

### Tutorial 9 Model Answers

1.
  - a. The heuristic at work here is **availability**. Most people will produce a list of musicians who come readily to mind. We struggle to think of musicians who predate us, and also suffer from a **recency bias**: a tendency to overestimate the significance of recent things.
  - b. Some **stereotypes** are in play here. Your surprise at Craig's arithmetic skills suggests that you took the quiet girl with glasses to be the mathematics major, while out-going Craig must be the guitarist. But perhaps it's the other way around!
  - c. At Woolies, a Cavendish banana is 70 cents. Ursula's choice of grocery **anchors** her spending to a high price-range. Six dollars for a banana doesn't seem so bad compared to the price of a Durian. You'll have the same problem if you look for a *house* in Burnside.
  - d. The **affect heuristic** encourages us to make choices that feel good or appeal to our sympathies. Here, "raising awareness" is emotionally nondescript while helping a young single-mother has all sorts of resonances.
2. Visual illusions are errors caused by the visual heuristics built into our brains. Under optimal conditions – decent lighting, nothing too far away, no post-14<sup>th</sup> century artworks in view – those heuristics enable your visual system quickly and accurately to report on lots of stuff. Likewise, cognitive heuristics are fast and frugal tools for thinking. Visual illusions occur when we look at things vision wasn't designed for, e.g., perspective drawings. Cognitive biases are *cognitive* illusions caused by applying intuitive reasoning where it's not wanted.
3.
  - a. A politician might say this before an election. But a community leader would be more likely to frame things like this: 'Although crime is at its lowest for four decades, there were still 370 violent crimes per 100,000 people in the last 12 months alone.'
  - b. Would it make more sense to compare the Lexus all-electric to, say, a Nissan Leaf? The latter probably has a bigger impact on the environment.
  - c. This sounds risky and triggers our **loss aversion** bias. But you could just as accurately say: 'If you buy a \$5 ticket you have a 1 in 10 chance of winning \$50.'
  - d. On special this week: delicious, organic, minced beef, with 10 per cent fat.
4.
  - a. The simplifying assumption here is that a "trial" involving highly motivated, self-selected volunteers provides a meaningful test of the efficacy of counselling. No attempt has been made to consider alternative explanations or to address the disconfirming evidence.
  - b. This "brilliant marksman" identifies a pattern in his shooting where none really exists. He simplifies the evidence by ignoring all the shots, as many as thirty or more, that missed the stop sign altogether. A scatter of shots aimed in the general direction of a stop sign is very likely to hit it a few times, which is all that he has demonstrated.

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