



# Consumer decision making



# 1.1. Models (theories) of decision making

1. Utility theory
2. Satisficing theory
3. Prospect theory

# Utility theory → utility = usefulness

- Consumer = **rational actor**
- Product is judged = by its **utilitarian value**
- Consumer is acting in **self-interest**

strength: used by economists to explain consumer decision-making for more than 300 years

Example: buying a new jacket

Utility theory suggests that you will evaluate every available jacket against all the important variables (cost, material, colour and many more) and select the jacket that scored highest on all of these variables

Interesting: Maximizing utility makes sense, but may lead to regret

? Is this always possible, practical?      weakness :

**In reality consumers are not as rational as this model predicts**

# Satisficing theory - developed as opposed view to utility theory

2 problems with previous theory:

- 1st - we can't have absolutely every information about the product
- 2nd - even if we had - we have cognitive limits

→ So, instead of being completely rational actors, we operate with **bounded rationality**

Instead of making best possible choice,  
we are making choices that are 'good enough'

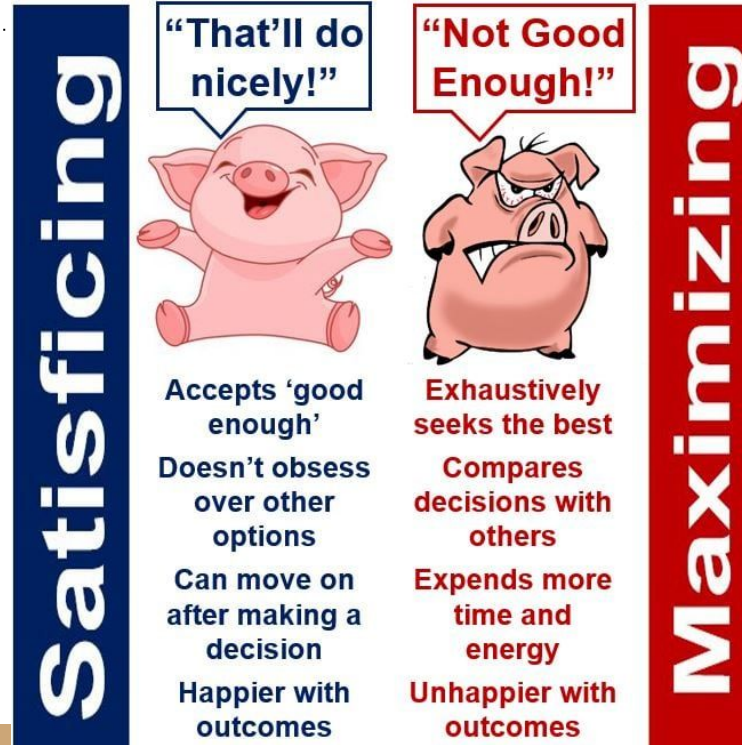
Our rationality is bounded (limited) by many factors such as:

- ❑ Time
- ❑ Effort we are willing to take
- ❑ Cognitive capacities

→ but, what is good enough for one, is not good enough for other person. It depends on **aspiration levels**

Strength - more realistic, if people would follow this one instead of utilitarian, they could make easier, quicker choices (applications to everyday life)

Weaknesses - however, individual aspiration level is rather vague and difficult to predict (so again, low prediction power regarding people's decision making)



# Prospect theory

authors: Kahneman and Tversky

- it explains why people sometimes behave irrationally rather than rationally
- **value** is determined by comparing **gains and losses**
- **Endowment** (current situation or possession) usually function as a **reference point**

People are Interpreting losses and gains from their own reference point with losses being feared more than gains are valued (human characteristic known as **loss aversion**)

<https://www.youtube.com/watch?v=sM91d5I36Po>

- some applications: it's possible to frame a situation in more than one way to influence the decision making

Classical example by Kahneman and Tversky: unusual disease scenario

<https://www.sciencedirect.com/science/article/abs/pii/S0167487000000325>

## *Evaluating prospect theory*

### ISSUES AND DEBATES

#### **Applications to everyday life**

One strength of prospect theory is that it has a clear application in everyday life. Tversky and Kahneman's example showed that people will engage in risk-seeking behaviour in order to avoid a loss. Advertisers know this and frame their marketing campaigns to focus on how their products could protect consumers from potential losses. Chen and Liang (2006) investigated how consumers could be persuaded to shop online by focusing on the potential losses of time and money related to shopping in their local stores or supermarkets.

#### **Cultural differences**

One weakness of prospect theory is its inability to account for cultural differences in levels of loss aversion. Wang *et al.* (2016) found that people in collectivist cultures were less loss averse than those in individualistic cultures. This may be to do with the extent to which the impact of such losses will be experienced collectively rather than affecting the individual. This limits the generalisability of the theory to collectivist cultures.

# Strategies of decision making

- compensatory strategies
- non-compensatory strategies
- partially compensatory strategies

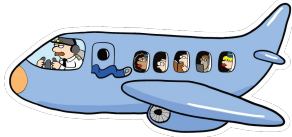
Consumers may use any of the strategies, and may vary between strategies, depending on the individual and depending on the purchase.



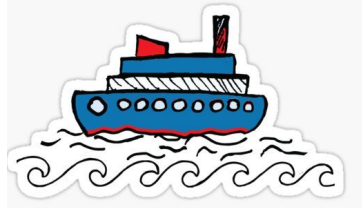
# Compensatory strategies

- Usually used when you have to consider only a few alternative products
- You weigh up the positive and negative attributes (qualities) of the different products and **allow for positive attributes to compensate for the negative ones**

Eg.



VS



positive of plane (quicker)  
compensate for its negative (more expensive)

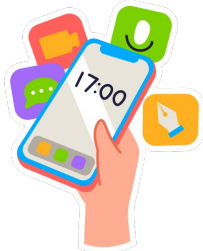
This strategies use detailed comparison to result in maximising the utilitarian value of a choice

- Todd and Benbasat: recent growth of **comparison websites** and **online decision-making tools** allows us to use compensatory strategy with little effort
- the popularity of these websites demonstrates the appeal of compensatory strategy for consumers but also that they may find it difficult to use such a strategy without the aid of technology.

# Non-compensatory strategies

- Usually used when there is a large choice of products and a lack of full information or a lack of time to process the available information
- Instead of weighing up all the positive and negative attributes of a product, consumers select the one that seems to have the fewest or no negative attributes
- ❖ Sometimes there will be a negative attribute that is immediately unacceptable and the product will be rejected straight away
- ❖ So, unlike the compensatory strategy, **a negative attribute cannot be compensated for by a positive attribute**

Example -



you want to buy a new smartphone with at least an 32 megapixel camera



This is a must have, and any phone without this characteristic you will dismiss straight away

### 3 types of non- compensatory strategies:

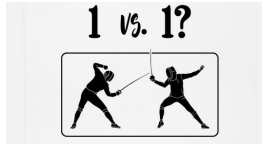
- **Satisficing**: the first product to meet the basic requirements is chosen and no further consideration takes place
- **Elimination by aspects**: this strategy sets a 'cut-off' value for the most important attribute and then allows everything that meets that attribute to remain under consideration. The **remaining items** are then **assessed against** the next **most important attribute** and so on.

For example, all phones that passed requirement of 32MP, are now compared regarding memory storage.. After that the remaining ones are compared regarding size, and so on..

- **Lexicographic**: the most important attribute is evaluated and if one item is considered superior in terms of this attribute, this immediately stops the decision-making process, and the item is chosen. If one item does not emerge as superior on the most important attribute, then the consideration moves to the next attribute and so on.

# Partially compensatory strategies

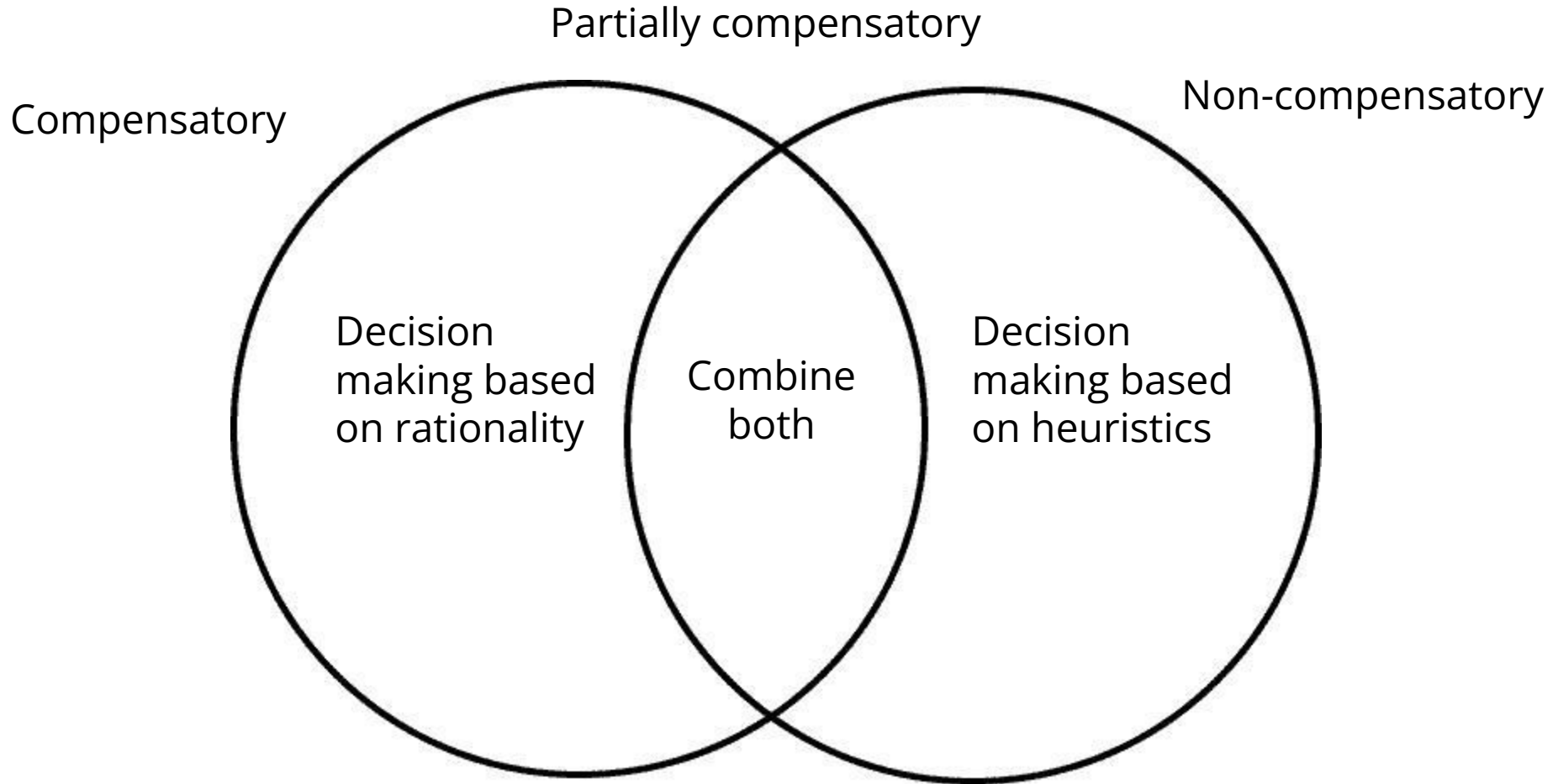
- 2 partially compensatory strategies:
- **Majority of Conforming Dimensions:** evaluate 2 products against all relevant attributes and keep the one that does best. The remaining one is then compared to the next product and so on until there is only one product left.



- **Frequency of Good and Bad Features:** all products are compared based on cut-off values of all attributes simultaneously. The product that has the most positive features exceeding the cut-off values will be chosen

*Difference between this one and elimination by aspects?*

- This one use simultaneous comparison, the previous one is sequential
- This one allows for partial compensation, previous doesn't



# Example study: Jedetski et al. (2002)

**Aim:** to discover the decision-making strategies used by consumers buying online.

**Hypothesis 1:** consumers will use compensatory strategies when buying from a website that allow comparison of items and non-compensatory strategies when this is not available.

**Hypothesis 2:** number of alternatives available will influence which decision-making strategy is used. Non-compensatory strategy will be more commonly used when the number of potential products is 100 or more compared with 30 or less.

**Sample:** 24 participants

## Procedure:

First - explaining different strategies to participants

Second: testing the use of strategies:

→ Participants went to one of two websites: CompareNet or Jango websites.

- CompareNet -more filters, allows comparison of attributes and products at a time
- Jango - don't have comparison option, only sorting option

→ It was Independent measure design and the **IVs** were:

1. whether the website allowed for comparisons of alternatives
2. number of products available: a) 30 or less; b) 100 or more

Decision-making strategies were **observed** and noted by researcher (selected item, number of alternatives, how long the decision took)

+ participants were given a **questionnaire** about their decision-making strategy, how satisfied or frustrated they were and how confident they felt about their decision.

## Results:

- participants used significantly more compensatory strategies on CompareNet, and more non-compensatory strategies on Jango
- participants used more compensatory strategies for <30 alternative items, and more non-compensatory strategies for >100 alternative items
- no significant difference between compensatory and non-compensatory strategies in terms of confidence, satisfaction, frustration, perceived time or actual time
- Participants were, however, more satisfied when using CompareNet than when using Jango

## Conclusion:

In situation with alternatives that are difficult to compare more non-compensatory strategies are used, whereas if comparison of alternatives is easy, compensatory strategies are more likely to be used.

This research supports Todd and Benbasat's argument mentioned previously



## TEST YOURSELF

- 1 Meena is trying to buy a new coat, but there are so many choices online that she is finding it difficult to make up her mind.
  - a Suggest one strategy that Meena could use to make a quick decision. [2]
  - b Suggest a different strategy if she has more time and fewer alternatives from which to decide. [2]
- 2
  - a Describe one strategy of consumer decision-making. [2]
  - b Explain one strength and one weakness of the strategy you have described in part a. [2]
- 3
  - a Describe what psychologists have discovered about strategies of consumer decision-making. [6]
  - b Evaluate what psychologists have discovered about strategies of consumer decision-making, including a discussion about reductionism. [10]
- 4 Explain one strength and one weakness of using the experimental method to investigate strategies of consumer decision-making. [4]
- 5 Suggest an alternative method for investigating strategies of consumer decision-making. [2]
- 6 Outline one way in which website designers could apply findings from research into consumer decision-making strategies. [2]

# 1.2. Choice heuristics

- Heuristics = mental shortcuts humans use to create a decision
- It employs a practical method that is not fully optimized, perfected, or rationalized, but is sufficient for reaching an immediate goal or approximation
- There are five main heuristics used to explain consumer decision-making

## Think!

Heuristics are based on our experiences and our personal preferences. They are used to speed up decision-making and to allow for our individual feelings about a product to be considered. However, they can lead to less than optimal choices. Is there any way in which we could protect ourselves against making poor buying choices without having to use a time-consuming and effortful compensatory strategy?

**Availability heuristic** - product is chosen because **it comes to mind the fastest**

What is going to affect our remembering of a product? - experience with it, hearing from others about it, adverts...

→ Advertisers know this and try to fix a positive association in our minds between their brand of product and how it would meet our needs.

**Representativeness heuristic** - product is chosen because **it represents an image we have of ourselves or desire**

→ Which advert is going to have an impact on us? For example - one using a picture of a person who looks as we would like to look


**Recognition heuristic** - used when product options are unfamiliar to us (for example in a foreign country) → choosing the one that **you** suddenly **recognize**

- the one that is recognised usually has the higher value to us, but! → value of recognition is, of course not absolute:

if you have used it before and did not like it, then you may have decided to try one of the others

**Take-the-best heuristic** - product is chosen because of a **single good reason** ("this shampoo is for blonde hair")

- we decide on the attribute that is most important to us and ignore all others

**Anchoring heuristic** - choice is affected by the **first bit of information** we received about it (we are anchored to it) 

- that information will **act as a point for comparison** (a standard against which we measure other options)

- e.g. Buying a new car

Before going to the market, you saw average prices for a desired car online

- If you go to the dealership and the price is slightly under that price you will consider it a great deal
- However if you had seen a lower price online you would either skip, either try to negotiated the price

The use of a heuristic has been shown to be influenced by:

- task
- context
- situational factors and personal factors(personality traits)
- time pressure

# Heuristics and decision-making styles

According to Scott and Bruce (1995) there are five decision-making styles:

- 1** Rational: making decisions in a logical way, where various options are considered to achieve a specific goal.
- 2** Intuitive: making decisions that 'feel right'; trusting your intuition.
- 3** Dependent: consulting others and relying on their assistance when making a decision.
- 4** Avoiding: putting off decisions or making decisions only at the last minute.
- 5** Spontaneous: making quick and impulsive decisions.

How Scott and Bruce measure decision-making styles?

- They are not assigning everyone to one style
- Instead they give each person a score for each dimension, indicating the how much their individual style resembles each of the five styles

# Example study: Del Campo et al. (2016)

## AIM:

Del Campo et al. (2016) aimed to explore the influence of individual decision-making styles on the use of recognition and take-the-best heuristics.

## METHODOLOGY:

The researchers conducted a laboratory experiment in Austria and Spain, applying time pressure to observe participants' reliance on heuristics. Five decision-making styles were assessed, and participants needed to choose different brand of eggs under time constraints. Correlations between decision-making styles and heuristics were analyzed.





Price: **only 2.99 Euro**  
 Raising: free-range  
 Quality Grade: A  
 Country of Origin: Austria  
 Shelf Life: 2 Weeks  
 Quantity: 6 eggs

"Take-the-best" stimulus



Price: 3.19 Euro  
 Raising: free-range  
 Quality Grade: A  
 Country of Origin: Austria  
 Shelf Life: 2 Weeks  
 Quantity: 6 eggs

"Recognition" stimulus



Price: 3.19 Euro  
 Raising: free-range  
 Quality Grade: A  
 Country of Origin: Austria  
 Shelf Life: 2 Weeks  
 Quantity: 6 eggs

"Emotional" stimulus



Price: **3.10 Euro**  
 Raising: free-range, **with additional information**  
 on raising of chicken  
 Quality Grade: A/**extra large**  
 Country of Origin: Austria, **of guaranteed origin**  
 Shelf Life: 2 Weeks  
 Quantity: 6 eggs  
**Additional information: GM-free, salmonella-**  
**free, animal rights tested, free of toxins,**  
**hygiene programme**

"Cognitive" stimulus



# Example study: Del Campo et al. (2016)

## RESULTS:

- Time pressure increased take-the-best heuristic use (in Austria but not in Spain)
- Unexpectedly, no significant correlation was found between dependent\avoiding decision-making styles and the recognition heuristic
- However, a positive correlation between recognition heuristic with spontaneous decision-making (in Austria)

## CONCLUSION:

- Some correlations between decision-making styles and heuristics existed, but
- Variations between Austria and Spain suggest cultural factors influence heuristic usage and should be further investigated

# Point of purchase decisions

Point of purchase decisions are made by the consumer after they enter the store, or once they are already on the website.

→ advertising as effective ways to get us to buy more than intended:



Two commonly used tactics:

1. Multiple unit pricing
2. Suggestive selling

# Multiple unit pricing

- even though a consumer may only currently need one of a certain product, they may be persuaded to buy more than one by:

- giving an offer such: lower price per item if buying more of them together, or if
- packaging of multiple identical products already exist and price per item in this packaging is lower than for that item individually (multiple unit packaging)

This is common with cheaper items, like socks, underwear or batteries, where buying extra could be seen to be a useful way of saving money in the long term.



**Suggestive selling** - When a salesperson asks a customer if they would like to make an additional purchase, offering complementary product

Complementary product?



+



+



# Example study: Wansink et al. (1998)

- In the book there is x2 lab, x2 field experiments
- We will take one example per each (even though all are described, you won't learn all)

AIM: To examine factors that may influence how many of a certain product consumers will buy

**FIELD EXPERIMENT 1** - comparing multiple-unit pricing with single-unit promotional pricing

- duration: one-week field experiment
- Where? 85 different stores

different prices outlined on shelves:

- the original price (99 cents)
- single-unit promotion price (75 cents)
- multiple unit price (2 for \$1.50).

Thirteen common home items were included in the experiment.

# Example study: Wansink et al. (1998)

## Results:

- multiple unit promotional prices resulted in a 32% increase in sales over the single-unit control
- for 12 of 13 products sales were higher with multiple unit pricing

## Weaknesses:

- ❑ no self-report data were gathered - researcher can't be sure of the reasons for the increased

**LABORATORY EXPERIMENT 1** - examined the effect of suggestive selling slogans when accompanied with or without a price discount.

120 student participants were each offered 6 products at one of three price levels:

- no discount
- 20% discount
- 40% discount

+ They were also given suggestive selling claims with either:

- no product quantity anchor (Snickers bars - buy them for your freezer') or
- With an explicit product quantity anchor ('Snickers bars - buy 18 for your freezer').

→ Participants were given no indication whether the price was a discount and were asked to provide purchase quantity intentions for all products.

## RESULTS:

- suggestive selling with anchor and discount level all increased purchase quantity intentions
- suggestive selling and anchor increased intended purchase quantities even when there was no discount

## Weakness:

- ❑ Experiment as a method and lack of self-reported qualitative data
- ❑ Once again - the reasons for consumer actions are inferred from the quantitative data rather than stated directly by the study participants.
- ❑ This could mean that the findings lack validity.



## TEST YOURSELF

- 1 Peter is going shopping for new shoes in his lunch hour, but he has an important meeting after lunch and must not be late back to work.  
Suggest how two choice heuristics might affect Peter's decision-making while he is shoe shopping. [4]
- 2
  - a Describe the anchoring heuristic. [2]
  - b Explain one situational factor that might make you use this heuristic. [2]
- 3
  - a Describe what psychologists have discovered about choice heuristics. [6]
  - b Evaluate what psychologists have discovered about choice heuristics, including a discussion about application to everyday life. [10]
- 4 You want to investigate whether individual or situational factors are more important when it comes to choice heuristics.
  - a Plan a study to find out whether individual or situational factors are more important for choice heuristics in consumer decision-making.  
Your plan must include:
    - details about which individual and which situational factor you will measure.
    - your research method. [10]
  - b For one piece of psychological knowledge that has informed your plan:
    - i Describe this psychological knowledge. [4]
    - ii Explain how two features of this psychological knowledge informed your plan. [4]

## TEST YOURSELF

- 1 Maria's boutique has seen a significant drop in sales of scarves and gloves lately, due to warm weather. She is wondering how, with autumn approaching, she can promote them so that sales increase.  
Explain one point of purchase technique Maria might use to increase her sales of scarves and gloves. [2]
- 2 Research has suggested that many consumer decisions are made at point of purchase. Outline what is meant by point of purchase decision-making. [2]
- 3
  - a Describe what psychologists have discovered about point of purchase decision-making. [6]
  - b Evaluate what psychologists have discovered about point of purchase decision-making, including a discussion about individual and situational explanations. [10]
- 4 Explain one strength and one weakness of the use of quantitative data to investigate consumer decision-making at point of purchase. [4]
- 5 Mykola needs help planning a study to investigate consumer decision-making at point of purchase. He has decided to gather qualitative data.
  - a Suggest one way that Mykola could recruit a suitable sample for his study. [2]
  - b Suggest two open questions that Mykola could ask his participants in order to collect qualitative data about point of purchase decision-making. [2]

# Mistakes in decision-making

- ❖ The book 'Thinking Fast and Slow' by Daniel Kahneman (summarized by Shleifer, 2012)
- ❖ Dual systems approach to explain decision-making
- ❖ System 1 for intuitive thinking, System 2 for rational thinking

# System 1 Thinking

- Fast and unconscious thinking
- Used when under time pressure or faced with cognitive overload
- Examples: satisficing theory, heuristics, non-compensatory strategy
- \* determinism vs free will debate
- Selective perception and memory shape decisions

# System 2 Thinking

- Slow and effortful thinking
- Used for analytical and rational choices
- Examples: Utility theory model and compensatory strategy
- \* System 2 uses information from System 1
- Combines rationality with the speed of System 1
- Less likely to lead to mistakes and can create an immunity when faced with point of purchase strategies →

When faced with a different purchase limit for a product acting as an external anchor (*"buy 14/28/56 of these snacks"*) Wansink et al. (1998) found that consumers who used the **number that they usually purchased** as an **internal anchor** could resist the external pressure.

This kind of careful consideration is an example of System 2 thinking



# Example to demonstrate the difference between System 1 and System 2 thinking

example of the representativeness heuristic from Tversky and Kahneman (1981):

*An individual has been described by a neighbor as follows: 'Steve is very shy and withdrawn, invariably helpful but with very little interest in people or in the world of reality. A meek and tidy soul, he has a need for order and structure, and a passion for detail.' Is Steve more likely to be a librarian or a farmer?*

Most participants use System 1 thinking to reply incorrectly that Steve is more likely to be a librarian, as he seems more representative of a stereotypical librarian than a farmer. They ignore the fact that there are five times as many farmers as librarians in the USA and there are actually very few male librarians



## Example: Shleifer (2012)

*Faced with bad choices by consumers, such as smoking or undersaving, economists as System 2 thinkers, tend to focus on education as a remedy. Show people statistics on deaths from lung cancer, or graphs of consumption drops after retirement, or data on returns on stocks versus bonds, and they will do better. As we have come to realize, such education usually fails.*

Why?

System 2 might not really engage until System 1 processes the message. If the message is ignored by System 1, it might never get anywhere.

The implication, clearly understood by political consultants and advertisers, is that effective education and persuasion must connect with System 1.

# Evaluation of Thinking Fast and Slow

## Strengths

- **Applicable to everyday life - example with librarian vs farmer:**

*Can explain why we choose a certain product that is representative of a self-image that we desire*

- **Wide empirical support in various domains** - economists have used the concepts of System 1 and System 2 thinking to model consumer decision-making regarding financial investments

## Weaknesses:

- **Parameters when to use each system can vary between the people**
- **System 2 thinking can also lead to mistakes**
- **Limited generalizability to different cultures** (Kahneman's research was carried out largely in Western individualistic cultures)



# Key study: Choice blindness when tasting food items – Hall et al. (2010)

## Context

**Choice blindness** is an example of an error in decision-making. This occurs when someone doesn't notice the difference between what they have chosen and the outcome they got.

Term was first used to explain the findings of another study conducted by Lars Hall and colleagues (Johansson et al., 2005):

- Participants were shown pictures of two faces and asked which one they found most attractive.
- When the researchers secretly switched the cards over and showed the participant the face they had rejected, the switch was only detected in 26% of the cases.

Hall et al. (2010) wanted to see whether choice blindness would occur for taste and smell in the real-life setting of a supermarket.

## Main theories and explanations

- Choice blindness is a complex phenomenon, without a clear explanation
- Importance of implicit or 'non-conscious' influence in consumer decision- making

E.g: - how easy or difficult the consumer perceives the choice to be

- placebo effect of marketing - people tend to believe that a product will be less effective if it is purchased at a reduced price

\*Explicit influences - making a decision based on what you actually see and hear relating to the product itself

## AIMS AND HYPOTHESES

- to investigate whether consumers would demonstrate choice blindness in the naturalistic environment of a supermarket when asked to choose between products with differing tastes and smells.
- H: participants would be less likely to exhibit choice blindness when:

A) the pairs of products were dissimilar in smell/taste to each other

B) pps indicated that they liked one product significantly more than the other

C) pps were offered an incentive for their participation, such as a free gift to take home

## METHODOLOGY

field experiment - naturalistic environment of a supermarket

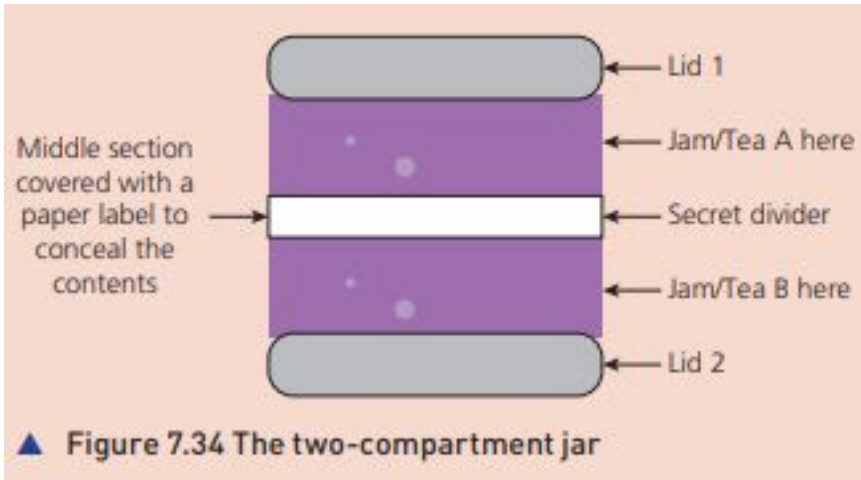
3 IVs:

- secretly switching the products or no (experimental and control group)
- receiving an incentive or not
- similar or dissimilar taste/ smell

For taste they were testing jams, for smell they were smelling teas

Sample

- opportunity sample of 180 supermarket shoppers, Sweden
- 118 were female
- age range was 16–80 (mean age 40.2)
- the shoppers were recruited by asking them whether they would like to take part in a quality control test



Pps were asked to try samples of jam or tea and rate how much they liked them on a scale of 1-10 and choose which product they preferred

While they were rating it, experimenter secretly turned the jar upside down so that now the other sample was present

After rating it, participants were now asked to taste their preferred sample again, defend their choice, and indicate on a ten-point scale how difficult they found the decision and how confident they were in their choice

Procedure was repeated for the second pair of products, so those that tasted the pair of jams first now smelt and rated the pair of teas, and vice versa)

▼ Table 7.20 Pairings of jam and tea

	Similar pair	Dissimilar pairs	
Jams	<i>Blackcurrant and Blueberry</i>	<i>Ginger and Lime</i>	<i>Cinnamon apple and Grapefruit</i>
Teas	<i>Apple pie and Honey</i>	<i>Caramel &amp; cream and Cinnamon</i>	<i>Pernod (aniseed/liquorice) and Mango</i>

DV- detecting the mismatched of jam/tea or not. 3 different ways they could indicate the realization of a mismatch:

1. **concurrent detection** (if the participant noticed anything unusual immediately after tasting or smelling the manipulated jam or tea)
2. **retrospective detection** (where the participant claimed to have noticed the deception after the experiment, either before or after debriefing)
3. **sensory-change detection** (where, even if the participants did not report noticing anything, they made any comments about the change in taste or smell after the manipulation)

The researchers conducted the same number of trials with a control group. The procedure was identical except the jars were not flipped. This meant that the participants always tasted their genuine preferred product.

After taking part, each participant was asked whether they had noticed anything unusual about the samples and fully debriefed.

## RESULTS:

The majority of shoppers failed to detect the mismatch between the intended and the actual outcome of their choice, believing that the final taste or smell experienced corresponded with their initial choice.

▼ Table 7.21 Percentage of participants who detected the mismatched jam/tea

	Type of detection			Total detection
	Concurrent	Retrospective	Sensory change	
Jam	14.4%	6.2%	12.4%	33%
Tea	13.8%	6.9%	11.5%	32.2%

- liking for the two products in pairs increased detection of switch - but only for jam
- unexpectedly, detection was less common in those who were offered a free gift - but only for tea
- There was no difference in the participants' confidence or their ability to tell the difference between the two products in exp and control conditions
- Detection rates were higher for pairings that were rated as more dissimilar (e.g. cinnamon apple versus grapefruit), but even under such circumstances choice blindness still affected more than 50% of pps

## CONCLUSIONS:

- The majority of consumers show choice blindness even when products are rated as significantly different from each other.
- This shows that choice blindness occurs in naturalistic as well as laboratory settings and affects senses such as taste and smell as well as vision.
- **Choice blindness occurs even when the outcome of our choices has real-world consequences** – as in this study the participant's choice affected which free gift they would receive.



# Evaluation

Ethics?

Validity?

Reliability?

## Application to everyday life

helpful to businesses in terms of encouraging shoppers to purchase products with which they have limited experience and do not actually prefer. :)

# Consumer memory for advertising

Advertising is a really important tool for selling products, but adverts can only work if consumers remember them!

- It was first thought that memory simply fades over time
- However, there is much evidence to suggest that forgetting is not simply due to the passing of time but that it is more to do with the additional learning that prevent the retrieval of it

There are two types of interference that may affect human memory:

- ❖ **retroactive interference** - new information is learned that makes it harder to recall earlier information   
The more similar the new memories are to the old memories, then the more likely they are to interfere with them
- ❖ **proactive interference** - prior learning can interfere with a person's ability to learn and recall new information   
The more similar the old memories are to the new memories, then the more likely they are to interfere with them
- Retrieval failure - one of the main causes of forgetting: the information is stored in long-term memory, but the difficulty is accessing the information again

## Example study -Burke and Srull (1988)

Aim:to discover whether a consumer's ability to recall distinctive brand information from an advert would be hindered if they subsequently view more adverts for more products.

They were also interested in how memory was affected by the consumer's **information processing objective** (the reason why they were looking at the advert).

## Experiment 1 - testing **retroactive interference**

- ❖ Pps were shown 12 adverts (3 of them were the **target adverts** they would later be asked to recall) - they were all presented **early in the sequence**.
- ❖ Information processing objective was manipulated by asking participants to either:
  - decide how likely they would be to buy that product, or
  - how interesting they thought the advert was

The other adverts were either similar products by different brands, different products by the same brand, or a range of different products and brands

- ❖ Following viewing, participants were given a questionnaire about magazine and television viewing habits as a **distractor task** and were then given a surprise recall test

Surprise test: They each had two minutes to recall each of the three target advertisements after being prompted with the brand name, model and product type name

\* The order of recall was randomised for each subject, tape recorded and later analysed by a naïve researcher (who did not know to which group participants had been allocated).

when testing memory, researchers can use so-called distractor task - task given participants between learning and recall to distract them from consciously rehearsing the learning information

## Experiment 2 - testing **proactive interference**

The procedure was identical to that in experiment 1, except that this time the target advertisements were presented **late in the sequence** of twelve advertisements

### Results: Experiment 1

- Participants remembered almost twice as much if the intention was considering purchase likelihood rather than how much they're interesting
- Levels of recall were best in situation when other advertisements were about different products from different brands, and much worse for same product or same brand

→ However, this difference was much greater for those who rated the advertised brands on interest. Considering product purchase increased accurate retrieval of the advertisement details!

### Results: Experiment 2 - Similarly to experiment 1:

- Participants remembered more accurately when other advertisements were about different products from different brands, and much worse for same product or same brand
- However - the purpose of the review was not as relevant as it was in Exp 1

# Evaluation

- + experiments were well controlled - all participants had the same amount of time to recall the advertisements (two minutes); there was random allocation to groups; the recall of each participant was recorded and rated by researchers who did not know to which group the participant had been assigned
- the advertisements were displayed on a computer. This research study was conducted two years before the world wide web and so the participants would have been unused to seeing advertisements on screen. Therefore, the materials lacked face validity and the results lack ecological validity, as we cannot assume they represent a real-life situation.