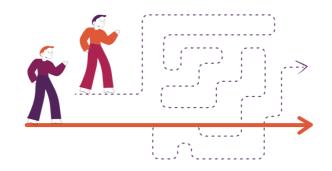
#### Behavioural science 101

# **Heuristics and Biases**





## **Ambiguity Effect**

The tendency to avoid options for which the missing information makes the probability seem "unknown"



## **Anchoring or Focalism**

The tendency to rely too heavily, or "anchor" on one trait or piece of information when making decisions



#### **Attentional Bias**

The tendency of our perception to be affected by our recurring thoughts



## **Availability Heuristic**

The tendency to overestimate the likelihood of events with greater "availability" in memory, which can be influenced by how recent the memories are or how unusual or emotionally charged they may be.



## **Availability Cascade**

A self-reinforcing process in which a collective belief gains more and more plausibility through its increasing repetition in public discourse (or "repeat something long enough and it will become true")



#### **Backfire Effect**

When people react to disconfirming evidence by strengthening their heliefs



### **Bandwagon Effect**

The tendency to do (or believe) things because many other people do (or believe) the same. Related to groupthink or herd behaviour



### **Base Rate Fallacy**

The tendency to ignore base rate information (general information) and focus on specific information only pertaining to one case



#### **Belief Bias**

An effect where someone's evaluation of the logical strength of an argument is biased by the believability of the conclusion



## **Bias Blind Spot**

The tendency to see oneself as less biased than other people, or to be able to identify more cognitive biases in others than in oneself



#### **Cheerleader Effect**

The tendency for people to appear more attractive in a group than in isolation



### **Choice-Supportive Bias**

The tendency to remember one's choices as better than they actually were at the time



#### **Clustering Illusion**

The tendency to over-expect small runs, streaks, or clusters in large samples of random data (that is, seeing phantom patterns)



### **Confirmation Bias**

The tendency to search for, interpret, focus on, and remember information in a way that confirms one's preconceptions





## **Congruence Bias**

The tendency to test hypotheses exclusively through direct testing, instead of testing possible alternate hypotheses



## Conjunction Fallacy

The tendency to assume that specific conditions are more probable than general ones



#### Conservatism

A certain state of mind wherein high values and high likelihoods are overestimated while low values and low likelihoods are underestimated



## **Conservatism (Bayesian)**

A tendency to insufficiently revise one's belief when presented with new evidence



#### **Contrast Effect**

The enhancement or reduction of a certain perception's stimuli when compared with a recently observed, contrasting object



## **Curse of Knowledge**

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



## **Decoy Effect**

Preferences for either option A or B changes in favour of option B when option C is presented, which is similar to option B but in no way better



### **Denomination Effect**

The tendency to spend more money when it is denominated in small amounts rather than large amounts



#### **Distinction Bias**

The tendency to view two options as more dissimilar when evaluating them simultaneously than when evaluating them separately



### **Duration Neglect**

The neglect of the duration of an episode in determining its value



## **Empathy Gap**

The tendency to underestimate the influence or strength of feelings, either in oneself or others



#### **Endowment Effect**

The fact that people often demand much more to give up an object than they would be willing to pay to acquire it



## **Exaggerated Expectation**

Based on estimates, real-world evidence turns out to be less extreme than our expectations (conditionally inverse of the conservatism bias)



### **Experimenter's Bias**

Experimenters' tendency to believe, certify, and publish data that agrees with their expectations for the outcome of an experiment, and to disbelieve, discard, or downgrade corresponding data that conflicts with those expectations



#### **Functional Fixedness**

Limits a person to using an object only in the way it is traditionally used



## **Focusing Effect**

The tendency to place too much importance on one aspect of an event



#### Forer/Barnum Effect

The observation that individuals will give high accuracy ratings to descriptions of their personality that supposedly are tailored specifically for them, but are actually vague and general, to apply to a wide range of people



## **Framing Effect**

Drawing different conclusions from the same information, depending on how or by whom that information is presented







## **Frequency Illusion**

The illusion in which a word, a name or other thing that has recently come to one's attention suddenly seems to appear with improbably frequency shortly after (see also recency illusion)



## Hard-easy effect

Based on a specific level of task difficulty, the confidence in judgements is too conservative and not extreme enough



#### **Hostile Media Effect**

The tendency to see a media report as being biased, owing to one's own strong partisan views



## **Hyperbolic Discounting**

The tendency for people to have a stronger preference for more immediate payoffs relative to later payoffs, even if the present payoff is lower in value.



#### **IKEA Effect**

The tendency for people to place a disproportionately high value on objects that they partially assembled themselves, regardless of the quality of the end result



## **Illusion of Validity**

Belief that furtherly acquired information generates additional relevant data for predictions, even when it evidently does not



## **Impact Bias**

The tendency to overestimate the length or the intensity of the impact of future feeling states



### **Insensitivity to Sample Size**

The tendency to under-expect in small samples



## Just-world Hypothesis

The tendency for people to want to believe that the world is just, causing them to rationalize an otherwise inexplicable injustice as deserved by the victim(s)



## Gambler's Fallacy

The tendency to think that future probabilities are altered by past events, when in reality they are unchanged.



## **Hindsight Bias**

The tendency to see past events as being predictable at the time those events happened



### **Hot-hand Fallacy**

The fallacious belief that a person who has experienced success has a greater chance of further success in additional attempts



#### **Identifiable Victim Effect**

The tendency to respond more strongly to a single identified person at risk then a large group of people at risk



#### Illusion of Control

The tendency to overestimate one's degree of influence over other external events



## **Illusory Correlation**

Inaccurately perceiving a relationship between two unrelated events



#### **Information Bias**

The tendency to seek information even when it cannot affect action



### **Irrational Escalation**

The phenomenon where people justify increased investment in a decision, based on the cumulative prior investment, in spite of new evidence suggesting that the decision was probably wrong



#### Less-is-Better Effect

The tendency to prefer a smaller set to a larger set judged separately, but not jointly







#### **Loss Aversion**

"the disutility of giving up an object is greater than the utility associated with acquiring it" (see also Sunk cost effects and endowment effect)



#### **Moral Credential Effect**

The tendency of a track record of non-prejudice to increase subsequent prejudice



## **Negativity Bias**

Psychological phenomenon by which humans have a greater recall of unpleasant memories compared with positive memories



## **Normalcy Bias**

The refusal to plan for, or react to, a disaster which has never happened before



## **Observer-Expectancy Effect**

When a researcher expects a given result and therefore unconsciously manipulates an experiment or misinterprets data in order to find it (see also subject- expectancy effect)



## **Optimism Bias**

The tendency to be over-optimistic, overestimating favorable and pleasing outcomes



#### **Outcome Bias**

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



#### **Pessimism Bias**

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



#### **Post-Purchase Rationalization**

The tendency to persuade oneself through rational argument that a purchase was a good value



## **Money Illusion**

The tendency to concentrate on the nominal (face value) of money rather than its value in terms of purchasing power



### **Negativity Effect**

The tendency of people, when evaluating the cause of the behaviours of a person they dislike, to attribute their positive behaviours to the environment, and negative behaviours to the inherent nature of the person



## **Neglect of Probability**

The tendency to completely disregard probability when making a decision under uncertainty



#### **Observation Selection Bias**

The effect of suddenly noticing things that were not noticed perviously- and as a result wrongly assuming that the frequency has increased



#### **Omission Bias**

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



#### Ostrich Effect

Ignoring an obvious (negative) situation



#### **Overconfidence Effect**

Excessive confidence in one's own answers to questions (for example, answers that people rate as "99% certain" turn out to be wrong 40% of the time)



#### **Planning Fallacy**

The tendency to underestimate task-completion times



#### **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





## **Pseudocertainty Effect**

The tendency to make riskaverse choices if the expected outcome is positive, but make risk-seeking choices to avoid negative outcomes



#### **Reactive Devaluation**

Devaluing proposals only because they are purportedly originated with an adversary



#### **Restraint Bias**

The tendency to overestimate one's ability to show restraint in the face of temptation



## Risk Compensation/ Peltzman Effect

The tendency to take greater risks when perceived safety increases



#### Semmelweis Effect

The tendency to reject new evidence that contradicts a paradigm



## **Social Desirability Bias**

The tendency to over-report socially desirable characteristics or behaviors in oneself and under-report socially undesirable characteristics or behaviors



### Stereotyping

Expecting a member of a group to have certain characteristics without having actual information about that individual



#### **Subjective Validation**

Perception that something is true if a subject's belief demands it to be true. Also assigns perceived connections between coincidences



## **Time-saving Bias**

Underestimations of the time that could be saved (or lost) when increasing (or decreasing) from a relatively low speed and overestimations of the time that could be saved (or lost) when increasing (or decreasing) from a relatively high speed



#### Reactance

The urge to do the opposite of what someone wants you to do out of a need to resist a perceived attempt to constrain your freedom of choice (see also reverse psychology)



### **Recency Illusion**

The illusion that a word or language usage is a recent innovation when it is in fact long-established (see also frequency illusion)



### **Rhyme as Reason Effect**

Rhyming statements are perceived as more truthful. Example from OJ Simpson's trial, "if the gloves don't fit, you must acquit"



### **Selective Perception**

The tendency for expectations to affect perception



### **Social Comparison Bias**

The tendency, when making hiring decisions, to favor potential candidates who don't compete with one's own particular strengths



#### **Status Ouo Bias**

The tendency to like things to stay relatively the same (see also loss aversion, endowment effect, and system justification)



#### **Subadditivity Effect**

The tendency to judge probability of the whole to be less than the probability of the parts



#### Survivorship Bias

Concentrating on the people or things that "survived" some process and inadvertently overlooking those that didn't because of their lack of visibility



#### **Unit Bias**

The tendency to want to finish a given unit of task or an item. Strong effects on the consumption of food in particular







#### Well traveled road effect

Underestimation of the duration taken to traverse oft-traveled routes and overestimation of the duration taken to traverse less familiar routes



#### **Zero-risk Bias**

Preference for reducing a small risk to zero over a greater reduction in a larger risk



### **Zero-sum Heuristic**

Intuitively judging a situation to be zero-sum (i.e., the gains and losses are correlated). Derives from the zero-sum game in game theory, where wins and losses sum to zero. The frequency with which this bias occurs may be related to the social dominance orientation personality factor

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