TRU
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1. What Are Heuristics?

Video 1 - What Are Heuristics? - Transcript

00:00:00:00 - 00:00:14:09
Hi, this is Katia. In this short video, we will talk about heuristics and help you understand what they are through an interactive game.

00:00:14:11 - 00:00:36:07
If you search the internet or ask a generative AI tool, what is a heuristic? One of the first thing you will get back is a mental shortcut. While true, this doesn't really tell you much. One way to start understanding a concept is to think of an example. Imagine this it is late afternoon, your home and someone rings the doorbell.

00:00:36:10 - 00:00:55:22
You open the door and see a young person with a tablet in hand, ready to greet you. Before they've had a chance to introduce themselves, you say: "Hi, thanks, but I'm not interested." You may be smiling right now because something like this just happened to you the other day. But what happened exactly? And how is it related to heuristics?

00:00:55:24 - 00:01:15:01
This seems like a simple situation, but in fact, a whole series of perceptions and decisions just happened within fractions of a second. At the least, you perceive the visitor as a salesperson, and you decided that you are not going to buy whatever they're selling. In fact, you decided you don't even want to know what it is that they came to offer.

00:01:15:03 - 00:01:59:24
Further, you decide how you're going to communicate this decision to them. And then you did that. How can such complex thought processes take place so quickly and effortlessly? Heuristics enable that. Heuristics are cognitive processes that can occur automatically. That means without a conscious decision to do so, they allow us to go from thinking in social situations such as a visitor at your door, to engaging in relevant behaviors -

00:01:41:09 - 00:01:59:24
"hi, no thanks" - Instantaneously. They do that by relying on a select, small subset of what is present in the current situation, and using your readily available preexisting memories and knowledge to arrive at decision and behavior.

00:01:59:27 - 00:02:28:21
So, like shortcuts, they're fast, efficient, and effortless. Because they use only the most salient use in the environment and easily accessible mental representations, they conserve limited cognitive resources such as attention and working memory. You could be responding to your

visitor while still planning your dinner, if that's what you were doing when the doorbell rang. However, also like shortcuts, they are error prone and may oversimplify the situation.

00:02:28:23 - 00:02:40:01
This may happen because important cues were missed, or because the most accessible mental representations were not the most applicable ones in the situation.

00:02:40:03 - 00:03:04:13
To master what exactly heuristics are and how they work, you need a fundamental knowledge of cognition. Cognition is about how we acquire, store and process information. This concept I have already been using like mental representations, memory mode of processing. They're all the building blocks of understanding thought, emotion and behavior. Okay, a lot of words here. How much did you get out of that?

00:03:04:15 - 00:03:30:23
Let's illustrate heuristics by engaging you in an easy game. Take out a piece of paper and a pen or get ready to type on your device, whatever you prefer. Be quick and write down the first example that comes to mind. Okay, ready? Get set. Go. A colour.

00:03:30:25 - 00:03:37:00
A pet.

00:03:37:02 - 00:03:43:07
A flower.

00:03:43:10 - 00:03:48:20
A breakfast.

00:03:48:22 - 00:03:54:23
Okay, so far so good, I hope. Let's keep going.

00:03:54:26 - 00:04:01:00
An artist.

00:04:01:03 - 00:04:06:22
A psychologist.

00:04:06:24 - 00:04:12:19
An Italian.

00:04:12:21 - 00:04:18:21
An athlete.

00:04:18:23 - 00:04:50:06
Okay, so in this game, I asked you to come up with examples of social and non social categories in a limited time. And in these kinds of circumstances, when we're under time pressure or otherwise have limited cognitive resources, we're most likely to use heuristics to come up with the answer. So what did you come up with? Based on my experience asking this from my students, you mostly came up with blue or red for a color, a dog or cat for pet, daisy or rose for a flower.

00:04:50:09 - 00:05:12:21
Eggs or toast for breakfast. And then for the social categories. Maybe da Vinci for an artist. Freud comes most often for a psychologist. Maria Montessori for an Italian. And then Serena

Williams for an athlete. It is not really important what you came up with, but why you came up with that. This is where understanding cognition comes in.

00:05:12:23 - 00:05:24:14
Understanding how you acquire, represent and store information and how you retrieve it to use it when needed. And that's what we're going to understand here.