



Food safety and risk perception: a look inside consumer mind

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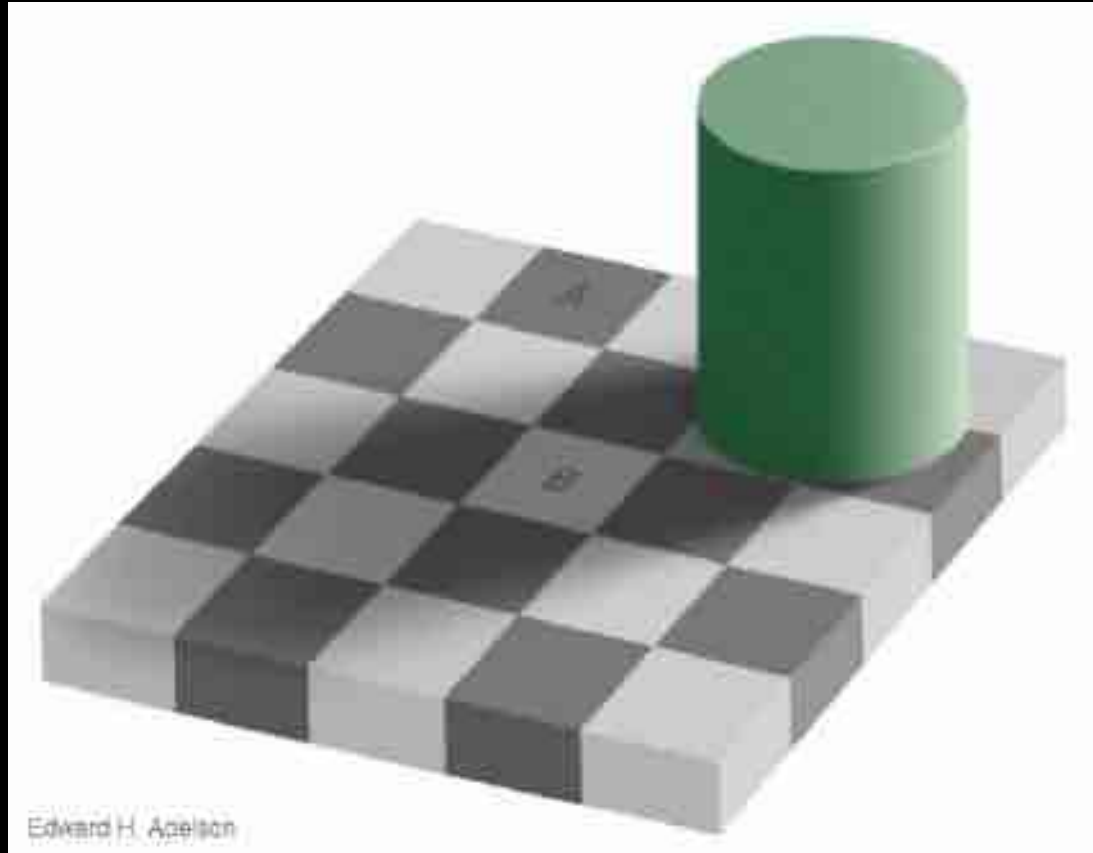
AIM

Risk Perception Gap



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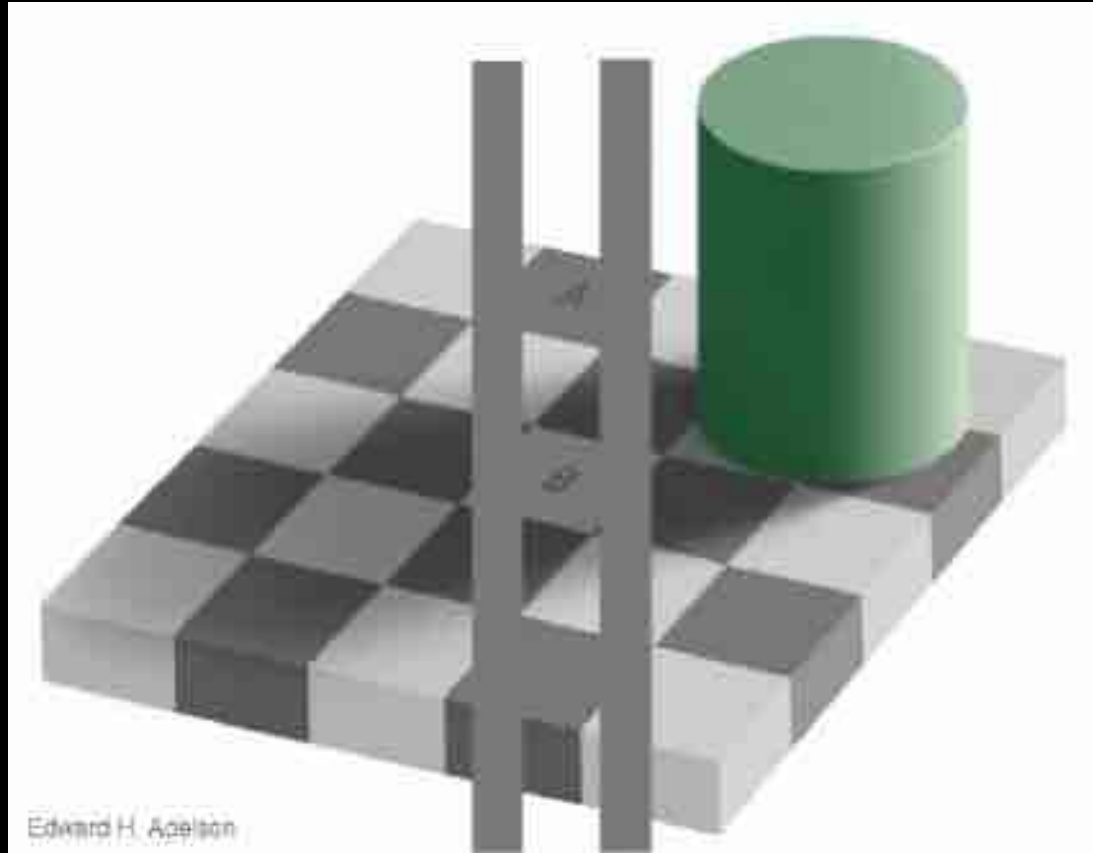


Edward H. Adelson



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Risk Perception Gap....

That is to say

In terms of safety, do you prefer
to travel by car, by plane or...?



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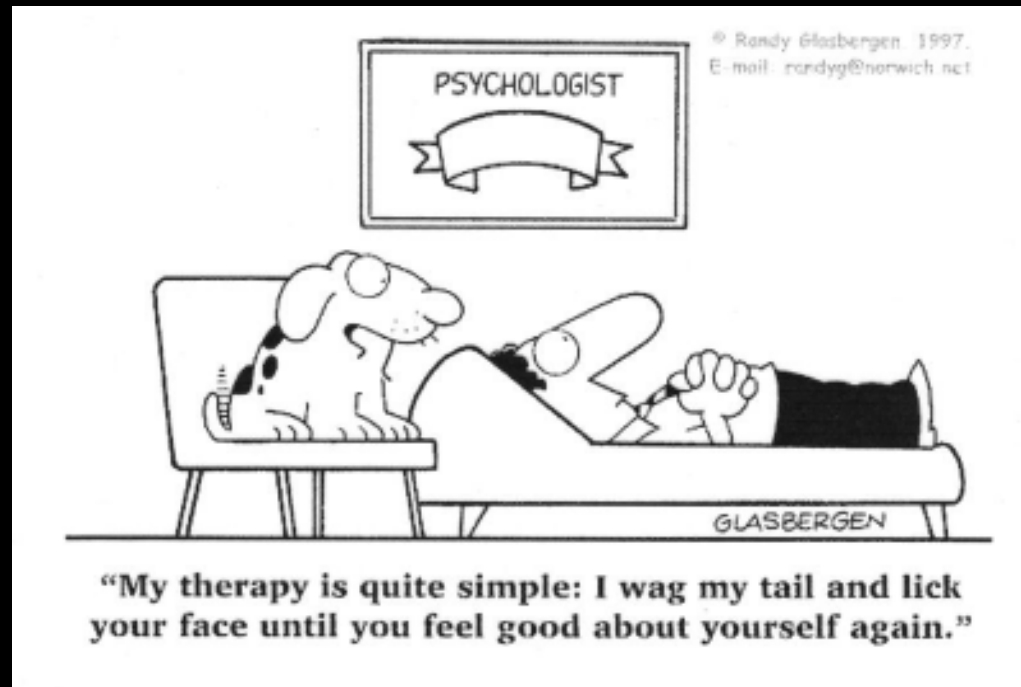


Main Aims

- Premise: Psychology as a behaviour science
- From Rationale Choice Theory to Bounded Rationality Theory
 - Prospect Theory
 - Sandman's model
- Risk Perception: Heuristics and Biases
 - Slovic's model



Premise: Psychologists as behaviour experts



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Rationale Choice Theory

What an agent does on any given occasion is completely determined by her beliefs and desires/values

The orthodox normative decision theory, expected utility (EU) theory, essentially says that, in situations of uncertainty, one should prefer the option with greatest expected desirability or value (Savage)



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Rationale Choice Theory



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Rationale Choice Theory



Decision making does not occur in a vacuum, but rather it involves social agents and it calls for a circular explanation (think about a food recall)



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Bounded Rationality Theory

Rationality is bounded because there are limits to our thinking capacity, available information, and time (Simon, 1982). Bounded rationality is similar to the social-psychological concept that describes people as “cognitive misers” (Fiske & Taylor, 1991) and represents a fundamental idea about human psychology that underlies behavioral economics.

A lot of times choices are based on heuristics and biases

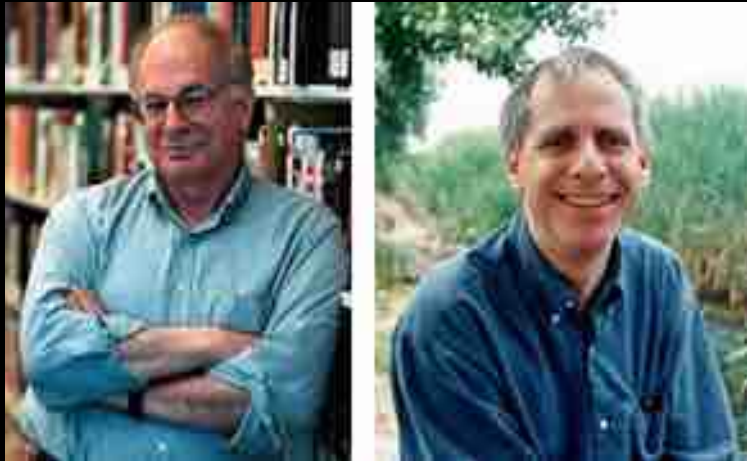


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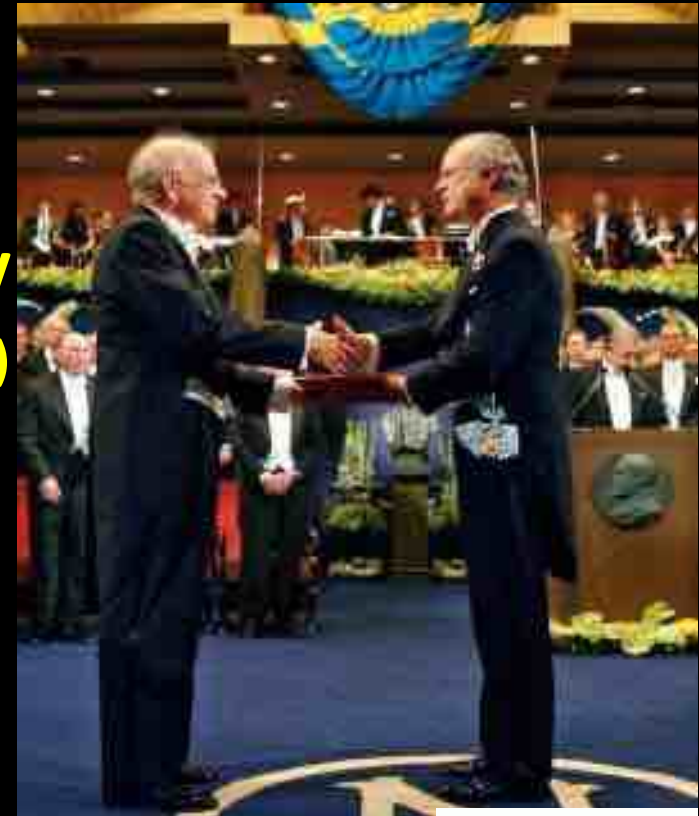




Bounded Rationality Theory



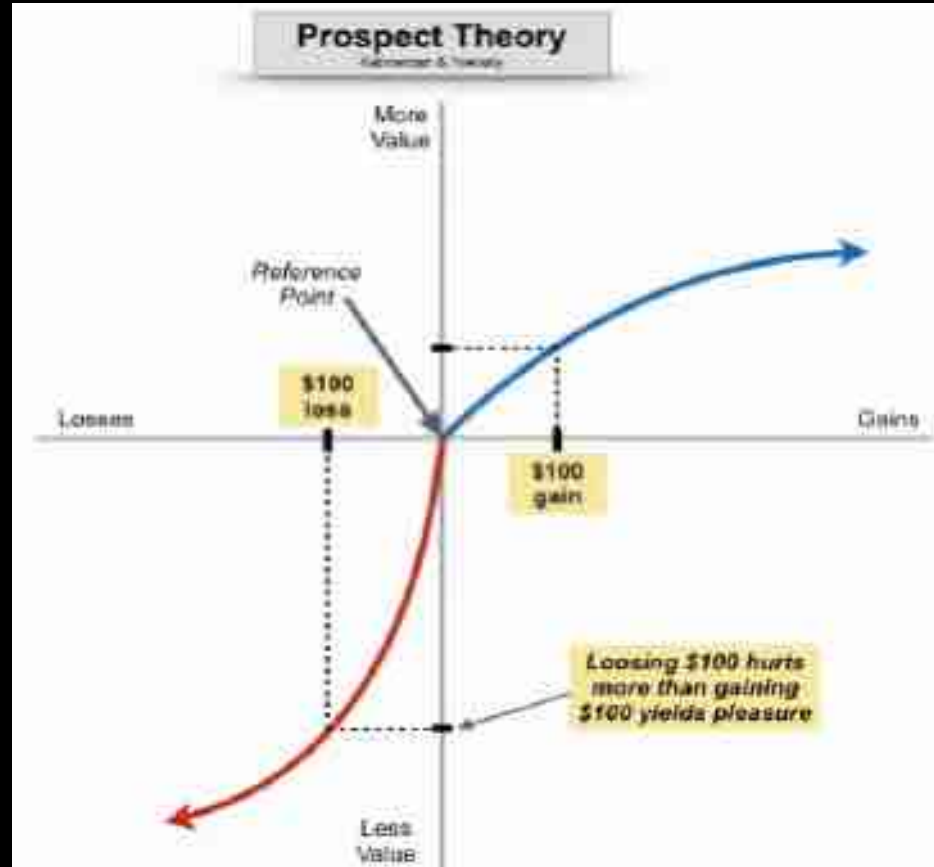
Prospect Theory (Kahneman- Tversky)



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Prospect Theory : Risk Perception



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Risk Perception: Prospect Theory

According to the Prospect Theory before the real decision making there is a phase devoted to information management during which lay people «organize» the following moves.

In this sense, the way by which an info is provided and framed is essential, being able to impact on subjective interpretation.

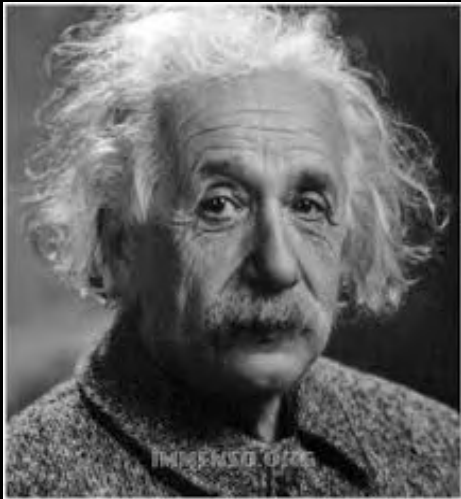


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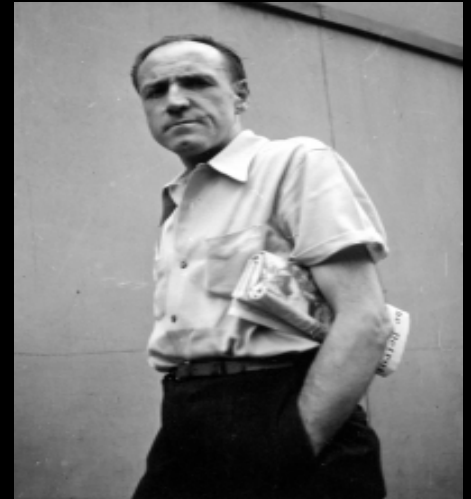
Risk Perception: what scientists and lay men think about



Risk

=

Hazard + Outrage
(Sandman, 1997)

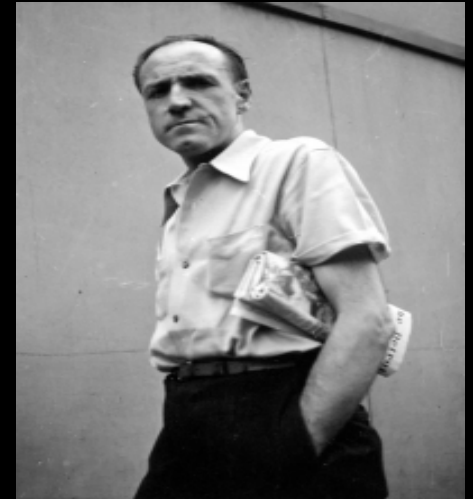
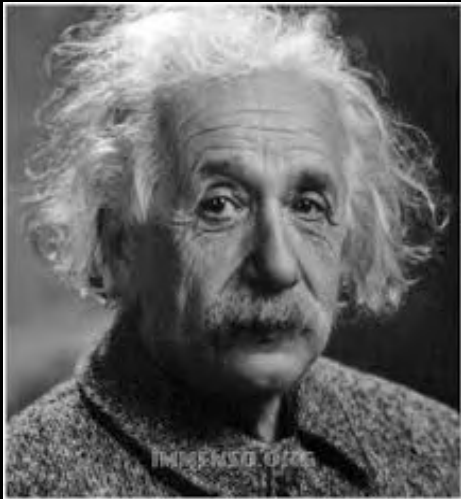


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Risk Perception: what scientists and lay men think about



Common people pay little attention to the hazard side of risks, while experts completely ignore the outrage side

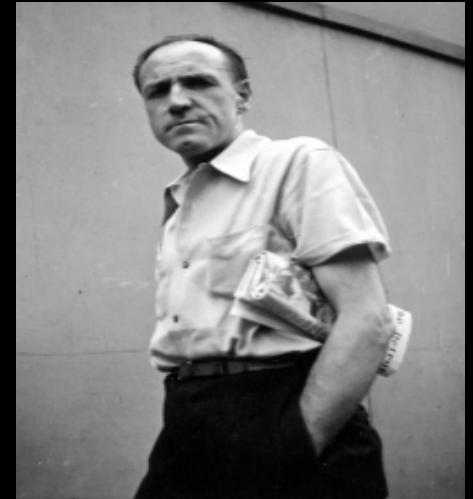
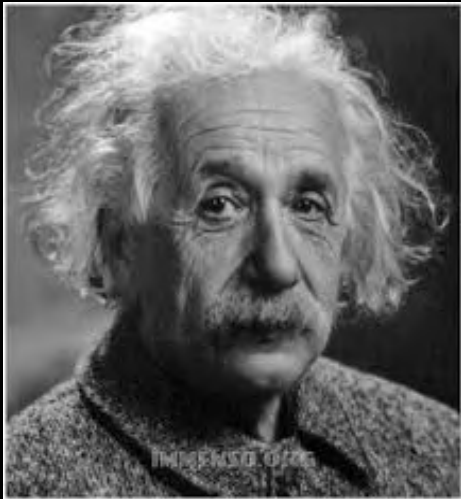


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Risk Perception: what scientists and lay men think about



On one hand there is the experiential paradigm (olistic and emotionale) and on the other one the analitic one (Zajonc, 1980)

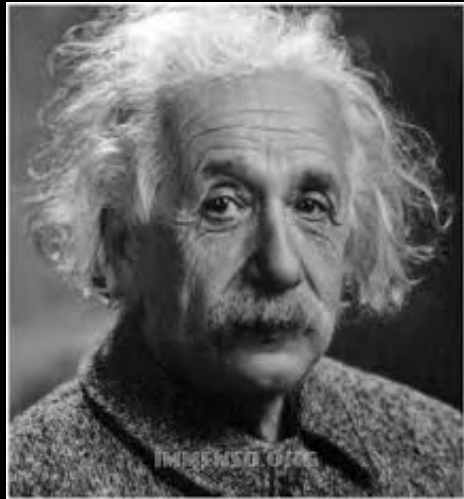


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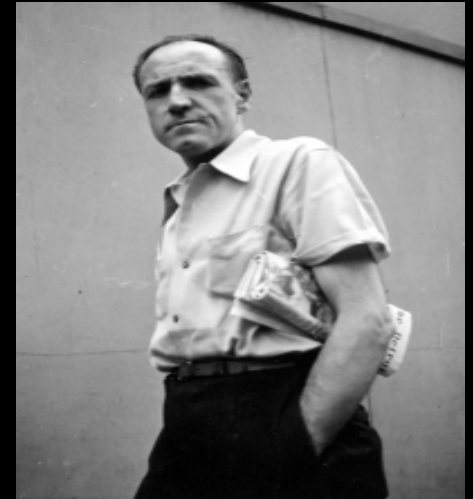




Risk Perception: Prospect Theory



**2 parallel stairs
(Sandman, 1987)**



**Smoking
Diet**



**OGM
Vaccines**



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Risk Perception: how to mind the gap

Think about smoking, where the main aim of risk communication is to augment the lay man's outrage

<https://video.repubblica.it/mondo/usa-morta-di-cancro-terrie-testimonial-contro-il-fumo/140224/138759>



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Risk Perception: how to mind the gap

On the other hand, when outrage in lay man is great without a real scientific support, the main aim of risk communication is reassuring (of course not in a direct way)



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Bounded Rationality Theory

Availability Heuristic

Confirmation Bias

Framing Effect

Omission Bias

Anchoring



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Heuristics and Biases

Availability Heuristic

Istat annual report on death causes



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Heuristics and Biases



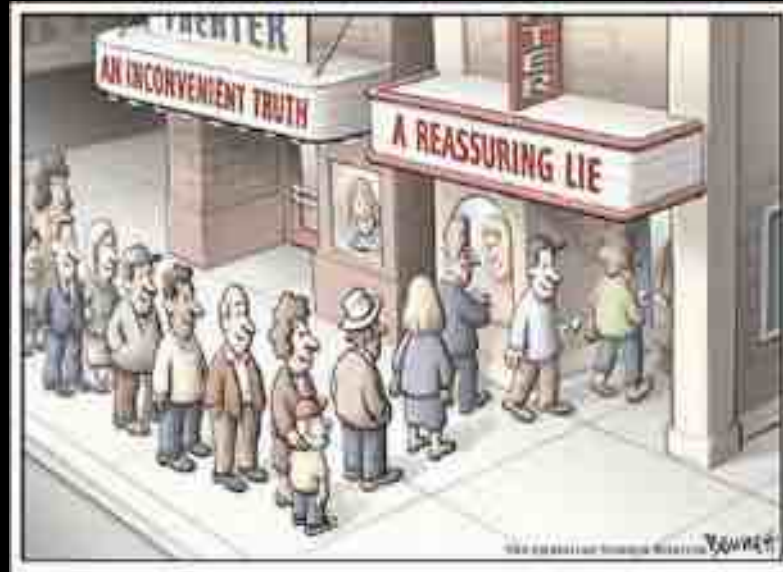
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Heuristics and Biases

Confirmation Bias

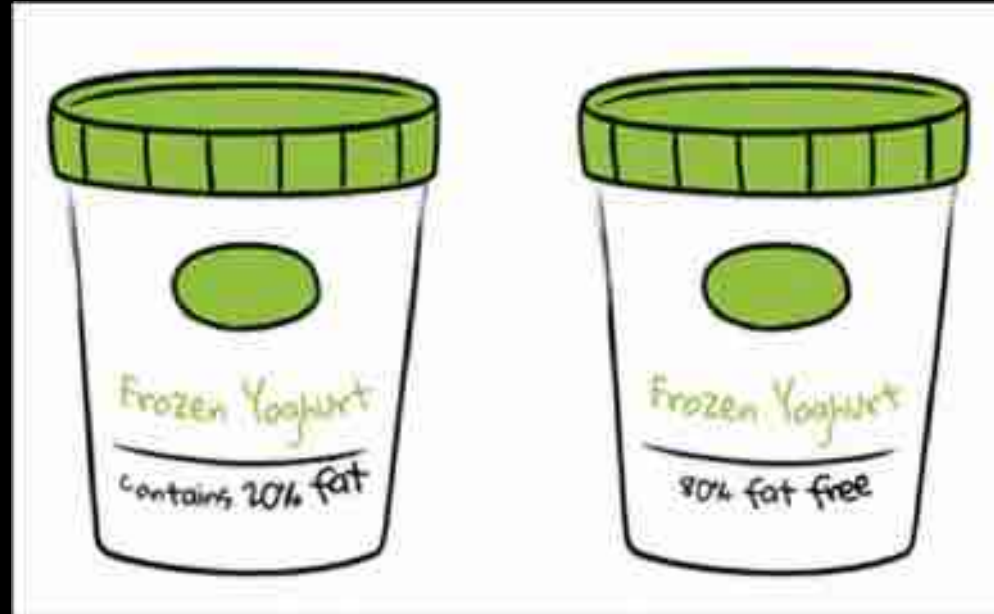


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Heuristics and Biases: Framing Effect



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Heuristics and Biases: Framing Effect



«Recent work by cognitive psychologists on the framing of decision problems indicates that the characterization of outcomes in terms of the probability of survival rather than the probability of death can have a substantial effect on people's preferences»

(McNeil, Paulker, Sox e Tversky, 1982)

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Heuristics and Biases: Framing Effect

Smoking when praying



Is different from

Praying when smoking



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Omission bias

A very interesting category of decision is related to the choice of deciding vs doing nothing



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Omission bias

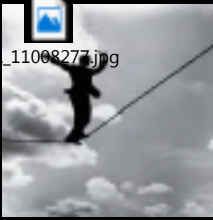
It is the tendency to judge harmful actions as worse, or less moral than equally harmful omissions (inactions) (Ritov & Baron, 1990)

Typical omission biases refer to....



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Omission bias

vaccines



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Anchoring

That is to say ...is the tallest tree in the world more or less than 200 mt?



....and what about the initial Ipad price??

<https://www.youtube.com/watch?v=KN-5zmvjAo>



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Anchoring

Silver Medal Effect



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Psychometric model of risk perception (Slovic and coll.)



Risk is defined in subjective terms (personal history, emotions, culture may play a role)

The challenge is understanding for different targets the trade-off





Slovic's Matrix

Personal exposure;

Voluntary exposure;

Collective exposure;

Familiarity vs new risks;

Control;

Severe negative consequences;

Harmful to humans and/or to environment;

Precise scientific and personal knowledge;

Risky for future generations





Social amplification of risk (Kasperson, Renn, Slovic et al., 1988)

Mass Media

New Media

Active Minorities (es. novax)



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Risk perception and communication: a matter of trust



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OUTRAGE demo

<http://www.psandman.com/outrage.htm>



Cortini, M. «La percezione del rischio: il fulcro della comunicazione», Roma, Ministero della Salute, 28 febbraio 2018

