QVIC

Behavioral Economics

Implications for Marketing and Consumer Insights

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Agenda

- What is Behavioral Economics?
- Heuristics and Biases
- Choice Architecture/Nudges
- Consumer Unconsciousness

Classical Economics: Unbounded Rationality

- We always pursue and achieve optimal options
- We are excellent at calibrating chances and risks and computing expected values
- Preferences are consistent across time and places
- Goods, services, and money of equal value are perfectly substitutes of each other
- States of wealth determine how we fare against others

Are We Rational Beings?

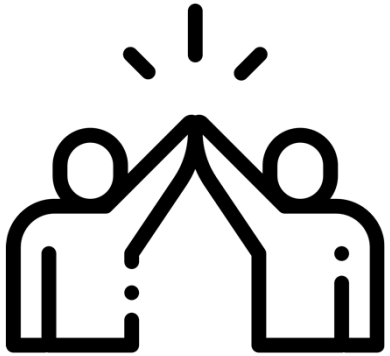
Conventional economic theories are *normative (how the world ought to be)*

- They suggest what we ought to be doing to maximize utility

Behavioral economic theories are *positive (how the world actually works)*

- They describe how we *behave*
- Individuals use mental shortcuts (heuristics) that lead to errors in perceptions and decisions (decision biases)
- "Bounded rationality" (Simon, 1955)

Let's play!



Rules (ultimatum game)

1. I'll select one of the players to receive hypothetical $10
2. In order to keep some of this money, the player who received the $10 has to offer a certain portion of the $ to the other player (>$0)
3. If the player who received the offer accepts the offer, each player keeps his/her portion of the $10
4. If the player rejects the offer, neither player gets to keep any $ and I get my $10 back!

We Think in Two Distinctive Ways

 System 1	 System 2
Fast, intuitive, efficient, habit-based	Reflective, controlled, resources consuming
Good at managing simple tasks	Good at Complex Tasks
Relatively nonconscious	Conscious
Simple Decisions	Complex Decisions

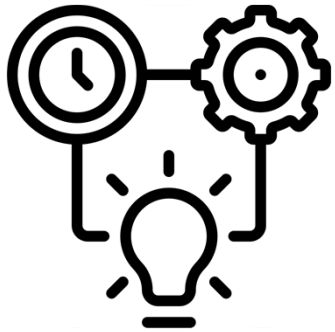
B.E. Criticism of Market Research

- The vast majority of consumer decisions are based on System I
- However, a large bulk of Market Research is designed to evoke System II (“walk me through your laundry detergent purchase decision”)
- People often feel the need to comply with a request/question and will provide answers (even if meaningless)

Examples of Irrationality

- Anchoring and inefficient adjustment
- Context and framing effects
- Temporal Effects
- Mental accounting and hedonic editing

- Mental Accounting and Prospect Theory
  - Hedonic editing
- Corrections (Choice Architecture/Nudges)



Anchoring and Adjustment

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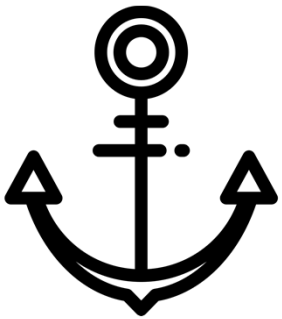
What is Anchoring and Adjustment?

- Judgments tend to be anchored on numbers to which people are exposed
    - People generally fail to adjust their judgments as a result of the anchoring effect
    - Usually people are unaware of the influence of an anchor



Is the population of Turkey (the country) larger or smaller than 300,000 (or 300,000,000)

Larger than 300,000 (or 300,000,000)

Smaller than 300,000 (or 300,000,000)

What is your estimate of Turkey's population? (Please use numbers only)

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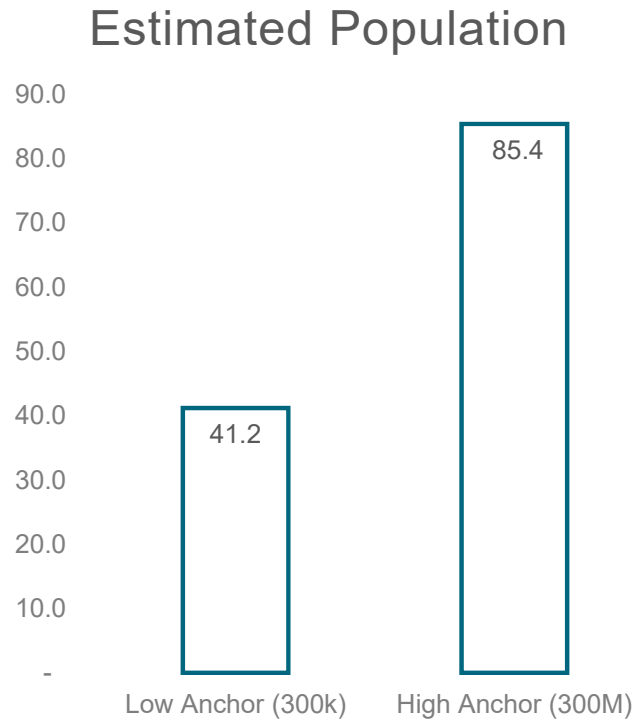
What is the population of Turkey?

Your answer may be influenced by the alternatives available on the survey



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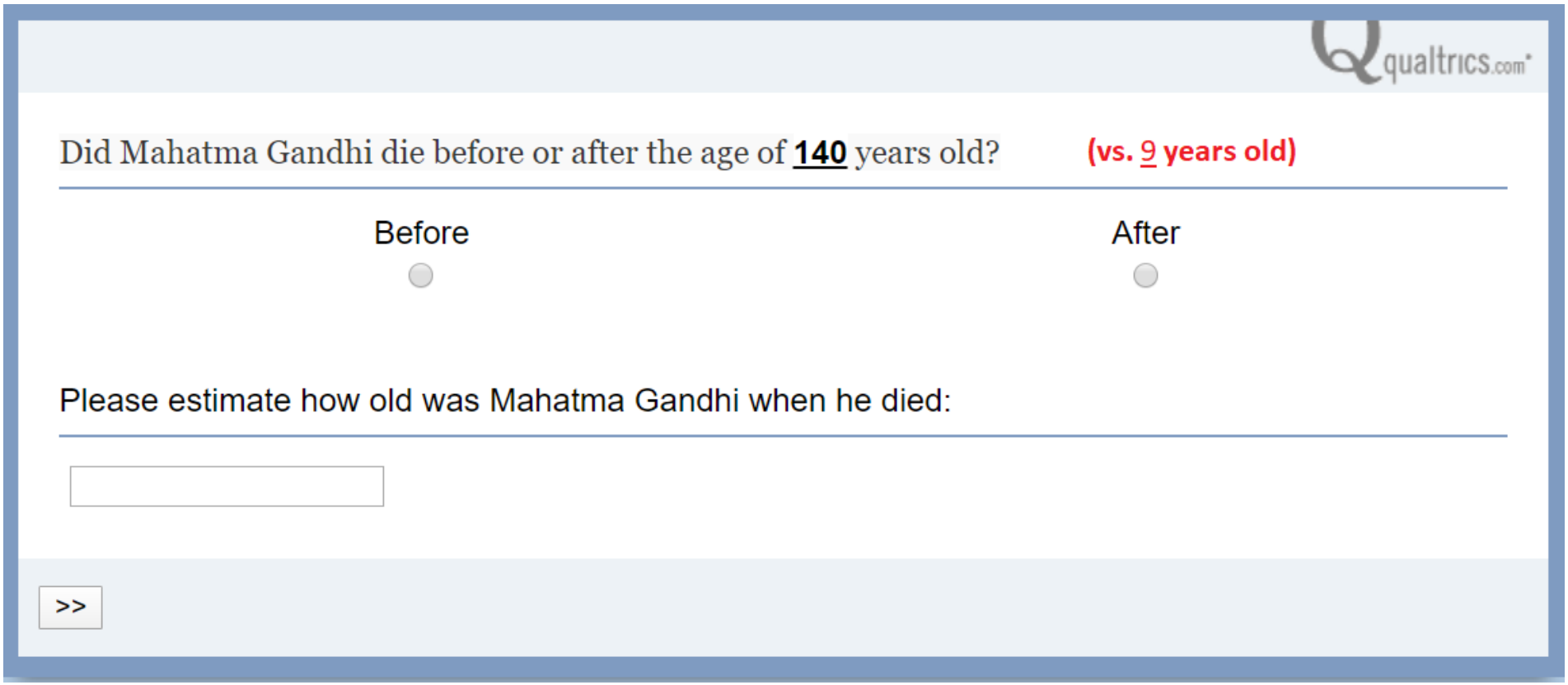
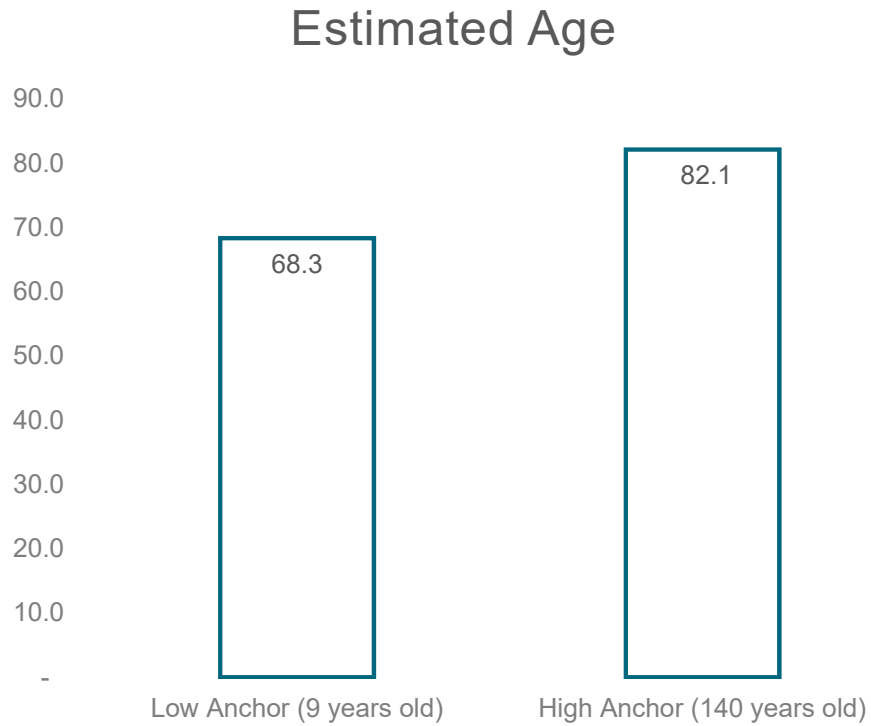

qualtrics.com
Did Mahatma Gandhi die before or after the age of 140 years old?
(vs. 9 years old)
Before
After
Please estimate how old was Mahatma Gandhi when he died:
>>

How Old was Gandhi When he Died?



$p < 0.05$

Qualtrics.com

Imagine you went to the grocery store and saw a sign that stated the following:

"Buy Snickers Bars for your Freezer" **("Buy 18 Snickers Bars for your Freezer")**

Assuming you like Snickers bars, how many bars would you purchase?

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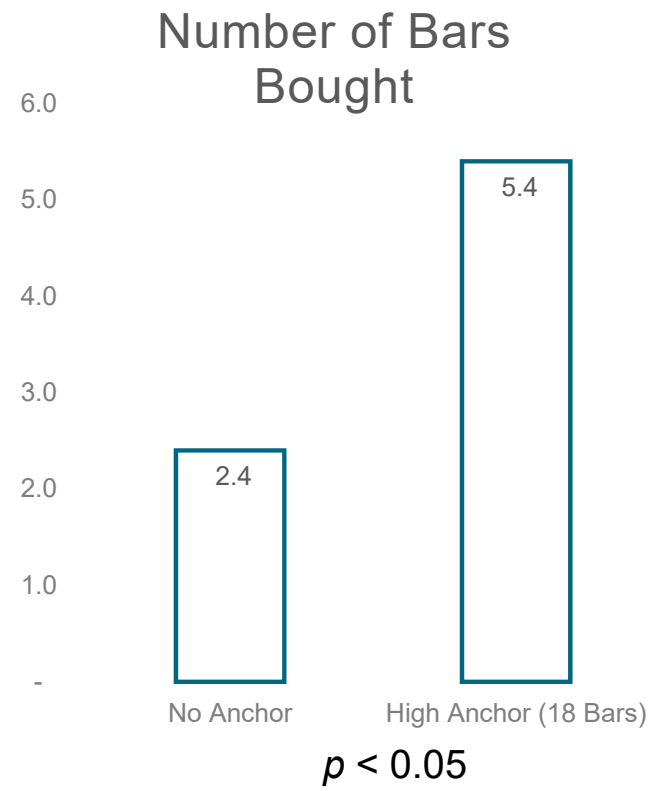
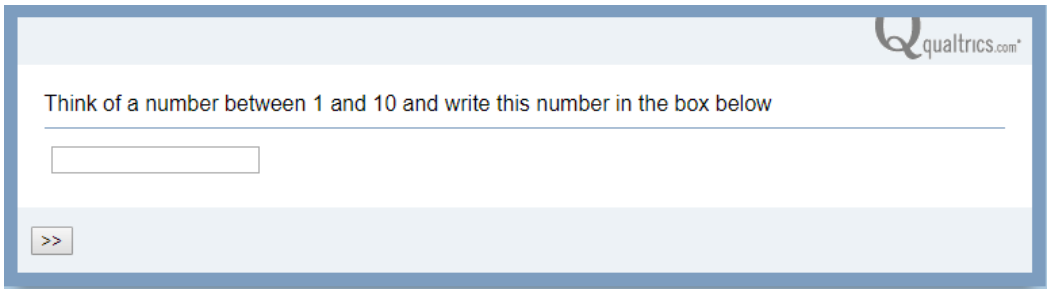
How Many Snickers Bars Would You Buy?

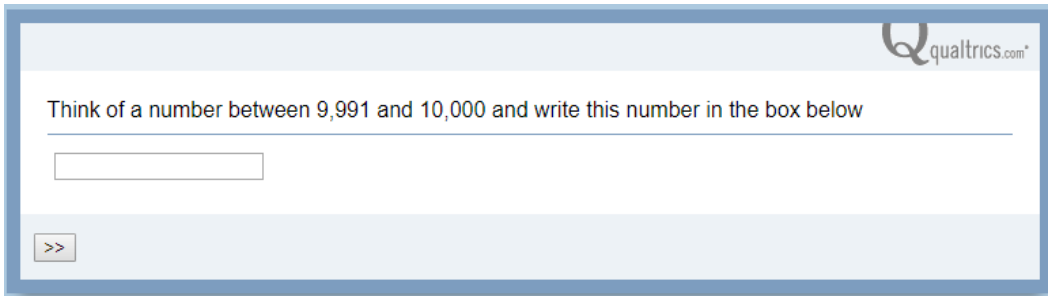
Our behavior may be influenced by the store signage

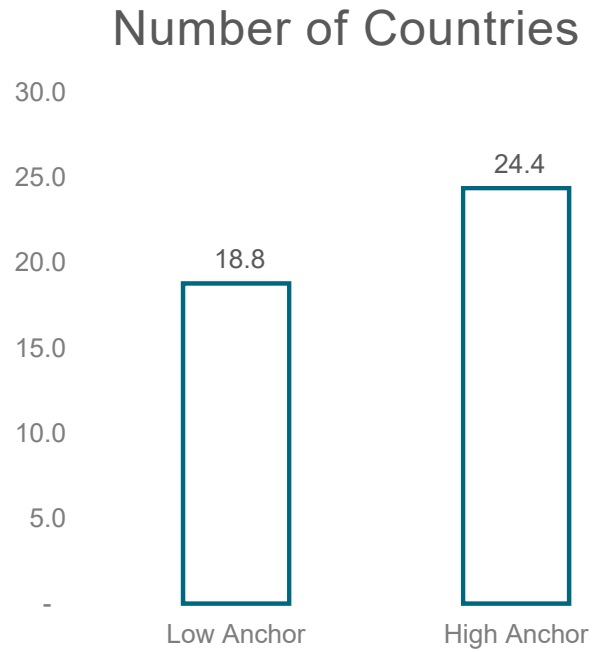


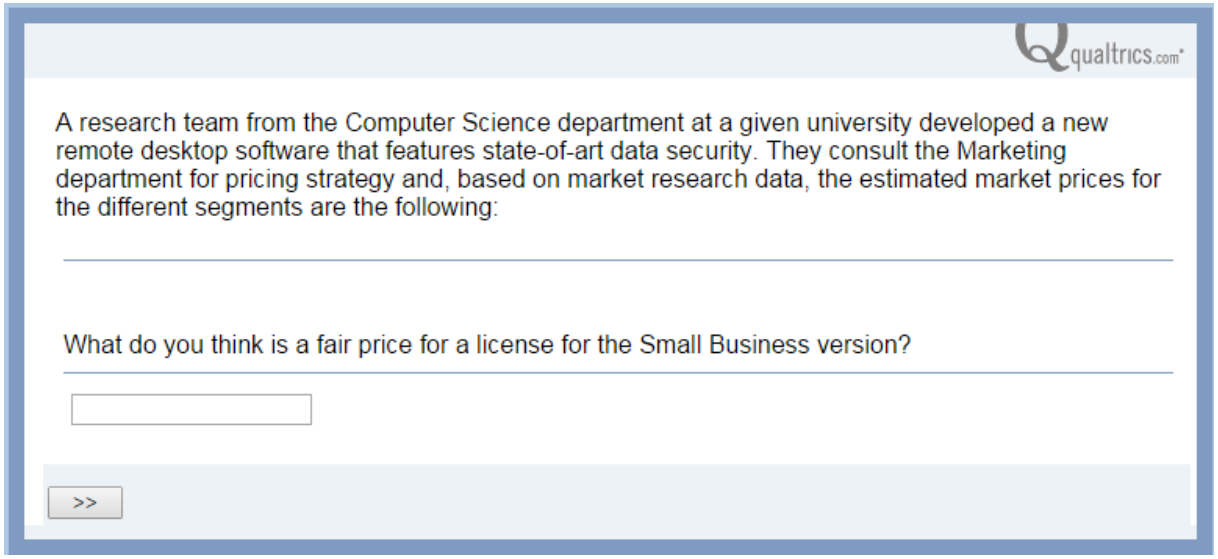
$p < 0.05$

How many African Countries are Members of the United Nations?







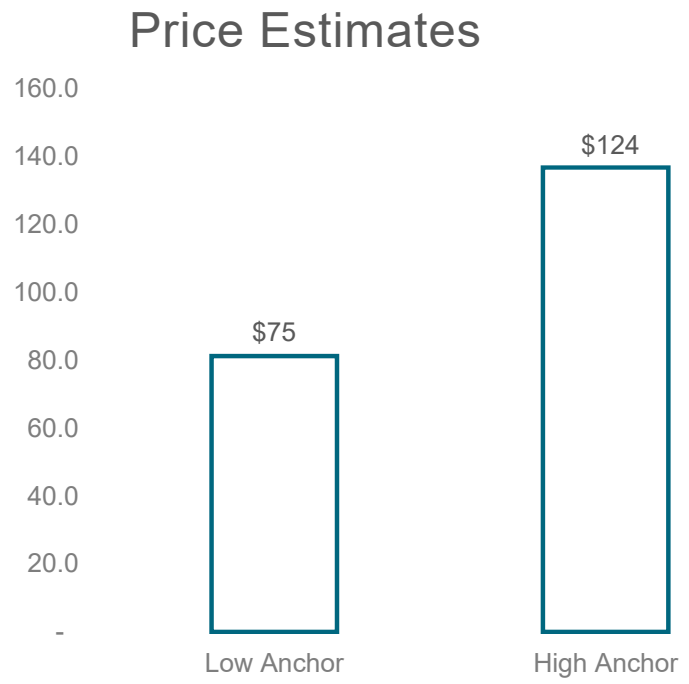


Low Anchor	High Anchor
Personal: $4.99/month	Personal: $4.99/month
Family: $19.99/month	Family: $19.99/month
	Enterprise: $299/month

What's a Fair Price for a New Software Package?

Small Business Package

Low Anchor	High Anchor
Personal: $4.99/month	Personal: $4.99/month
Family: $19.99/month	Family: $19.99/month
	Enterprise: $299/month



Implications for Sales and Marketing

"Buy Snickers Bars for your Freezer"

- vs. "Buy 18 Snickers Bars for Your Freezer"

Marked down prices

- increase the per-customer limit

Multiple uses

- 101 uses

Implications for CR & I

The magnitude of values may influence responses (Anchor effect)

Answers to questions may be anchored on prior ratings/values

This may happen REGARDLESS of the meaningfulness of the anchor (e.g., last digits of your ph#, SSN, address)

Context Effects

Does information seemingly irrelevant to the choice/judgment matter?

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Contextual Decoys (and Phantom Decoys)

82 points, $13.99

87 points, $12.69

70%
50%
90%

73 points, $6.69

30%
50%
10%

67 points, $7.99.

Wine rating scale: 60-69 Wines are flawed and not recommended, 70-79 Wines are flawed and taste average, 80-84 wines are above average to good, 85-90 wines are good to very good

The Pschology of Decoys: Perceptual Contrast Phenomenon

Decoy Study


Economist.com
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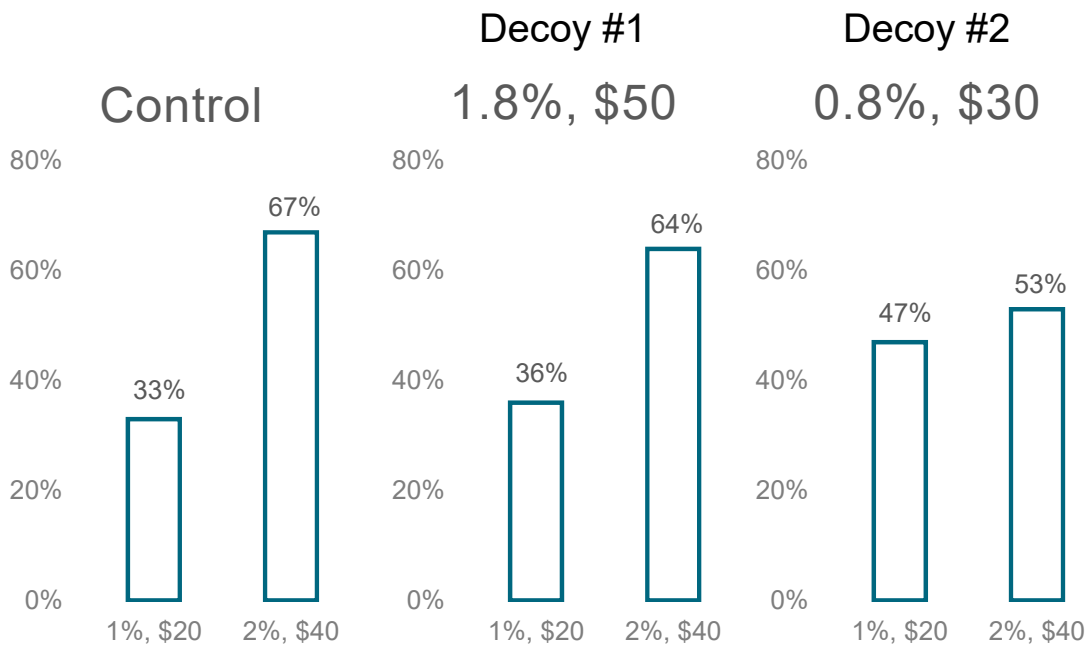
Assume you are interested in signing up for a new credit card. Below are the options offered by your local bank branch:

Which option would you choose?

- 1.0% cash back on all purchases with a $20 annual fee.
- 2.0% cash back on all purchases with a $40 annual fee.

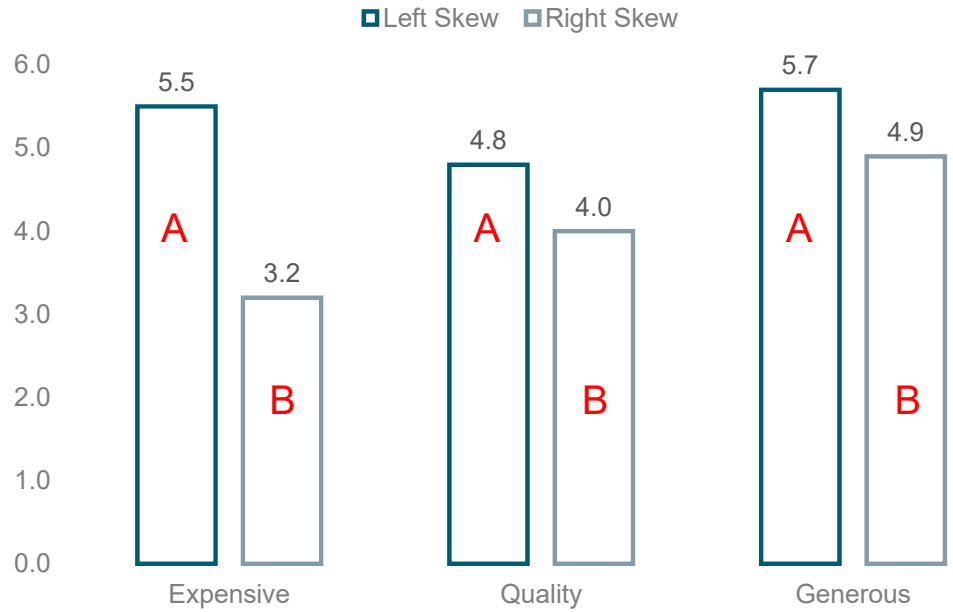
- 0.8% cash back on all purchases with a $30 annual fee. (1.8%, $50)
- 1.0% cash back on all purchases with a $20 annual fee.
- 2.0% cash back on all purchases with a $40 annual fee.



Your Data: Perceptual Influence

How Would you Evaluate a $15.99 Bottle of Wine from Brazil?

It depends on the context in which the product was judged (7-point scales).



A

Left Skew Context:
$6.99; $7.99; $8.99; $10.99; $15.99; $16.99

B

Right Skew Context:
$6.99; $15.99; $20.99; $22.99; $23.99; $49.99

Cunha, M. and J. Shulman (2011) "Assimilation and Contrast in Price Evaluations," *Journal of Consumer Research*, 37 (5) 822-835.

The Power of "Free"

A

- 1 Lindt truffle = $0.04
- 1 Hershey's Kisses = $0.01

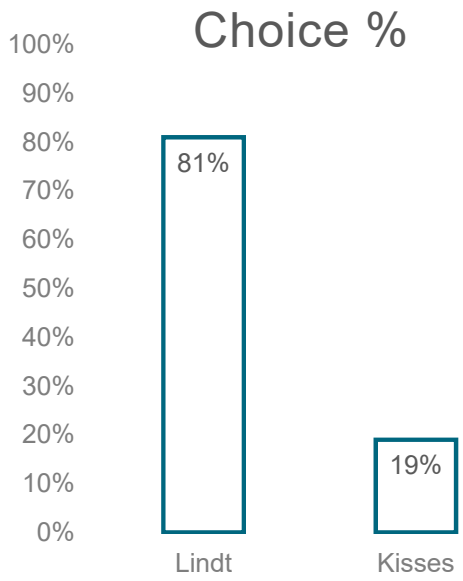
B

- 1 Lindt truffle = $0.03
- 1 Hershey's Kisses = "Free"

The Power of "Free"

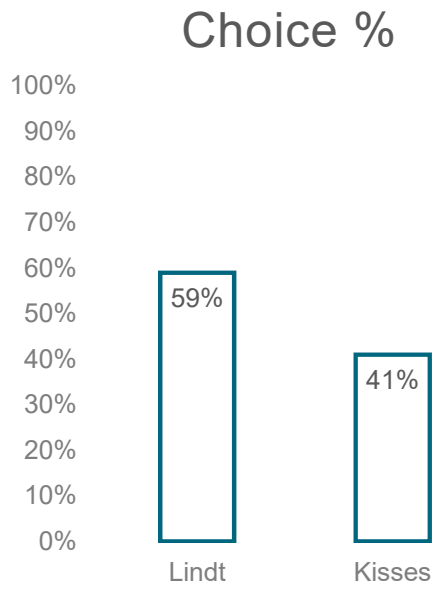
A

- 1 Lindt truffle = $0.04
- 1 Hershey's Kisses = $0.01



B

- 1 Lindt truffle = $0.03
- 1 Hershey's Kisses = "Free"

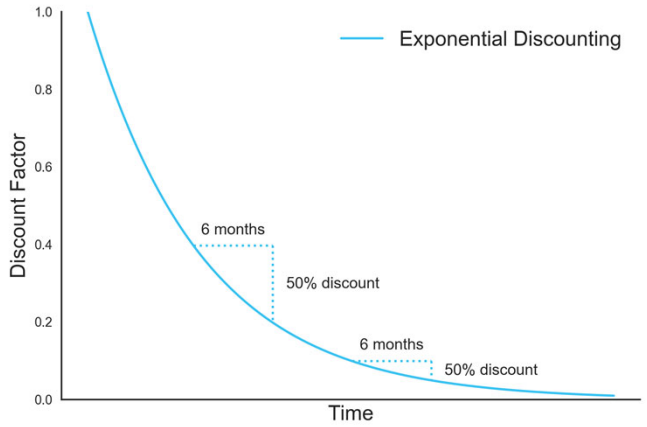


Are Preferences Consistent Across Time?

Temporal Discounting (Hyperbolic Discounting)

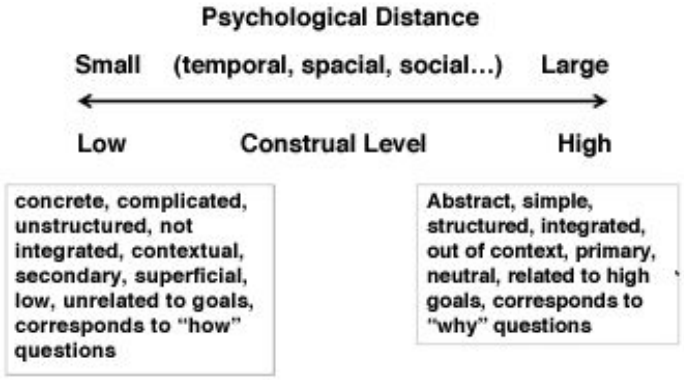
Would you rather receive $100 right now or $110 tomorrow?

Would you rather receive $100 in one hundred days or $110 in one hundred and one days?



Are Preferences Consistent Across Time?

Temporal Construal Theory



Resisting temptation
Saying "no"
Showing moral courage*

Making a list
Getting organized*
Writing things down

Reading
Following lines of print
Gaining knowledge*

Implications for Marketing and Sales

- Use dominated options (decoys) with features similar (but inferior) to the most profitable offering
- Skew the distribution of prices/quality/features to make your most profitable offering more attractive
- When possible, bundle products in a way that one of the products is offered for “free”

Implications for CR & I

- Context may strongly influence judgements
- The skewness of a distribution affects perception about the target stimuli
- Dominance of alternatives in a survey (decoy) affect perception of value and choice

Prospect Theory

Understanding Choice under Risk

Kahneman & Tversky (1979)

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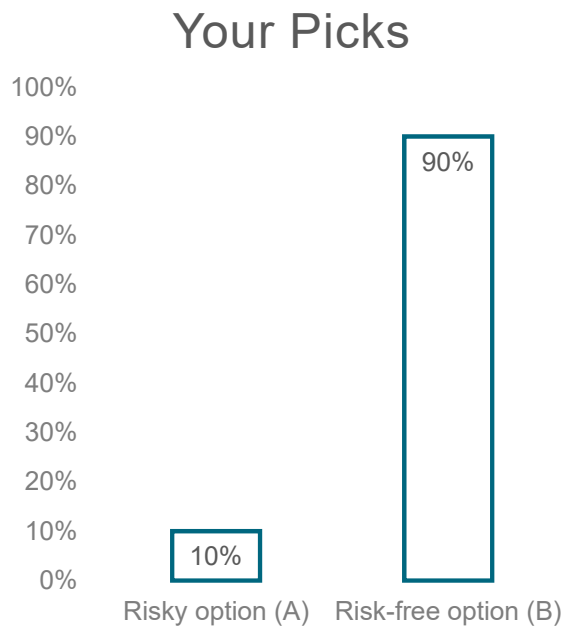
Value Function (choice under risk)

You must pick one of the following gambles:

•Choice A: You have a 50% chance of winning $1,000, and a 50% chance of winning $0
•Choice B: You have a 100% chance of winning $450.

Which option has a greater expected value?

Option A = 50%*$1,000 = $500
Option B =100% * $450 = $450



Value Function (Choice Under Risk)

You must pick one of the following gambles:

•Choice A: You have a 50% chance of losing $1,000, and a 50% chance of losing $0.

•Choice B: You have a 100% chance of losing $450.

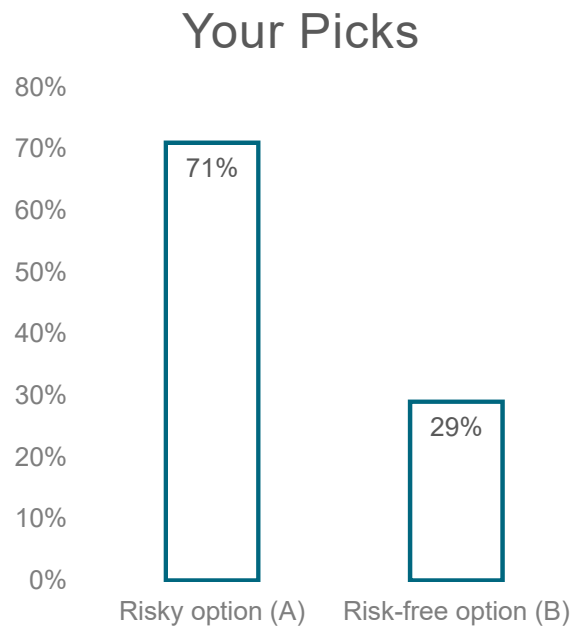
Option A = 50%* - $1,000 = - $500

Option B =100%* - $450 = - $450

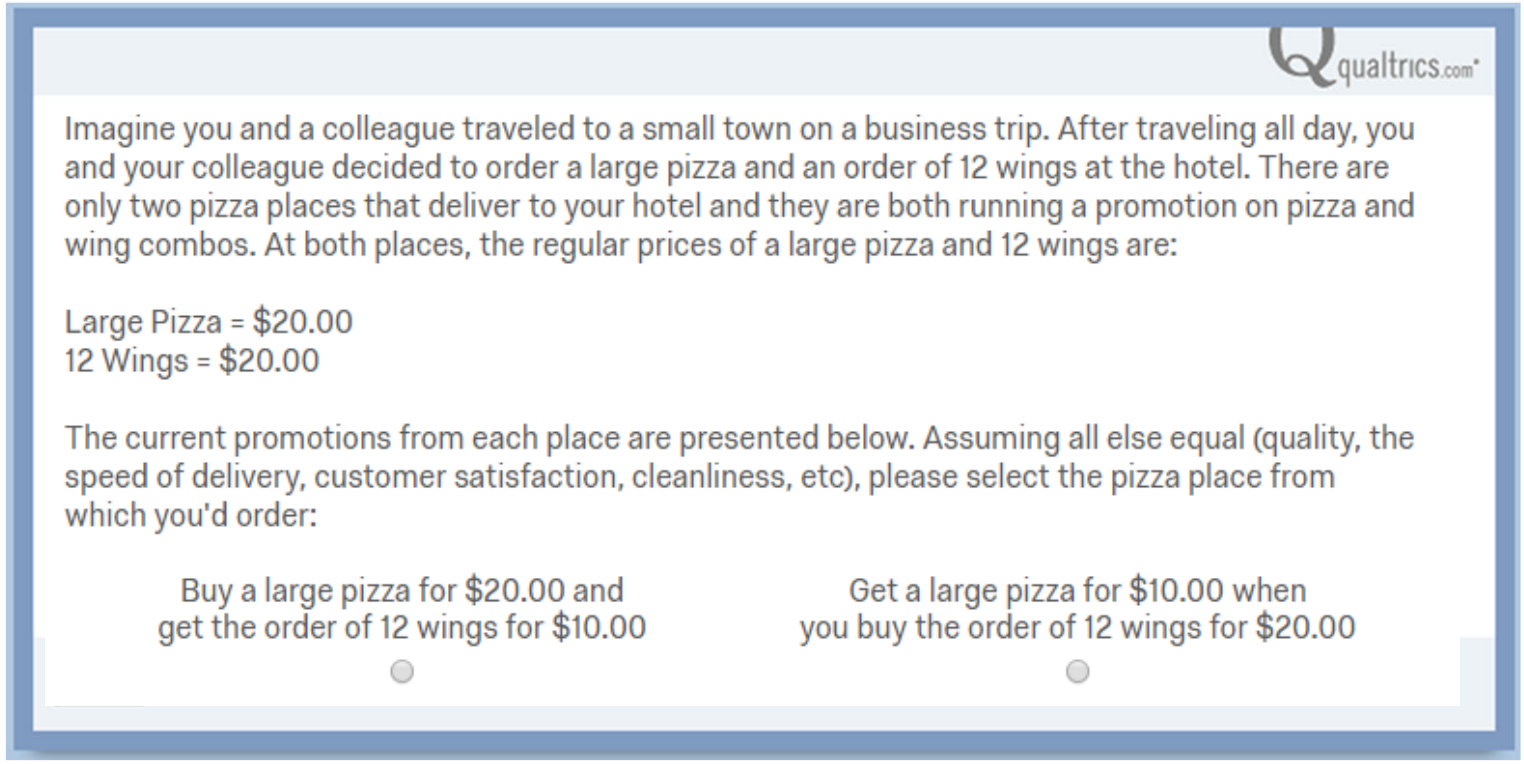
Because of loss aversion:

Risk aversion in the domain of gains

Risk seeking in the domain of losses



Framing Effect in the Context of Losses and Gains

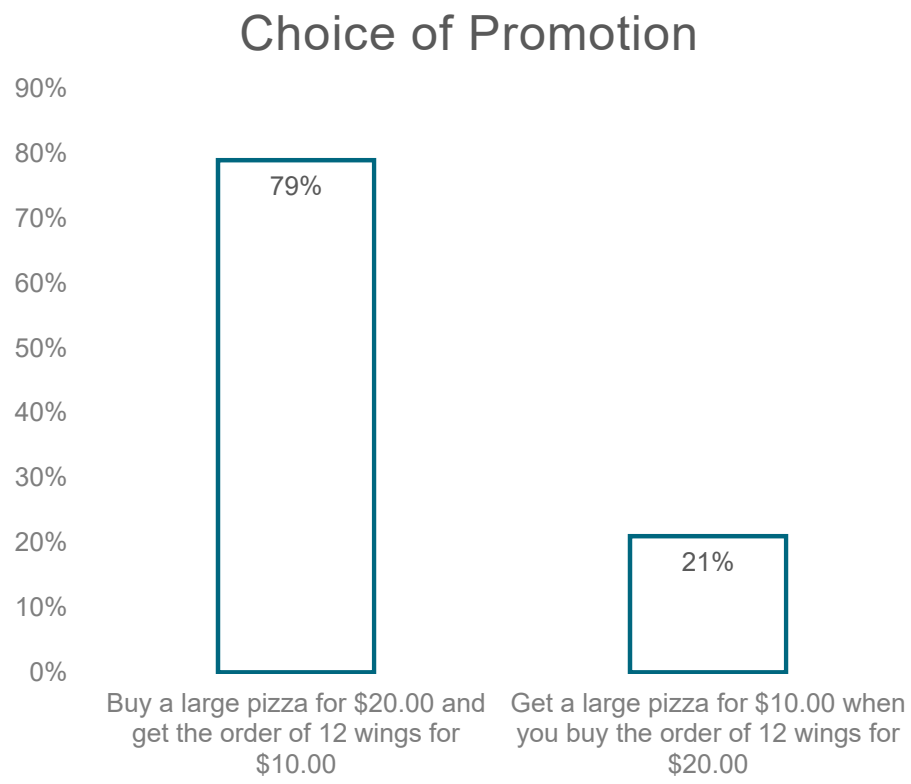


Based on Janiszewski and Cunha (2004) – "The Influence of Price Discount Framing on the Evaluation of a Product Bundle,"*Journal of Consumer Research*

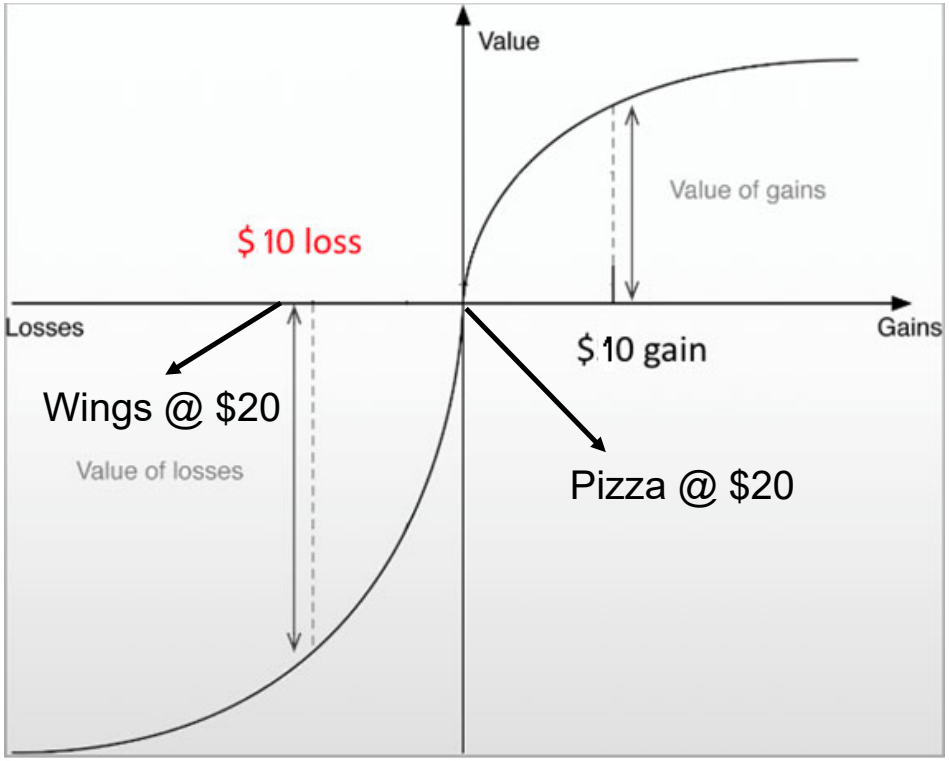
Framing Effect

Regular prices on the menu:

Large Pizza = $20.00
12 Wings = $20.00



Value Function



Properties:

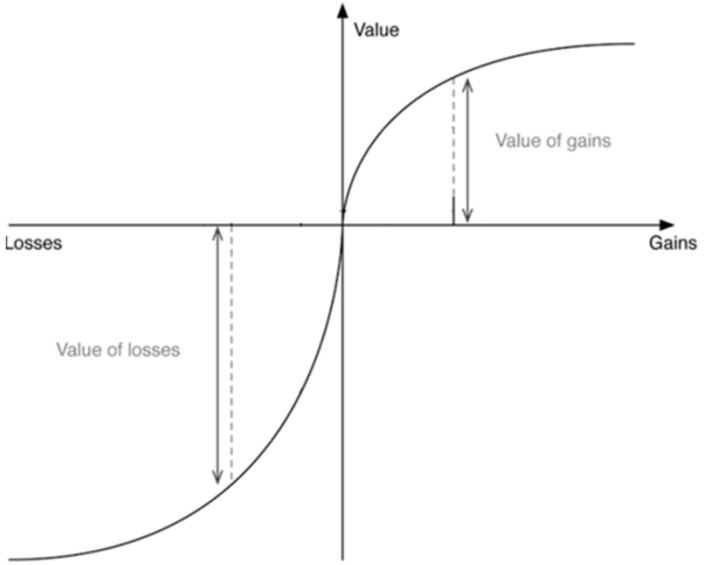
- Events are judged relative to an (adaptive) reference point
- Losses loom larger than gains
- People tend to be averse to losses ("loss aversion" effect)

Reference Point Example:

Assume that as soon as you graduated from college, you received two job offers with a guaranteed three-year contract each. The contracts, in terms of base salary, are as follows:

	Y1	Y2	Y3
Offer A	$60K	$70k	$80K
Offer B	$80K	$70k	$60K

Which offer would you choose?



Framing Effects in the Market: Gains and Losses

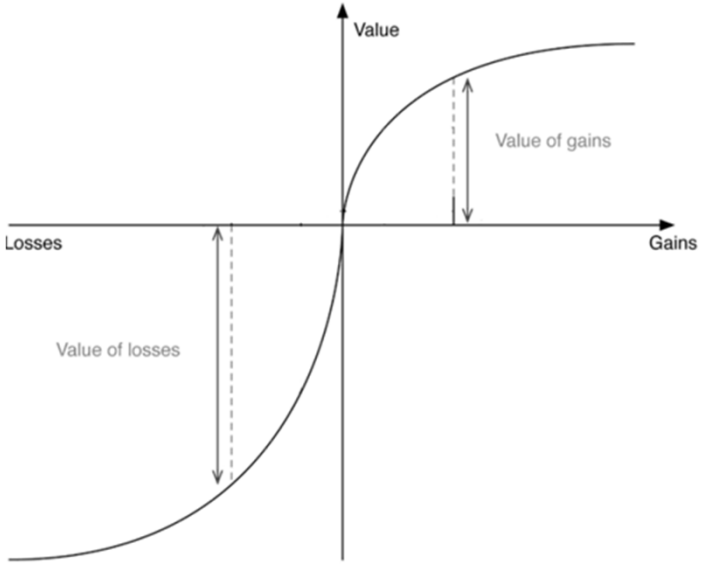
Negative Frame

Positive Frame

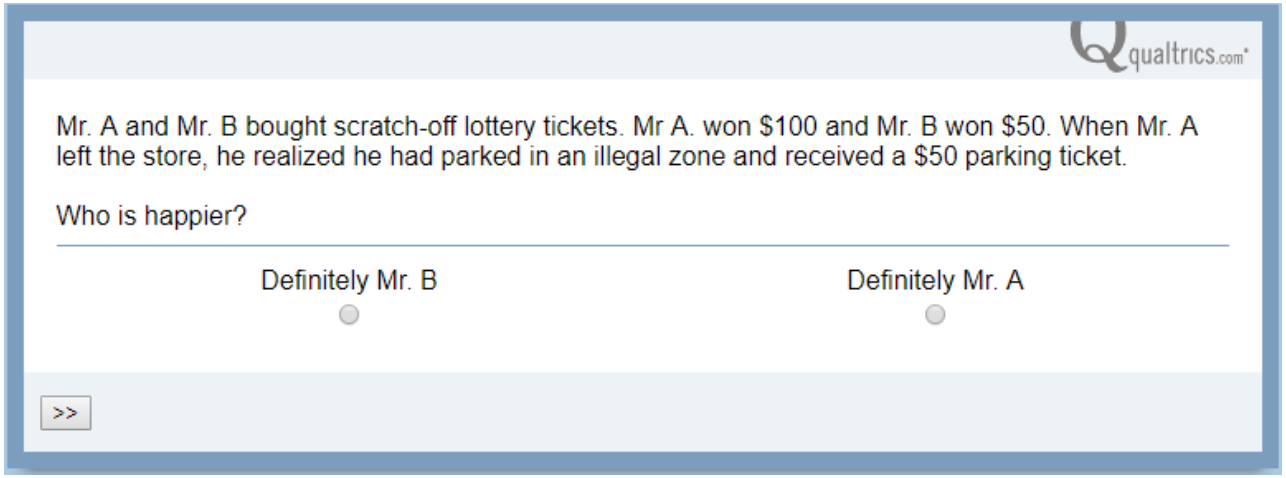
Loss Aversion Examples

For example, some workers may prefer not to work overtime because they do not want to pay more taxes even if they would benefit financially from additional after-tax income (the additional tax "loss" looms larger than the income "gain")

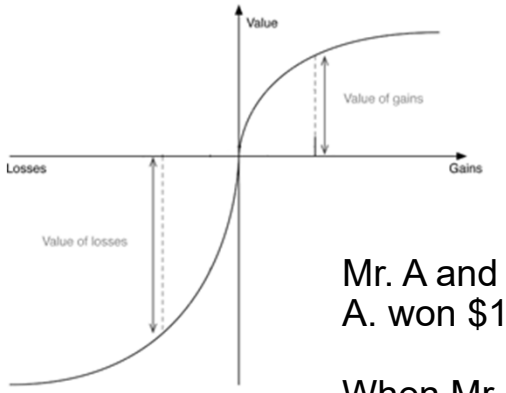
Disposition effect: Even though the most rational behavior would be to hold on to winning stocks and sell loosing stocks, the opposite is often observed



Loss Aversion in Practice



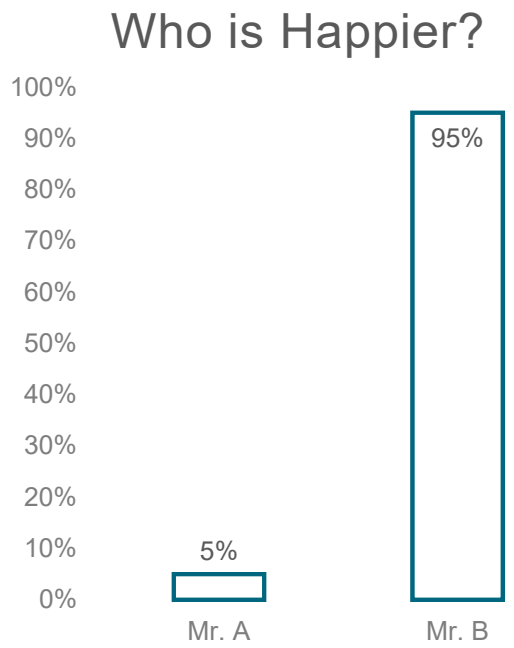
Let's examine the results of this question in light of the Value function



Mr. A and Mr. B bought scratch-off lottery tickets. Mr. A. won $100 and Mr. B won $50.

When Mr. A left the store, he realized he had parked in an illegal zone and received a $50 parking ticket.

Who is happier?



Hedonic Editing

- Segregate Multiple Gains (e.g., share good news over multiple conversations)
- Aggregate Multiple Losses (e.g., pay all your bills at once)
- Aggregate Large Gains with Small Losses (e.g., have your parking pass deducted from your paycheck rather than paying it separately)
- Segregate small gains from large losses (the “silver lining”) (e.g., save a little more than you will spend on that big vacation)

Mental Accounting/Hedonic Editing: Your Data

Suppose you bought a case of 2007 Napa Valley Pinot Noir for $25 a bottle when it first came on sale.

The wine now sells at auction for about $75 a bottle. Tonight, you have decided to drink a bottle of that wine. Which of the following best captures your feeling of the cost of drinking this bottle of wine?

Implications for Marketing and Sales

- Frame offers as gains versus losses depending on the intended behavior (risk seeking vs. risk averseness)
- Hedonically edit offers (e.g., two separate gains and one combined loss)
- When offering a bundle, discount the least desirable product for each segment

Implications for CR & I

The framing of a question (as gain/loss/neutral) has relevant impact on the results of research

People might hedonically edit a question to justify their answers

Take into consideration the inherent risk of the product category relative to the framing of the question

My Advice

- Know the research problem and use the best tools to solve the problem. Behavioral Economics and Neuro-Marketing are additional tools in your toolbox

- Do not build a wall so you can use your new shining power drill

Thank You!

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