

http://dspace.vnbrims.org:13000/jspui/bitstream/123456789/2224/1/Daniel-Kahneman-Thinking-Fast-and-Slow-.pdf

APPROACHES TO PUBLIC POLICY INSTRUMENTS

Informational approach

(e.g., health education and awareness raising)

Nudge

(e.g., behavioral design)

Financial approach

(e.g., incentives and fines)

Regulatory approach

(e.g., law and ordinance)

https://www.mdpi.com/1660-4601/20/5/3962

STICKS, CARROTS AND SERMONS



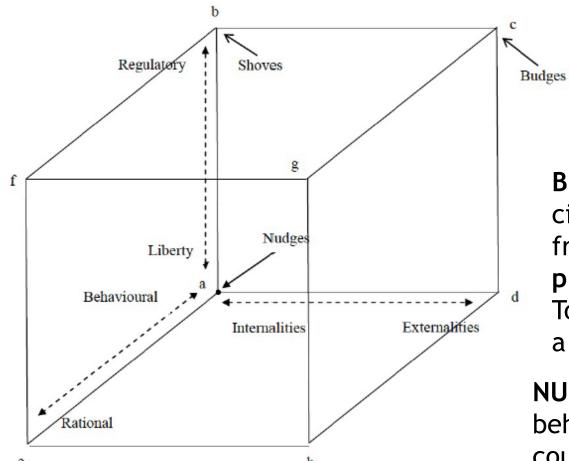
STICKS = REGULATION

CARROTS = ECONOMIC MEANS

SERMONS = INFORMATION (ENCOURAGEMENT, WARNINGS)

https://www.researchgate.net/figure/Figure-H1-Cartoon-of-carrots-sticks-and-sermons-as-ways-to-induce-compliance-with_fig45_254559840

REGULATORY & BEHAVIORAL PUBLIC POLICY



SHOVES (mandates, authoritative commands, restrictions, regulations): A ban on smoking



BUDGES: A packaging of cigarettes discouraging you from smoking by avoiding priming

To budge is to move — but just a little bit.

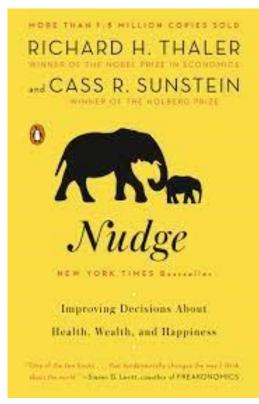
NUDGES: Putting cigarettes behind the checkout counter



Priming: exposure to one stimulus may influence a response to a subsequent stimulus, without conscious guidance or intention

Oliver, A. (2018). Nudges, shoves and budges: Behavioural economic policy frameworks. The International Journal of Health Planning and Management

NUDGES (THALER, SUNSTEIN 2008)



A nudge, as we will use the term, is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives.

To count as a mere nudge, the intervention must be **easy and cheap to avoid**. Nudges are not mandates. Putting fruit at eye level counts as a nudge. Banning junk food does not.



https://bloombergcities.medium.com/explainer-what-is-a-behavioral-nudge-

MINDSPACE (Dolan et al., 2010)

A framework that focuses on 9 forces that drive our behavior

SALIENCE

Our attention is drawn to novel things that seem relevant to us.

DEFAULTS

We "go with the flow" of pre-set options.

NORMS

We are heavily influenced by what others do.

NCENTIVES

Our responses to incentives are shaped by predictable mental shortcuts, such as the strong desire to avoid losses.

MESSENGER

We are heavily influenced by who is communicating information.

PRIMING

Our actions are often influenced by subconscious cues.

AFFECT

Our actions can be powerfully shaped by our emotional associations.

COMMITMENTS

We seek to be consistent with our public promises and to reciprocate actions.

Ego

We act in ways that make us feel better about ourselves.

MINDSPACE (Dolan et al., 2010)

Messenger	We are heavily influenced by who communicates information.
Incentives	Our responses to incentives are shaped by predictable mental shortcuts, such as strongly avoiding losses.
Norms	We are strongly influenced by what others do.
Defaults	We "go with the flow" of pre-set options.
Salience	Our attention is drawn to what is novel and seems relevant to us.
Priming	Our acts are often influenced by subconscious cues.
Affect	Our emotional associations can powerfully shape our actions.
Commitments	We seek to be consistent with our public promises / pledges and reciprocate acts.
Ego	We act in ways that make us feel better about ourselves.

Food nudges include, for instance,

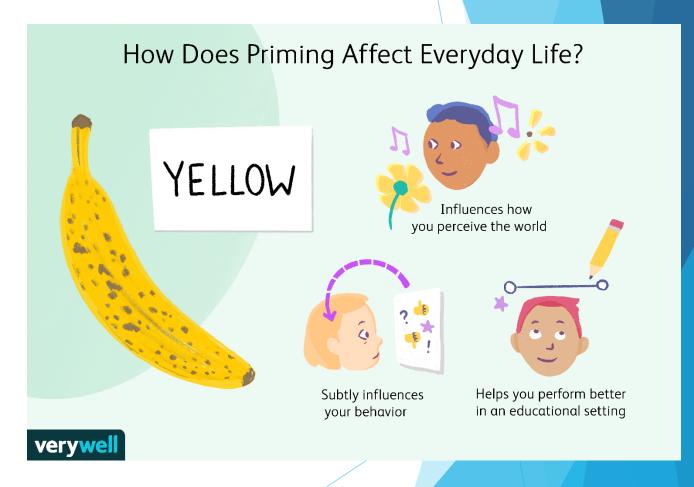
- simplification of information and choices,
- positioning of products in supermarkets and cafeterias at an eye level,
- self-pledges,
- multiple elements of choice architecture (such as defaults or decoy dishes),
- educational messages in school canteens,
- calorie labels,
- sweet-free supermarket cashiers,
- meat-free days in cafeterias.
 - priming and framing of messages.

PRIMING: phenomenon whereby exposure to one stimulus (a word, image, smell or sound) influences a response to a subsequent stimulus, without conscious guidance or intention.

FRAMING: a cognitive bia where people decide on options based on whether the options are presented with positive or negative connotations

PRIMES THAT GUIDE US

PRIMING: phenomenon whereby exposure to one stimulus (a word, image, smell or sound) influences a response to a subsequent stimulus, without conscious guidance or intention.



https://www.verywellmind.com/priming-and-the-psychology-of-memory-4173092

PRIMING - ASSOCIATION MACHINE

Examples of How Priming Influences Behaviour

Here is the word — S _ _ p
Did you say it is soup?
Ok, what if I go and take a shower? What word will it be now? S _ _ p
Did you say soap this time?

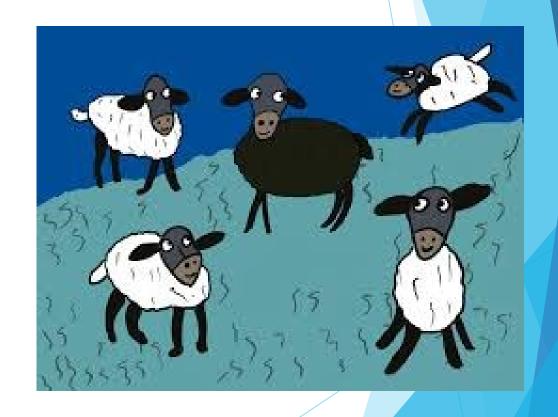
Adding "bio" or "all-natural" to your product primes people into getting thoughts of nature or farms.

https://uxplanet.org/5-examples-of-how-priming-influences-behaviour-4e91757023c0

SALIENCE

Perceptual salience occurs when we **focus on items or information** that are especially **remarkable** while casting aside those that lack prominence.

It arises from a contrast (often unexpected) between items and their surroundings, such as a black sheep in a herd of white sheep, or a person talking on the phone in a quiet elevator.



https://instituteforpr.org/nudges-that-hurt-those-already-hurting-distributional-and-unintended-effects-of-salience-nudges/

https://www.storynory.com/song-ba-ba-black-sheep/

https://thedecisionlab.com/biases/salience-bias

SALIENCE

Authority bias: the tendency to attribute greater accuracy to the opinion of an authority figure



Bizarreness bias: bizarre things are better remembered than common ones.

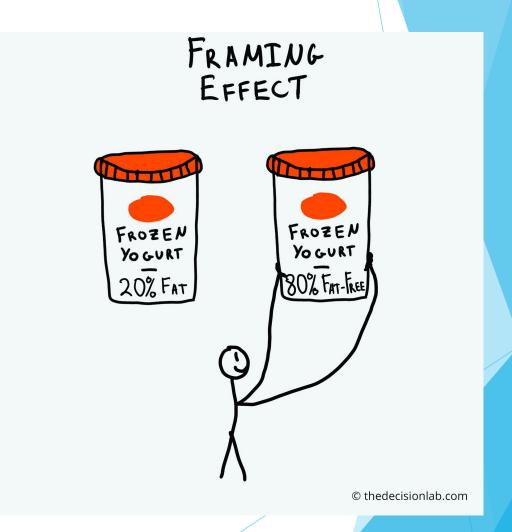


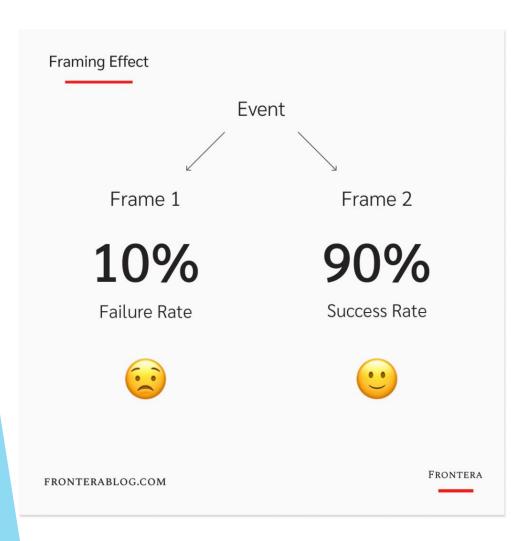
https://thebehavioursagency.com/authority-bias/

https://www.istockphoto.com/cs/search/2/image-film?phrase=bizarre

FRAMING

FRAMING: a cognitive bias where people decide on options based on whether the options are presented with positive or negative connotations





90% chance of surgery success vs.
10% chance of complications

THE FRAMING EFFECT



Which surgery would you choose?

Option 1: 90% success rate

Option 2: 10% mortality rate

(While both options have the same success rate, how they are framed affects which option a patient will choose...)



Framing Effect

Glass is half-full.

Glass is half-empty.





Our choices are influenced by the 'frames'.

DEFAULTS

The default effect explains the tendency to generally accept the default option in a strategic interaction.

Inertia, procrastination, and lack of self-control are personality traits that argue for changing the default behavior **from "opt-in" to "opt-out"** to get the desired result.

Opt-in means choosing to do or being involved in something, while opt-out means choosing not to be part of an activity or stopping being involved in it.



https://ico.org.uk/for-organisations/guide-to-data-protection/ico-codes-of-practice/age-appropriate-design-a-code-of-practice-for-online-services/13-nudge-techniques/

DEFAULTS

Madrian & Shea (2001) documented a significant change in the **participation of employees in the retirement scheme** of a large US corporation before and after a transition to automatic registration (i.e., a change from "opt-in" to "opt-out" of the system).



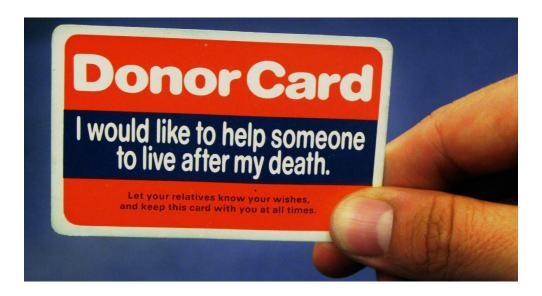
An initial contribution percentage and investment allocation were set by the company (the "choice architect") and changing them required an affirmative act by the employee. Employee participation in the system was significantly higher with automatic registration ("opt-out").

https://www.hdfcsales.com/blog/best-government-pension-scheme-for-senior-citizens/

https://cz.depositphotos.com/stock-photos/opt-out.html

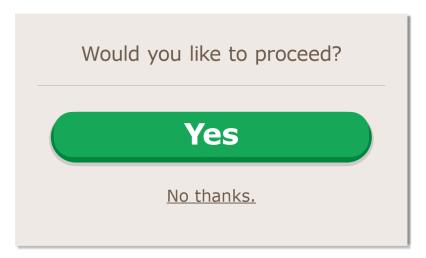
DEFAULTS

According to Johnson and Goldstein (2004), people are more likely to donate organs when they are required to opt out of donating than when they are required to opt in.



https://bioedge.org/uncategorized/will-britains-new-opt-out-organ-donation-system-work/

THE POWER OF DEFAULTS





The Decoy Effect:

Introduction of a third option into the choice set that helps to "nudge" customers toward selecting a particular product by making one option look better than the others.



Posted in Marketing by mattjhawes on January 18, 2019

DECOY EFFECT



https://twitter.com/100Behaviors/status/1271495759750283264

SOCIAL NORMS

Social norms are typically defined as "rules and standards that are understood by members of a group, and that guide or constrain social behaviors without the force of law" (Cialdini and Trost, 1998, p. 152).

Crossman (2021) distinguishes four key types of norms, with differing levels of scope and reach, significance and importance, and methods of enforcement. These norms, in order of increasing significance include folkways, mores, taboos and laws.

Types of Social Norms



Folkway

Norm that stems from and organizes casual interactions



Taboo

Strong negative norm; olating it results in extreme disgust **aughtCo.**



More

Norm that structures the difference between right and wrong



Law

Norm that is formally inscribed at the state or federal level

Folkways, Mores, Taboos, and Laws by Ashley Crossman, 2019

Let 's dive deeper into social norms....

Folkways (e.g., the concept of appropriate dress, the practice of raising one's hand to take turns speaking in a group) are "norms that stem from and organize casual interactions and emerge out of repetition and routines" (Sumner, 1906). We engage in them to satisfy our daily needs.

Mores (e.g., religious doctrines) structure the difference between right and wrong.

Taboos (e.g., eating pork in some Muslim cultures) are a very strong negative norm; it is a prohibition of certain behavior that is so strict that violating it results in extreme disgust and even expulsion from the group or society (Crossman, 2021).

Laws are norms that are issued and enforced by state authorities. Black (1972) views law as "a social control (the regulation over the actions of individuals and groups) by government."

Social norms signal appropriate behavior for most people.

'BEHAVIORAL TURN' IN ECONOMICS

Behavioral economics draws on psychology and economics to explore

- 1) why people make irrational decisions, and
- 2) why and how their behavior does not follow the predictions of economic models.

Expectations-Enhanced Models Incorporate economic expectations, such as inflationary expectations. Mathematical Visual Models Models Systems of simultaneous Pictures of an abstract equations with an equal economy - graphs with or greater number of curves and lines that tell economic variables. an economic story. **Economic** Simulation **Empirical** Models Models Models Must be used with Mathematical models computers. They are designed to be used fundamentally mathematical, with data. but their mathematical complexity is transparent to the user. Static & Dynamic Models

Most economic models are comparative static ones. Dynamic models incorporate time into

https://marketbusinessnews.com/financial-glossary/economic-model-definition-meaning/

ADAM SMITH (CLASSICAL OR BEHAVIORAL ECONOMIST?)

Adam Smith writes in his "Theory of Moral Sentiments" (1759, p.22): "There are some situations which bear so hard upon human nature, that the greatest degree of selfgovernment, which can belong to so imperfect a creature as man, is not able to stifle, altogether, the voice of human weakness, or reduce the violence of the passions to that pitch of moderation, in which the impartial spectator can entirely enter into them."

https://www.britannica.com/biography/Adam-Smith/The-Wealth-of-Nations



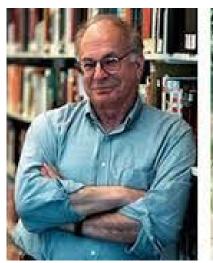
"Existují situace, které se tak těžce snášejí s lidskou povahou, že i nejvyšší míra sebeovládání, které je tak nedokonalé stvoření jako člověk vůbec schopno, nedokáže úplně potlačit hlas lidské slabosti nebo omezit sílu emocí na tak mírnou intenzitu, při které se k nim může nestranný pozorovatel přidat..."

BEHAVIORAL PUBLIC ADMINISTRATION

Herbert Simon's seminal work Administrative Behavior (1947) on bounded rationality



Daniel Kahneman and Amos Tversky (1979) - Prospect Theory 'Behavioral turn' in economics since 2000 (Kahneman Nobel Prize in 2002) entailing, among others, overuse of heuristics and cognitive laziness





RECENT NOBEL PRIZE WINNERS

Richard Thaler (2017) and his theory of nudging

Abhijit Banerjee, Esther Duflo and Michael Kremer (2018) for the utilization of experimental approaches towards poverty rate reduction

David Card (2021) for his job market related experiments

Joshua Angrist and Guido Imbens (2021) for their methodological approach to the analysis of causal relations.

Douglas Diamond and Philip H. Dybvig (2022) for research on banks and financial crises

Claudia Goldin (2023) for having advanced our understanding of women's labour market outcomes

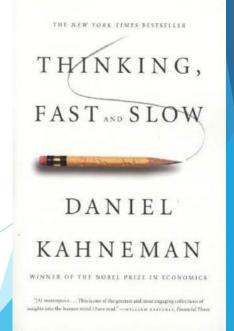
Daniel Kahneman (* March 5, 1934, Tel Aviv, Israel) is a respected Israeli-American psychologist at the Department of Psychology at Princeton University.

He is the winner of the Nobel Prize in Economics in 2002 for his contribution to the integration of knowledge from psychological research into human judgment and decisionmaking under uncertainty.

Together with Amos Tversky, he established a descriptive theory known as the **prospect theory** (in contrast to the utility theory), which is based on several characteristics observed in practice that **deny rationality in decision-making**.

In 2015, he was named **7th most influential economist** in the world by The Economist.





We are **predictably irrational** (Ariely)

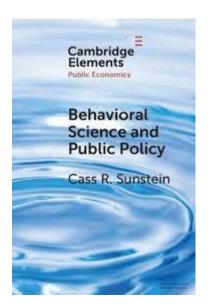
We cheat (others and ourself) (Ariely)

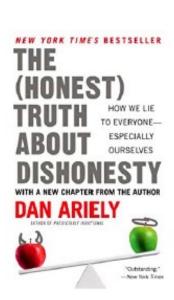
We are not consistent - *Noise in decisions* (Kahneman, Sibony, Sunstein)

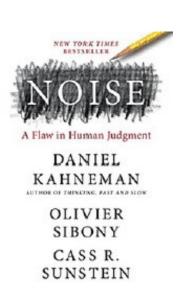
We systematically **overestimate small probabilities** (such as the chances of dying in an accident) **and underestimate moderate and high probabilities** (such as mortality rates for heart disease or cancer) (Gigerenzer)

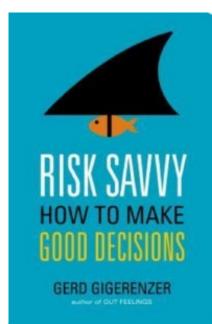
Most of the time, we are **not homo economicus – we dispose of**

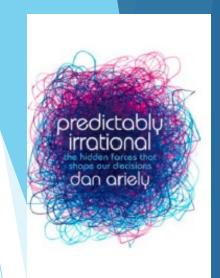
Bounded rationality (Simon)

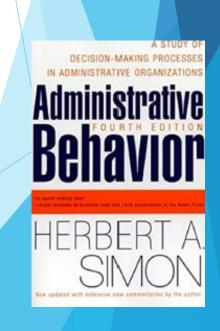






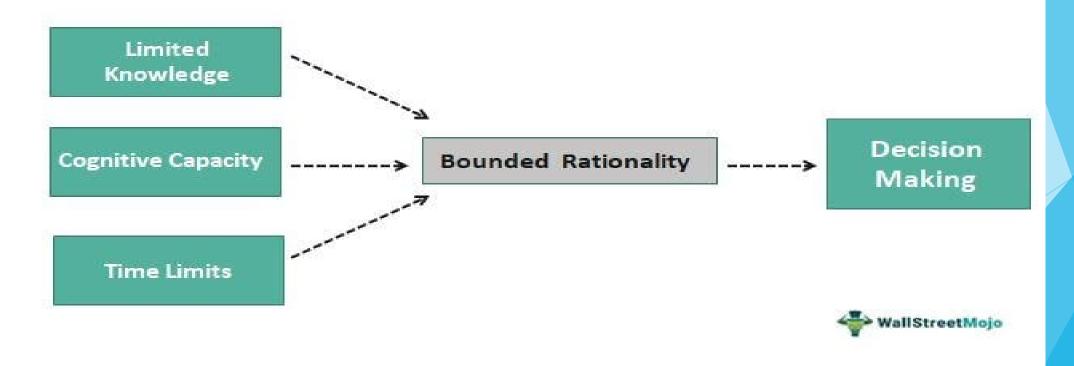






Humans have bounded rationality and bounded willpower, which contradicts the traditional model of the Homo Economicus.

How Bounded Rationality Works?



https://www.wallstreetmojo.com/bounded-rationality/

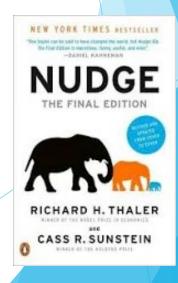
NUDGE (THALER, SUNSTEIN 2008)

If we know the way people think, we can design an environment in which it will be easier for them to choose the best alternative for themselves, their environment and society.

Thaler and Sunstein demonstrate to us that a thoughtfully constructed "choice architecture" can nudge us toward significantly improving our choices without violating our right to choose.

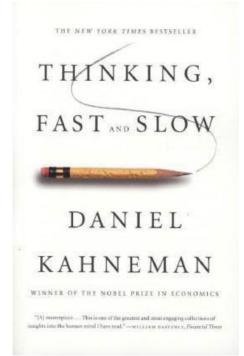


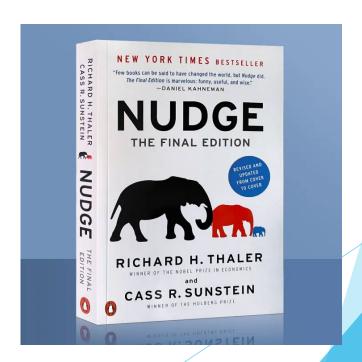




BEHAVIORAL KNOWLEDGE --- NUDGES

"If we really want to understand how we can nudge people into making better choices, it's important to understand why they often make such poor ones."

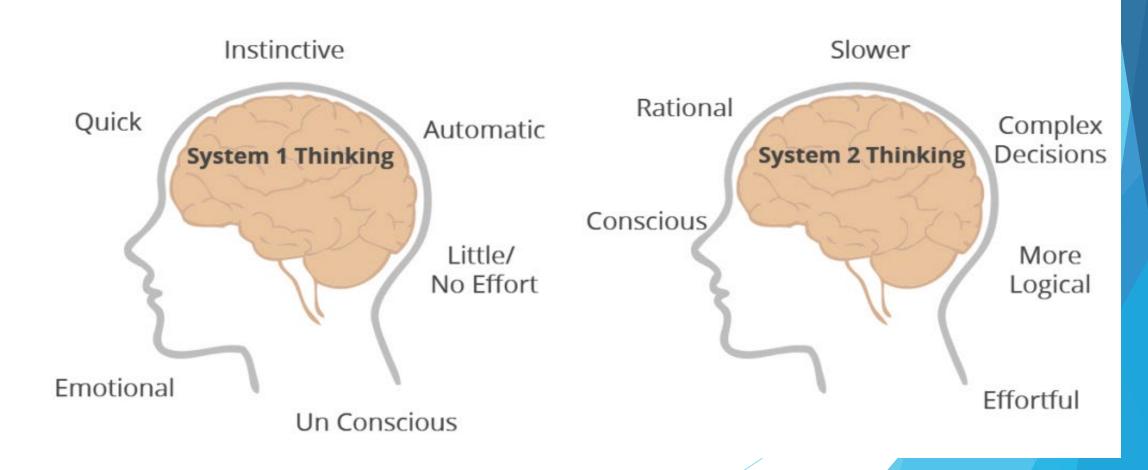




https://bloombergcities.medium.com/explainer-what-is-a-behavioral-nudge-

SYSTEM 1 & SYSTEM 2

DANIEL KAHNEMAN'S SYSTEMS OF THINKING



Heuristics

- Fast
- Unconscious
- Automatic
- Everyday decisions
- Error prone

Rational thinking

- · Slow
- Conscious
- Effortful
- Complex decisions
- Reliable

https://insidebe.com/articles/heuristics/

HEURISTICS

The heuristics can be expressed in the form of **IF...THEN**.... type of rules.

IF it is cloudy THEN take an umbrella.

IF you are overweight THEN consume fewer calories in your food. IF you are having difficulty understanding problems THEN try

drawing a picture.

However, they often result in irrational or inaccurate conclusions.

https://corporatefinanceinstitute.com/resources/knowledge/other/heuristics/

INTUITION

According to Kahneman, the problem with intuition is that subjectively intuition feels just the same when it's wrong and when it's right. It is error-prone.

Within the decision of thinking fast or thinking slow, a different system intervenes that tends people to use intuition rather than concentration. Kahneman calls it *a lazy system*.

When there are difficult decisions to make, we should **slow down** and get advice from somebody who likes us but who doesn't care too much about our feelings.

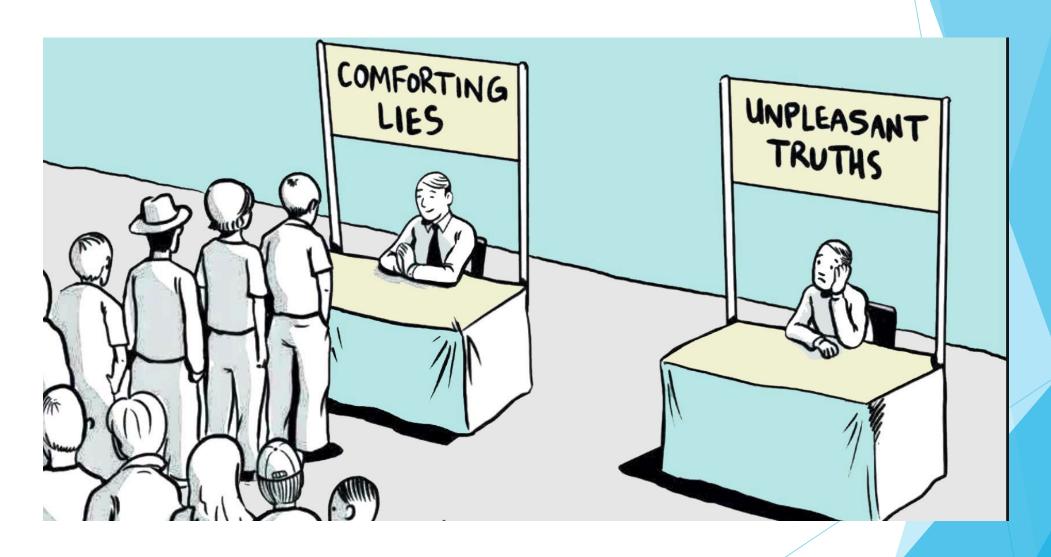
CONFIRMATION BIAS

Confirmation bias is the tendency to process information by looking for, interpreting or realling information that is consistent with one's existing beliefs.

Imagine that a person believes left-handed people are more creative than right-handed people. Whenever this person encounters a person that is both left-handed and creative, they place greater importance on this "evidence" that supports what they already believe (choice-supportive bias).

https://www.verywellmind.com/what-is-a-confirmation-bias-2795024

CONFIRMATION BIAS



https://mbird.com/tag/confirmation-bias/

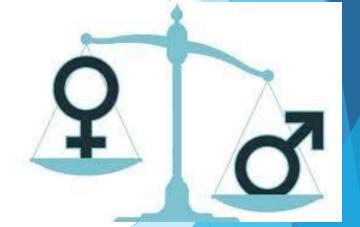
CONFIRMATION BIASES

Stereotype Effect / Unconscious Bias / Implicit Bias

Our memory is distorted towards stereotypes (e.g., racial or gender) that we unconsciously attribute to another person or group of people that affect how they understand and engage with them.

Gender bias discriminates against a gender (e.g. the assumption that women are less suited to jobs requiring high intellectual ability)

Women are wonderful effect is the tendency to associate more positive attributes with women than with men.



CONFIRMATION BIASES

Non-adaptive choice switching ("once bitten, twice shy"; "hot stove effect")

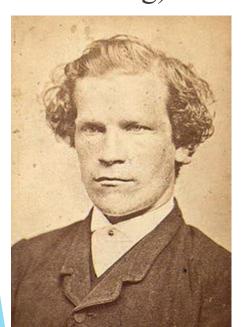
 after experiencing a bad outcome with a decision problem, the tendency to avoid the choice previously made when faced with the same decision problem again, even though the choice is optimal



https://www.bbc.co.uk/learningenglish/course/experiment/unit-1/session-6

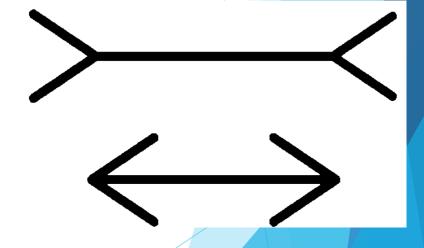
"WHAT YOU SEE IS ALL THERE IS" - WYSIATI PRINCIPLE

WYSIATI refers to the fact that we normally make our judgements and impressions according to the information we have available (narrow framing).



The Müller-Lyer illusion is an optical illusion in which two lines of the same length appear to be of different lengths.

Franz Carl Müller-Lyer (1857 - 1916), a German psychologist and sociologist

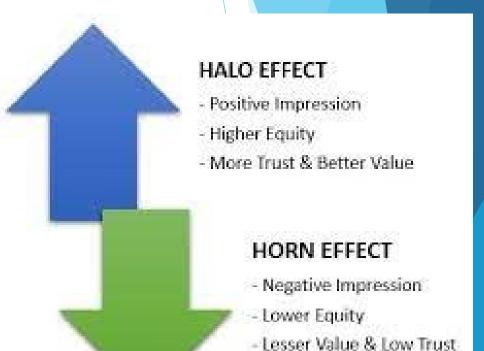


https://www.researchgate.net/figure/The-Mueller-Lyer-illusion_fig1_341875119 http://psych2period5.weebly.com/muller-lyer-illusion.html

HALO EFFECT

The halo effect influences how you think about others. It happens when you automatically make positive assumptions or judgments about people based on something positive you notice. You know little about them, but you subconsciously attach a "halo" to them anyway because you think they seem nice.

The halo effect is a form of stereotyping, the tendency for a person's positive traits to "spill over" from one personality area to another in others' perceptions of them.



https://www.webmd.com/mental-health/what-is-halo-effect

https://www.mbaskool.com/business-concepts/human-resources-hr-terms/3895-halo-horn-effect.html

HORN EFFECT

The horn effect is a cognitive process in which we immediately ascribe negative attitudes or behaviors to someone based on one aspect of their appearance or character.

A common example of this is overweight people, who unfortunately are often stereotyped as being lazy, slovenly or irresponsible.



https://www.beapplied.com/post/what-is-the-halo-and-horn-effect-and-how-does-it-influence-hiring

https://www.mbaskool.com/business-concepts/human-resources-hr-terms/3895-halo-horn-effect.html

OVERCONFIDENCE











https://www.shortform.com/blog/illusion-of-understanding/

https://readingraphics.com/book-summary-thinking-fast-and-slow/

OVERCONFIDENCE ILLUSION OF UNDERSTANDING

The illusion of understanding is **the cognitive bias of thinking** we have a grasp of what's going on in the world when, in fact, the world is far more complex than we know.



https://www.shortform.com/blog/illusion-of-understanding/

https://readingraphics.com/book-summary-thinking-fast-and-slow/

OVERCONFIDENCE ILLUSION OF VALIDITY

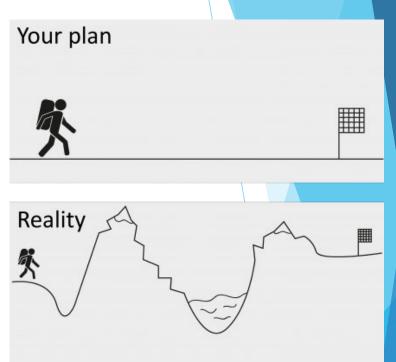
Illusion of validity is a cognitive bias in which a person **overestimates** their **ability to interpret and predict accurately the outcome** when analyzing a set of data, when the data analyzed show a very consistent pattern—that is, when the data "tell" a coherent story.



https://readingraphics.com/book-summary-thinking-fast-and-slow/

OVERCONFIDENCE OPTIMISTIC BIAS





https://archive.researchworld.com/bias-in-the-spotlight-optimism-bias/https://readingraphics.com/book-summary-thinking-fast-and-slow/

OVERCONFIDENCE PRO-INNOVATION EFFECT

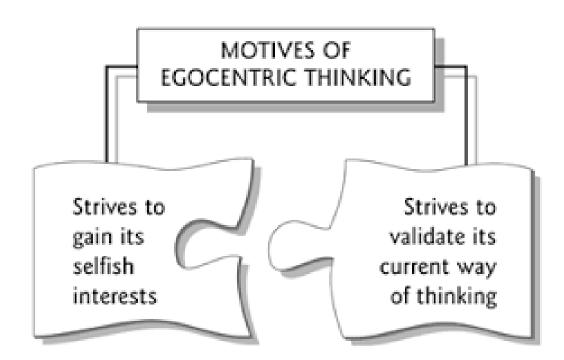
The tendency to have an excessive optimism towards an invention or innovation's usefulness throughout society, while often failing to identify its limitations and weaknesses.



https://nithub.unilag.edu.ng/the-innovative-process/

EGOCENTRIC BIAS

- the tendency to rely too heavily on one's own perspective and/or have a higher opinion of oneself than reality
- the tendency to overestimate one's desirable qualities, and underestimate undesirable qualities, relative to other people



Recalling the past in a self-serving manner, e.g., remembering one's exam grades as being better than they were, or remembering a caught fish as bigger than it really was.

https://medium.com/@RiskSc/egocentric-bias-psychology-term-review-4-ee8cef07752d

DECLINISM / ROSY RETROSPECTION

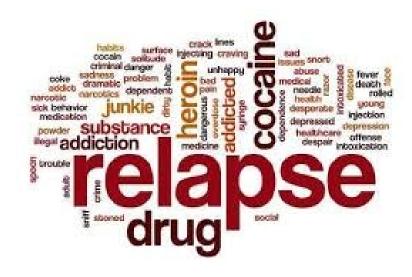
the predisposition to view the past favorably and future negatively



https://neuroleadership.com/your-brain-at-work/rosy-retrospection

EUPHORIC RECALL

the tendency of people to remember past experiences in a positive light, while overlooking negative experiences associated with that event



The Cup Rorid Effect

EUPHORIC RECALL

PESSIMISM BIAS

the tendency for some people, especially those with depression, to overestimate the likelihood of negative things happening to them

	Strengths	Weaknesses
Optimism Bias	Innovative, creative, cheerleader, motivator,	Risk blindness, shiny new object syndrome
	visionary, entrepreneur, founder	
Pessimism Bias	Improver, fixer, maintainer, controller, imple-	Risk aversion, stagnation
	menter, devil's advocate, manager	

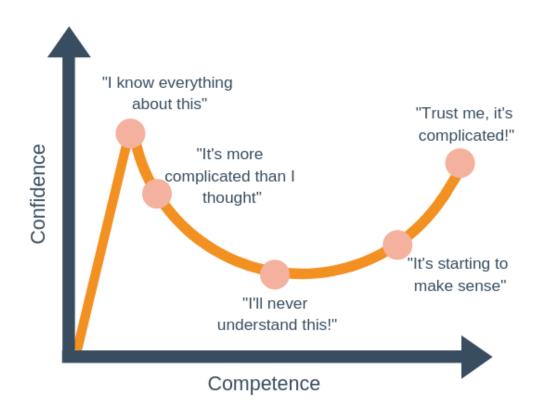
Shiny new object syndrom is (probably) rooted in that childhood phenomenon of always wanting a new toy, even if your current toy is just fine.

Worse-than-average effect: a tendency to believe ourselves to be worse than others at tasks which are difficult

https://ar.casact.org/behavioral-science-a-useful-addition-to-the-actuarial-toolbox/

The Dunning-Kruger Effect

The Dunning-Kruger Effect is the tendency for unskilled individuals to overestimate their own ability and the tendency for experts to underestimate their own ability.



https://blog.shabda.co/2021/12/26/what-is-the-dunning-kruger-effect/

HARD-EASY EFFECT (OVERCONFIDENCE & UNDERCONFIDENCE)

Our brain's tendency to overestimate one's ability to accomplish hard tasks and underestimate one's ability to succeed in easy tasks

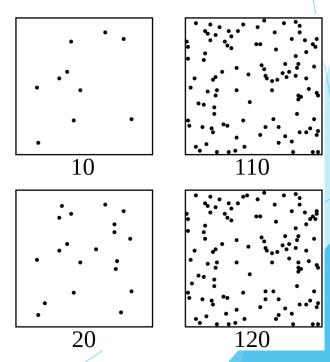


https://quotefancy.com/quote/839451/Johann-Wolfgang-von-Goethe-Everything-is-hard-before-it-is-easy https://www.worldsupporter.org/en/chapter/69941-decision-making-and-team-conflict-social-psychology-organizations

THE WEBER-FECHNER LAWS: (difficulty in comparing small differences in large quantities.)

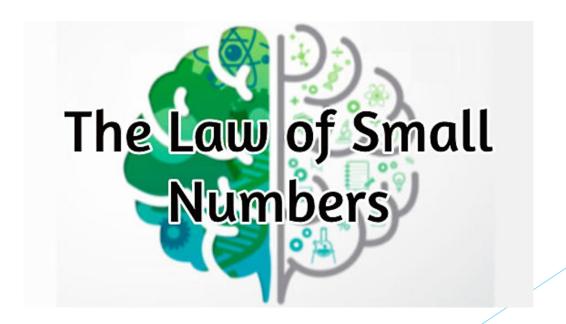
The Weber–Fechner laws relate to human perception, more specifically the relation between the real change in a physical stimulus and the perceived change. This includes stimuli to all senses: vision, hearing, taste, touch, and smell.

On each side, the lower square contains 10 more dots than the upper one. However, the perception is different: On the left side, the difference between upper and lower square is clearly visible. On the right side, the two squares look almost the same.



COGNITIVE FALLACY

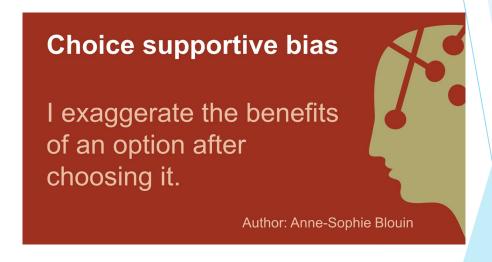
The law of small numbers is a cognitive bias, where people tend to believe that a relatively small number of observations well reflects the entire population. We have the tendency to under-expect variation in small samples (e.g., scientific research on small samples).



https://www.linkedin.com/pulse/law-small-numbers-gdp-happiness-mark-clubb

Choice-supportive bias describes the tendency to have positive attitudes about the things or ideas we choose, even when they are flawed.





The bandwagon effect describes the tendency when people do something simply because others are also doing it.

https://rajeets1.medium.com/once-you-see-a-bandwagon-its-too-late-e067c94529c4 https://en.shortcogs.com/bias/choice-supportive-bias



Herding behavior is a term used to describe the tendency of individuals to think and act as a group.



The ostrich effect is a cognitive bias that describes how people often avoid negative information, including feedback that could help them monitor their goal progress.

Instead of dealing with the situation, we bury our heads in the sand, like ostriches.

https://www.businessinsider.com/cognitive-biases-2015-

10



https://www.dreamstime.com/stockillustration-self-control-important-issuesregarding-image47990887 The illusion of self-control: The tendency to overestimate one's self-control skills in the face of temptation.

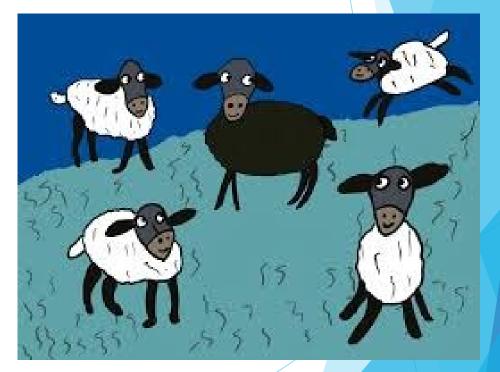
For example, abstinent smokers with a greater illusion of self-control tended to be more tempted, which after 4 months of observation led to a higher relapse rate.



https://www.healthline.com/health/copd/smoking-relapse https://josefstepanek.cz/58-kognitivnich-zkresleniktera-skodi-vsemu-delame

The salience bias (also known as perceptual salience) occurs when we focus on items or information that are especially remarkable while casting aside those that lack prominence.

The salience bias arises from a contrast (often unexpected) between items and their surroundings, such as a black sheep in a herd of white sheep, or a person talking on the phone in a quiet elevator.



https://instituteforpr.org/nudges-that-hurt-those-already-hurting-distributional-and-unintended-effects-of-salience-nudges/

https://www.storynory.com/song-ba-ba-black-sheep/

https://thedecisionlab.com/biases/salience-bias

SALIENCE

Authority bias: the tendency to attribute greater accuracy to the opinion of an authority figure



Bizarreness bias: bizarre things are better remembered than common ones.



https://thebehavioursagency.com/authority-bias/

https://www.istockphoto.com/cs/search/2/image-film?phrase=bizarre

PLANT BLINDNESS

Plant blindness is the tendency to ignore plants in their environment and a failure to recognize and appreciate the utility of plants to life on earth



What do you see in this photo? #PlantBlindness #PlantSci



Plant blindness' is caused by **urban life** and could be cured through **wild food foraging**, both as a way of introducing people to multiple species and connecting them with some 'modern-day' health, cultural and recreational uses (Stagg et al.,2022)

Bethan C. Stagg et al, Plant awareness is linked to plant relevance: A review of educational and ethnobiological literature (1998-2020), PLANTS, PEOPLE, PLANET (2022) DOI: 10.1002/ppp3.10323

44.40.414.001.00474.00474

Apophenia is the tendency to perceive meaningful connections between unrelated things or objects, to interpret random patterns as meaningful (e.g., UFO, conspiracies, paranormal experience)

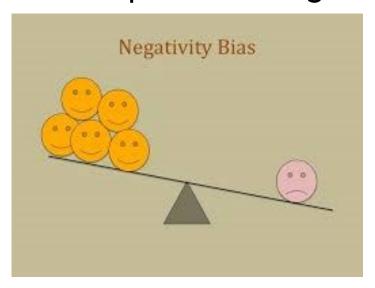


See that fluffy bunny? If you do, you're demonstrating apophenia.

Proportionality effect is the tendency to assume that big events have big causes, may also explain our tendency to accept conspiracy theories.

https://globisinsights.com/career-skills/critical-thinking/cognitive-bias/

The negativity bias is a cognitive bias that, even when of equal intensity, things of a more negative nature (unpleasant thoughts, emotions, or social interactions; harmful/traumatic events) have a greater effect on one's psychological state and processes than neutral or positive things.



NEGATIVITY BIAS

DEFINITION

Negativity bias refers to the psychological phenomenon where negative events and information have a greater impact on one's psychological state and decisions than neutral or positive ones. This means people are more likely to remember and be influenced by negative experiences than positive ones.

EXAMPLES

- News Consumption: People are more likely to click on and remember negative news headlines than positive ones.
- Feedback and Reviews: A single negative review can deter potential customers more than multiple positive reviews can attract them.

HELPFULPROFESSOR.COM

https://helpfulprofessor.com/negativity-bias-examples/

https://themindsjournal.com/quotes/negativity-bias-interesting-facts-about-the-brain/

PROJECTION BIAS

In behavioral economics, projection bias refers to people's assumption that their tastes or preferences will remain the same over time (Loewenstein et al., 2003).

We believe that we will share the same preferences as in present with our future self.

However, our tastes and preferences change as we do. This is partly due to a process called **hedonic adaptation**. We get used to new life experiences as their novelty wanes.

"I will become a teacher",
"I will never eat late hours"
"I'll always be true to my partner"

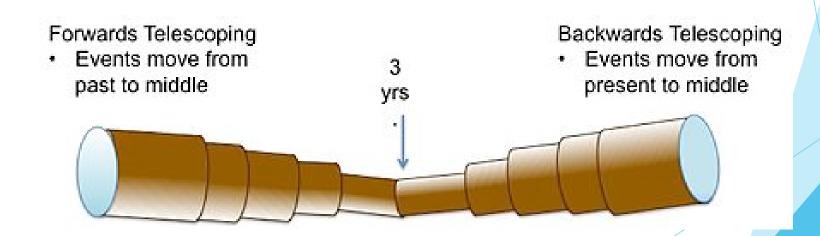


https://www.psychologytoday.com/us/blog/the-athletes-way/202103/how-make-daydreaming-more-enjoyable https://medium.com/gravityblog/13-projection-bias-26e4dc52cff4

TELESCOPING EFFECT / THE TEMPORAL DISPLACEMENT OF AN EVENT

The telescoping effect is the tendency to perceive recent events as being more remote than they are and distant events as being more recent than they are.

3 years is approximately the time frame in which events switch from being displaced backward in time to forward in time.



https://www.wikiwand.com/en/Telescoping_effect

TELESCOPING EFFECT

Why do some things "seem like they just happened yesterday?"

It seems every year, on September 11, people remark how 9/11 seems like it wasn't that long ago and are surprised to hear the media highlight the number of years that have passed since the tragedy.

Conversely, it is a few years after the COVID-19 pandemic, and one might feel a lot more time has passed than it has.

The telescoping effect leads to inaccuracies in recalling when a past event occurred

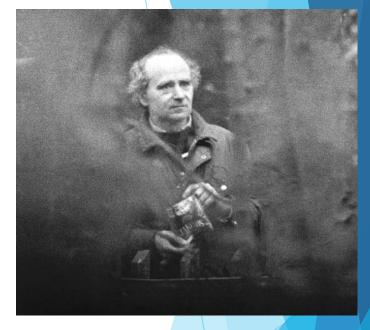
https://thedecisionlab.com/biases/telescoping-effect

TELESCOPING EFFECT

A real-world example of the telescoping effect is the case of Ferdi Elsas, an infamous kidnapper and murderer in the Netherlands.

When he was let out of prison, most of the general population did not believe he had been in prison long enough.

Due to forward telescoping, people thought Ferdi Elsas' sentence started more recently than it actually did.



Ferdi Elsas (1942-2009)

Draaisma, Douwe; Pomerans, Erica (2004). Why life speeds up as you get older: on autobiographical memory. New York: Cambridge University Press. ISBN 978-0-521-83424-7.

TELESCOPING EFFECT

Some theories propose that the effect arises from **confusion** with other events, a misperception of time, or a fading affect bias, which is the tendency for the impact of negative events to fade faster than that of positive ones.

Various factors, such as the individual's **age**, the **nature** of the event being remembered, and **cultural factors**, can influence the extent to which the telescoping effect occurs.

TELESCOPING EFFECT – BOUNDARY MODEL

BACKWARD

FORWARD

Rubin and Baddeley (1989) created the boundary model to explain telescoping.

When people date events, they often get information from a **bounded period**, such as a year or a vacation.

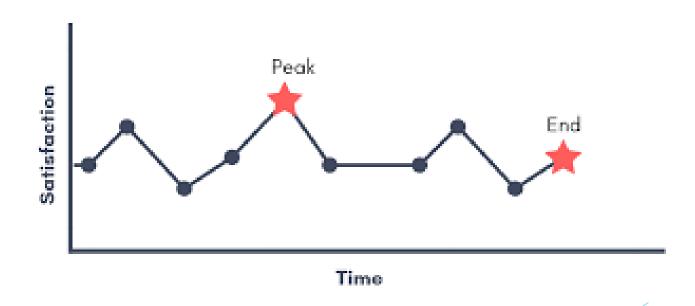
Since recent events are dated more accurately, forward telescoping has a stronger effect.

The model postulates that, without boundaries, an estimation would be unbiased.

Rubin, D. C., & Baddeley, A. D. (1989). Telescoping is not time compression: A model of the dating of autobiographical events. Memory & Cognition, 17(6), 653-661. https://doi.org/10.3758/BF03202626

PEAK-END RULE

People seem to perceive not the sum of an experience but the average of how it was at its peak (e.g., pleasant or unpleasant) and how it ended.

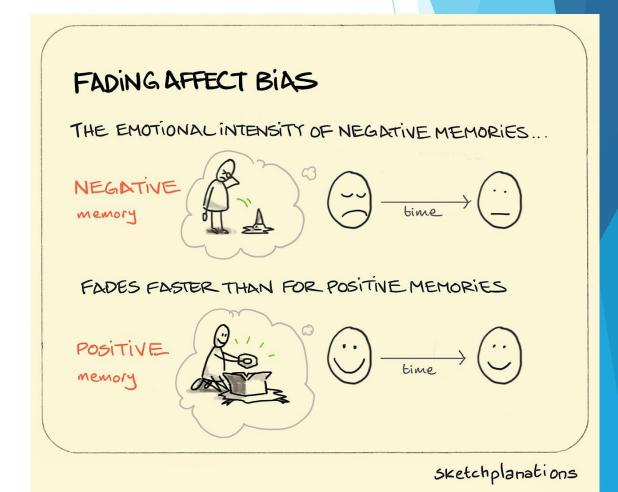


https://rehabupracticesolutions.com/peak-end-rule/

FADING EFFECT BIAS

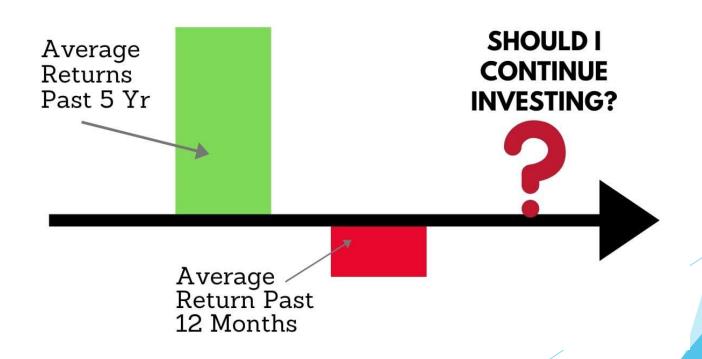
a bias in which the emotion associated with unpleasant memories fades more quickly than the emotion associated with positive events

Across time, the negative affect associated with negative personal event memories tends to fade more than the positive affect associated with positive personal event memories (Walker and Skowronski, 2009, Walker et al., 2003)



End-of-history illusion is the age-independent belief that one will change less in the future than one has in the past.

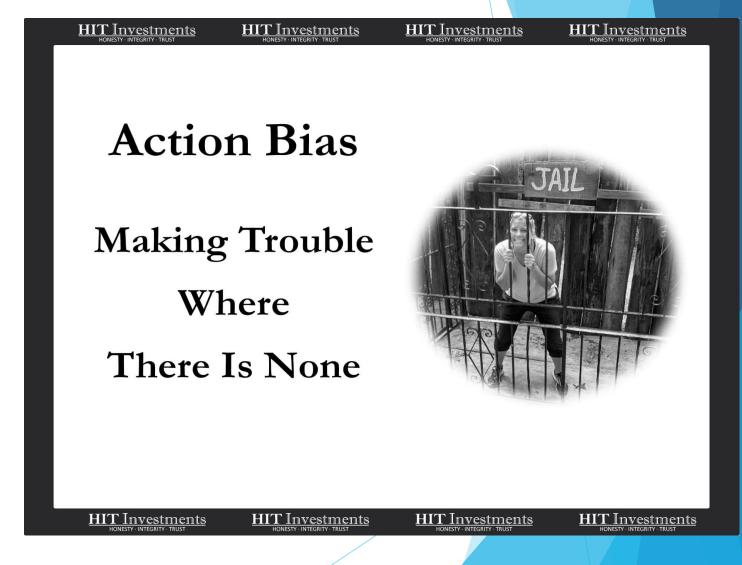
Recency illusion is the illusion that a phenomenon one has noticed only recently is itself recent



https://tradebrains.in/recency-bias/

ACTION BIAS

The tendency for someone to act when faced with a problem even when inaction would be more effective, or to act when no evident problem exists.



PYGMALION EFFECT

The Pygmalion effect (or Rosenthal effect) describes the scenario in which someone else's high expectations improve our behaviour and, subsequently, our performance in a positive manner.



Robert Rosenthal and Lenore Jacobson's study showed that children's performance was enhanced if teachers were led to expect enhanced performance from children.

Robert Rosenthal (born in 1933), a Harvard professor

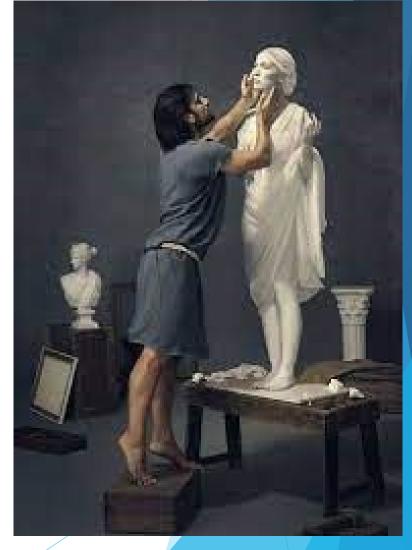


https://www.pmlive.com/blogs/smart_thinking/archive/2021/great_expectations

PYGMALION EFFECT

The effect is named after the Greek myth of Pygmalion, a sculptor who fell so in love with the perfectly beautiful statue he created that the statue came to life.





https://flourishingacademic.wordpress.com/2015/01/26/the-pygmalion-effect/https://www.pmlive.com/blogs/smart_thinking/archive/2021/great_expectations

GOLEM EFFECT

There is a counterpart to the Pygmalion effect, and it is known as the **Golem effect**. This behavioural construct suggests that those with negative or low expectations will elicit behaviors that impair the performance of others and make others themselves produce negative behaviors.

I always knew you were going to fail.





https://wonderfulmind.net/golem-effect-and-features/

SPOTLIGHT EFFECT: the tendency to overestimate the amount that other people notice one's appearance or behavior.

PLACEMENT BIAS: the tendency to remember ourselves to be better than others at tasks at which we rate ourselves above average (e.g., driving skills)





REACTIVE DEVALUATION: devaluing proposals only because they originated with an adversary.

https://web.colby.edu/cogblog/2022/04/27/consumerism-and-the-spotlight-effect-how-our-minds-convince-us-to-spend/

https://www.linkedin.com/pulse/advocate-adversary-armann-fenger-lpc-ncc/

SOCIAL COMPARISON BIAS: the tendency, when making decisions, to favor potential candidates who do not compete with one's own particular strengths.

REACTANCE: the urge to do the opposite of what someone wants one to do out of a need to resist a perceived attempt to constrain one's freedom of choice

Reactance Bias

acting solely to demonstrate your freedom to do so



https://www.howtogetyourownway.com/biases/reactance_bias.html

https://www.slideshare.net/jtneill/personal-control-and-the-self

PSYCHOLOGICAL REACTANCE

DEFINITION

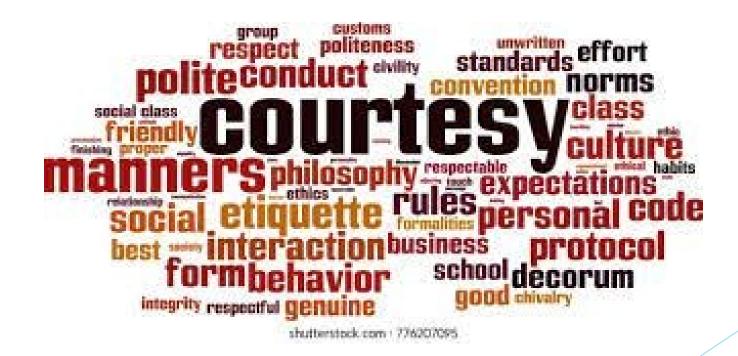
Psychological reactance is a phenomenon that involves a hostile motivational reaction to offers, persons, rules, or regulations that are perceived to threaten behavioral freedoms and agency (Steindl et al., 2015).

CAUSES

Reactance may occur when an individual feels that someone or something is attempting to limit or control their choice of response or behavior. This perceived threat to behavioral freedom can elicit an unpleasant or hostile response (Rosenberg & Siegel, 2018).

COURTESY BIAS: the tendency to give an opinion that is more socially correct than one's true opinion, to avoid offending anyone

ASSUMED SIMILARITY BIAS: where an individual assumes that others have more traits in common with them than those others really do.



ZEIGARNIC EFFECT: why we keep thinking about unfinished tasks



The Zeigarnik effect refers to the tendency for interrupted tasks, in some circumstances, to be recalled better than completed tasks.

Bluma Wulfovna Zeigarnik, a Lithuanian-Soviet psychologist and psychiatrist

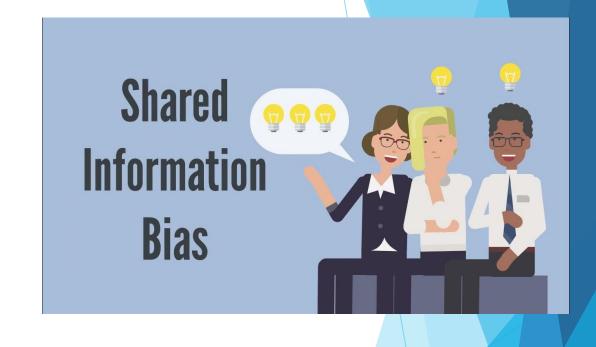
(1900-1988)

https://blog.doist.com/zeigarnik-effect-comic/



SHARED INFORMATION BIAS

A tendency for group members to spend more time and energy discussing information that all members are already **familiar** with (i.e., shared information), and less time and energy discussing information that only some members are **aware** of (i.e., unshared information)

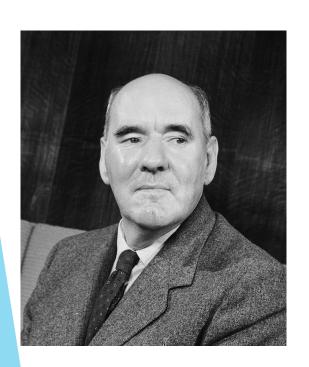


A tendency of group members to discuss information that they all have access to while ignoring equally important information that is available to only a few of the members.

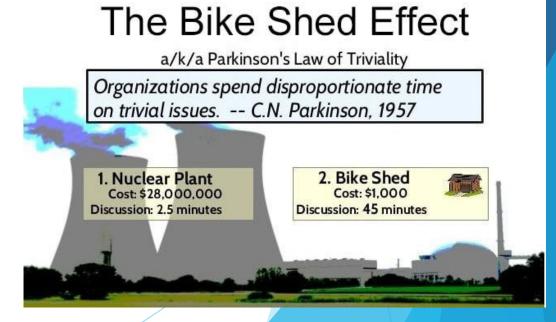
https://www.youtube.com/watch?app=desktop&v=k9atH0HciVE https://opentextbc.ca/socialpsychology/chapter/group-decision-making

PARKINSON'S LAW OF TRIVIALITY / BIKE SHED EFFECT

Parkinson's law of triviality is a concept that states that people will spend more time on trivial issues than on important ones. It is also known as the bike shed effect.



Cyril Northcote Parkinson (1909-1993) was a British civil servant



https://thecodersblog.com/analaysis-Parkinson's-law-of-triviality/

ATTRIBUTE SUBSTITUTION

Attribute substitution occurs when an individual must make a judgment that is complex to calculate, and instead substitutes a more easily calculated attribute.

TABLE 12.1 DIFFERENT TYPES OF ATTRIBUTE SUBSTITUTION

You want to judge	Instead you rely on	This usually works because	But this strategy can lead to error because
Frequency of occurrence in the world	Availability in memory: How easily can you think of cases?	Events that are frequent in the world are likely to be more available in memory.	Many factors other than frequency in the world can influence availabil- ity from memory!
Probability of an event being in a category or having certain properties	Resemblance between that event and other events in the category	Many categories are homogeneous enough so that the category members do resemble one another.	Many categories are not homoge- neous!

https://quizlet.com/390943574/chapter-12-judgements-and-reasoning-flash-cards/

CURSE OF KNOWLEDGE

The curse of knowledge is a cognitive bias that occurs when an individual, who is communicating with other individuals, incorrectly assumes that the other individuals have the background knowledge to understand.

How does it impact students?

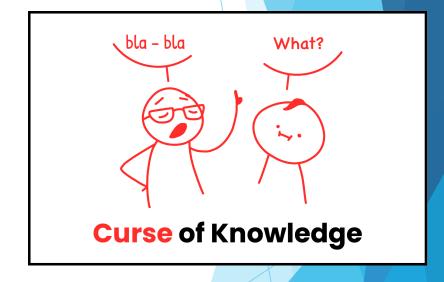
The "student-master dilemma" is inherent in the curse of knowledge. While a beginner receiving instruction from an expert sounds ideal, the reality is that a gap of understanding is likely to occur between what the master explains and what the student grasps.

It is prevalent that a student may experience this in one or more of their classes, especially in their first-year studies. Encountering the curse of knowledge can leave them feeling lost, confused, discouraged, or frustrated.

CURSE OF KNOWLEDGE

The following are examples of common ways in which the curse of knowledge can influence people:

- The curse of knowledge can make it **harder for experts to teach beginners**.
- The curse of knowledge can make it harder for people to communicate.
- The curse of knowledge can make it harder for people to predict the behavior of others.
- The curse of knowledge can make it harder for people to understand their own past behavior.



https://blog.container-solutions.com/the-curse-of-knowledge https://effectiviology.com/curse-of-knowledge/

HINDSIGHT EFFECT ['HAIND SAIT]

Why do we see unpredictable events as predictable after they occur?



Easy to be wise after the event

The hindsight bias is our tendency to look back at an unpredictable event and think it was easily predictable.

It is also called the 'knew-it-all-along' effect.

"I had a hunch/premonition/feeling that it would go wrong."

https://thedecisionlab.com/biases/hindsight-bias

OUTCOME BIAS

the tendency to judge a decision by its eventual outcome instead of the quality of the decision at the time it was made.

Outcome bias arises when a decision is based on the outcome of previous events, without regard to how the past events developed.

We fall victim to the outcome bias because our brains skip over complex processes and jump to the most simplified conclusions possible.

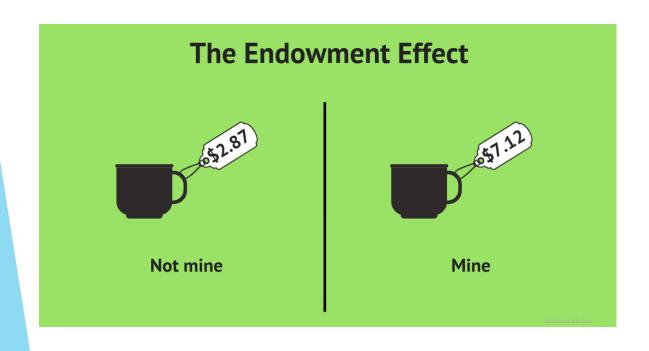


https://orgtology.org/index.php/2015-06-01-09-45-25/orgtology-blog/25-difference-between-target-output-aroutcome

https://www.bmt.com/wealth/business-and-business-owners/investment-management-businesses/

ENDOWMENT EFFECT

In psychology and behavioral economics, the possession effect represents the fact that people value the things they own more than the things they can own. In other words, an individual is much more sensitive to a loss than to a gain of the same size.



Ownership makes you overvalue your things.

Mere exposure effect/familiarity principle

The tendency to express liking for things merely because of familiarity with them.

IKEA EFFECT

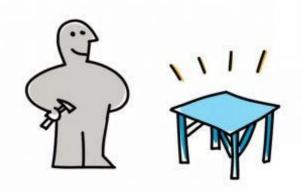
THE EXAGGERATEDLY HIGH

VALUE AND ATTACHMENT

PLACED ON PRODUCTS THAT

YOU BUILD YOURSELF, REGARDLESS

OF THE END RESULT QUALITY.





 the tendency for people to place a disproportionately high value on objects that they partially assembled themselves, such as furniture from IKEA, regardless of the quality of the product

https://theawarenessnews.com/2020/02/06/the-ikea-effect/

https://medium.com/mind-talk/when-we-build-we-love-understanding-the-ikea-effect-ba376813729b

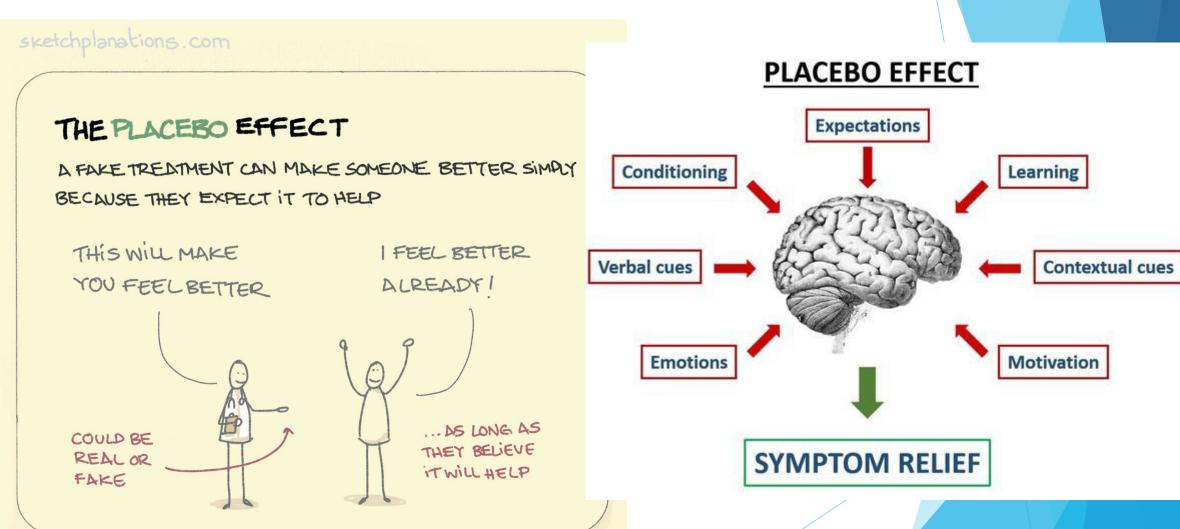
COGNITIVE EASE, CONFIRMATION BIAS & ENDOWMENT EFFECT



View the video

https://www.youtube.com/watch?v=vb083Unh7ck

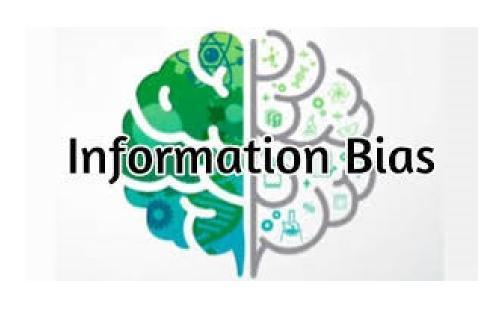
PLACEBO EFFECT



https://sketchplanations.com/the-placebo-effect

http://likeironstrong.com/the-placebo-effect-andstrength-training/

INFORMATION BIAS



demonstrates the tendency to seek information even when it cannot affect action.

If You Have an Enemy, Give Him Information

https://meaningring.com/2016/04/30/information-bias-by-rolf-dobelli/

ILLUSORY TRUTH EFFECT



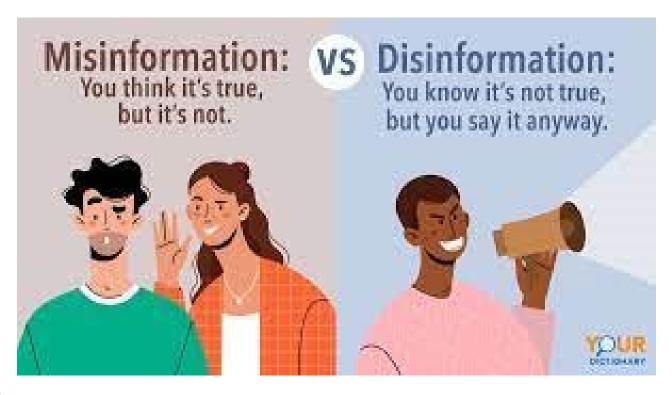
The illusory truth effect is the tendency to believe that a statement is true if it is easier to process, or if it has been stated multiple times, regardless of its actual veracity.

People tend to perceive claims as truer if they have been exposed to them before. The illusory truth effect helps explain why advertisements and propaganda work, and why people believe fake news to be true.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8116821/

http://archive.boston.com/bostonglobe/ideas/articles/2010/01/31/easy__true/

MISINFORMATION vs. DISINFORMATION



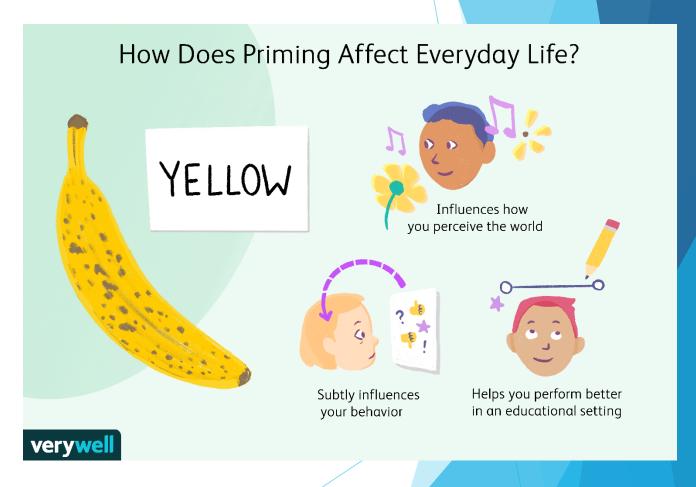


https://www.agilitypr.com/pr-news/public-relations/disinformation-in-society-new-institute-of-pr-research-examines-and-tracks-its-spread/

https://www.yourdictionary.com/articles/misinformation-disinformation-compare

PRIMES THAT GUIDE US

PRIMING: phenomenon whereby exposure to one stimulus (a word, image, smell or sound) influences a response to a subsequent stimulus, without conscious guidance or intention.



https://www.verywellmind.com/priming-and-the-psychology-of-memory-4173092

PRIMING - ASSOCIATION MACHINE

Examples of How Priming Influences Behaviour

Here is the word — S _ _ p
Did you say it is soup?
Ok, what if I go and take a shower? What word will it be now? S _ _ p
Did you say soap this time?

Adding "bio" or "all-natural" to your product primes people into getting thoughts of nature or farms.

https://uxplanet.org/5-examples-of-how-priming-influences-behaviour-4e91757023c0

INFORMATION IS BETTER RECALLED IF

Spacing effect demonstrates that learning is more effective when study sessions are spaced out. Information is better recalled if exposure to it is repeated over a long span of time rather than a short one.

Humor effect: humorous items are more easily remembered than non-humorous ones

Modality effect: memory recall is higher for the last items of a list when the list items were received via speech than when they were received through writing

Primacy effect: an item at the beginning of a list is more easily recalled



https://www.psychologicalscience.org/news/mindsbusiness/the-energizing-effect-of-humor.html

INFORMATION IS WORSE RECALLED IF

Google effect: the tendency to forget information that can be found readily online by using Internet search





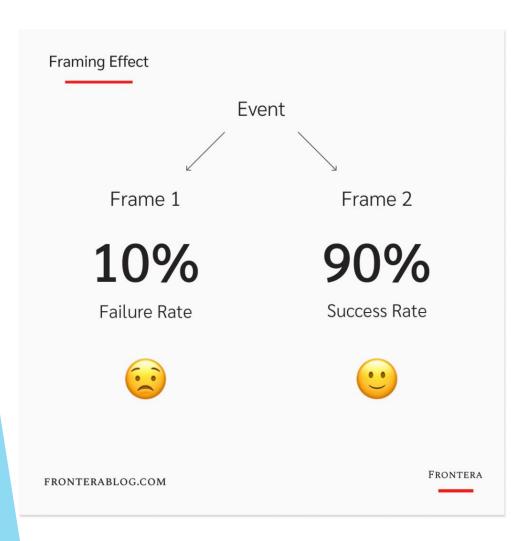
https://web.colby.edu/cogblog/2018/04/26/me-myself-and-google-a-brief-search-into-the-google-effect/

HEURISTICS & COGNITIVE BIASES

FRAMING: a cognitive bias where people decide on options based on whether the options are presented with positive or negative connotations

FRAMING EFFECT





90% chance of surgery success vs.
10% chance of complications

THE FRAMING EFFECT



Which surgery would you choose?

Option 1: 90% success rate

Option 2: 10% mortality rate

(While both options have the same success rate, how they are framed affects which option a patient will choose...)



Framing Effect

Glass is half-full.

Glass is half-empty.





Our choices are influenced by the 'frames'.

FEAR OF MISSING OUT (FOMO)

FOMO is a type of framing as it can be used to negatively frame the opportunity of membership as a loss.

An example of using FOMO in membership marketing is a call-to-action such as "Don't miss out on the limited-time exhibition—join today and see it first!"



https://medium.com/edtech-kisk/fomo-aneb-aby-n%C3%A1m-nic-neuteklo-956fa8467cf3

FEAR OF MISSING OUT (FOMO)



https://beecholmeadultcare.co.uk/fomo-fear-of-missing-out/

OMISSION EFFECT

The tendency to judge harmful actions as worse, or less moral, than equally harmful inactions (i.e., omissions).

Omission bias is the preference for harm caused by omissions over equal or lesser harm caused by acts.

Ritov and Baron (1990) used vaccination to illustrate the bias: many people consider the risk of harm from vaccination as more serious than the risk from omitting vaccination.



https://www.sciencedirect.com/science/article/abs/pii/S0749597804000251

RISK COMPENSATION / PELTZMAN EFFECT

We tend to take greater risks when perceived safety increases.

The Peltzman effect, named after Sam Peltzman, who researched postulation about mandating the use of seatbelts in automobiles, states that people are more likely to engage in risky behavior when security measures have been mandated.

According to Peltzman, introducing security devices will not reduce accidents, although the safety devices will reduce the fatality rate.

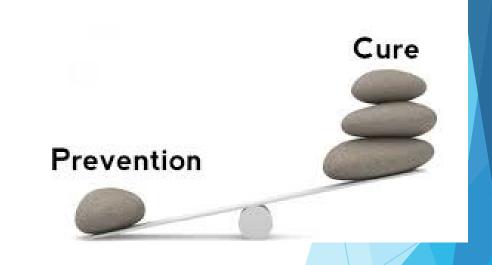


Sam Peltzman is
Professor Emeritus at
the Booth School of
Business, University of
Chicago

PREVENTION BIAS

"An ounce of prevention is worth a pound of cure."

When investing money to protect against risks, decision makers perceive that a dollar spent on prevention buys more security than a dollar spent on timely detection and response, even when investing in either option is equally effective.



https://www.linkedin.com/pulse/ounce-prevention-worth-pound-cure-wally-mark/

IMPACT BIAS

The impact bias is the tendency for people to overestimate the length or the intensity of future feeling states.

In other words, people seem to think that if disaster strikes it will take longer to recover emotionally than it does.

Impact bias

When we think about how we will react to possible future events, we tend to overestimate both the intensity and duration of our emotions.

Author: Myles Maillet

INDULGENCE EFFECT

A cultural dimension dealing with the extent to which people are more prone to impulses rather than rationalization

It may be in the case of eating, drinking, buying something you don't need, watching movies.



These indulgences come mainly from heredity factors, psychological conditions, dieting, peer pressure, etc.

UNIT BIAS: the standard suggested amount of consumption (e.g., food serving size) is perceived to be appropriate, and a person would consume it all even if it is too much for him.

https://creatingselflove.com/self-care-vs-self-indulgence/

MORAL CREDENTIAL EFFECT (SELF LICENSING)

Occurs when someone who does something good gives themselves permission to be less good in the future

Moral Credential Bias

believing previous good acts give licence to performing a bad one



https://www.howtogetyourownway.com/biases/moral_credential_bias.html

HUNGRY JUDGE EFFECT / INTEROCEPTIVE BIAS (THE PERCEPTION OF INTERNAL BODY STATES)

- the tendency for sensory input about the body itself to affect one's judgement about external, unrelated circumstances.
- As for example, in judges who are more lenient when fed and rested.

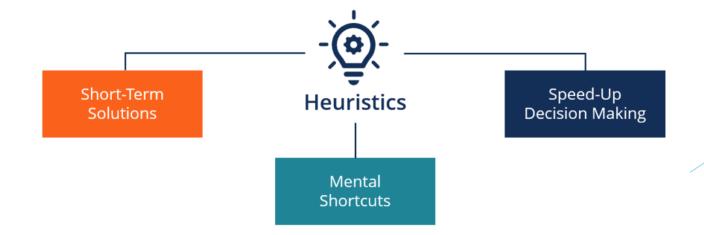
Danziger, Levav and Avnaim-Pesso (2011) analyzed legal rulings of Israeli parole boards and found that the probability of a favorable decision drops from about 65% to almost 0% from the first ruling to the last ruling within each session and that the rate of favorable rulings returns to 65% in a session following a food break.



Everyone Is a Little Bit Biased...

Study the list of the following heuristics and cognitive biases and answer the questions:

- 1. What is your experience?
- 2. How are the following heuristics and biases apparent in public and social policy?





Anchoring bias	the tendency to rely too heavily on one trait or piece of information when making decisions
Apophenia	the tendency to perceive meaningful connections between unrelated things or objects, to interpret random patterns as meaningful (e.g., UFO, conspiracies, paranormal experience)
Availability heuristic/bias	the tendency to overestimate the likelihood of events with greater "availability" in memory
Cognitive dissonance - IKEA effect	the tendency for people to place a disproportionately high value on objects that they partially assembled themselves, such as furniture from IKEA, regardless of the quality of the product

Confirmation bias	the tendency to search for, interpret, focus on and remember information in a way that confirms one's preconceptions. (e.g., a researcher expects a given result and therefore unconsciously manipulates an experiment or misinterprets data in order to find it. The tendency to reject new evidence that contradicts a paradigm.)
Egocentric bias	the tendency to rely too heavily on one's own perspective and/or have a higher opinion of oneself than reality. The tendency to overestimate one's desirable qualities, and underestimate undesirable qualities, relative to other people.
Hyperbolic discounting	the tendency for people to have a stronger preference for more immediate payoffs relative to later payoffs.
Hard-easy effect	the tendency to overestimate one's ability to accomplish hard tasks, and underestimate one's ability to accomplish easy tasks

Gender bias	biase that discriminates against a gender (e.g. the assumption that women are less suited to jobs requiring high intellectual ability)
Framing effect	the tendency to draw different conclusions from the same information, depending on how that information is presented
Gambler's fallacy	the tendency to think that future probabilities are altered by past events. In reality they are unchanged.
Dunning- Kruger effect	the tendency for unskilled individuals to overestimate their own ability and the tendency for experts to underestimate their own ability.

Illusory truth effect	the tendency to believe that a statement is true if it is easier to process, or if it has been stated multiple times, regardless of its actual veracity
Women are wonderful effect	A tendency to associate more positive attributes with women than with men.
Non-adaptive choice switching ("once bitten, twice shy" "hot stove effect")	After experiencing a bad outcome with a decision problem, the tendency to avoid the choice previously made when faced with the same decision problem again, even though the choice is optimal.
Hindsight bias ("I-knew-it-all-along" effect)	the tendency to see past events as being predictable before they happened

Weber-Fechner law	Difficulty in comparing small differences in large quantities.
Ostrich effect	Ignoring an obvious negative situation.
Attribute substitution	It occurs when an individual has to make a judgment that is complex to calculate, and instead substitutes a more easily calculated attribute.
Moral credential effect/Self licensing	Occurs when someone who does something good gives themselves permission to be less good in the future.
Proportionality bias	Our tendency to assume that big events have big causes, may also explain our tendency to accept conspiracy theories.

End-of-history illusion	The age-independent belief that one will change less in the future than one has in the past.
Recency illusion	The illusion that a phenomenon one has noticed only recently is itself recent.
Declinism/Rosy retrospection	The predisposition to view the past favorably and future negatively.
Unit bias	The standard suggested amount of consumption (e.g., food serving size) is perceived to be appropriate, and a person would consume it all even if it is too much for him.

•	The tendency for sensory input about the body itself to affect one's judgement about external, unrelated circumstances. (As for example, in judges who are more lenient when fed and rested.)
Pessimism bias	The tendency for some people, especially those with depression, to overestimate the likelihood of negative things happening to them.
Action bias	The tendency for someone to act when faced with a problem even when inaction would be more effective, or to act when no evident problem exists.
Present bias	The tendency of people to give stronger weight to payoffs that are closer to the present time when considering trade-offs between two future moments.

 C

Optimism bias /Wishful thinking / Valence effect/Positive outcome bias	The tendency to be over-optimistic, underestimating greatly the probability of undesirable outcomes and overestimating favorable and pleasing outcomes
Money illusion	The tendency to concentrate on the nominal value (face value) of money rather than its value in terms of purchasing power.
Exaggerated expectation	The tendency to expect or predict more extreme outcomes than those outcomes that happen.
Mere exposure effect/ familiarity principle	The tendency to express liking for things merely because of familiarity with them.

Parkinson's law of triviality/bikeshedding

The tendency to give disproportionate weight to trivial issues. Parkinson's law of triviality is a concept that states that people will spend more time on trivial issues than on important ones (such as the design of a nuclear reactor, and instead focus on something easy to grasp, such as the design of an adjacent bike shed).

Pro-innovation bias

The tendency to have an excessive optimism towards an invention or innovation's usefulness throughout society, while often failing to identify its limitations and weaknesses.

Plant blindness

The tendency to ignore plants in their environment and a failure to recognize and appreciate the utility of plants to life on earth.

Outcome bias

The tendency to judge a decision by its eventual outcome instead of the quality of the decision at the time it was made.

Omission bias	The tendency to judge harmful actions as worse, or less moral, than equally harmful inactions (omissions).
Projection bias	The tendency to overestimate how much our future selves share one's current preferences, thoughts and values, thus leading to sub-optimal choices.
Impact bias	The tendency to overestimate the length or the intensity of the impact of future feeling states.
Information bias	The tendency to seek information even when it cannot affect action.
Additive bias	The tendency to solve problems through addition, even when subtraction is a better approach.

Risk compensation / Peltzman effect

The tendency to take greater risks when perceived safety increases. The Peltzman effect, named after Sam Peltzman, who researched postulation about mandating the use of seatbelts in automobiles, states that people are more likely to engage in risky behavior when security measures have been mandated. According to Peltzman, introducing security devices will not reduce accidents, although the safety devices will reduce the fatality rate.

Unconscious bias / The stereotypes that people unconsciously attribute to Implicit bias another person or group of people that affect how they understand and engage with them.

Curse of knowledge better-informed people find it extremely difficult to think about problems from the perspective of lesser-informed people

Prevention bias ("an When investing money to protect against risks, decision ounce of prevention makers perceive that a dollar spent on prevention buys more security than a dollar spent on timely detection and response, even when investing in either option is equally effective.

Status quo bias	the tendency to prefer things to stay relatively the same
Loss aversion	the perceived disutility of giving up an object is greater than the utility associated with acquiring it.
Endowment effect	the tendency for people to demand much more to give up an object than they would be willing to pay to acquire it
Disposition effect	the tendency to sell an asset that has accumulated in value and resist selling an asset that has declined in value.
Authority bias	The tendency to attribute greater accuracy to the opinion of an authority figure

Halo effect / Physical attractiveness stereotype	The tendency for a person's positive or negative traits to "spill over" from one personality area to another in others' perceptions of them
Availability cascade/ "repeat something long enough and it will become true"	a self-reinforcing process in which a collective belief gains more and more plausibility through its increasing repetition in public discourse
Bandwagon effect	The tendency to do (or believe) things because many other people do (or believe) the same.
Courtesy bias	The tendency to give an opinion that is more socially correct than one's true opinion, so as to avoid offending anyone
Assumed similarity bias	Where an individual assumes that others have more traits in common with them than those others actually do.

Pygmalion effect	The phenomenon whereby others' expectations of a target person affect the target person's performance.
Reactance	The urge to do the opposite of what someone wants one to do out of a need to resist a perceived attempt to constrain one's freedom of choice
Reactive devaluation	Devaluing proposals only because they originated with an adversary.
Social comparison bias	The tendency, when making decisions, to favor potential candidates who do not compete with one's own particular strengths.

Shared information bias	The tendency for group members to spend more time and energy discussing information that all members are already familiar with (i.e., shared information), and less time and energy discussing information that only some members are aware of (i.e., unshared information)
Worse-than-average effect	A tendency to believe ourselves to be worse than others at tasks which are difficult
Availability bias	Greater likelihood of recalling recent, nearby, or otherwise immediately available examples, and the imputation of importance to those examples over others.
Bizarreness effect	Bizarre material is better remembered than common material.
Egocentric bias	Recalling the past in a self-serving manner, e.g., remembering one's exam grades as being better than they were, or remembering a caught fish as bigger than it really was.

Euphoric recall	The tendency of people to remember past experiences in a positive light, while overlooking negative experiences associated with that event.
Fading affect bias	A bias in which the emotion associated with unpleasant memories fades more quickly than the emotion associated with positive events.
Google effect	The tendency to forget information that can be found readily online by using Internet search engines.
Humor effect	That humorous items are more easily remembered than non-humorous ones
Modality effect	Memory recall is higher for the last items of a list when the list items were received via speech than when they were received through writing.

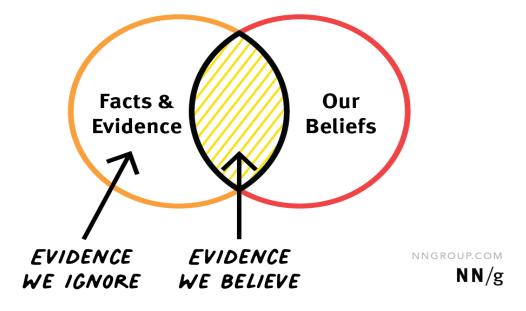
Peak-end rule	People seem to perceive not the sum of an experience but the average of how it was at its peak (e.g., pleasant or unpleasant) and how it ended.
Placement bias	Tendency to remember ourselves to be better than others at tasks at which we rate ourselves above average (e.g., driving skills)
Primacy effect	An item at the beginning of a list is more easily recalled. A form of serial position effect
Zeigarnik effect	Uncompleted or interrupted tasks are remembered better than completed ones.

Spacing effect	Information is better recalled if exposure to it is repeated over a long span of time rather than a short one. The spacing effect demonstrates that learning is more effective when study sessions are spaced out.
Spotlight effect	The tendency to overestimate the amount that other people notice one's appearance or behavior.
Stereotype bias/ stereotypical bias	Memory distorted towards stereotypes (e.g., racial or gender).
Telescoping effect	The tendency to displace recent events backwards in time and remote events forward in time, so that recent events appear more remote, and remote events, more recent

How can we overcome confirmation bias?



Confirmation Bias



HOW TO OVERCOME CONFIRMATION BIAS

There are a few different ways that we can try to overcome confirmation bias:

- 1) Be aware of the signs that you may be falling victim to it. This includes being aware of your personal biases and how they might be influencing your decision-making.
- 2) Consider all the evidence available, rather than just the evidence confirming your views.
- 3) Seek out different perspectives, especially from those who hold opposing views.
- 4) Be willing to change your mind in light of new evidence, even if it means updating or even changing your current beliefs.

https://www.verywellmind.com/what-is-a-confirmation-bias-2795024

HOW TO OVERCOME CONFIRMATION BIAS

Consider some of the factors that may have changed since you made a decision (e.g., in stock investments in ABC Corporation you should consider interest rates, the overall health of the economy, the performance of ABC Corporation)

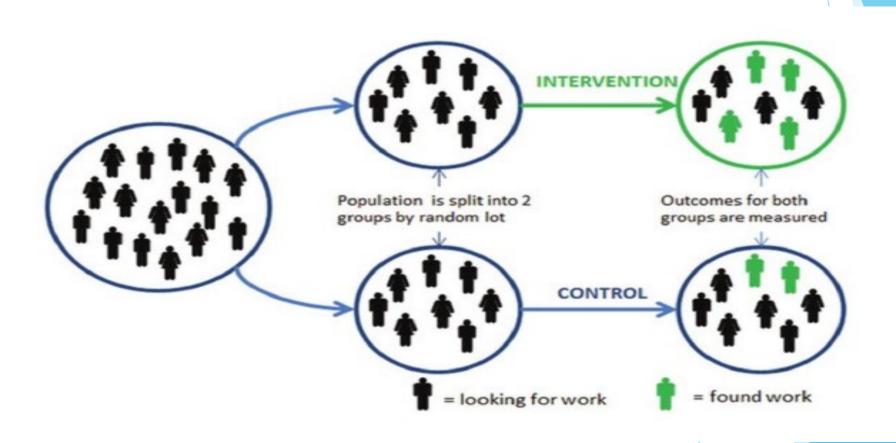
And remember that making a "good" decision today (or one that seems really good) doesn't guarantee that you will end up with a good outcome.

The external factors that are involved play **the role of luck**, and you'll never have all of the information required to make an absolute positive decision.



https://www.lukasfrank.cz/en/2022/11/18/todays-investment-opportunities/https://www.developgoodhabits.com/outcome-bias/

NUDGING INTERVENTIONS

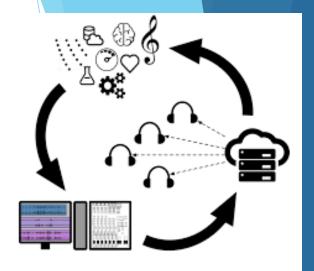


Typology of Nudges

Priming Labeling **Positioning Proximity** Size Nudges **Decoy Effect Defaults** Framing **Monetary Nudges** Salience Effect Social Norms Multi-Component Nudges

Typologie nástrojů NUDGES

Podmínění nutriční označení Poziční efekt, Efekt přiblížení Efekt velikosti Efekt návnady Předložení výchozí možnosti Rámování Peněžní pobídky Efekt významnosti Sociální normy Kombinace intervencí









https://inudgeyou.com/en/nudge-yourself-to-a-healthier-life-plate-size/

EAST MODEL

Make it **EASY**

Allowing people to 'go with the flow' by removing or reducing effort, steps, choices to make action simple and effortless

Make it ATTRACTIVE

Presenting benefits in a way that maximizes perceived value. This includes increasing the salience of your offer

Make it SOCIAL

Harnessing social / peer 'pressure' by showing desired behaviours are supported by others in a social group and encouraging shared commitments

Make it TIMELY

Prompting when people are likely to be most receptive and structuring/phasing benefits to make them more immediate

Endowment Effect Status Quo Bias Cognitive Overload Availability Bias
Anchoring
Loss Aversion
Optimism Bias
Scarcity

Confirmation Bias
Herding
Commitment Bias
Authority Bias

Present Bias
Hyperbolic Discounting
Duration Neglect
Hot/Cold States

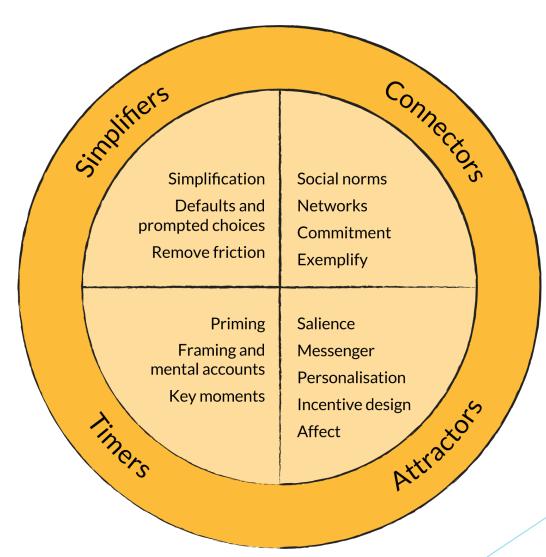
https://www.linkedin.com/pulse/east-framework-helping-you-influence-customer-behavioral-yagesh-batra/

SMALL NUDGES, BIG CHANGES

Nudges can improve both wellbeing of citizens and effectiveness of public policies.

Simplifiers make it easy for people to behave in ways that achieve the desired result. They remove friction, use defaults and reduce the number of available options.

Timers are nudges that are implemented at key moments



Connectors may harness the power of social networks to encourage people to make commitments.

Attractors are designed to grab attention and make a particular course of action appealing or salient.

https://ludicconsulting.com/about/ideas/small-nudges-big-changes

APPLYING BEHAVIOURAL INSIGHTS IN PUBLIC AND SOCIAL POLICY

Behavioral science has become fundamental to policy choices in areas that include:

- 1) consumer protection,
- 2) tax policy (i.e., policy encouraging behaviour to increase collection of taxes),
- 3) environmental protection,
- 4) healthcare,
- 5) poverty (i.e., policies encouraging behaviour to increase savings),
- 6) retirement (i.e., getting young people to save for the future),
- 7) fundraising,
- 8) crowdfunding

Tax compliance nudges are used increasingly by governments because of their perceived cost-effectiveness in raising tax revenue. They particularly include writing "smart" payment reminders.

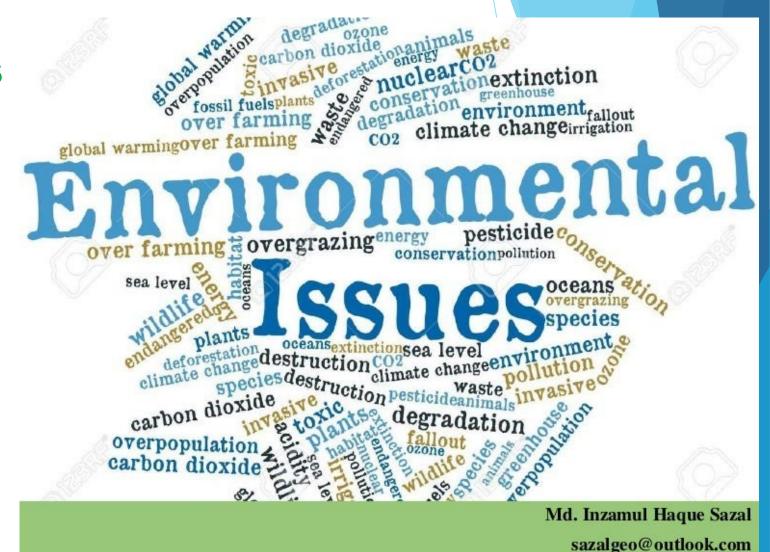
Table 1. Summary of messages in the letters to promote tax compliance in Guatemala

Group	Description
Control group	No letter
Original Letter (reminder message)	Simple reminder to declare, but no information on how to declare.
Behavioral Design Letter	Including information on where to declare, possibility of paying in installments, and a deterrent message: "If you do not declare, you may be audited and face the procedure established by law."
Behavioral design + Social Norm Letter	"According to our records, 64.5 percent of Guatemalans declared their income tax for the year 2013 on time. You are part of the minority of Guatemalans who are yet to declare for this tax."
Behavioral design + Deliberate Choice Letter	"Previously we have considered your failure to declare an oversight. However, if you don't declare now, we will consider it an active choice and you may therefore be audited and could face the procedure established by law."
Behavioral Design + National Pride Letter	"You are a Guatemalan citizen and Guatemala needs you. Be a good citizen and submit the 2013 annual return of income tax Are you going to support your country? "

Source: Kettle, Hernandez, Ruda, and Sanders (2016), <u>Behavioral Interventions in Tax Compliance: Evidence from Guatemala</u>. World Bank Policy Research Working Paper No. 7690. Washington, D.C.: The World Bank.

Environmental Nudges

Pro-environmental interventions using nudge techniques to change consumption and waste behavior and tackle issues such as littering, excessive vehicle use, wasteful consumption, combustion of fossil fuel, use of nonrecyclable and non-organic products.



https://pt.slideshare.net/szl/global-environmental-issues-5631906

Environmental Nudges

Nudging refers to the promotion of desired behaviors through subtle changes in the choice environment.

Environmental nudges can be distinguished into two categories:

Passive environmental nudges involve changing the architectural landscape to create unconscious bias towards unhealthy options. An example would be **changing the layout of a cafeteria** to promote healthier foods.

Environmental Nudges

Active environmental nudges focus on promoting healthy choices when the person is deciding if they want to engage in a behavior. For that reason, active nudges require individuals to have a prior intention or plan to change behavior so that the prompts remind them of these prior plans. An example of this would be labeling the caloric content of food on menus.



https://www.healthcarevaluehub.org/improving-value/browse-strategy/environmental-nudges https://www.bi.team/publications/the-little-book-of-green-nudges/

NUDGING CONSUMERS TOWARDS HEALTHIER CHOICES

Cognitive Nudges

Descriptive Nutritional Labeling



Focusing on the calorie or nutritional facts

Evaluative Nutritional Labeling



Using green stickers for "heart healthy" and red for "unhealthy"

Visibility Enhancement



Placing healthier options at eye-

Food nudges include, for instance,

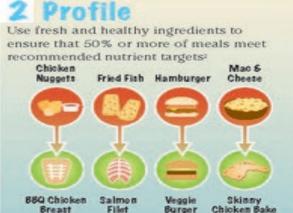
- simplification of information and choices,
- framing and priming of messages,
- positioning of products in supermarkets and cafeterias at an eye level,
- self-pledges,
- multiple elements of choice architecture (such as defaults or decoy dishes),
- educational messages in school canteens,
- calorie labels,
- sweet-free supermarket cashiers,
- meat-free days in cafeterias.

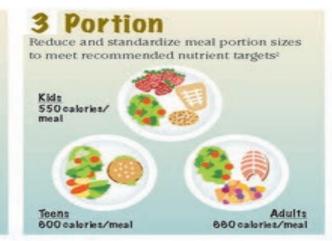
PRIMING: phenomenon whereby exposure to one stimulus (a word, image smell or sound) influences a response to a subsequent stimulus, without conscious guidance or intention.

FRAMING: a cognitive bia where people decide on options based on whether the options are presented with positive or negative connotations

Voluntary Marketing Mix and Nudge Strategies to Promote Healthy Restaurants





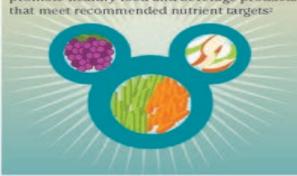




Use pricing strategies to increase sales and



Use responsible marketing practices to promote healthy food and beverage products that meet recommended nutrient targets?



6 Picks

Establish healthy default choices for side dishes and beverages for all bundled meals sold to children, teens and parents



7 Priming or Prompting

Offer menu labeling and contextual info to help customers make healthy choices³



8 Proximity

Pricina

Place healthy choices at eye level and physically closer to customers at point-of-purchase



QDesign

- 1 Quick-service, fast-casual and full-service chain restaurants and non-chain restaurants.
- ² Recommended nutrient targets: calories (≤ 600 calories/meal for children and ≤ 700 calories/meal for teens and adults); fat (≤ 35% calories), saturated fat (≤ 10% calories), added sugars (≤ 35% calories) and sodium (≤ 210 mg-450 mg/meal item).
- ² For children: 1,200 to 1,400 calories a day is used for general nutrition advice for ages 4 to 8 years and 1,400 to 2,000 calories a day for ages 9 to 13 years, but calorie needs vary.
 For adults: 2,000 calories a day is used for general nutrition advice, but calorie needs vary.
 Upon customer's request, restaurants must provide written nutrition information for total calories, fat, saturated fat, trans fat, cholesterol, sodium, protein, carbohydrates, fiber, and added sugars.

DISH OF THE DAY AS A NUDGE





Nudging by creating a vegetarian "dish of the day" increased sales of that dish. The impact of such a nudge was greater for less popular dishes. (Saulais et al. 2019).

However, the "dish of the day" nudge did not influence older people's choices among veggie balls, meatballs, and fish cakes. Participants from the UK and Denmark were more likely to choose a plant-based dish than those from France, however (Zhou et al 2019).

AFFORDANCE NUDGE



The nudge consists of an animated interactive character on a monitor inviting people to choose the desirable option by leaning and gazing towards this option when people approach the display.

Gillebaart, M., Blom, S., De Boer, F., & De Ridder, D. (2023). Prompting vegetable purchases in the supermarket by an affordance nudge: Examining effectiveness and appreciation in a set of field experiments. *Appetite*, 184, 106526.

AFFORDANCE NUDGE







The affordance nudge in (a): the default setting, (b): when participants approach the vegetable display, and (c): after participants have picked a vegetable.

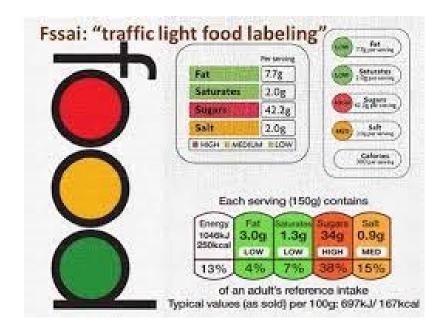
The animated character provides positive feedback when the person takes the nudged product by smiling and raising its thumb. When the customer does not reach for the nudged product, the character returns to its default setting of looking ahead with a neutral expression.

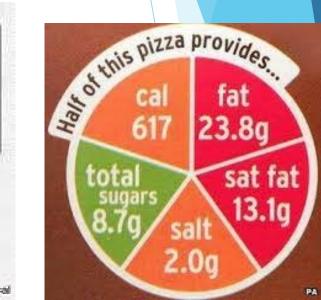
Gillebaart, M., Blom, S., De Boer, F., & De Ridder, D. (2023). Prompting vegetable purchases in the supermarket by an affordance nudge: Examining effectiveness and appreciation in a set of field experiments. *Appetite*, 184, 106526.

TRAFFIC LIGHT FOOD LABELING

The 'traffic light' labelling system is a system of different colors that indicate, on the basis the content of certain nutrients, such as sugars and fats, whether a food product is healthy or unhealthy.

Tijssen et al. (2017): certain package color cues (i.e., bright colors, low color saturation) evoke associations with health, whereas other color cues (i.e., duller colors, high color saturation) evoke associations with attractiveness.





TRAFFIC LIGHT FOOD LABELING

Table 1: Types of front-of-pack food labelling systems



Trakman, G. et al (2021): traffic-light labeling is a **low-cost**, **easy-to-implement strategy** that can increase the consumption of healthy foods in community canteens.















Clear instructions

Labels are often small and difficult to read
Big and clear labels make waste sorting easier



Bins design

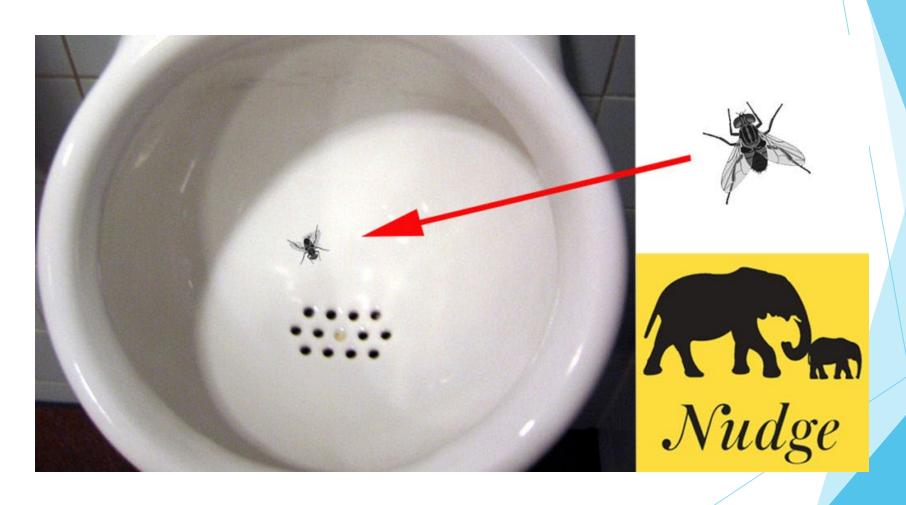
Draw attention







SPILLAGE PROBLEM AT THE AMSTERDAM AIRPORT



https://kwworks.com/blog/why-is-there-a-fly-in-my-urinal/

Framing Effect

Glass is half-full.

Glass is half-empty.





Our choices are influenced by the 'frames'.

NEGATIVE & POSITIVE THINKING



Every adversity, every failure, every heartache carries with it the seed of an equal or greater benefit.

Napoleon Hill



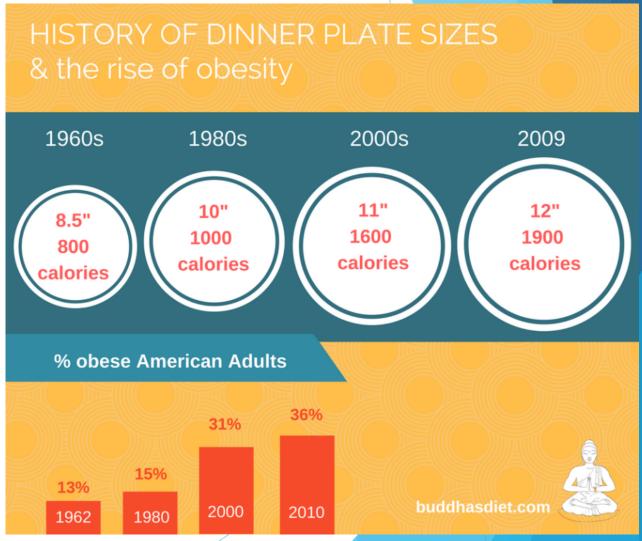
SIZE NUDGES (Nudging To Reduce Obesity or Food Waste)

Plate Size

One of the features that affect how much we eat and hence also how many calories we consume is *plate size*.

In a study carried out by Wansink et al. (2007) it was shown that moving from a 12-inch dinner plate to a 10-inch dinner plate leads people to serve and eat 22% less!

https://inudgeyou.com/en/nudge-yourself-to-a-healthier-life-plate-size/



http://www.buddhasdiet.com/obesity-and-your-dinner-plate-

Vandenbroele et al. (2021) showed that **offering a meat substitute next to a similar meat product** in the butcher shop (instead of separately in a vegetarian section) created an effective choice architecture that significantly increased the sale

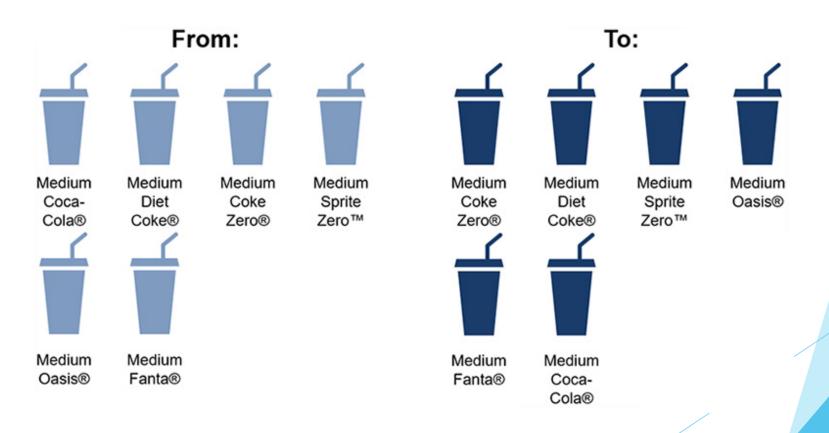
of meat substitutes.



https://www.thekitchn.com/best-meat-substitutes-22977070

How McDonald's has helped nudge consumers to choose healthier drinks

Full sugar, regular Coca-Cola was moved from the first position on the menu, to the last, replaced with Coke Zero.



Kelly Ann Schmidtke et al.,2019., *Menu positions influence soft drink selection at touchscreen kiosks*, Psychology and Marketing, Volume 36 (10), pp 891-970

Wyse et al (2019): positioning target products first or last on the online menu of a canteen did not increase customers' choice of those items.

However, Reijnen et al (2019) confirmed that appetizers appearing at the top of a menu were chosen more often than other menu items. However, no positioning effect could be detected for desserts.

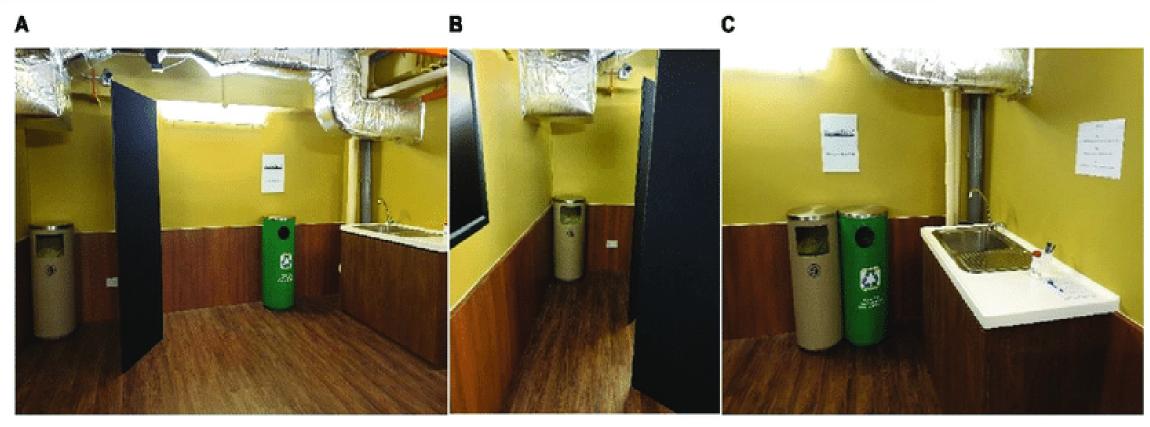


https://www.sciencedirect.com/science/article/abs/pii/\$14710 15319300662

Kim et al. (2019) found out that items appearing in the middle of a menu are preferred when they are displayed horizontally, whereas items along the edge of the page were preferred on a vertical display.

- Improved accessibility
- Higher availability of recycling bins

Removing/ Adding friction



Linder, Noah & Rosenthal, Sonny & Sörqvist, Patrik & Barthel, Stephan. (2021). Internal and External Factors' Influence on Recycling: Insights From a Laboratory Experiment With Observed Behavior. Frontiers in Psychology. 12

PROXIMITY

The strength of the effect appears to depend on the type of position change, i.e., how far away foods are placed. The best results for healthy choice product selection occur when unhealthy food products are placed completely out of sight rather than just out of reach. (Privitera and Zuraikat, 2014)



https://www.ucaragon.com/informacion-para-el-consumidor/consumo-sano-y-cercano/ucaragon-apuesta-comercio-local/

PROXIMITY



https://www.nationaljewish.org/conditions/health-information/healthy-eating/dealing-with-childhood-obesity

Ghoniem et al. (2020): the desire for food peaks when food is available at a moment of high need.

Knowles et al. (2019): to maximize healthy choices, supermarkets can move healthy items closer to the shopper and unhealthy items further away.

Van Kleef, E. et al. (2020): increasing the availability of healthier products in school canteens resulted in small positive changes in diner's behavior.

Removing friction

AVAILABILITY

Bins

Sorting equipment







Small changes in choice architecture in self-service cafeterias





https://www.behaviourchangebydesign.iph.cam.ac.uk/veg-nudgeextra-vegetarian-option-reduces-meat-consumption-without-dentingfood-sales/

https://www.semanticscholar.org/paper/Small-changes-in-choice-architecture-in-cafeterias-Winkler-Berger/abc6b0b40cba068c95830aad5eac566f55a40d35/figure/3

Small changes in choice architecture in self-service cafeterias







Fig. 2. Nudging measures at the university cafeteria

https://www.semanticscholar.org/paper/Small-changes-in-choice-architecture-in-cafeterias-Winkler-Berger/abc6b0b40cba068c95830aad5eac566f55a40d35/figure/3

PROXIMITY



Immink et al. (2021) showed that offering healthy snacks in the workplace can be a valuable way to promote workers' health.

https://expressrefreshments.co.uk/2020/10/27/the-micro-market-the-future-of-the-workplace-canteen/

SALIENCE BIAS

The salience bias (also known as perceptual salience) occurs when we focus on items or information that are especially remarkable while casting aside those that lack prominence.

The salience bias arises from a contrast (often unexpected) between items and their surroundings, such as a black sheep in a herd of white sheep, or a person talking on the phone in a quiet elevator.



https://instituteforpr.org/nudges-that-hurt-those-already-hurting-distributional-and-unintended-effects-of-salience-nudges/

https://www.storynory.com/song-ba-ba-black-sheep/

https://thedecisionlab.com/biases/salience-bias

SALIENCE

Authority bias: the tendency to attribute greater accuracy to the opinion of an authority figure



Bizarreness bias: bizarre things are better remembered than common ones.



https://thebehavioursagency.com/authority-bias/

https://www.istockphoto.com/cs/search/2/image-film?phrase=bizarre

The Decoy Effect:

Introduction of a third option into the choice set that helps to "nudge" customers toward selecting a particular product by making one option look better than the others.



Posted in Marketing by mattjhawes on January 18, 2019

Which one do you prefer?



http://www.abaxsoft.com on September 30, 2020

How Apple uses the Decoy effect?

IPHONE 14 ₹79,900



IPHONE 14 PRO ₹1,29,900



IPHONE 14 PRO MAX ₹1,39,900



https://www.5paisa.com/blog/how-apple-uses-decoy-effect-to-upsell-its-pricey-phones

One of the options is not a real possibility, but it only serves to attract attention and to change the decision in a different direction.

D. Ariely (2008) illustrated the decoy effect with an example of a subscription to a magazine whose publisher offered the following options:

- 1. Annual online magazine subscription: 59 \$
- 2. Annual subscription to the printed version: 125\$
- 3. Annual subscription to both online and print magazines: 125 \$

If all three options were presented, 16% of participants chose the first option, the second option was chosen by no one and 84% choose the third option.

However, if the second option was omitted, 68% of participants chose only the online version of the magazine and 32% the printed and online version.

Attwood et al. (2020) did not show any effect of providing an asymmetric choice of options - a 30% increase in the price did not significantly change the number of people choosing an inferior

"decoy" dish.



https://cleverads.com.ph/blog/what-is-decoy-effect/



https://twitter.com/100Behaviors/status/1271495759750283264

DEFAULTS

The default effect explains the tendency to generally accept the default option in a strategic interaction.

Inertia, procrastination, and lack of self-control are personality traits that argue for changing the default behavior **from "opt-in" to "opt-out"** to get the desired result.

Opt-in means choosing to do or being involved in something, while opt-out means choosing not to be part of an activity or stopping being involved in it.



https://ico.org.uk/for-organisations/guide-to-data-protection/ico-codes-of-practice/age-appropriate-design-a-code-of-practice-for-online-services/13-nudge-techniques/

DEFAULTS

Madrian & Shea (2001) documented a significant change in the **participation of employees in the retirement scheme** of a large US corporation before and after a transition to automatic registration (i.e., a change from "opt-in" to "opt-out" of the system).



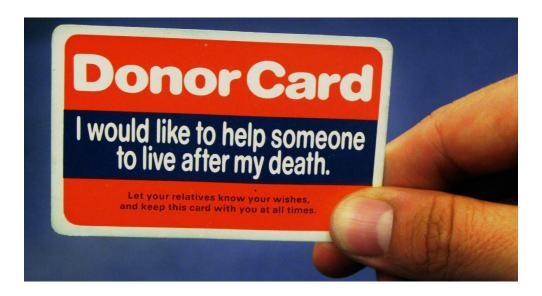
An initial contribution percentage and investment allocation were set by the company (the "choice architect") and changing them required an affirmative act by the employee. Employee participation in the system was significantly higher with automatic registration ("opt-out").

https://www.hdfcsales.com/blog/best-government-pension-scheme-for-senior-citizens/

https://cz.depositphotos.com/stock-photos/opt-out.html

DEFAULTS

According to Johnson and Goldstein (2004), people are more likely to donate organs when they are required to opt out of donating than when they are required to opt in.



https://bioedge.org/uncategorized/will-britains-new-opt-out-organ-donation-system-work/













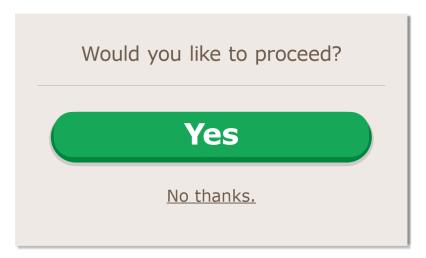






- Unify colours
- Unify recycling rules and systems

THE POWER OF DEFAULTS





SOCIAL NORMS

A nudge inlay in shopping trolleys communicating a social norm on vegetable purchases and indicating a distinct place to put vegetables in the trolley increased purchases of vegetables. (Huitink, M et al., 2020)



Inlay in shopping trolleys

Social norms are typically defined as "rules and standards that are understood by members of a group, and that guide or constrain social behaviors without the force of law" (Cialdini and Trost, 1998, p. 152).

Crossman (2021) distinguishes four key types of norms, with differing levels of scope and reach, significance and importance, and methods of enforcement. These norms, in order of increasing significance include folkways, mores, taboos and laws.

Types of Social Norms



Folkway

Norm that stems from and organizes casual interactions



Taboo

Strong negative norm; olating it results in extreme disgust **aughtCo.**



More

Norm that structures the difference between right and wrong



Law

Norm that is formally inscribed at the state or federal level

Let 's dive deeper into social norms....

Folkways (e.g., the concept of appropriate dress, the practice of raising one's hand to take turns speaking in a group) are "norms that stem from and organize casual interactions and emerge out of repetition and routines" (Sumner, 1906). We engage in them to satisfy our daily needs.

Mores (e.g., religious doctrines) structure the difference between right and wrong.

Taboos (e.g., eating pork in some Muslim cultures) are a very strong negative norm; it is a prohibition of certain behavior that is so strict that violating it results in extreme disgust and even expulsion from the group or society (Crossman, 2021).

Laws are norms that are issued and enforced by state authorities. Black (1972) views law as "a social control (the regulation over the actions of individuals and groups) by government."

Social norms signal appropriate behavior for most people.

TYPOLOGY OF SOCIAL NORMS

social norms:

the unwritten rules of behavior that are considered acceptable in a group or society

- Shake hands when you meet someone.
- Arrive to appointments on time.
- · Don't talk with your mouth full of food.





2 dimensions:

- Actual prevalence of the focal behavior (collective norms)
- Perceptions about the prevalence of behavior and pressures to conform (perceived, injunctive, descriptive, subjective)

Chung, Adrienne & Rimal, Rajiv. (2016). Social Norms: A Review. Review of Communication Research. 4. 1-28. 10.12840/issn.2255-4165.2016.04.01.008.

SOCIAL NORMS

Type of norm	Underlying meaning	Level of explication	Utility
Collective	Actual prevalence of the focal be- havior	Societal	Establish a code of conduct
Perceived	Perceptions about the prevalence of behavior and pressures to conform	Psychological	Avoid cognitive dissonance
Injunctive	Perceived pressures to conform to avoid social sanctions	Social	Gain social approval
Descriptive	Perceived prevalence of the focal behavior	Social	Provide social information
Subjective	Perceptions about what important others expect one to do	Social/Psychological	Maintain interpersonal har- mony

Chung, Adrienne & Rimal, Rajiv. (2016). Social Norms: A Review. Review of Communication Research. 4. 1-28. 10.12840/issn.2255-4165.2016.04.01.008.

Using peer pressure, incentives



https://www.samsic.uk/education-waste-management

Education



Neighbourhood sessions Explanatory leaflets Early education in schools

SOCIAL MEDIA & SOCIAL NORMS

Social media may implicitly affect our eating behaviour by communicating social norms (Hawkins et al., 2021)





https://www.reviewsxp.com/blog/best-social-media-sites/

http://www.differencebetween.net/technology/difference-between-social-media-and-traditional-media/

SOCIAL NORMS

Ewert (2017) argues that **setting-based health promotion in the social texture** (e.g., peer-groups and cultures) is superior to nudge – especially in schools.





http://getmovingvcepe2015.weebly.com/settings-based-approach.html

DESCRIPTIVE AND GUESSED SOCIAL NORMS

Griesoph et. al. (2021) distinguished between the descriptive and guessed norms.

"While descriptive norms communicate typical patterns of behavior (e.g., 44% of canteen visitors choose vegetarian meals), guessed norms are determined by the individual's best guess about the norm in a specific context."

Descriptive Norm

"Did you know? On average, 44% of our canteen customers chose a vegan or vegetarian main dish during the last winter term."

Guessed Norm

"What do you think was the proportion of vegan or vegetarian main dishes sold in our canteen last winter term?"

DESCRIPTIVE AND GUESSED SOCIAL NORMS

The results confirmed a remarkable nudging effect of guessed norms:

The higher the proportion of vegetarian dishes the respondents tipped, the lower the probability of them choosing a vegetarian dish.

One explanation for this **backfire or boomerang effect** is **psychological reactance** - participants may have perceived the vegetarian norm as educational and coercive. Therefore, they intentionally selected the opposite, meat-containing dish.





https://www.marketing91.com/boomerang-effect/ https://www.nirandfar.com/psychological-reactance/

SOCIAL CONTRACT (WILLINGNESS TO PAY TAXES)

- ► The values agreed upon the creation of the state and the society;
- what the taxes will be used for;
- proportionality of taxes;
- equality and fairness;
- property and redistribution.



CORPORATE SOCIAL RESPONSIBILITY (CSR)

CSR is a business model that helps a company be socially accountable to itself, its stakeholders, and the public.

CSR helps both improve various aspects of society as well as promote a positive brand image of companies. Corporate responsibility programs are also a great way to raise morale in the workplace.

CSRs are often broken into four categories: 1) environmental impacts,

- 2) ethical responsibility,
- 3) philanthropic endeavors,
- 4) financial responsibilities.

Some examples of companies that strive to be leaders in CSR include Starbucks and Ben & Jerry's.

https://www.investopedia.com/terms/c/corp-social-responsibility.asp

MONETARY INCENTIVES

Cash rebates to customers who ordered vegetable-rich meals increased healthy food choices (Nagatomo 2019).

Zeballos, et al. (2020): customers paying for their purchase in cash bought a larger share of healthy items than did those who pay using a credit card.



GAMIFICATION

Gamification means the **use of game elements in non-game contexts and situations**. It is particularly effective when the experience itself is strengthened and nature of the task is changed – from boring to playful or meaningful

In the Czech Republic, the mobile application "Donate blood" works. The goal is to increase number of blood donors using gamification principles. In the application the donors can compare with each other.



https://www.nhlbi.nih.gov/events/2023/what-you-should-know-about-blood-donation-community-conversations-facebook-live

GAMIFICATION

It is possible to motivate the senior employees of the offices to improve their managerial competences through an elaborate system of evaluation and publication of the most successful ones.

Each worker can anonymously rate the supervisor in certain categories (management skills), all managers are then ranked and the best 5 are awarded a reward. The same procedure is repeated after 6 months, with the fact that this time a few leaders who noted the biggest improvement in rating are also awarded



https://behaviolabs.com/wp-content/uploads/behavioralni-impulsy.pdf
https://cz.pinterest.com/pin/managerial-skills-managerial-roles-types-and-examples--749075350510485399/

GAMIFICATION

The gamification of walking routes to school poses a cheap measure for pupils and students to motivate to walk and thereby strengthen healthy lifestyle habits.



https://behaviolabs.com/wp-content/uploads/behavioralni-impulsy.pdf https://www.linkedin.com/pulse/gamification-walking-boni-aditya

HEALTH NUDGES: PHYSICAL ACTIVITY

- (1) programs to increase school/workplace physical activity;
- (2) programs to reduce sedentary behaviour in the workplace



https://www.nature.com/articles/s41562-019-0559-9

HEALTH NUDGES: ADDICTIONS

Smoking. Nudged participants are more likely to use **proactive telephone support** and complete **counseling sessions**. (Németh, B. et al., 2018)

Alcohol. Petticrew et al. (2020) claim that policymakers should be aware of how dark nudges and sludge are used by the alcohol industry to promote misinformation about alcohol harms to the public. Such approaches include social norming (using statements that "most people are drinking") and priming drinkers by offering verbal and pictorial cues to drink but at the same time they warn about alcohol harms.

Gambling. Swanton et al. (2009) suggest that financial institutions could implement products for gamblers to enhance **management of expenditure** employing behavioral economics and psychological approaches.

HEALTH NUDGES: PREVENTION, PRESCRIPTION AND VACCINATION

Health prevention. Huf et al. (2020): **text message reminders** improved screening participation.

Prescription. Interventions to **prevent from overprescribing antibiotics** performed by Gong et al. (2019) were all cost-effective, assuming an existing electronic health record is in place.

Vaccination. Guo et al. (2020): The risk of of side-effects, duration of protection, and protection rate were shown to influence adults' vaccination decisions and preferences for vaccination. High risk aversion was positively associated with the decision to be vaccinated.

VACCINATION & DECOY EFFECT

Maltz & Sarid (2020) found that this effect increased the rate of influenza vaccinations. People were offered the choice of being vaccinated either at the beginning of winter, which epidemiologists recommend, or at the end of winter. **Vaccination at the beginning of winter was offered for free**, unlike at the end of winter.

Offering a financial advantage for pre-season vaccination encouraged participants to get vaccinated at the beginning of winter, which is known to be optimal.



HEALTH NUDGES: TREATMENT AND COVID-19 RESTRICTION ADHERENCE

Treatment adherence. Commitment contracts help people make better choices in the face of their inherent biases (Savani, M.M. 2019).

The risk preferences of patients with diabetes have profound effects on the progression of complications. (Emoto et al. 2020).

COVID-19 restriction adherence. Soofi et al. (2020) argue that myopic individuals (i.e., those with present bias who put a greater emphasis on the here and now) are less likely to adhere to COVID-19-preventive behaviors, including staying at home, adherence to social distancing, wearing masks and hand washing.

HEALTH NUDGES (PRIMING): COVID-19 RESTRICTION ADHERENCE



Availability of Protection Gear

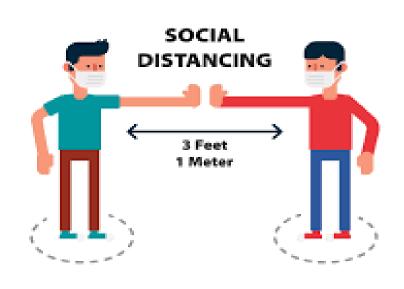


Sanitized Premises



Regular Temperature Checks

HEALTH NUDGES (PRIMING): COVID-19 SOCIAL DISTANCING MEASURES





MULTI-COMPONENT NUDGES



Guide Choice Through Defaults

Nudges include: creating automated laboratory orders; reducing standard opioid prescriptions to smaller doses; making the generic medication the default

Enable Choice

Nudges include: reducing effort by putting a seat in the ED for clinicians to spend more time with patients; increasing effort to prescribe brand name medication; presenting choices in the electronic health record

Prompt Implementation Commitments

Nudges include: prompting individuals to think through their concrete plan for how they will implement the intervention; ask individuals to precommit to an action

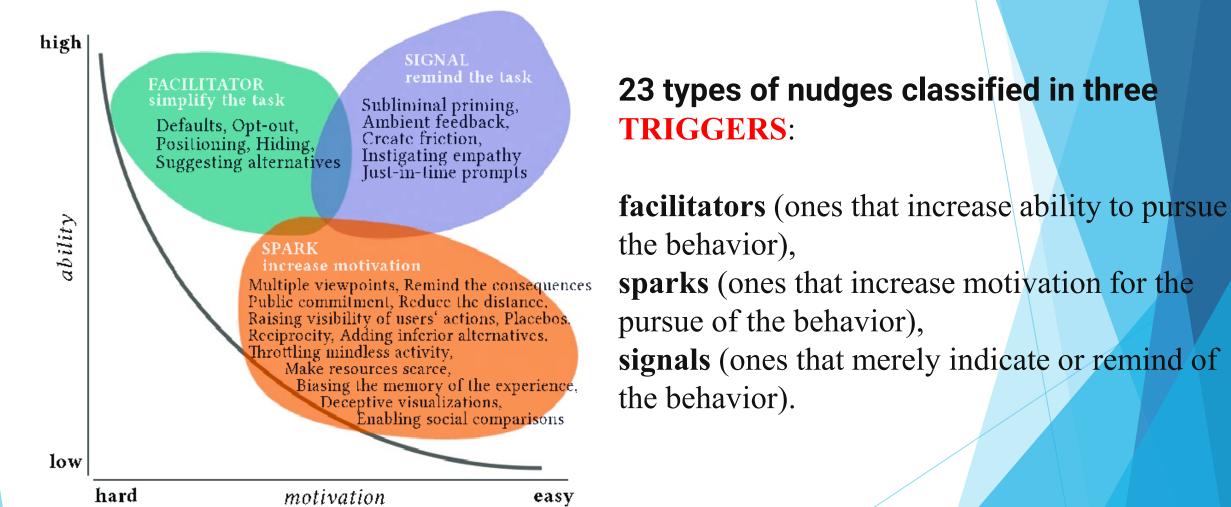
Frame Information

Nudges include: social comparison feedback using leaders or descriptive norm as the reference point; setting up accountable justification for actions that do not adhere to guidelines; audit and feedback

Provide Information

Nudges include: regular emails about the clinical guidelines, text message reminders about evidence-based practices; posters around the office; best practice advisory alerts in the electronic health record.

THE FOGG BEHAVIOR MODEL: HOW TO TRIGGER BEHAVIORAL CHANGE



https://www.researchgate.net/figure/The-23-nudging-mechanisms-mapped-into-three-types-of-triggers-suggest-by-Foggs-Behavior_fig4_332745321

SEMINAR TOPICS

- 1) Alcohol Addiction
- 2) Drug Addiction
- 3) Smoking
- 4) Telemedicine
- 5) Childhood Obesity
- 6) Suicide Prevention
- 7) Prevention of Cancer
- 8) Vaccination

Web of Science, Scopus and ScienceDirect

https://www.webofscience.com/wos/woscc/basic-search

https://www.scopus.com/

© Clarivate
Web of Science™

https://www.sciencedirect.com/





Scopus

Presentations

- 1. Specification of the public and social policy issue (description of the selected problem, its topicality and the tree of causal relations, stakeholders),
- 2. Strategy, Goals, Theoretical-conceptual framework (proposal of a suitable behavioral policy design with 5-10 solution variants)
- 3. Acceptance and Effectiveness evaluation (description of how the results obtained will be evaluated in terms of acceptance and effectiveness, i.e cost-benefit analysis, technical feasibility, political viability)

QUIZ

Circle the correct answer

A nudge is any aspect of the choice architecture that <u>alters / does not</u> <u>alter</u> people's behavior in a <u>predictable/ an unpredictable way</u> <u>with / without</u> forbidding any options <u>or/ but</u> significantly changing their economic incentives.

