Activity 3 - Heuristics

Heuristics, mental shortcuts that we use to think more quickly about things we experience on a regular basis, can be helpful or detrimental. How did they come about though? There must be a reason for them.

You might have learned about evolution in biology lessons at school. Human decision-making also went through evolution and, here too, the strongest survived! Natural selection allowed for people to preserve and inherit decision-making shortcuts.

What made heuristics survive? The strength of the heuristic is in its ability to save the individual time, energy, and computation effort. If a complex decision can be made easy by using a heuristic, that gives strength to the heuristic, just like wings give birds added speed over walking. If the heuristic enables the individual to make a quick decision, which is just as good as the complex decision on average, that is great!

A heuristic will lead us to the right decision most of the time, but not all of the time! In other words, heuristics perform relatively well on average, but at times could be less than perfect or even lead to bad decisions. One example of this is the availability heuristic.

Task 1

Here is an example of the availability bias:

A. What, to your best knowledge, is more likely: dying of stomach cancer or being murdered?

B. What, to your best knowledge, is more likely: being killed by a part that has fallen off an aeroplane or suffering a shark attack?

Why did you answer as you did?

Look-up the true answers online or in the research papers¹, which tested people's judgement of these questions. If you were wrong, why do you think you were?

¹ Read, J. D. (1995). The availability heuristic in person identification: The sometimes misleading consequences of enhanced contextual information. *Applied Cognitive Psychology*, 9(2), 91-121; Briñol,
The availability heuristic relies on immediate examples that come to mind in evaluating a topic or decision. When evaluating how likely it is to die of a certain cause, we tend to think of when we last heard of a death caused by these factors (e.g. stomach cancer and murder). We are all highly exposed to murders through media reports, so it is likely that this cause of death came to mind first.

The availability heuristic assumes that if an event can be easily recalled then it is important. Thus, we weigh these easily recalled events more highly than the events that are more difficult to recall.

Now that you have read about the availability heuristic, look at Question B again. What was your initial judgment? Has it changed? If so, why?

You can learn more about the evolution of decision-making by watching this video:

https://www.futurelearn.com/courses/complexity-and-uncertainty/0/steps/1879

Beyond the idea of heuristics and biases, researchers argue that humans are predictably irrational. In fact, Dan Ariely wrote a book about it!

You can have a look at the book here:

http://danariely.com/books/predictably-irrational/

You can also look at Dan’s website and try to predict people’s irrational behaviour: http://danariely.com/experiments/predict/

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