

智覺學苑 欢迎

认知偏差 第一节 135种认知偏差 1至10 135 Cognitive biases: 1 to 10

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生命的意义与价值 Meaning and value of life

佛教 实际上是一种不断演进的人类觉识,包括宗教,形而上学,科学,哲学和认知心理学等等。(生命的意义)Buddhism is actually an evolving human consciousness including religion, metaphysics, science, philosophy and cognitive psychology.

(The meaning of life)

明了 就是包含了所有这些知识和智慧,让自己的人生明智地活出最高的价值。(生命的价值) Enlightenment is embracing these knowledge in totality and living one's life wisely to its highest value. (The value of life)

分享光明 Share the light



点燃一根小蜡烛比 诅咒黑暗更好 It is better to light one small candle than to curse the darkness







认知偏差是判断偏离规范或理性的一种系统模 式,个人从对输入的感知中创造出自己的"主 观社会现实"。个人对社会现实的建构,而不 是客观的输入,可能决定了他们在社会世界中 的行为, 因此, 认知偏差会导致感知扭曲、判 断不准确、解释不合理,或广义上的非理性。 A cognitive bias is a systematic pattern of deviation from <u>norm</u> or rationality in judgment. Individuals create their own "subjective social reality" from their perception of the input. An individual's construction of social reality, not the objective input, may dictate their behavior in the social world. Thus, cognitive biases may sometimes lead to perceptual distortion, inaccurate judgment, illogical interpretation, or what is broadly called irrationality.

• 认知 = 推理/感知的/ 理智的/思维 Cognitive = reasoning/perceptive/rational/thinking

• 偏差 = 偏袒/偏见/成见/ 不公正 Bias =

Favouritism/prejudice/preconception/unfairness

一些认知偏差可能是适应性的。认知偏差可能导致 在特定环境下采取更有效的行动。此外,允许认知 偏差可以实现更快的决策,这在及时性比准确性更 有价值时是可取的,如在启发式探索法中所示那样 。其他的认知偏差是人类信息加工局限性的"副产 品",其原因是缺乏适当的心理机制(有限理性), 或者仅仅是信息加工能力有限。Some cognitive biases are presumably adaptive. Cognitive biases may lead to more effective actions in a given context. Furthermore, allowing cognitive biases enable faster decisions which can be desirable when timeliness is more valuable than accuracy, as illustrated in heuristics. Other cognitive biases are a "by-product" of human processing limitations, resulting from a lack of appropriate mental mechanisms (bounded rationality), or simply from a limited capacity for information processing.

进化心理学 Evolutionary Psychology

人类是为了适者生存进化,而不是为了追求真理进化的,所以认知偏差对人类生存的高效率是有利的,但不利于追求真理。 Human beings evolve for the survival of the fittest, not for the pursuit of truth, so cognitive bias is beneficial to the high efficiency of human survival, but not conducive to the pursuit of truth.

人类没有追求真理的必备条件,追求真理对生存没有多大用处,但对灵性是有用的。 Human beings do not have the necessary conditions to pursue truth. The pursuit of truth is not very useful for survival, but it is useful for spirituality.

进化心理学 Evolutionary Psychology

为了弥补人类这个缺陷,我们要学好逻辑,学好逻辑是追求真理的必要条件。In order to remedy the human defect, we must learn logic well. Learning logic well is a necessary condition for pursuing truth.

认识了逻辑谬论的缺陷和认知偏差的盲点之后,再去学习逻辑会更好。 It would be better to learn logic after knowing the defects of logical fallacy and the blind spots of cognitive biases.

近数十年来认知科学、社会心理学, 行为经济学快速发展,总结出大量的 认知偏差。这些认知偏差很值得研究 ,因为系统性的错误揭示了"感知与 判断背后的心理过程"。In recent decades, with the rapid development of cognitive science, social psychology and behavioral economics, a large number of cognitive biases have been summarized. These cognitive biases are worth studying because systematic errors reveal the "psychological processes behind perception and judgment",

135 种认知偏差 135 cognitive biases

- 1. 模糊效应 Ambiguity effect
- 2. 锚定效应 Anchoring or focalism
- 3. 拟人化 Anthropomorphism
- 4. 注意力偏差 Attentional bias
- 5. 自动性偏差 Automation bias

135 种认知偏差 135 cognitive biases

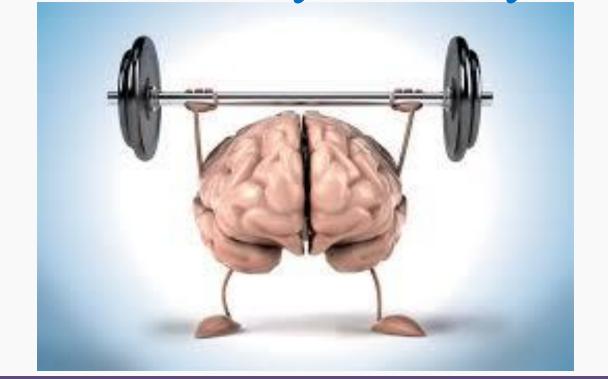
- 6. 可得性捷思法 Availability heuristic
- 7. 可获性层叠 Availability cascade
- 8. 逆火效应 Backfire effect
- 9. 从众效应 Bandwagon effect
- 10. 基本比率谬论或基本比率忽视 Base rate fallacy or Base rate neglect

再接再厉, 勇登高峰



逻辑训练 Logic exercise

现在请您专注和澄清思维...准备好了吗? Concentrate and clear your mind please... are you ready?



模糊效应 Ambiguity effect

1. 模糊效应: 决策时倾向 于避开资讯不足的选项, 为资讯不足使概率/可能性 看起来象"未知的"

Ambiguity effect: The tendency to avoid options for which missing information makes the probability seem "unknown".

(1) 更愿意买一辆有已知 事故历史记录的二手车 , 而不是一辆没有行驶 记录的车。Prefer to buy a used car with known collision history over another car with no history available.

(2) 考虑一个装了30个球的桶。球是红色的, 或是黑色的,又或是白色的。其中10个球是 红色的,其余20个球是黑色或白色的,所有 黑白组合的可能性都相同。在选项X中,抽 到一个红球赢得100美元,而在选项Y中,抽 到一个黑球赢得100美元。选择一个中奖球的 概率对于选项X和Y都是相同的。 Consider a bucket containing 30 balls, the balls are either red, black or white. Ten of the balls are red, and the remaining 20 are either black or white, with all combinations of black and white being equally likely. In option X, drawing a red ball wins a person \$100, and in option Y, drawing a black ball wins them \$100. The probability of picking a winning ball is the same for both options X and Y. 16

您会选择X,还是Y?

在选项X中,选择一个中奖球的概率是1/3(30个 球中有10个红球)。在选项Y中,尽管黑球数量不 确定,但选择中奖球的概率也是1/3。这是因为 黑球的数量在0到20之间的所有可能性中平均分 布。两种方案的区别在于,在方案X中,有利结 果的概率已知,但在方案Y中,有利结果的概率 未知(模糊)。 In option X, the probability of selecting a winning ball is 1 in 3 (10 red balls out of 30 total balls). In option Y, despite the fact that the number of black balls is uncertain, the probability of selecting a winning ball is also 1 in 3. This is because the number of black balls is equally distributed among all possibilities between 0 and 20. The difference between the two options is that in option X, the probability of a favorable outcome is known, but in option Y, the probability of a favorable outcome is unknown (ambiguous).

模糊效应 Ambiguity effect

练习:请同学们举出这种认知偏差的例子



锚定效应 Anchoring or focalism

2. 锚定效应: 做决策的时候过于 依赖信息的一个特性或一个方面 的倾向。(通常是我们在某个主 题上获得的第一个片面的信息)。 Anchoring or Focalism: The tendency to rely too heavily, or "anchor", on one trait or piece of information when making decisions (usually the first piece of information that we acquire on that subject).

锚定效应 Anchoring or focalism

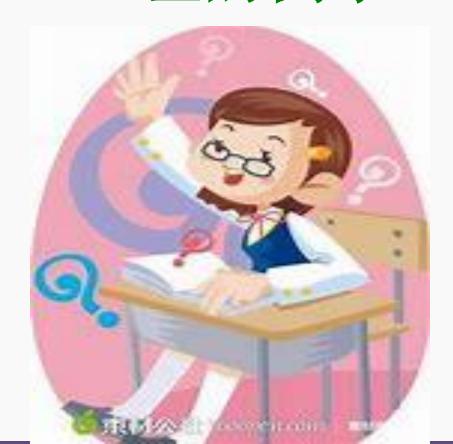
为不熟悉的事物估值时,会把熟悉的类似事物,或不久前接触到的无的类似事物,或不久前接触到的无关数值当做"锚",这样估计出来的数值会大大趋近于"锚"。

When estimating unfamiliar things, we will regard familiar similar things or irrelevant values that we have recently touched as "anchors", and the estimated values will tend to "anchors". Typically, the first bit of information we receive becomes an anchor and all future evaluations are based on this anchor piece of information.

一辆二手车的最初报价变成了谈 判的参考标准,所以当成交价比 这个最初报价低的时候就接受了 ,即使这个价格实际上仍然高于 这辆车的实际价值。The initial price offered for a used car sets the standard for the rest of the negotiations, so that prices lower than the initial price seem more reasonable even if they are still higher than what the car is really worth. 21

锚定效应 Anchoring or focalism

练习:请同学们举出这种认知偏差的例子



拟人化 Anthropomorphism

3. 拟人化:将人类的特征和 目的赋予无生命的物体、 动物、植物、其他自然现 象或上帝。Anthropomorphism: Giving human characteristics and purposes to inanimate objects, animals, plants, or other natural phenomena, or to God.

1) 动物卡通, 匹诺曹, 当他被赋予了 可以谈话,走路,思考和感觉像一个 真正男孩等等能力时,这个著名的木 偶被拟人化了。寓言和神话故事通常 都可以作为拟人化的例子。Animal cartoons. Pinocchio, the famous wooden doll was anthropomorphized when he was given the ability to talk, walk, think, and feel like real boy. Fables and fairy tales usually have characters that can serve as anthropomorphism examples. 24

2) 伊索寓言关于乌龟和兔子的故事。 Aesop's fable about the Tortoise and the Hare. 拟人化和人格化略有不同,人格化是 用来描述一个东西有人类的特点。拟 人化实际上是让动物或物体表现得像 人一样。Anthropomorphism is slightly different from personification, which is describing an object using human characteristics. Anthropomorphism is actually having the animal or object behave as if it is 25

拟人化 Anthropomorphism

练习:请同学们举出这种认知偏差的例子



注意力偏差 Attentional Bias

4. 注意力偏差: 我们的感 知被我们常见的想法(常 想的事)所影响的一种倾 可。 Attentional bias: The tendency of our perception to be affected by our recurring thoughts.

(1) 电话总是在我洗 澡的时候响起来, 从来没有例外! The phone always ring when I am in the shower, never fails!

逻辑范畴 Logical category

"洗澡与电话响"的四个逻辑范畴 In the shower and phone ringing have the following Logical category:

and phone ringing have the following Logical category:				
	电话响 Phone ringing			
		是 Yes	否 No	
洗	是 Yes	(1)我在洗澡, 电话在响	(3)我在洗澡, 电话没有响	
深 In the shower		In the shower and phone ringing	In the shower and phone not ringing	
	否 No	(2)我不在洗澡, 电话在响 Not in the shower and phone ringing	(4)我不在洗澡, 电话没有响 Not in the shower and phone not ringing	

(2) 想象一下你和你的同伴经常去 你住地附近的一个海湾钓鱼,你 注意到了同一只海豹。可能有人 会说"那只白头海豹只在我们钓 鱼的时候出现在这个海湾"。

Imagine you and your mates regularly go sea fishing in a bay near where you live, and you tend to see the same seal. Someone might say: "That seal with a white head only appears in this bay when we're fishing." 30

现在这个说法可能会得到一 个礼貌的回应。但当我说了那 句话的时候,我的同伴(一位 前情报员)很高兴地嘲笑了我 的观察结论。 Now, that statement probably deserves a polite response. But when I said that exact thing once, my mates (also ex-intelligencers) took great delight in deriding my observation.

一个人非常快地提醒到, 我刚好展示了注意力偏差 他说:"有四个可能性: One quickly reminded me that I was displaying Attentional Bias. he said: "There are four possible outcomes:

- 1) 我们在这里钓鱼,这只海豹在这里。 We're fishing here, and the seal is present.
- 2) 我们在这里钓鱼,这只海豹不在这里。 We're fishing here, and the seal is not present.
- 3) 我们不在这里,这只海豹在这里。 We're not here, and the seal is present.
- 4) 我们不在这里,这只海豹不在这里。 We're not here, and the seal is not present.

逻辑范畴 Logical category

"我们与海豹"的四个逻辑范畴 We and seal ave the following Logical category:

have the following Logical category:					
	我们We				
海 豹 Seal		是 Yes	否 No		
	是 Yes	(1)我们在这里, 海豹在这里。 We are here and the seal is here.	(3)我们不在这里, 海豹在这里。 We are not here and the seal is here.		
	否 No	(2)我们在这里, 海豹不在这里。 We are here and the seal is not here.	(4)我们不在这里, 海豹不在这里。We are not here and the seal is not here.		

你只是注意到结果(1),忽略了结果(2) ,而且你不知道(3)和(4)。" You are only considering Outcome (1). You have ignored Outcome (2), and you don't know Outcomes (3) and (4). 他是对的,我刚好展示了注意力偏差。 当我观察时,我没有预计所有的可能性 结果。我对结果(1)有注意力偏差。 He was right of course. I had displayed Attentional Bias. I had failed to examine all possible outcomes when making my observation. I was biased towards Outcome (1).

注意力偏差 Attentional bias

练习:请同学们举出这种认知偏差的例子



自动性偏差 Automation Bias

5. 自动性偏差: 过度依赖 自动化系统的倾向,这样 能导致错误的自动化信息 凌驾于正确的决策之上。 Automation bias: The tendency to excessively depend on automated systems which can lead to erroneous automated information overriding correct decisions. 37

医生知道一切的情况。当我有 健康问题的时候,我可以信任 医生的建议, 无论医生让我做 什么,我都会照做的。Medical doctors know all. When I have health problem, I can trust doctor's advice and follow whatever the doctor asks me to do.

自动性偏差 Automation Bias



可得性捷思法 Availability heuristic

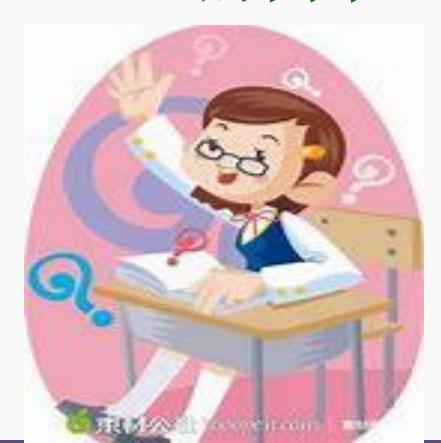
6. 可得性捷思法:这是高估记忆 中有更大"可得性"的事件发生 可能性的一种倾向, 这可能会受 到记忆接近,记忆异常或情绪激 动的程度所影响。Availability heuristic: The tendency to overestimate the likelihood of events with greater "availability" in memory, which can be influenced by how recent the memories are or how unusual or emotionally charged they may be.40

可得性捷思法 Availability heuristic

容易想到的事,其发生的概率/可 能性会受到高估,然而一件事是 否容易想起还受到发生多久、激 发情绪的程度等因素影响, 是不 能反映其实际发生概率的。Easy to think of, the probability of its occurrence will be overestimated, but whether a thing is easy to think of is also affected by the occurrence of how long, the degree of emotional arousal and other factors, can not reflect the actual probability of occurrence.

许多健康杂志的文章都提 倡吃素的好处。因此,如 果我们成为素食者的话, 我们会有很好的健康。 Many health's articles promote good benefits for being vegetarian. Therefore, we would have good health if we become vegetarians. 42

可得性捷思法 Availability heuristic

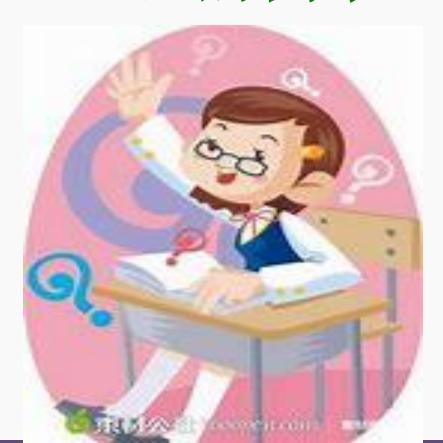


可获性层叠 Availability Cascade

7. 可获性层叠:一个自我强化的过程 ,在这个过程中,一个集体信念通 过其在公共演讲或谈论中不断被重 复而获得越来越高的合理性(或者说 "重复足够长的时间,它就会变成 真实/真理")。Availability cascade: A selfreinforcing 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").

在二战的时候, 希特勒政府大 力官扬日耳曼人是优等民族, 犹太人是劣等民族, 导致当时 几乎所有的德国人都认为犹太 人应该被屠杀。At the time of World War II, Hitler's government vigorously promoted the fact that the Germans were the superior nation and the Jews were the inferior nation, causing almost all Germans at that time to think that the Jews should be massacred.

可获性层叠 Availability Cascade



逆火效应 Backfire Effect

8. 逆火效应: 当人们对不 可靠的证据作出反应时 ,他们会加强自己的信 Backfire effect: When people react to disconfirming evidence by strengthening their beliefs.

逆火效应 Backfire Effect

当一个人遇到与自身信念相抵触 的观点或证据时,除非这些观点 和证据足以摧毁原有的信念,否 则他/她会忽略或反驳它们,原有 的信念反而会得到增强。When confronted with opinions or evidence that contradict one's own beliefs, unless they are sufficient to completely destroy the original beliefs, they will be ignored or refuted, and the original beliefs will be strengthened. 48

一个假装患了癌症的 妇女成功地说服了公 众,并得到了资助。 A fake cancer woman successfully convinces the public for the funding support.

逆火效应 Backfire Effect



从众效应 Bandwagon Effect

9. 从众效应(随波逐流): 向于做很多人做的事,或相 信很多人相信的事。这个与 群体思维和群体行为有关。 Bandwagon effect: The tendency to do (or believe) things because many other people do (or believe) the same. Related to groupthink and herd behavior.

- 1)穆斯林清真寺附近的穆斯林 信徒比教堂的信徒多很多倍, 所以,伊斯兰教是一个比基督 教更好的宗教。 Muslims living near Muslim mosque are more likely believers than church goers, so Islam is a better religion than Christianity.
- 2)在股票市场上疯狂的买卖。 Buying and selling frenzy in the stock market.

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从众效应 Bandwagon Effect



基本比率谬论或基本比率忽视 Base rate fallacy or Base rate neglect

10. 基本比率谬论或基本比率忽视 : 这是忽视基本比率的信息(普 通一般的信息), 只关注特定信 息(仅与一个特定情况有关的信 息)的一种倾向。Base rate fallacy or Base rate neglect: The tendency to ignore base rate information (generic, general information) and focus on specific information (information

only pertaining to a certain case)

基本比率谬论或基本比率忽视 Base rate fallacy or Base rate neglect

只关注针对性的资讯,忽略一般性的资讯(基 本比率),导致不恰当的认知。例如,因为酒 驾较容易肇事,就认为肇事者多半是酒驾,然 而由于酒驾者占所有驾驶者的比率甚小,肇 事者之中酒驾者的比例实际上不会那么高。 Focusing only on targeted information and ignoring general information (basic ratio) leads to inappropriate cognition. For example, because drunk driving is easier to cause accidents, it is considered that most of the perpetrators are drunk drivers. However, because the proportion of drunk drivers in all drivers is very small, the proportion of drunk drivers among the perpetrators will not be so high.

一个形式谬论: "信仰疗法是有效的,但不是一直 有效,尤其是当一个人的信仰不够强大的时候。 美国癌症协会声明: "现有的科学证据不支持信仰 疗法可以治愈癌症或任何其他疾病的说法。一些科 学家认为,将治愈归因于信仰疗法的人数低于根据 癌症患者自发缓解百分比的历史数据所计算出来的 人数…"。 A formal fallacy. "Faith healing works, but not all the time, especially when one's faith is not strong enough". The American Cancer Society: "Available scientific evidence does not support claims that faith healing can cure cancer or any other disease. Some scientists suggest that the number of people who attribute their cure to faith healing is lower than the number predicted by calculations based on the historical percentage of spontaneous remissions seen among people with cancer...". 56

基本比率谬论或基本比率忽视 Base rate fallacy or Base rate neglect



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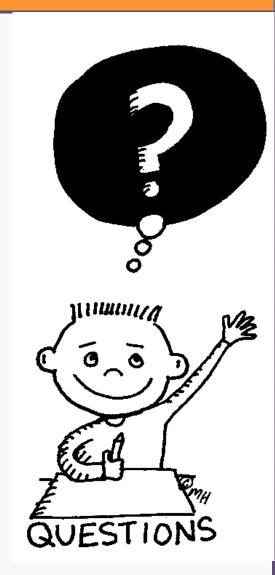


结**束** THE END

感谢!

Thank You!

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