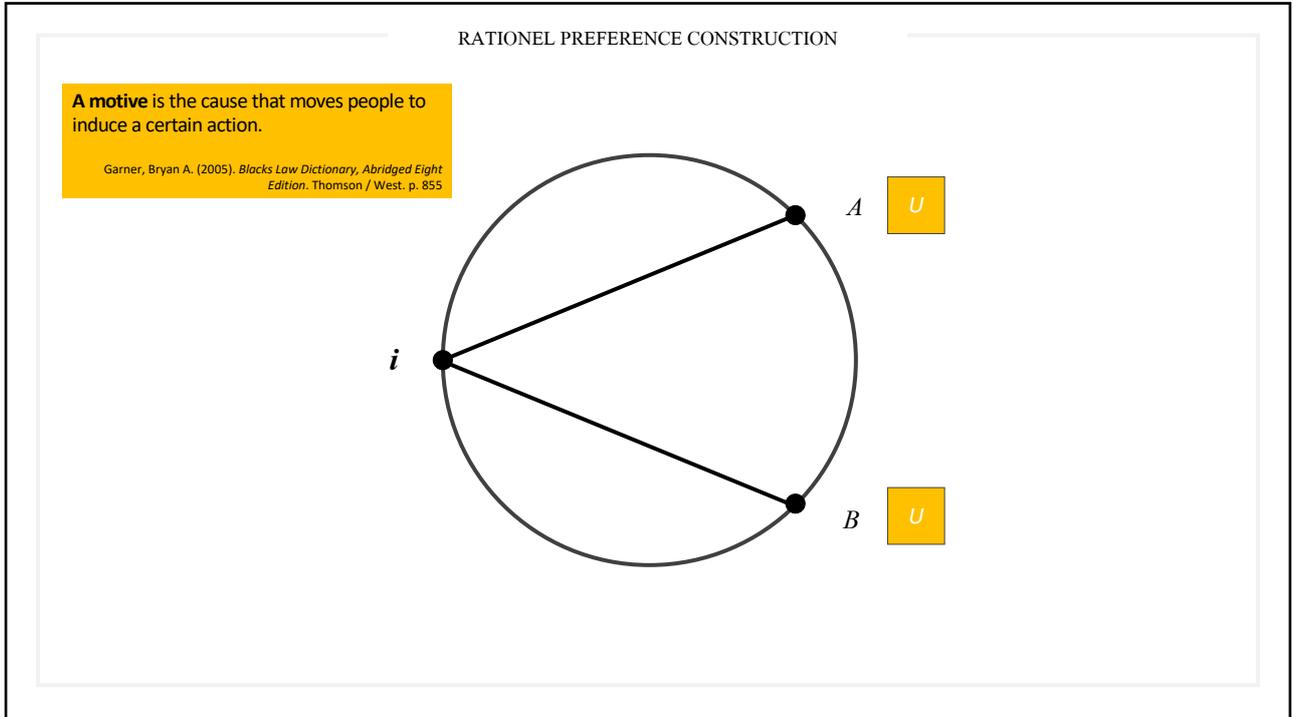
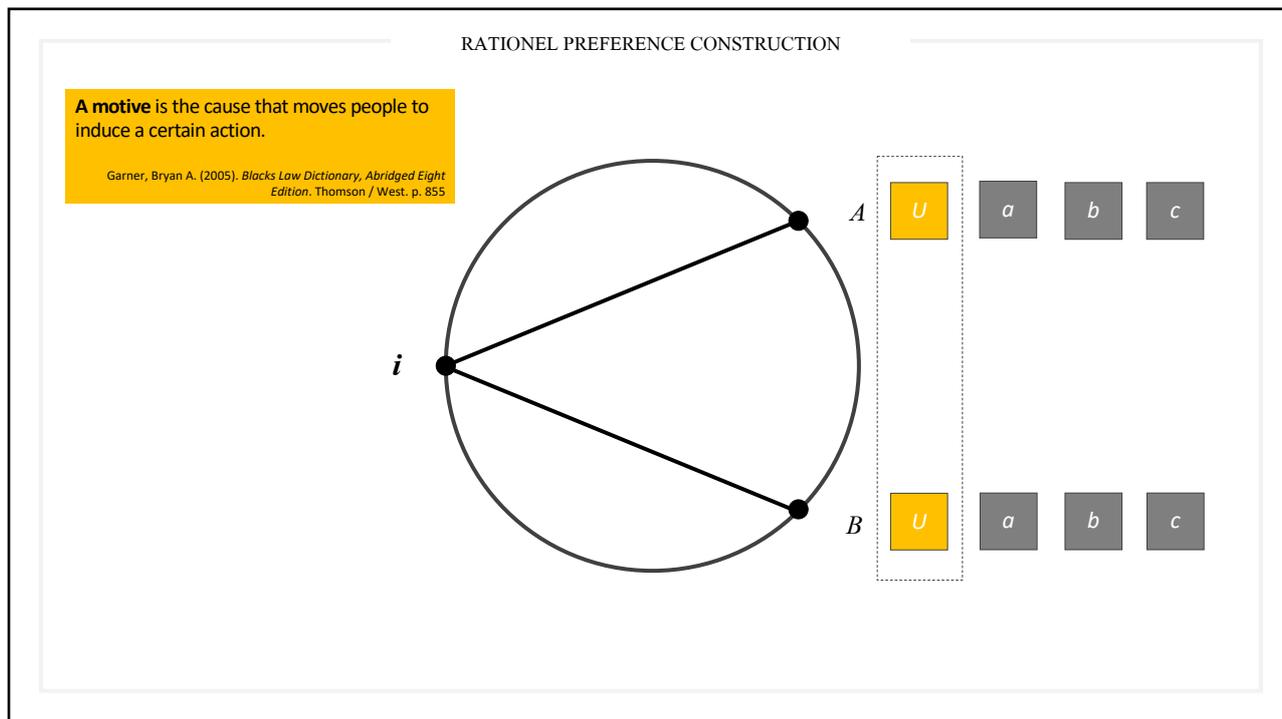


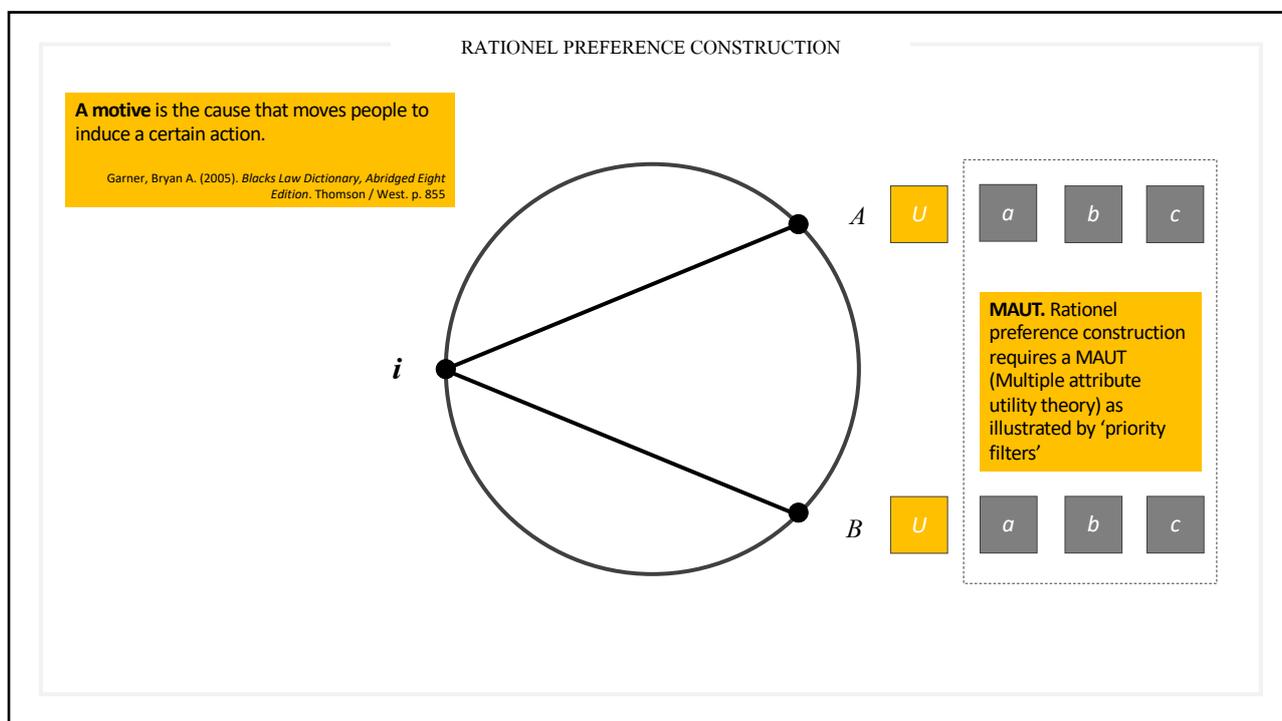
3



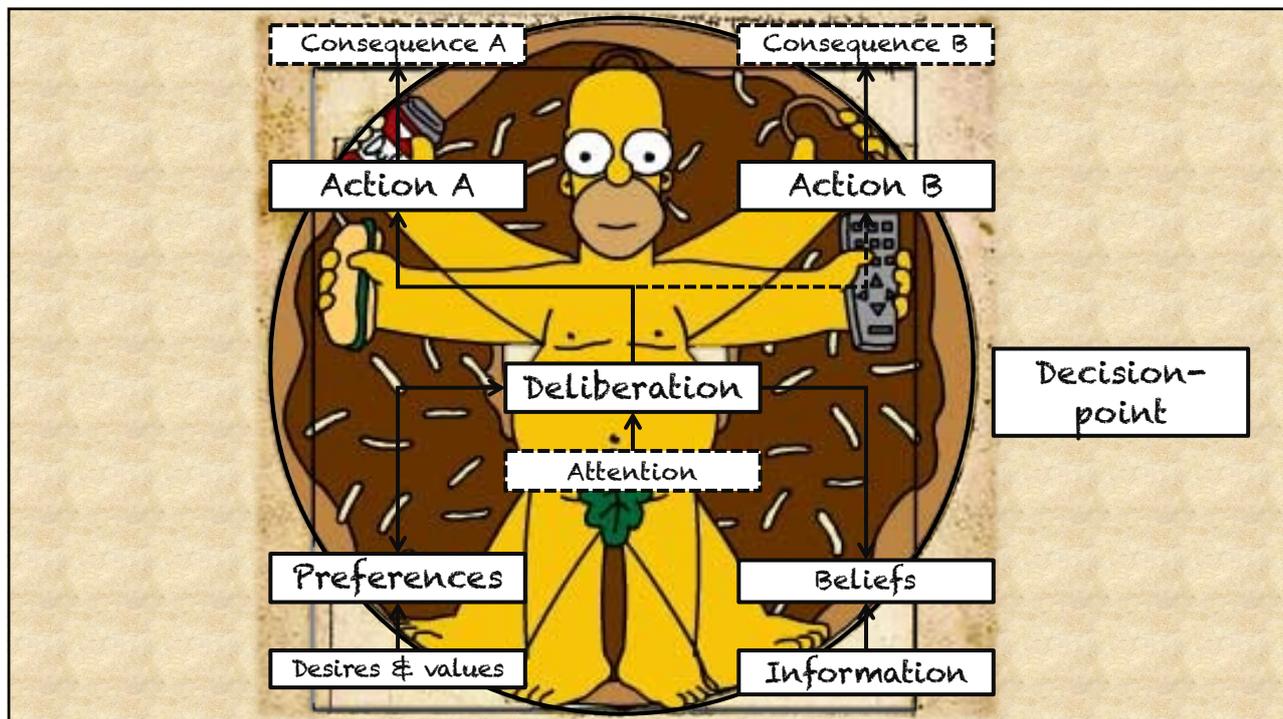
4



5



6



7

THE WAY CHOICE OPTIONS ARE FRAMED

- (1) Chemotherapy with 80% chance of survival
- (2) Radiation with 20% risk of dying

8

PAYING MONEY



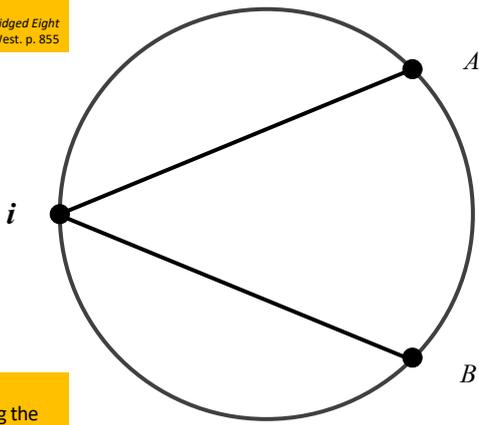
Pelle Guldberg Hansen ©

9

SINGLE-MINDEDNESS BIAS

A motive is the cause that moves people to induce a certain action.

Garner, Bryan A. (2005). *Blacks Law Dictionary, Abridged Eight Edition*. Thomson / West. p. 855

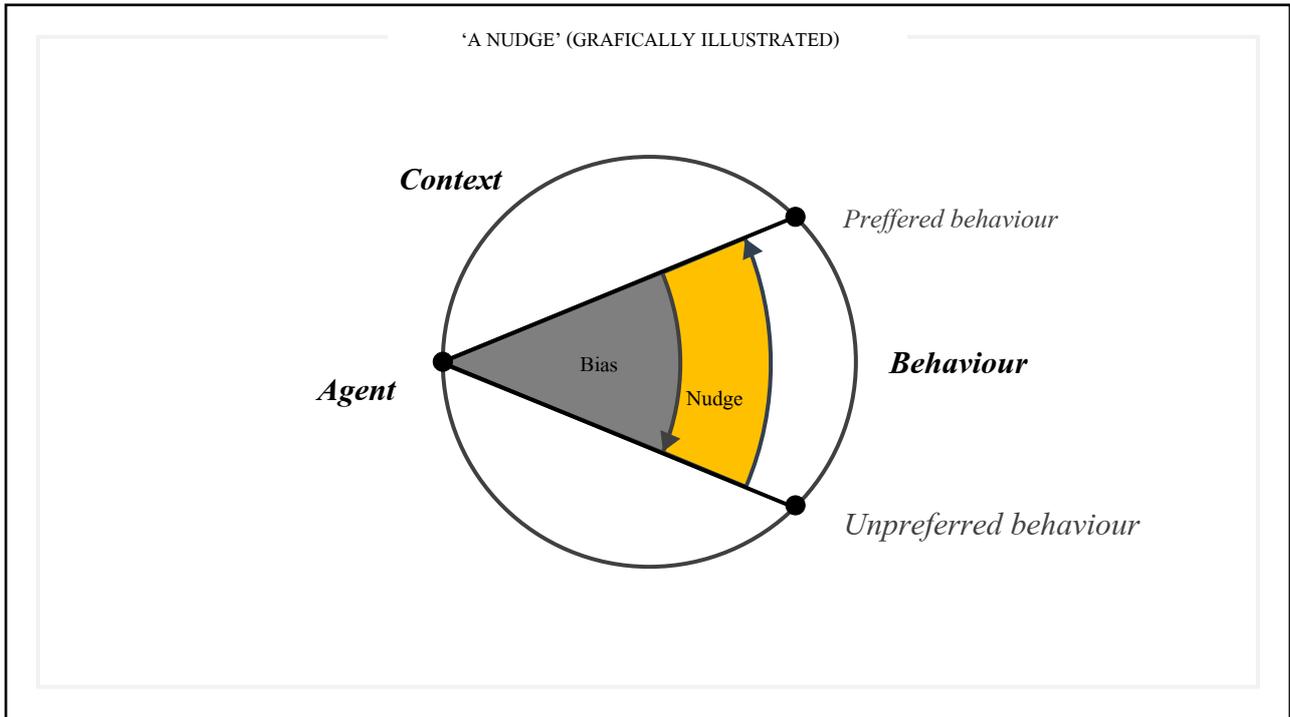


U	\$	b	c
U	\$	b	c

Single-mindedness bias: people pay attention only to a single goal, ignoring the effects of options on other goals.

Baron, Jonathan (2009). *Thinking and Deciding*, Cambridge University Press, p. 55.

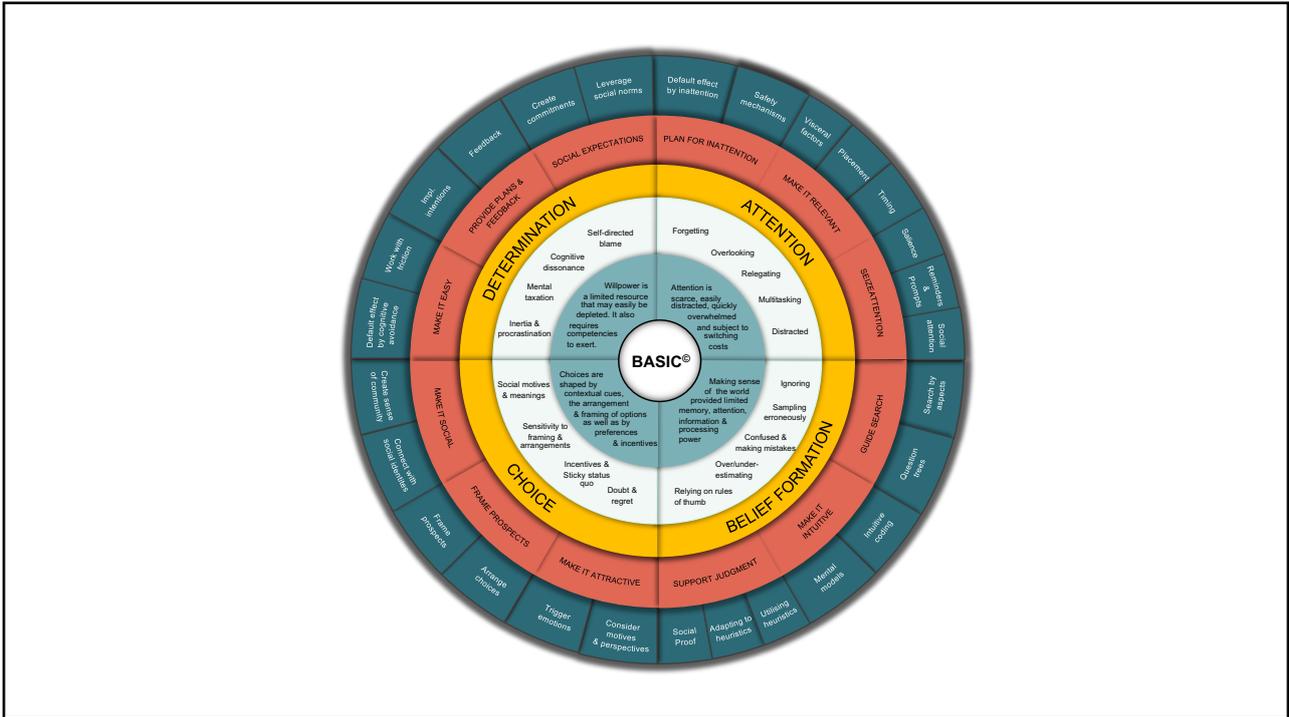
10



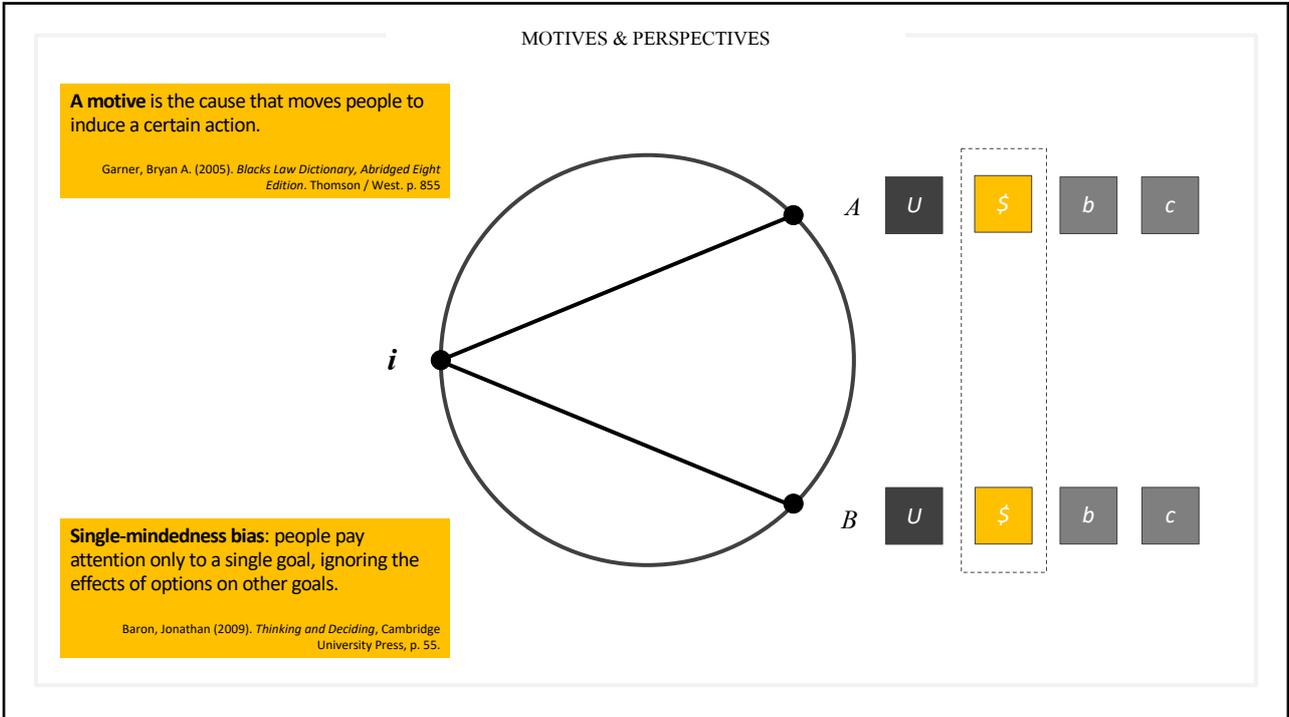
11

MAKE IT ATTRACTIVE:
**CONSIDER MOTIVES &
PERSPECTIVES**

12



13



14

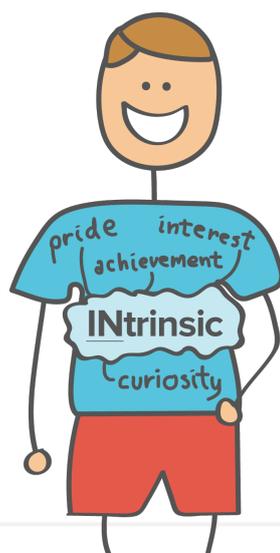
MOTIVES & PERSPECTIVES



Pelle Guldborg Hansen ©

15

INTRINSIC & EXTRINSIC MOTIVATION



Pelle Guldborg Hansen ©

16

MOTIVATION CROWDING THEORY



Motivation Crowding theory suggests that extrinsic motives such as monetary incentives or grades can undermine or crowd out intrinsic motivation. Some examples are:

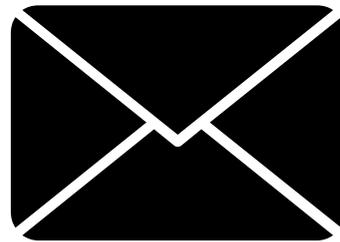
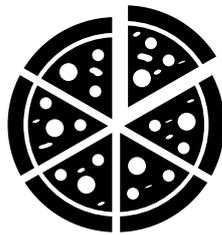
- Paying people to accept a nuclear waste facility
- Giving grades to students

Frey, B.S. and Jegen, R. (2001) 'Motivation Crowding Theory', *Journal of Economic Surveys* 15(5):589-611

Pelle Guldberg Hansen[©]

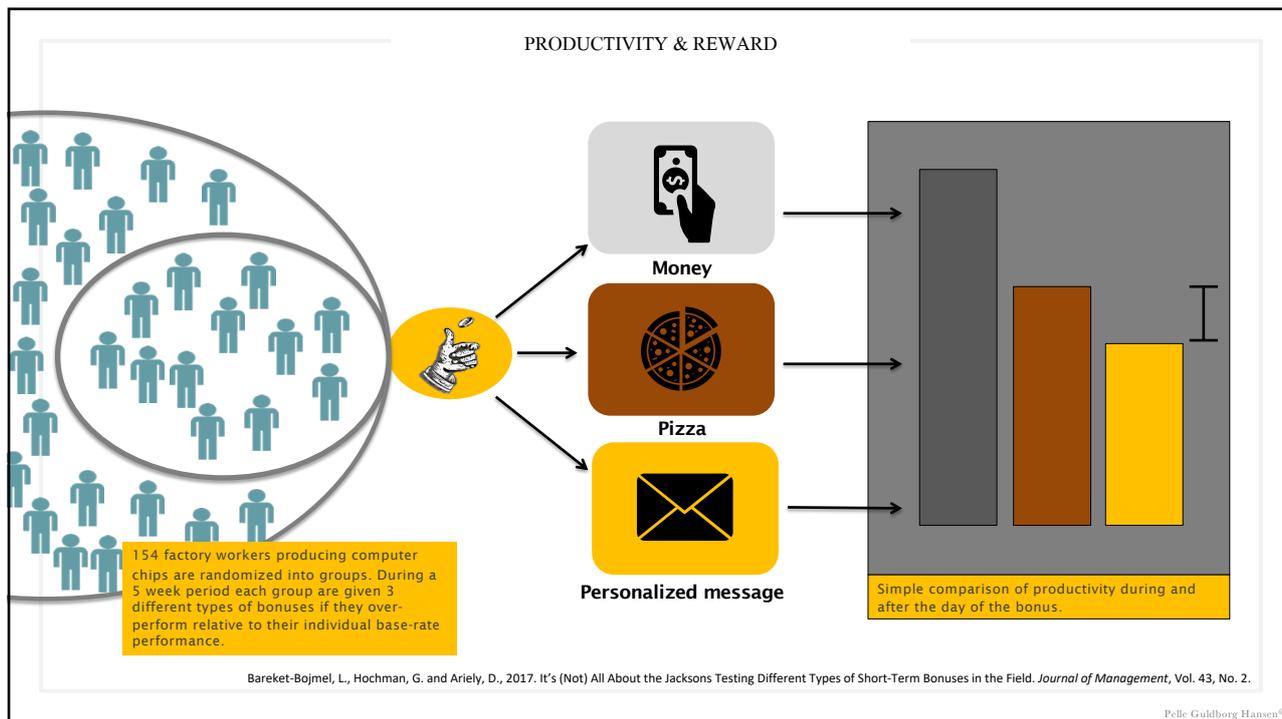
17

PRODUCTIVITY & REWARD

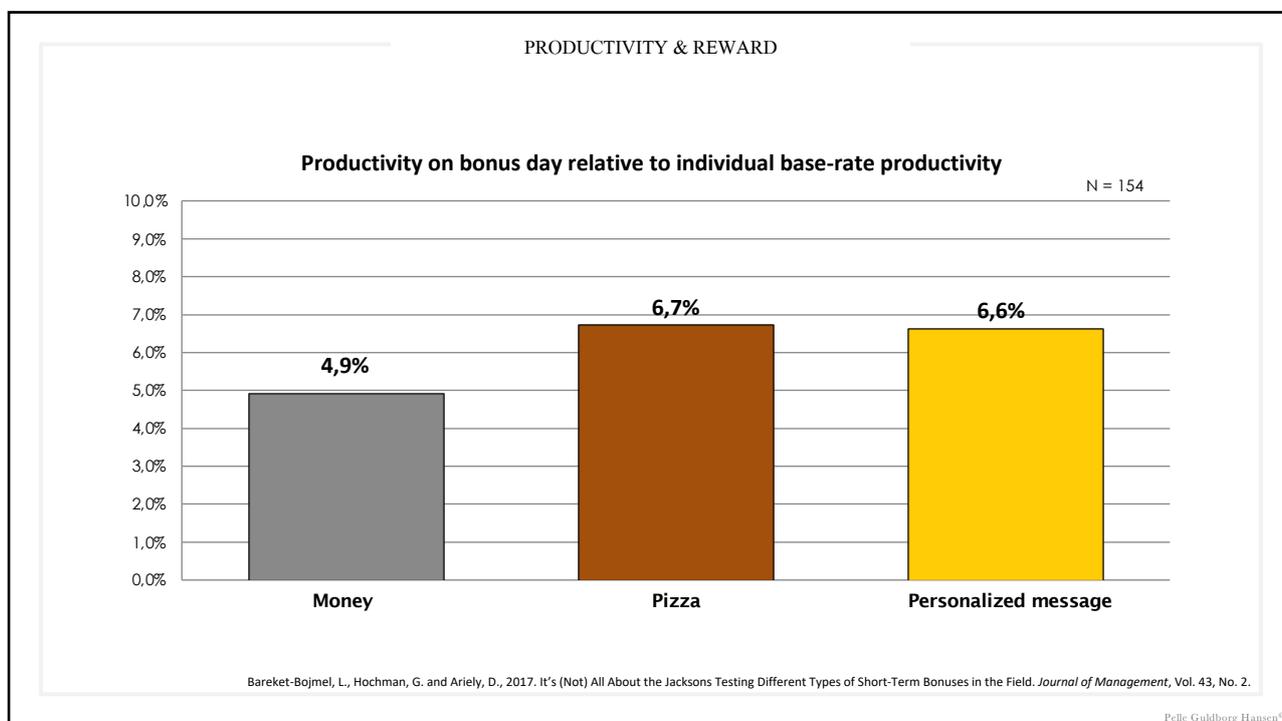


Pelle Guldberg Hansen[©]

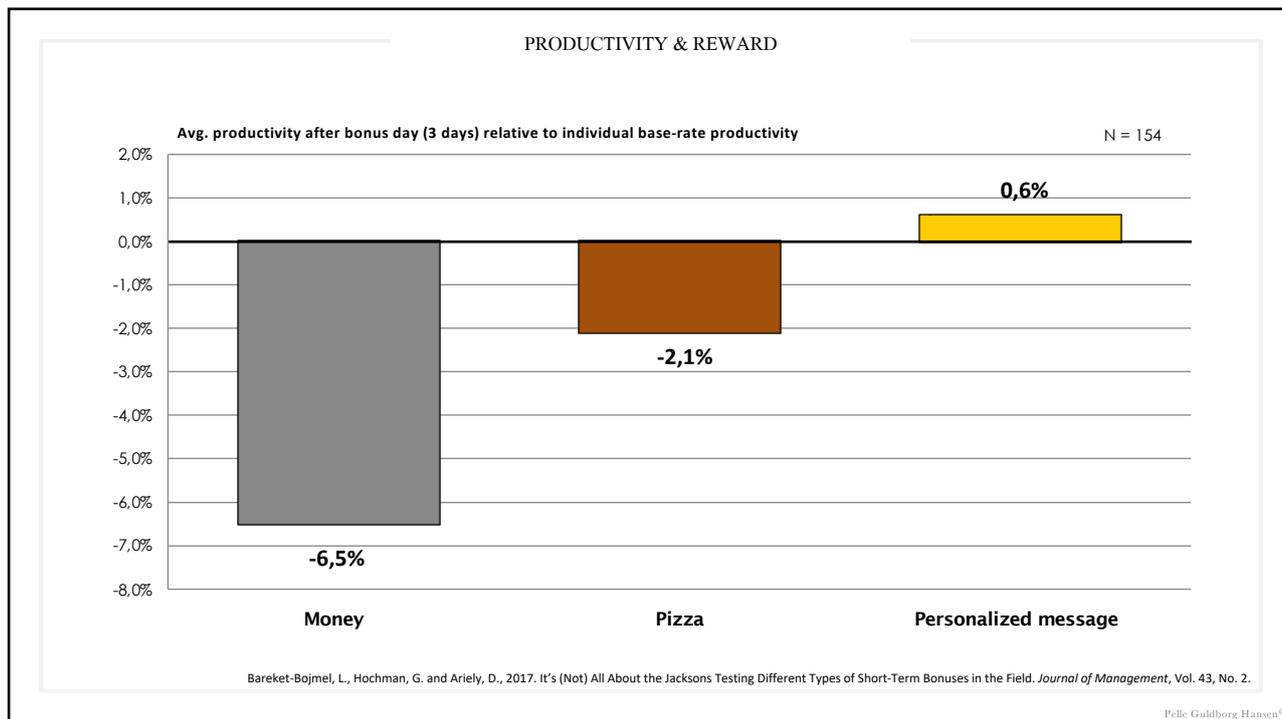
18



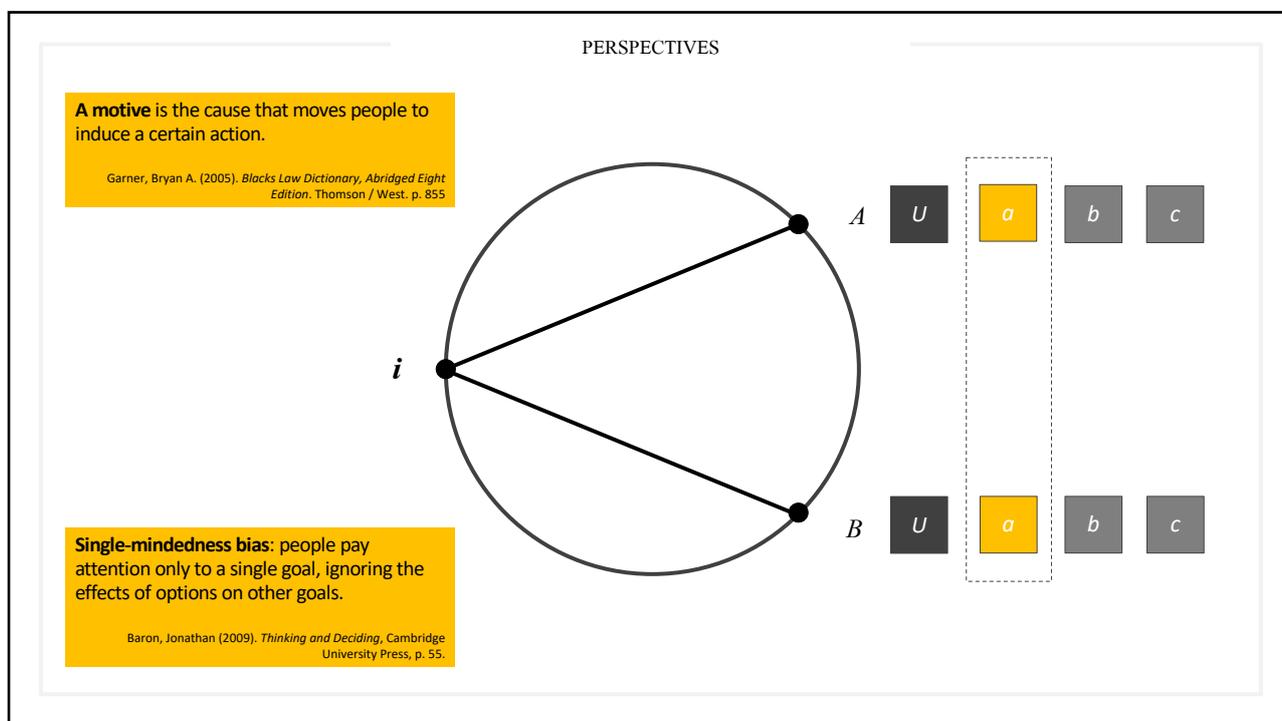
19



20



21



22

PERSPECTIVES

A motive is the cause that moves people to induce a certain action.

Garner, Bryan A. (2005). *Blacks Law Dictionary, Abridged Eight Edition*. Thomson / West. p. 855

Salience of choice option: emphasising one choice option relative to another may influence people to favour this.

Single-mindedness bias: people pay attention only to a single goal, ignoring the effects of options on other goals.

Baron, Jonathan (2009). *Thinking and Deciding*, Cambridge University Press, p. 55.

U **a** **b** **c**

U **a** **b** **c**

23

PERSPECTIVES

Single-mindedness bias: people pay attention only to a single goal, ignoring the effects of options on other goals.

Baron, Jonathan (2009). *Thinking and Deciding*, Cambridge University Press, p. 55.

A motive is the cause that moves people to induce a certain action.

Garner, Bryan A. (2005). *Blacks Law Dictionary, Abridged Eight Edition*. Thomson / West. p. 855

U **a** **b** **c**

U **a** **b** **c**

Perspectivation: by making a particular attribute of a choice option salient the choice architect may change the choosers perspective (**single-minded** or **weighted**) and hence potentially create a preference reversal.

24

PERSPECTIVES

Single-mindedness bias: people pay attention only to a single goal, ignoring the effects of options on other goals.

Baron, Jonathan (2009). *Thinking and Deciding*. Cambridge University Press, p. 55.

A motive is the cause that moves people to induce a certain action.

Garner, Bryan A. (2005). *Blacks Law Dictionary, Abridged Eight Edition*. Thomson / West. p. 855

Perspectivation: by making a particular attribute of a choice option salient the choice architect may change the choosers perspective (single-minded or **weighted**) and hence potentially create a preference reversal.

25

PERSPECTIVES: LIFETIME COSTS AND SHOWER HEADS

Group 1: Purchase price without lifetime costs

Huay Excellence brusesæt
876 kr.

Hansgrohe Crometta EcoSmart sparebrusesæt
3.198 kr.

Group 2: Purchase price with lifetime costs

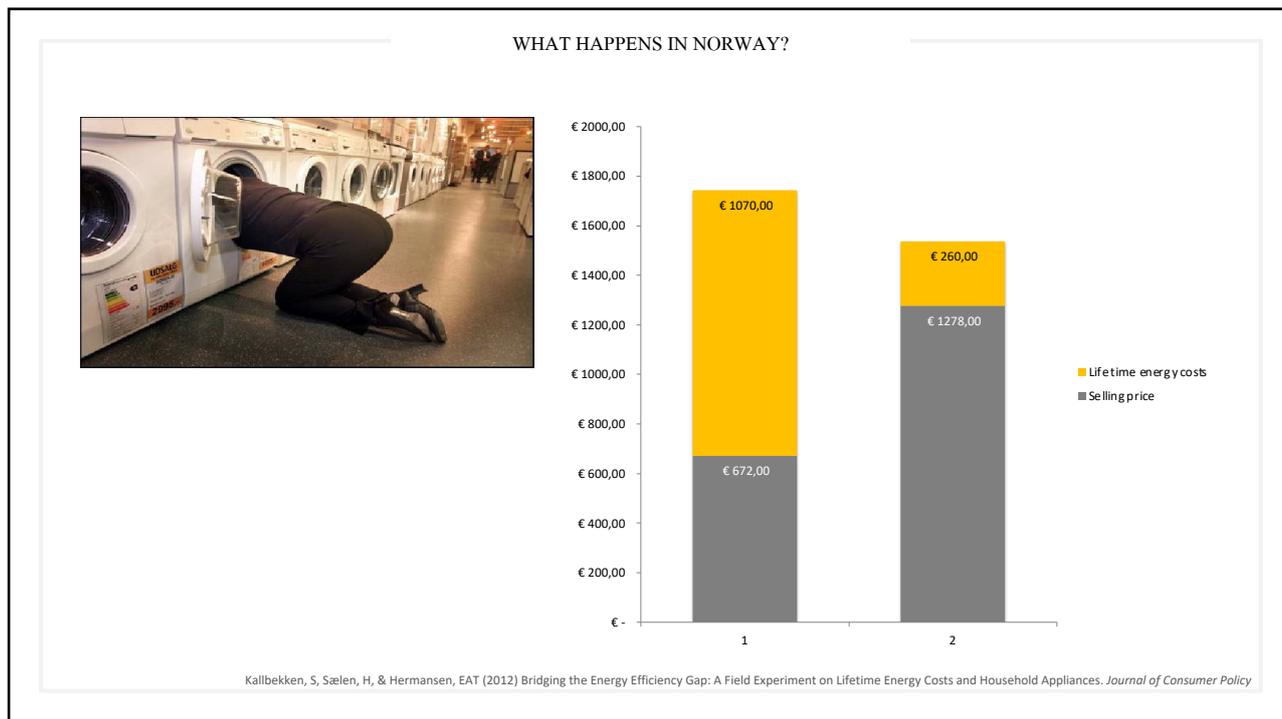
Huay Excellence brusesæt
876 kr.
+ Forbrugsmkostning over 3 år i en husstand med 2 voksne og 2 børn
13.848 kr.

Hansgrohe Crometta EcoSmart sparebrusesæt
3.198 kr.
+ Forbrugsmkostning over 3 år i en husstand med 2 voksne og 2 børn
6.924 kr.

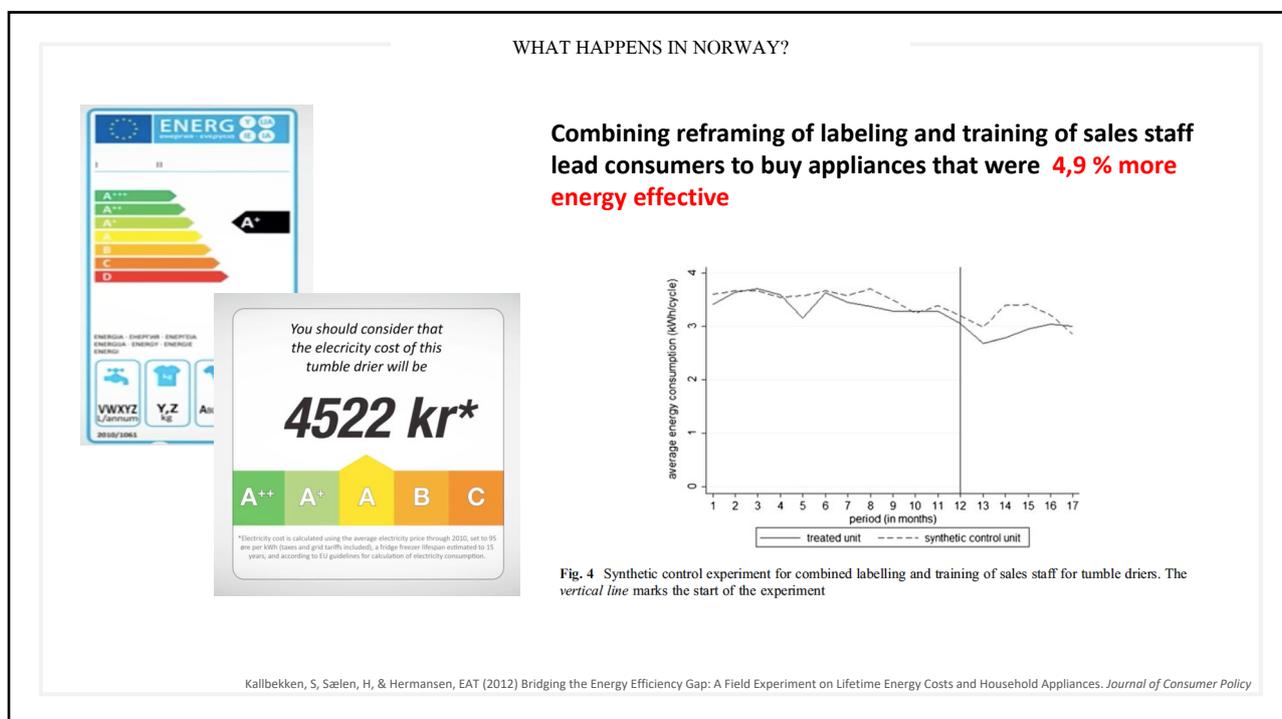
Share of people choosing efficient shower head N = 124

Group	Share of people choosing efficient shower head
Group 1	43%
Group 2	88%

26



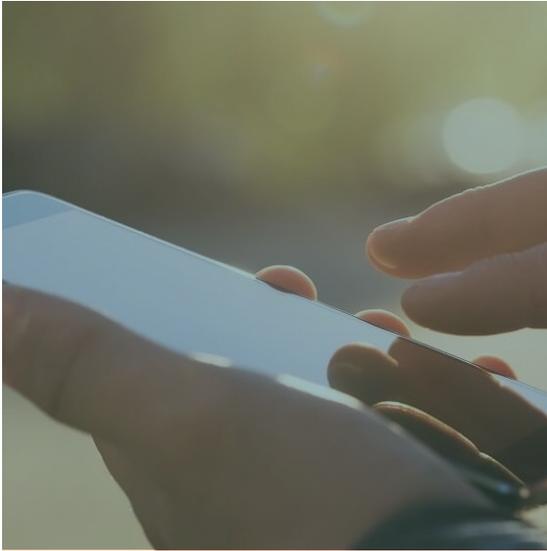
27



28

PERSPECTIVES: SMS – NON-ATTENDANCE

- 180,000 no-shows per year in Region of Southern Denmark¹
- 500 no-shows per day¹
- 4.7% of all appointments¹
- 1500 DKK per no-show (rough cost estimate²)



1: DR: <https://www.dr.dk/nyheder/regionale/fyn/180000-aftaler-gik-i-vasken-sundhedspersonale-venter-forgaevs-paa-patienter>
2: Danish Regions

29

PERSPECTIVES: SMS - INTERVENTIONS



Control
Standard text



Intervention 1
Standard text +
Social norm



Intervention 2
Standard text + Info about
cost of not showing up

10:35

Hospital

Today 10:30 AM

Hi Jesper,
Remember your appointment
Thursday the 14th of October at
11:00 am.

Best,
The Department of Cardiology

10:35

Hospital

Today 10:30 AM

Hi Jesper,
Remember your appointment
Thursday the 14th of October at
11:00 am.
More than 9 out of 10 patients at
the Hospital of South West Jutland
either show up for their appointment
or cancel well in advance – please
do the same.

Best,
The Department of Cardiology

10:35

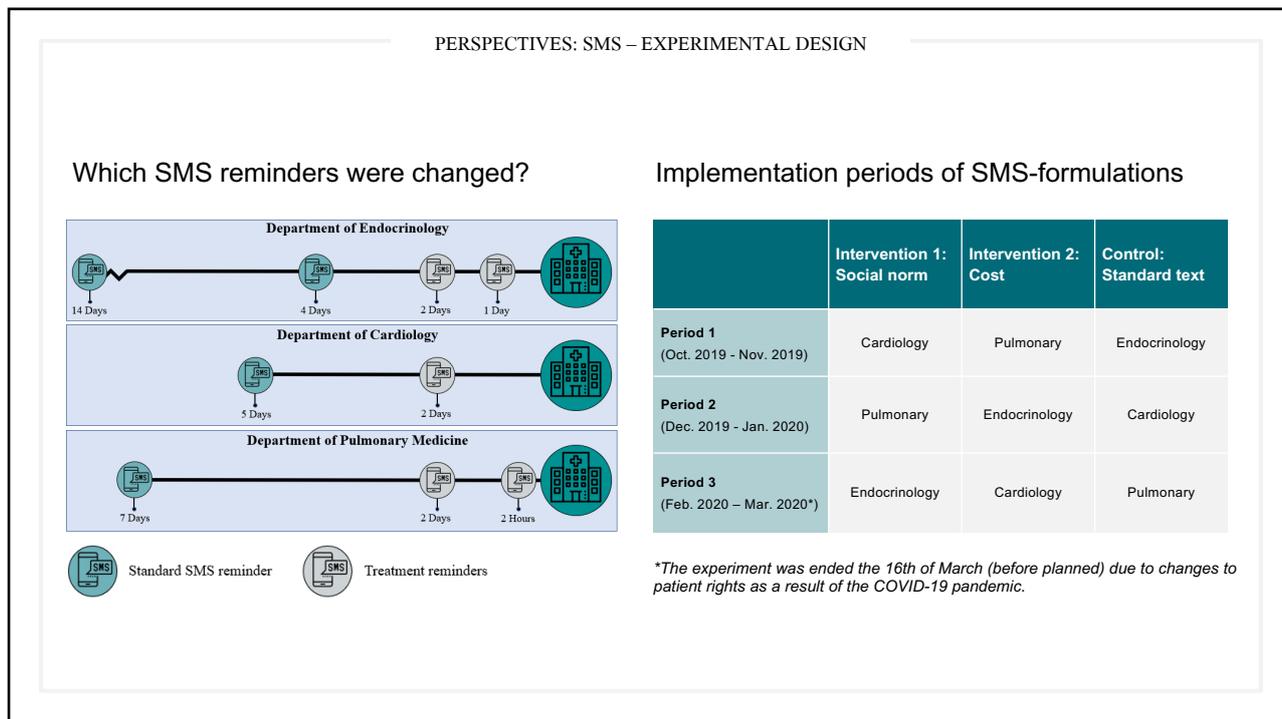
Hospital

Today 10:30 AM

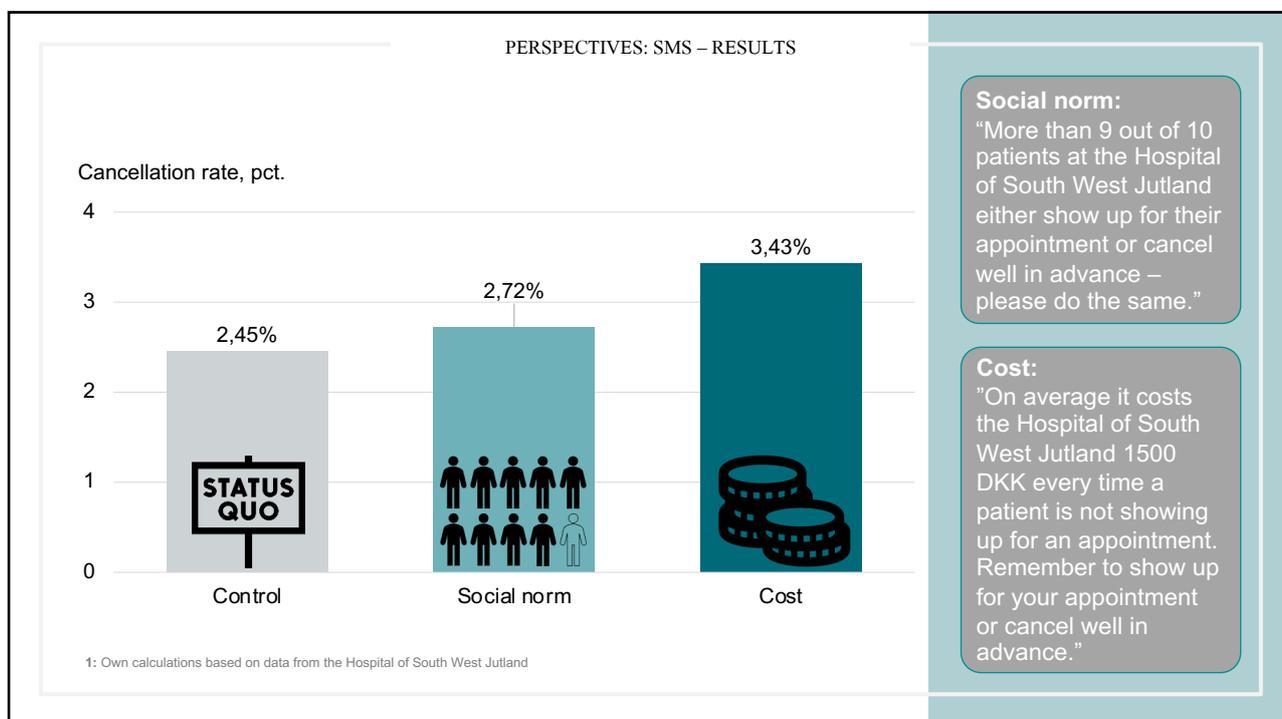
Hi Jesper,
Remember your appointment
Thursday the 14th of October at
11:00 am.
On average it costs the Hospital of
South West Jutland 1500 DKK
every time a patient is not showing
up for an appointment. Remember
to show up for your appointment or
cancel well in advance.

Best,
The Department of Cardiology

30



31



32

PERSPECTIVES: SMS – IMPLICATIONS

Ingredients needed for calculating saved costs:

-  Every year in Denmark there are 4,782,015¹ outpatient appointments that: 1) Require physical attendance and 2) Are not cancelled by the hospital
-  60.1%² of all Danes are signed up for NemSMS and will receive SMS reminders when going to the hospital
-  The effect on the cancellation rate is 0.98 percentage point
-  The average cost that the hospital saves of by avoiding a no-show is 1500 DKK

Assumptions behind the calculation:

- The effects size is the same if run with NemSMS
- The hospital manages to get a new patient in for all cancelled appointments
- The average cost that the hospital saves of avoiding a no-show is 1,500 DKK
- The probability that Danes who signed up for NemSMS have an outpatient appointment is at least as high as the probability for Danes who are not signed up for NemSMS
- The Danes signed up for NemSMS are representative of the patients from the Hospital of South West Jutland



= 42,247,000 DKK

1: Calculated based on data from: i) AMB03 by Statistics Denmark and ii) The Hospital of South West Jutland
 2: Digitaliseringsstyrelsen (2021). Statistik om NemSMS. Digitaliseringsstyrelsen. Link: <https://digst.dk/it-loesninger/nemsms/om-loesningen/tal-og-statistik-om-nemsms/>

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MOTIVES & PERSPECTIVES

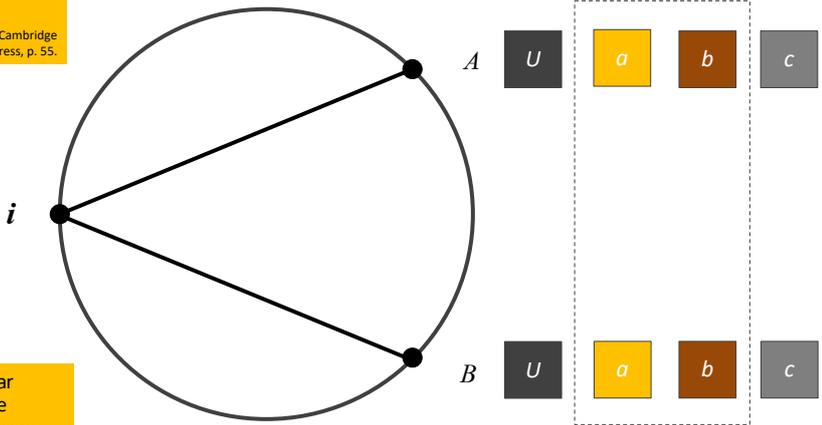
Single-mindedness bias: people pay attention only to a single goal, ignoring the effects of options on other goals.

Baron, Jonathan (2009). *Thinking and Deciding*, Cambridge University Press, p. 55.

A motive is the cause that moves people to induce a certain action.

Garner, Bryan A. (2005). *Blacks Law Dictionary, Abridged Eight Edition*. Thomson / West. p. 855

Perspectivation: by making a particular attribute of a choice option salient the choice architect may change the choosers perspective (single-minded or **weighted**) and hence potentially create a preference reversal.



34

DEFINITION: 'FEELINGS'

[FEELINGS]
Standard definition

Broadly defined a feeling is a subjective state of comfort or discomfort that drives or motives certain forms of behavior and that has a tendency to be brought forward by certain aspects of a situation.

See Baron, J. (2008) *Thinking and Deciding*, Cambridge University Press, p. 67-70.

37

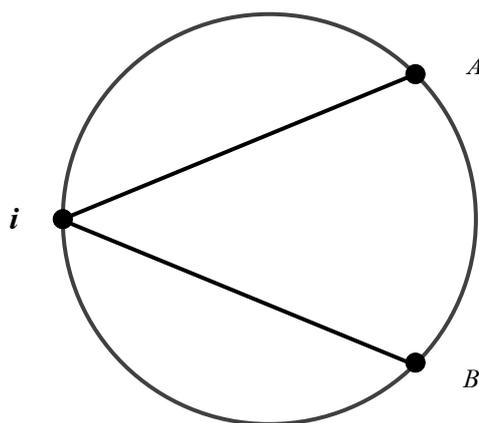
EMOTIONAL TRIGGERS

A motive is the cause that moves people to induce a certain action.

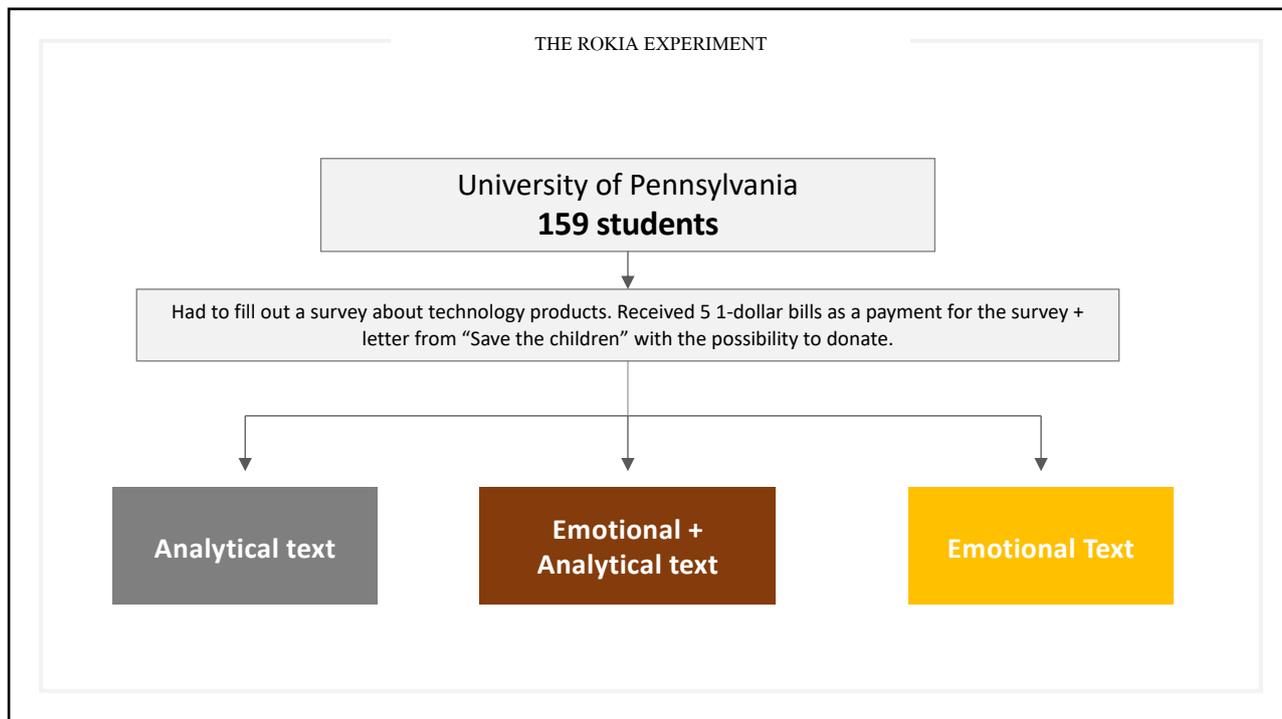
Garner, Bryan A. (2005). *Black's Law Dictionary, Abridged Eight Edition*. Thomson / West, p. 855

Perspectivation: by making a particular attribute of a choice option salient the choice architect may change the choosers perspective (single-minded or **weighted**) and hence potentially create a preference reversal.

Emotional triggers: emotional triggers are essential or accidental attributes of a choice option that activate emotions in the chooser. They are different from visceral factors that are attributes of the choosers themselves.



38



39

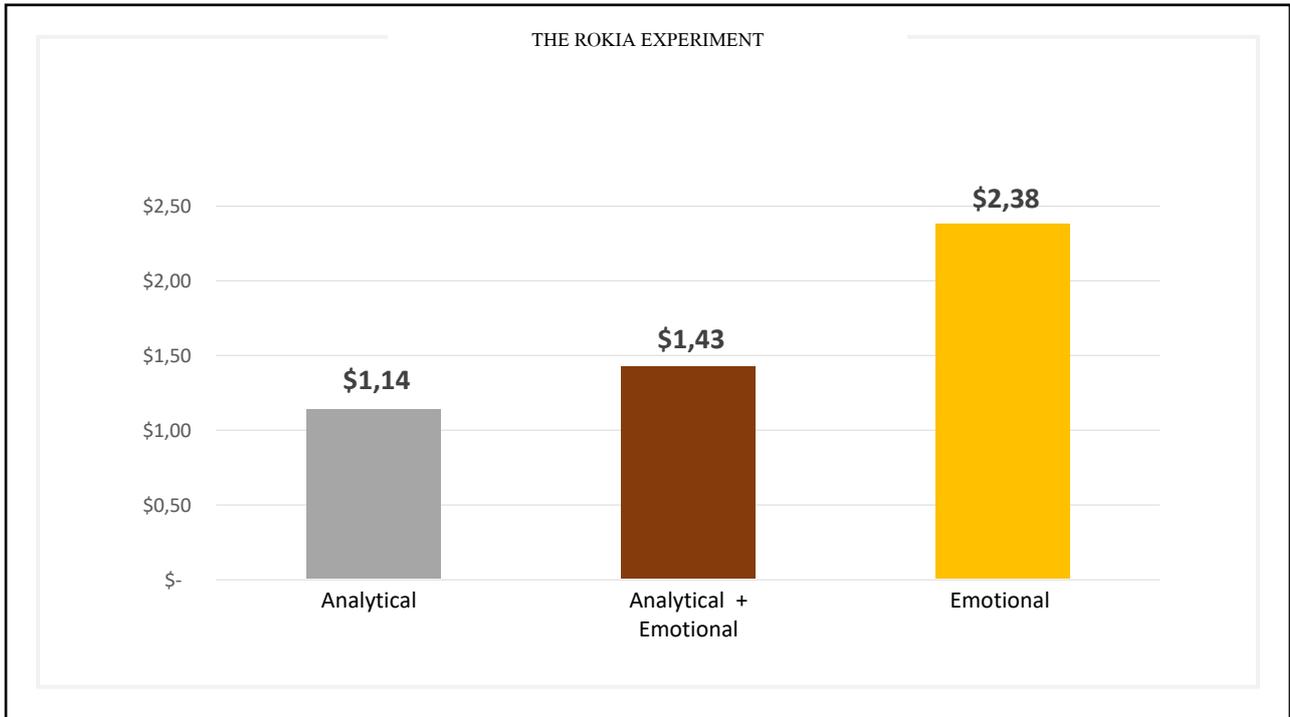
THE ROKIA EXPERIMENT



Food shortages in Malawi are affecting more than three million children. In Zambia, severe rainfall deficits have resulted in a 42% drop in maize production from 2000. As a result, an estimated three million Zambians face hunger. Four million Angolans — one-third of the population — have been forced to flee their homes. More than 11 million people in Ethiopia need immediate food assistance.

Any money that you donate will go to Rokia, a seven-year-old girl who lives in Mali in Africa. Rokia is desperately poor and faces a threat of severe hunger, even starvation. Her life will be changed for the better as a result of your financial gift. With your support, and the support of other caring sponsors, Save the Children will work with Rokia’s family and other members of the community to help feed and educate her, and provide her with basic medical care.

40



41

EMOTIONAL TRIGGERS

A motive is the cause that moves people to induce a certain action.

Garner, Bryan A. (2005). *Black's Law Dictionary, Abridged Eighth Edition*. Thomson / West. p. 855

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U

a

b

c

U

a

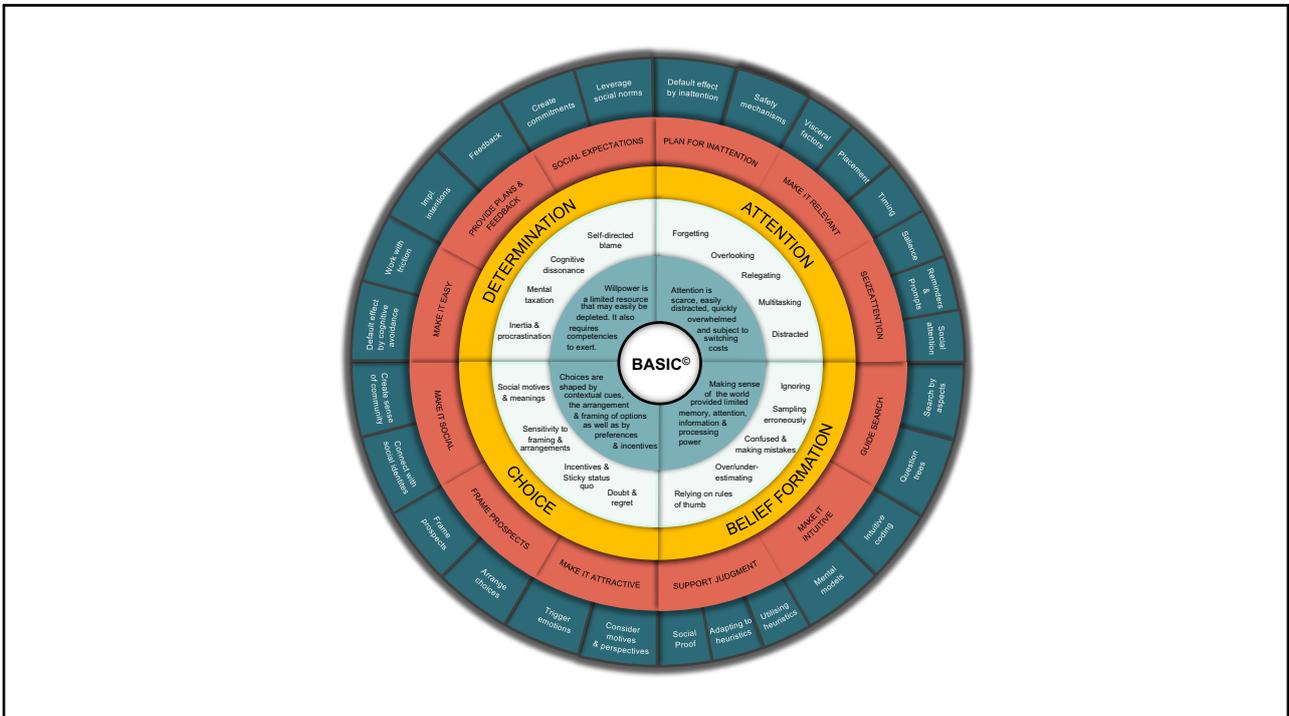
b

c

42

FRAME PROSPECTS: ARRANGE CHOICES

43



44

ARRANGE CHOICES

A motive is the cause that moves people to induce a certain action.

Perspectivation: by making a particular attribute of a choice option salient the choice architect may change the choosers perspective (single-minded or weighted) and hence potentially create a preference reversal.

Emotional triggers: emotional triggers are essential or accidental attributes of a choice option that activate emotions in the chooser. They are different from visceral factors that are attributes of the choosers themselves.

Arranging choice: the mere arrangement of choices may influence preferences either directly by order effects, or indirectly by influencing perspectives.

45

THE COMPROMISE EFFECT

Which one do you prefer?

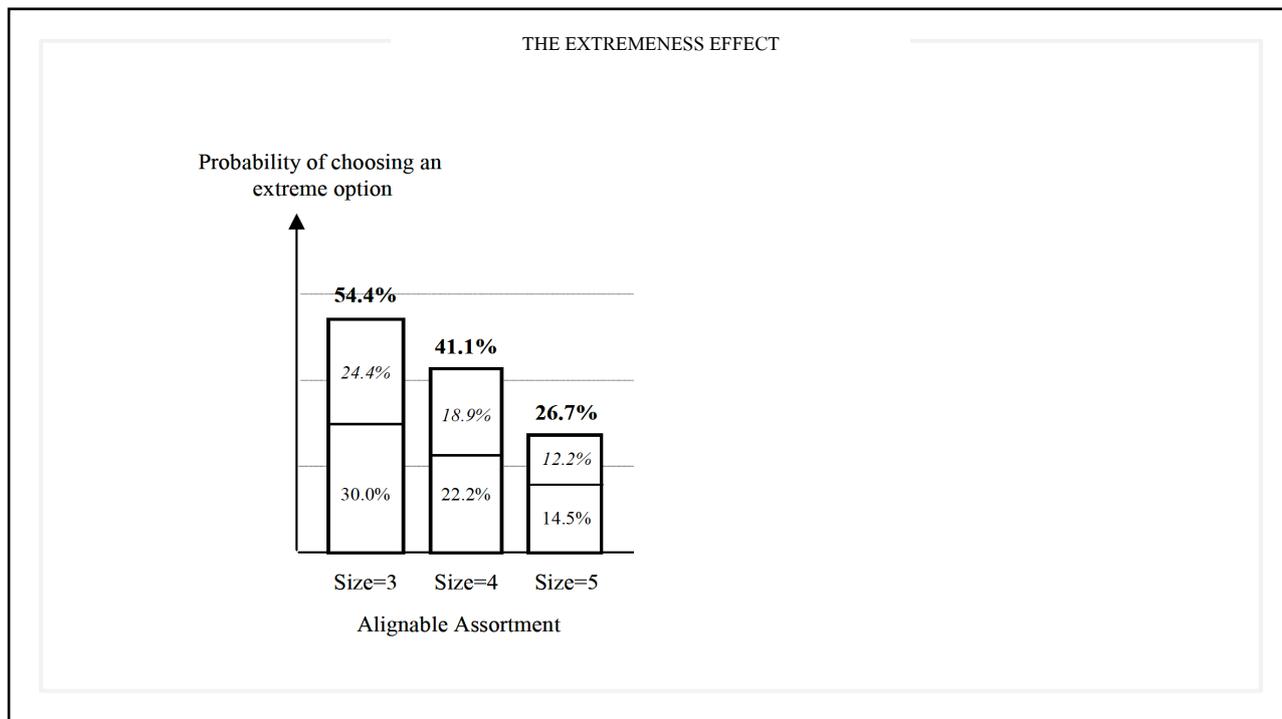


€ 2,50



€ 3,50

46



47

THE ASSYMETRICAL DOMINANCE EFFECT

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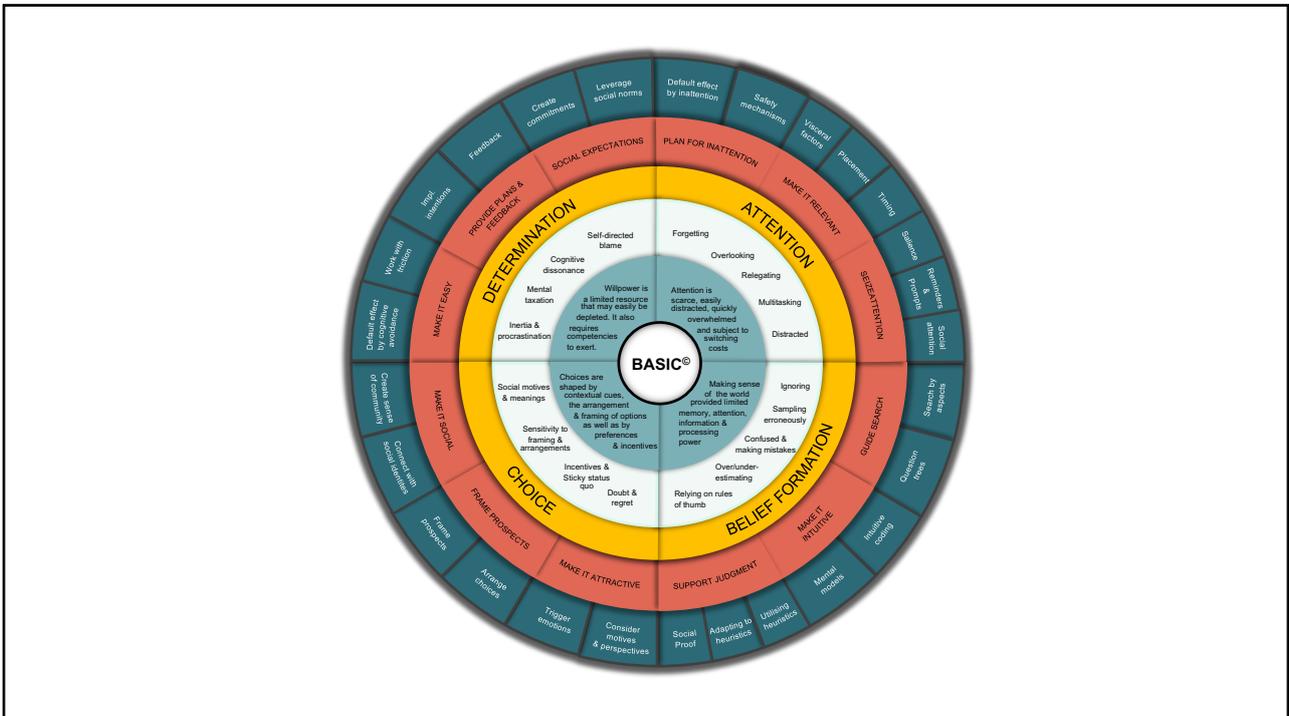
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32 % 84 %

48

FRAME PROSPECTS: FRAME PROSPECTS (PROSPECT THEORY)

49



50

(1) Chemotherapy with 80% chance of survival

(2) Radiation with 20% risk of dying

[Framing effects]

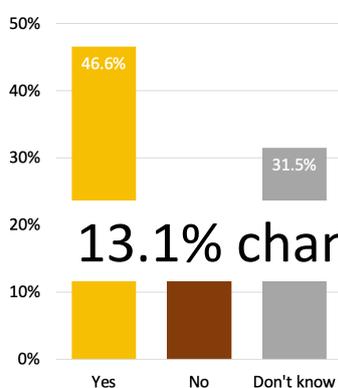
Framing effects are influences that result from cognitive biases where people choose between choice options based on how the choice options are described independtly of their semantic value.

51

FRAMING QUESTIONS IN REFERENDUM

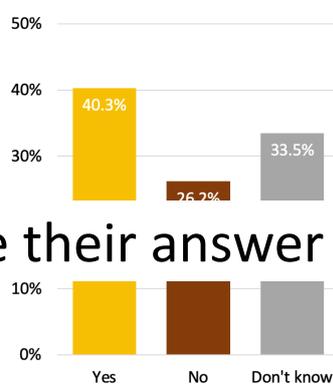
POSITIVE FRAME:

Are you voting yes or no to Denmark's participation in the european cooperation on security and defence?



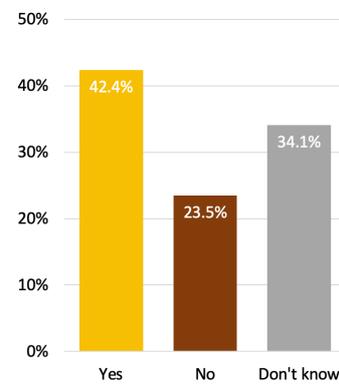
NEGATIVE FRAME:

Do you wish to abolish the EU defence opt-out?



"NEUTRAL" FRAME:

Are you voting yes or no to Denmark's participation in the european cooperation on security and defence by abolishing the EU defence opt-out?

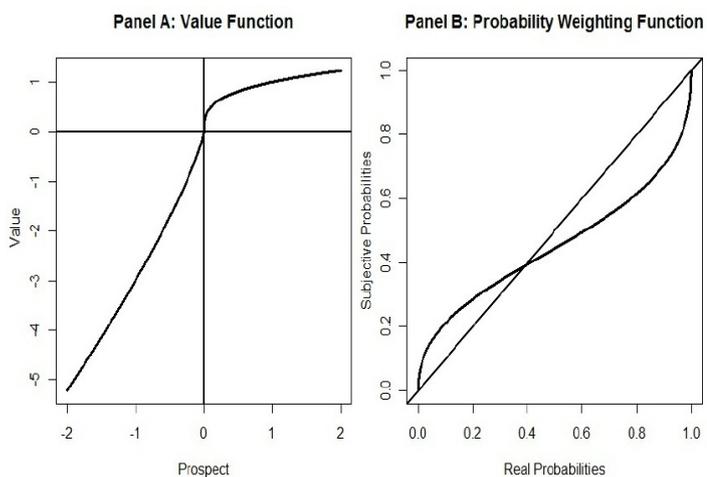


13.1% change their answer

52

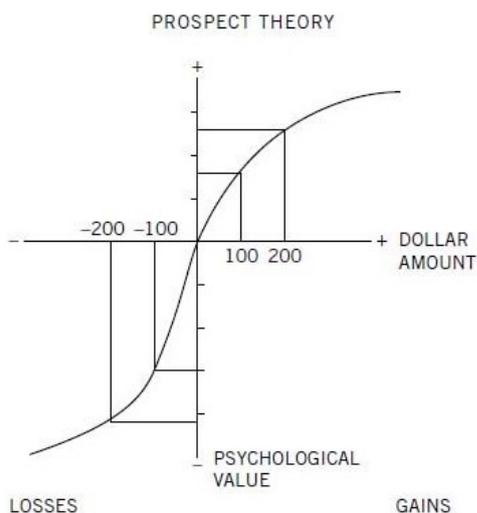
[Prospect theory]

Prospect theory is a theory within cognitive psychology that describes several cognitive biases that affect people when choosing between probabilistic alternatives where risk is involved and the probability of different outcomes is unknown.

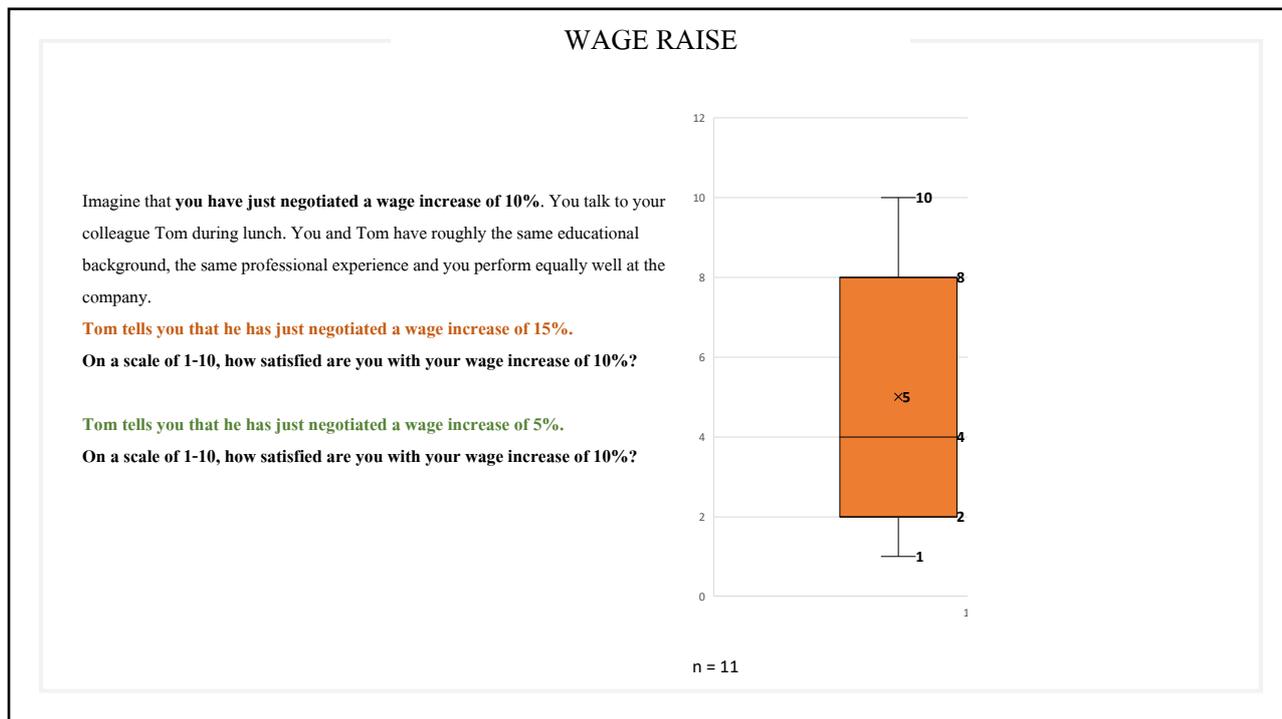


53

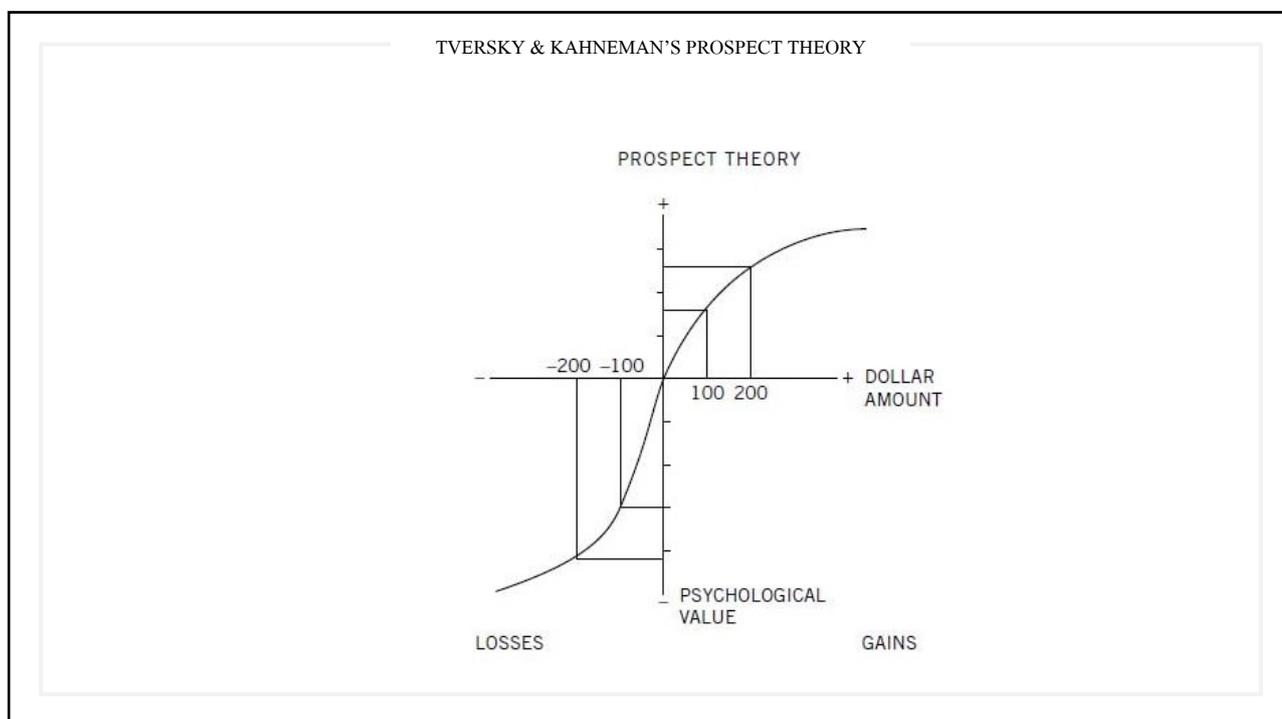
TVERSKY & KAHNEMAN'S PROSPECT THEORY



54



55



56

DIMINISHING MARGINAL UTILITY

How much would you pay for...



The first cup
of coffee of
the day?

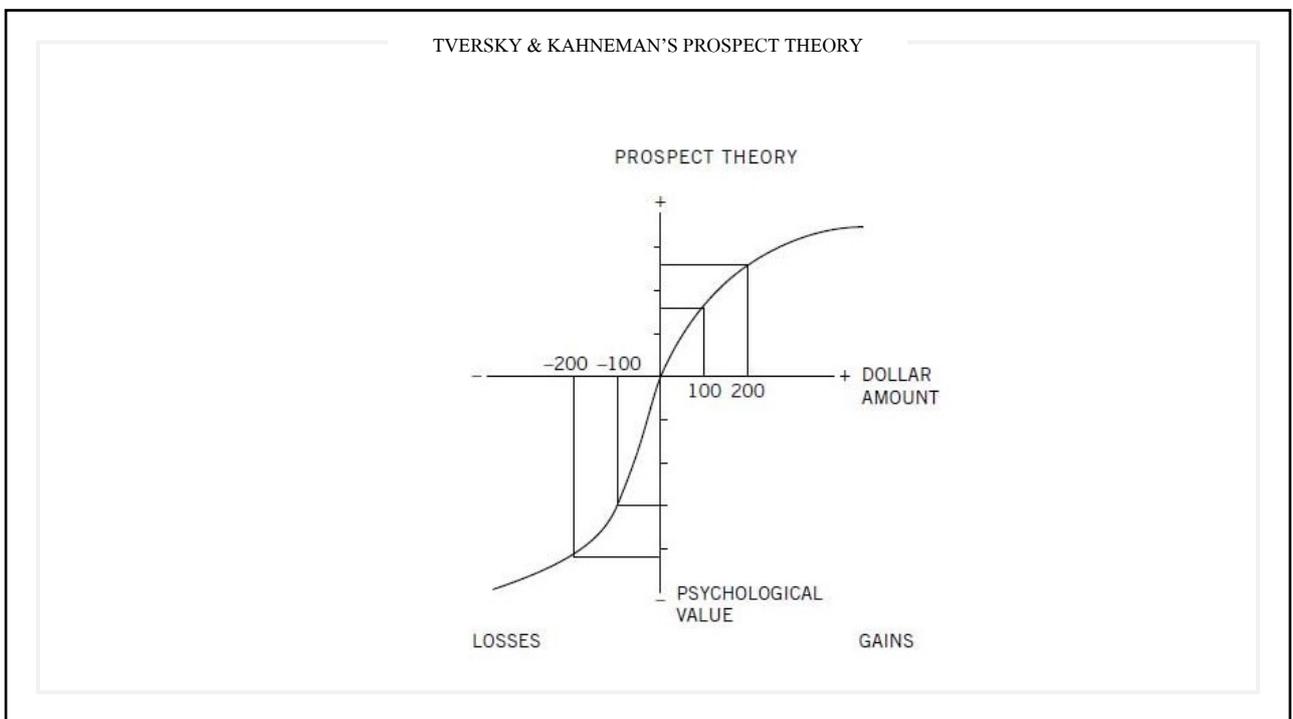


The second
cup of coffee?



The third cup
of coffee?

57



58

HOLIDAYS

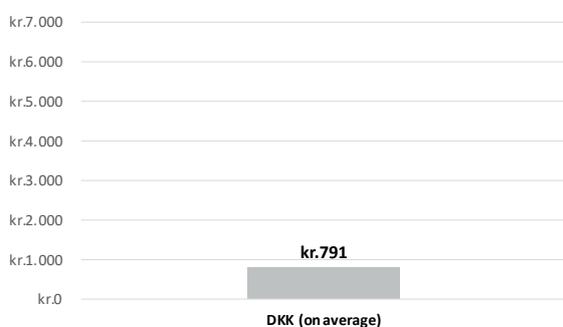
1. You have earned 6 holidays. How many DKK would you be willing to pay for an extra holiday?
2. You have earned 7 holidays. How many DKK would you require to give up one holiday?

61

HOLIDAYS

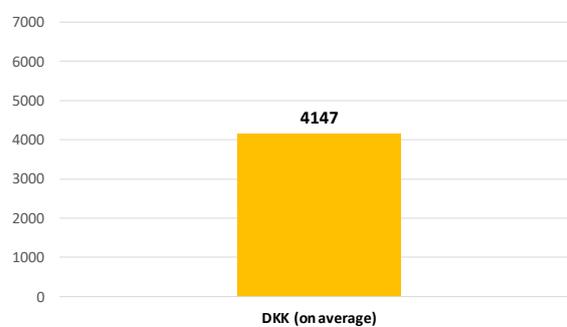
You have earned 6 holidays. How many DKK would you be willing to pay for an extra holiday?

n = 11

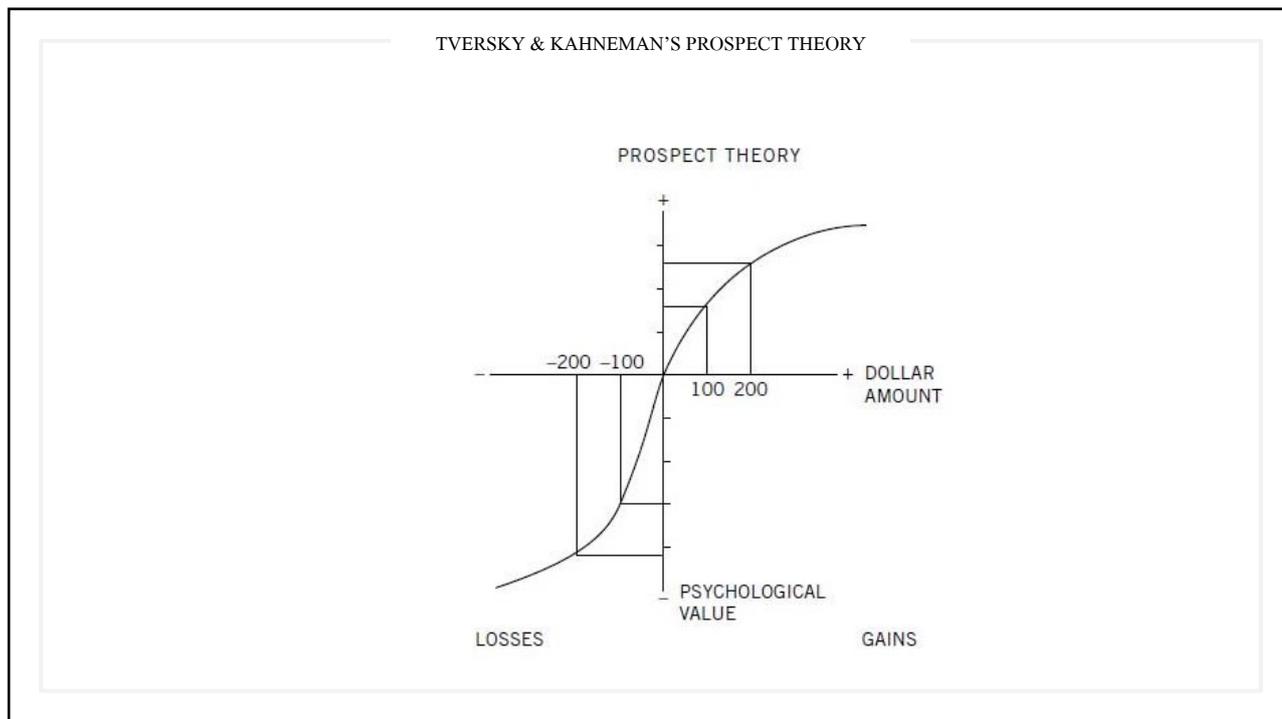


You have earned 7 holidays. How many DKK would you require to give up one holiday?

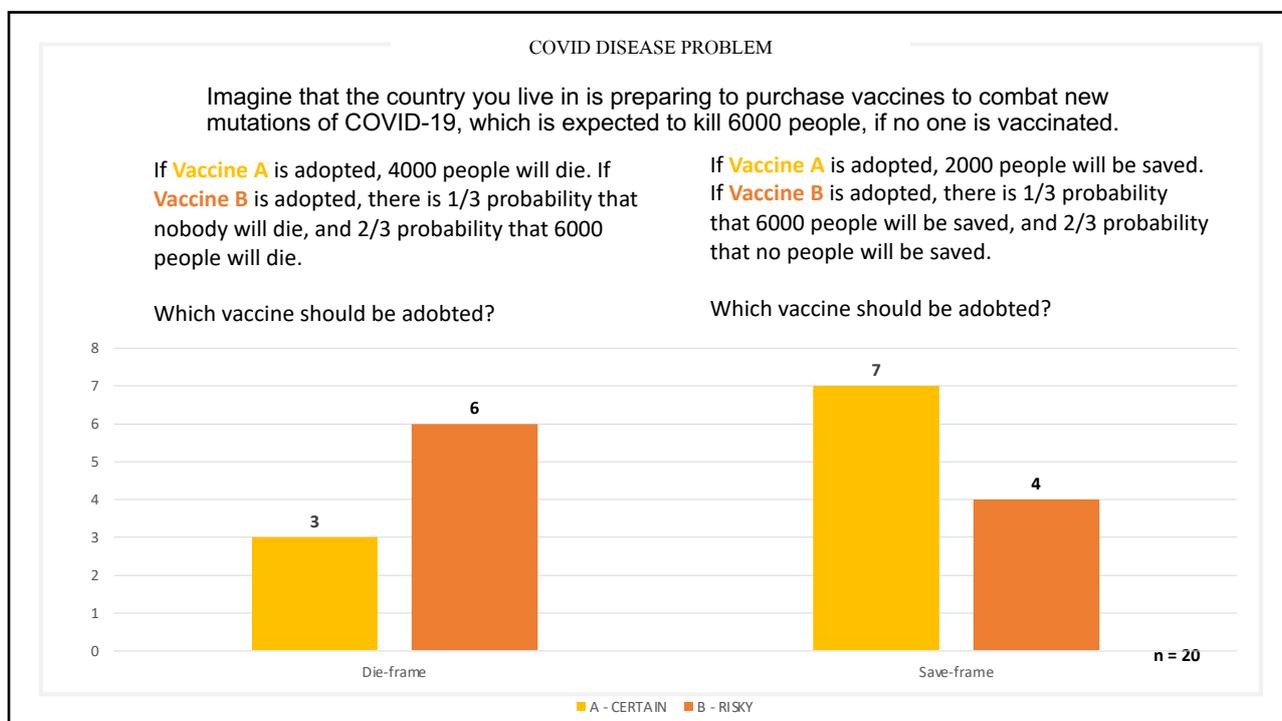
n = 17



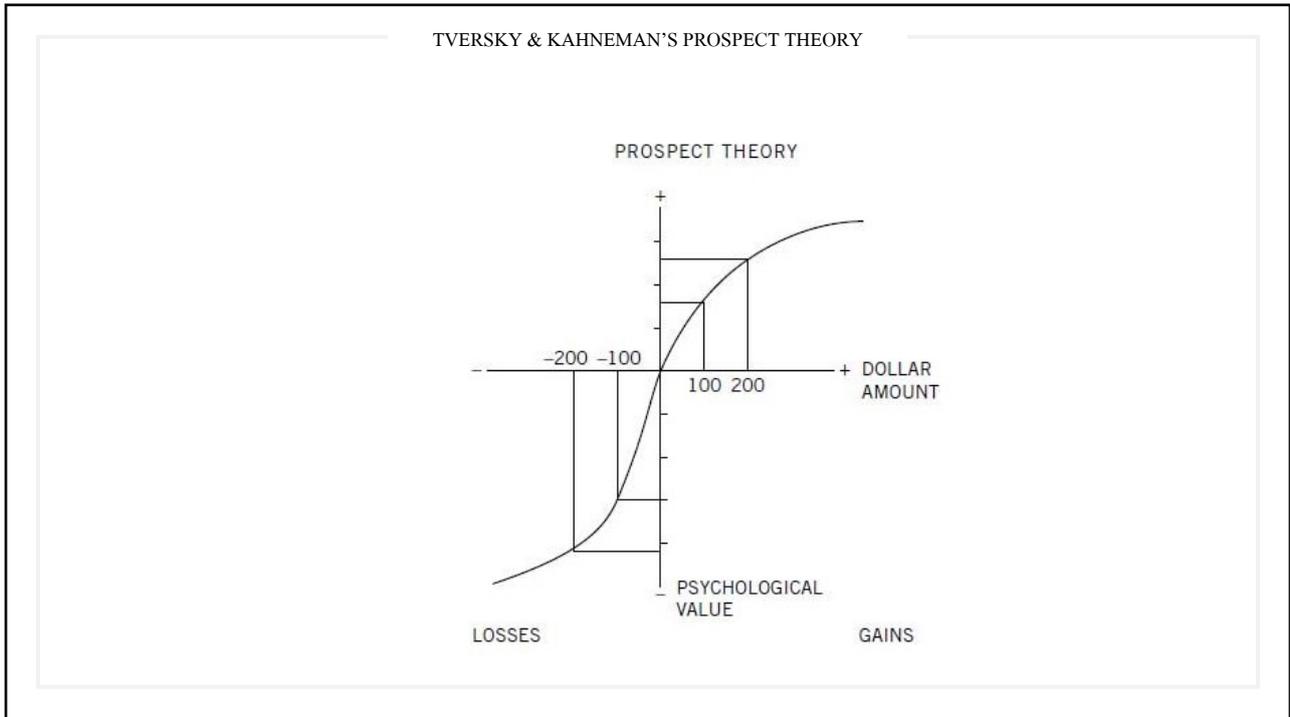
62



65



66



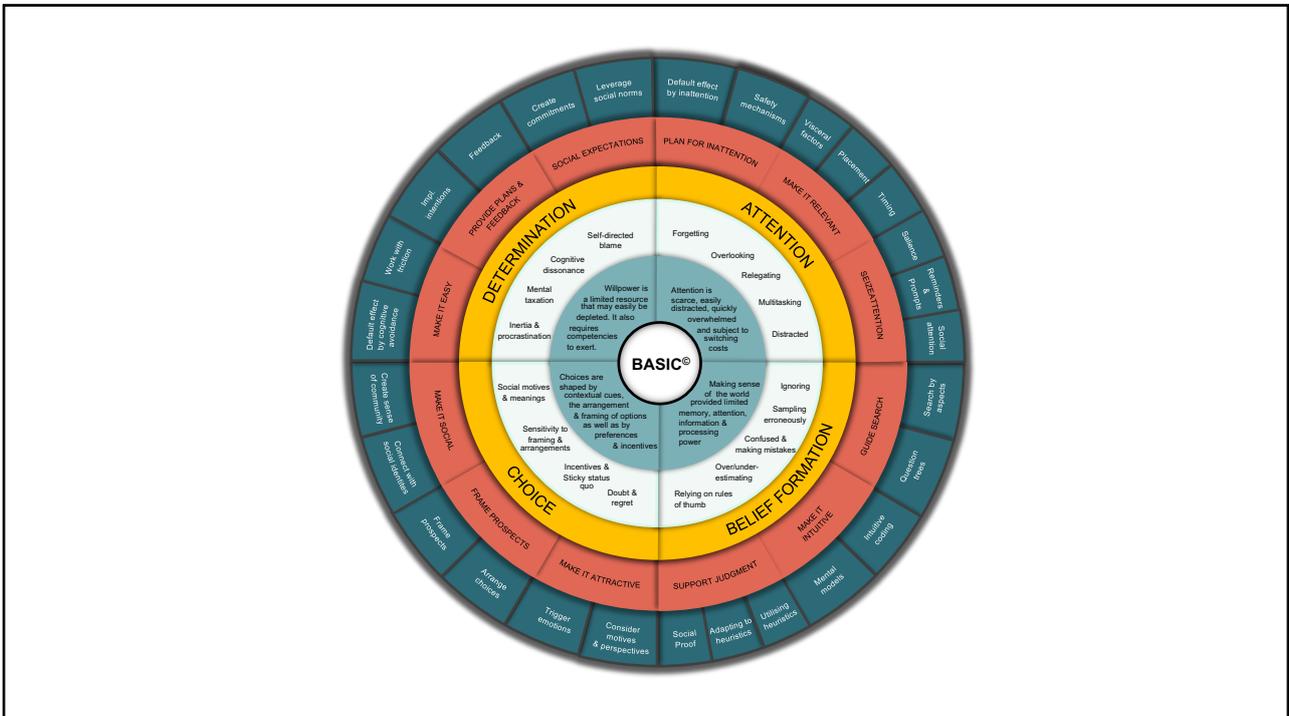
67

MAKE IT SOCIAL

68

MAKE IT SOCIAL:
CONNECT WITH SOCIAL IDENTITIES

69



70

CONNECT WITH SOCIAL IDENTITIES
MAKE IT SOCIAL



Don't mess with Texas campaign

What was the impact in terms of litter reduction?

- Litter reduced by 29% in first year
- 72% reduction in first six years.
- 95% of Texans know this slogan
- In 2006 voted America's favourite slogan

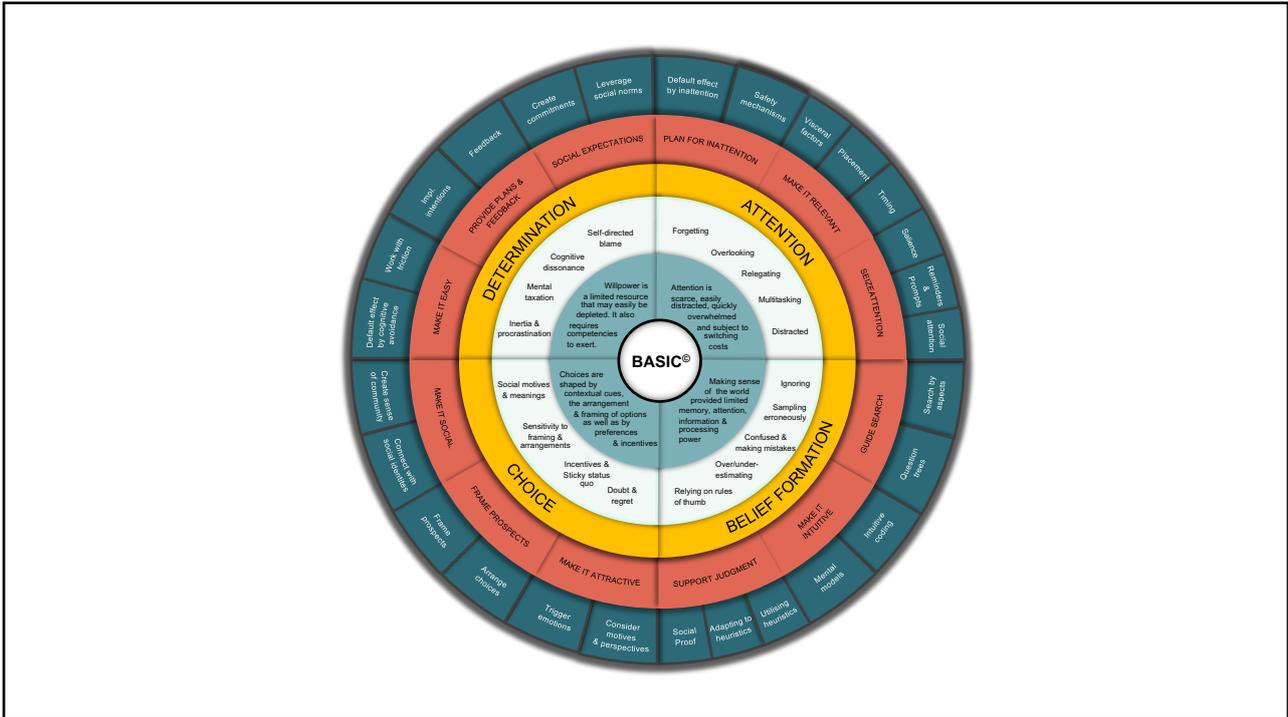
Source: Nudge, Improving decisions about health, wealth and happiness Thaler and Sunstein 2008

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MAKE IT SOCIAL:

**CREATE A SENSE OF
COMMUNITY**

72



73



74

CASE WORK

75

CASE WORK: INCREASING BLOOD DONATION

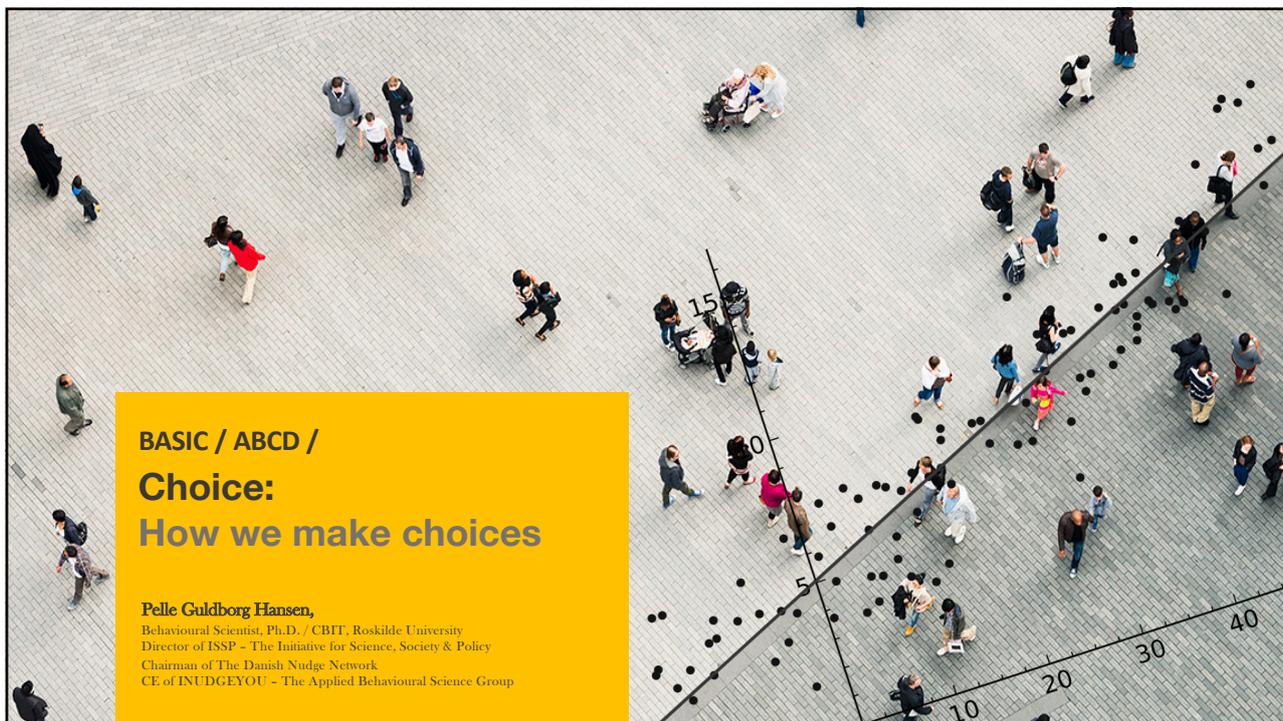
Case description:

You are working in a healthcare company and you are in lack of blood for patients. Hence, your team is going to make an initiative that increases blood donations. At the moment blood donors are donating blood for free. As a solution to increase blood donation one of your colleagues suggests that you could pay blood donors for donating their blood.

Discuss the following with your group:

- Would the initiative work from a rational perspective?
- Do you agree with the solution suggested by your colleague? Why? / why not? (Hint: Think about the blood donors primary motive for donating blood)

76



BASIC / ABCD /
Choice:
How we make choices

Pelle Guldborg Hansen,
Behavioural Scientist, Ph.D. / CBIT, Roskilde University
Director of ISSP - The Initiative for Science, Society & Policy
Chairman of The Danish Nudge Network
CE of INUDGEYOU - The Applied Behavioural Science Group