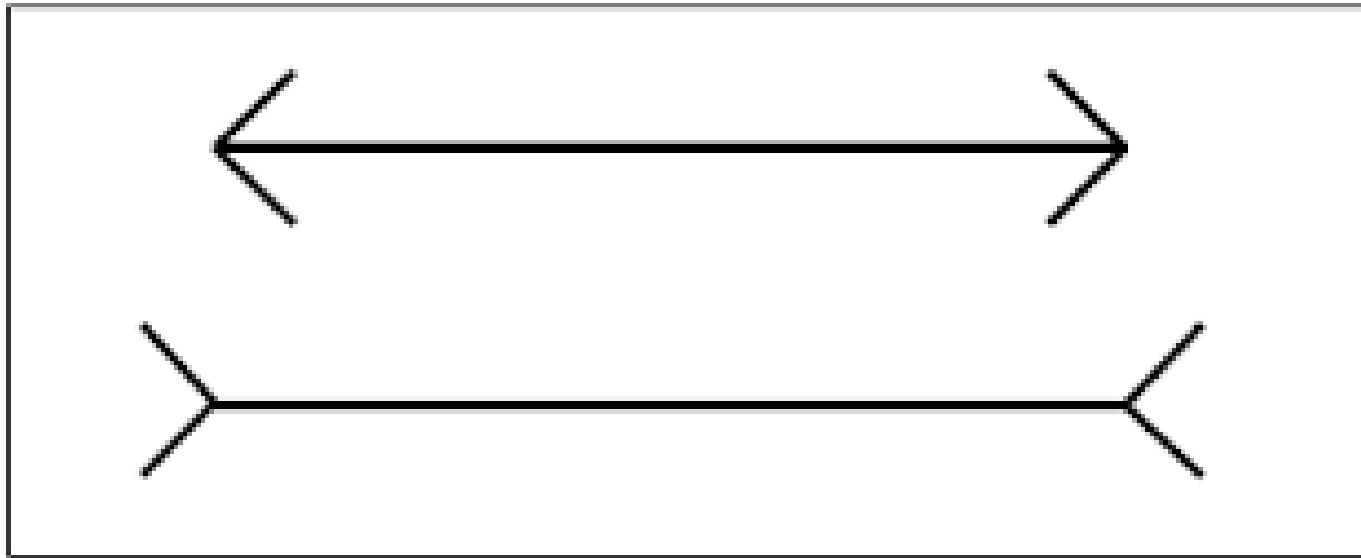


Anchoring effect



Framing

- ▶ cognitive bias, in which people react to a particular choice in different ways depending on how it is presented



Framing

Gain Frame

If Program A is adopted, 200 people will be saved.

If Program B is adopted, there is a 1/3 probability that 600 people will be saved, and 2/3 probability that no people will be saved.

Framing

- ▶ Pizza
 - ▶ 149.- free delivery
 - ▶ 89.- delivery 60.-
 - ▶ Free pizza! (delivery 149.-)

Framing

Ham & Mushroom

tomato sauce with herbs, mozzarella, ham, mushrooms

Choose
size

32 cm



Standard
32 cm

149,-

40 cm



Large
40 cm

199,-



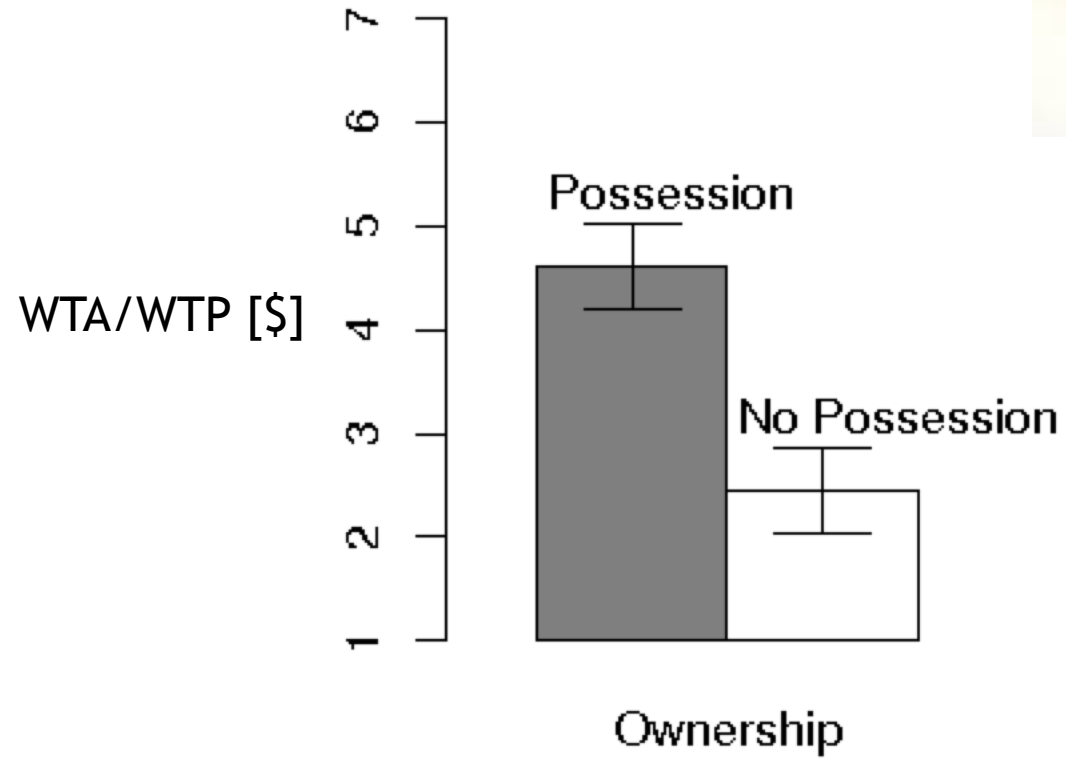
Personal collection on branch

Save 60 Kč

Endowment effect

- ▶ People ascribe more value to things merely because they own them.
- ▶ People often demand much more to sell an object than they would be willing to pay to buy it.
- ▶ **Loss aversion:** people dislike losses more than they like gains of the same size

Endowment effect



Endowment effect

- ▶ You call to cancel your phone subscription
- ▶ “If you stay with us, we give you 100 free calls”
- ▶ “We have just credited your account with 100 calls”

Endowment effect



Preference construction WTA/WTP

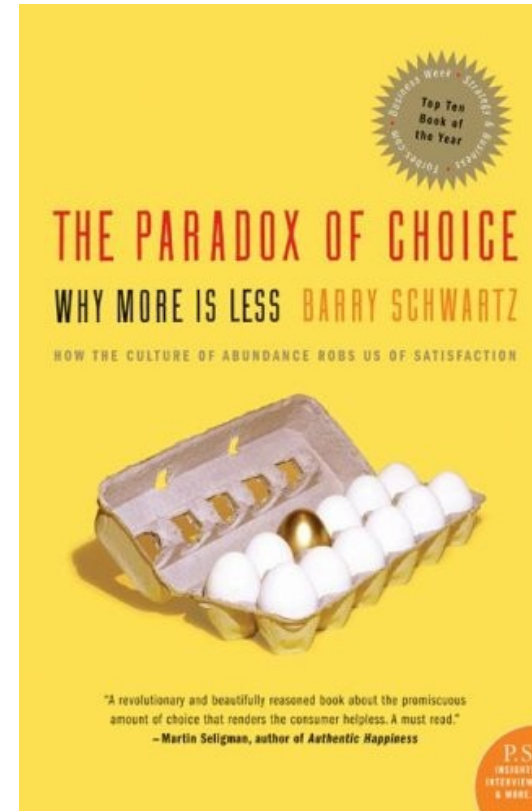
- ▶ Tom Sawyer effect





Choice paralysis

- ▶ With increased size of the choice set it becomes more difficult to pick the best option - or to choose at all.
- ▶ Cognitive overload
- ▶ Regret aversion (FOMO)



Choice paralysis



6 jam choices

	6 kinds of jam	24 kinds of jam
Shoppers who stopped	40%	60%
Shoppers who bought jam	30%	3%



Paradox of Choice

- ▶ Consumer satisfaction?

Nudging, marketing research problems,
manipulating by businesses

The right side of the slide features several overlapping, angular shapes in various shades of green, ranging from a light lime green to a dark forest green. These shapes are layered, creating a sense of depth and movement. The overall composition is clean and modern, with the text on the left and the abstract graphics on the right.

For the seminar next week

- ▶ Read one paper, write 1-2 pages about it.
- ▶ Think of few examples of your own irrationality, or somebody else's.

