EXAMINING THE ROLE OF AVAILABILITY HEURISTIC IN CLIMATE CRISIS BELIEF

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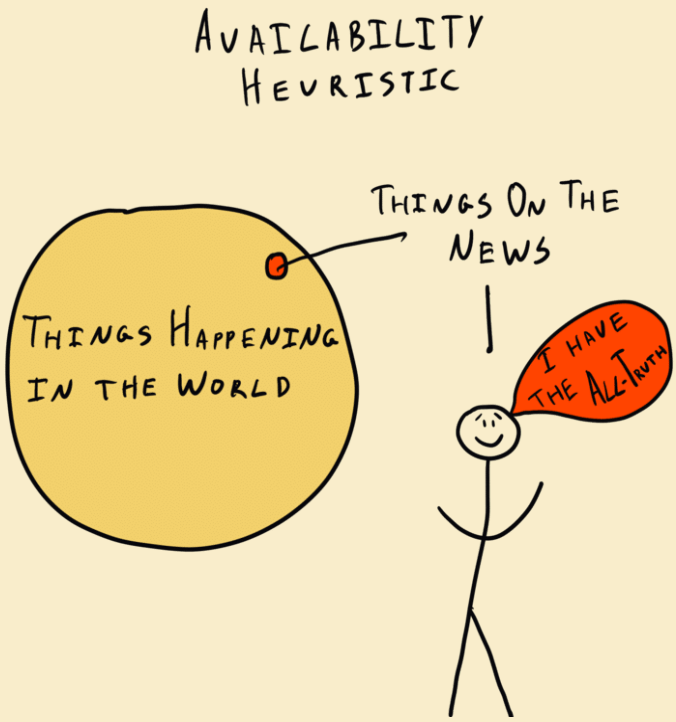
Every year, 725,000 people die from mosquito-borne diseases.[1] This fact may not come as a surprise because the effects of malaria and other mosquito-caused diseases are well known due to their high coverage across global news networks.

What about worldwide deaths caused by dogs? When asked to a room full of UC Berkeley students, estimates did not exceed a couple thousand. However, on average, rabid dogs account for 25,000 human deaths per year.[1] Although many people would classify dogs as harmless compared to most other animal species, dogs are third on the world's deadliest animals list.[1]

Human perception of the world is based on the information available to us at any point in time. Since news about dog-caused deaths is rarely covered on media platforms, we as humans classify these types of canines as safe creatures. On the other hand, mosquito-caused deaths have a more pervasive media coverage, creating an accurate belief about the dangers of the species. This unconscious cognitive distortion of the human mind also applies to shark and hippo attacks. Since shark attacks appear more frequently in the media than hippo attacks do, many people tend to classify sharks as more dangerous. In reality, hippo-attack-caused deaths are roughly fifty times more common. This unconscious bias, known as a heuristic, is called the Availability Effect and is defined in Daniel Kahneman's book, *Thinking, Fast and Slow*, as "the process of judging frequency by the ease with which instances come to mind."[4] One of the best examples Kahneman gives when explaining this phenomenon relates to Hollywood divorces. Since such divorces



"Availability Heuristic", by The Decision Lab

generate interest, they are at the forefront of people's consciousness and are easy to recall. Thus, people think that marriages fail in Hollywood more frequently than they fail in real life.

Considering all of this, why do some people not see global warming as hazardous or a prioritized problem even though there is a great abundance of scientific evidence related to human-caused environmental pollution? Aren't scientific data about the climate crisis shown on TV and social media platforms as frequently as in magazines? It seems like some people do not believe even that global warming is an abnormal event.[2] This is illustrated in the recent survey data gathered by Yale and George Mason Universities. Based on their data, 58% of Conservative Republicans, 52% of all Republicans, and 42% of Liberal Moderate Republicans claim that global warming occurs mostly due to natural changes, not due to human activities. Yet, nearly all Liberal Democrats and more than half of Moderate Conservatives think that global warming occurs mostly due to human activities. According to Jing Shi, one of the authors of *Public Perception of Climate Change: The Importance of Knowledge and Cultural Worldviews from the ETH Zurich Institute for Environmental Decisions (IED)*, the source of this difference in beliefs is the level of people's knowledge related to climate, which also correlates to higher levels of concern for climate change.

Shi and his team surveyed a diverse group of people from Canada, China, Germany, Switzerland, the UK, and the US. They found a direct correlation between an individual's level of climate-crisis-related knowledge and their concern towards the climate crisis. As can be seen in Figure 1, as citizens' knowledge about the causes of global warming rises, they become more concerned about the issue. This is because as people learn about climate-related issues, human-caused climate change starts to become a piece of information that is easily recollected. Then, as they are able to recall the instances of climate crisis, the issue appears to be more frequent, causing them to be more concerned about the topic. Thus, "their likelihood of accepting the reality of human-caused global warming and their support of policies to solve the problem" increases proportionally.[2] Shi's paper thereby demonstrates that the amount of "climate-relevant knowledge is important for people's willingness to change behaviors, [and] to accept climate change policies."[3]

Furthermore, in Shi's experiment, Americans are the ones that know the least about climate change and, in correlation, demonstrate the least concern compared to the citizens of other countries. For those who do not have much information about a subject, the Availability Heuristic plays a greater role in structuring their belief system. Therefore, Americans' low levels of knowledge can explain their low levels of concern. Professor Norbert Schwarz, who is a professor of psychology at the University of Southern California, illustrates this phenomenon with a pertinent experiment. In his study, Professor Schwarz asked the students to recall behaviors in their routine that could influence their cardiac health.[4] In the group of participants, half of the students had a history of cardiac disease in their families while the other half did not. When Schwarz asked the group with no cardiac disease history to memorize eight examples of healthy behavior, they had a hard time retrieving eight full events. Since the frequency with which the events came to their minds was low, they felt greater danger compared to the other group. Also, when the group was asked to retrieve eight examples of risky behavior, the students' responses followed the same pattern. They had a hard time retrieving eight full events. Since in the minds of the students with no family history of cardiac disease, the frequency of them conducting risky behaviors for their cardiac health was low, they felt safe. With a high probability, this is the case for Americans in Shi's study, who do not have the necessary amount of information about climate change. Since they know little, they can not retrieve enough instances of climate change-caused disasters. Therefore, due to the Availability Effect, when their minds judge the frequency of climate crisis caused events by the ease with which instances come to their minds, they feel safe about the climate crisis and think that it is not a problem.[4]

Evidently, individuals who are well-educated on climate change and its driving factors are able to recall them, are able to understand the risks associated with the issue, and thus are more likely to support eco-friendly policies. However, people who do not have climate-specific knowledge cannot recall any causes or instances of climate crisis, making them more likely to feel safe, and therefore, more prone to believe that this crisis is non-problematic. In other words, the lack of information about the causes or instances of climate change makes people prone to the Availability Heuristic, which, in this case, makes them trivialize the climate crisis. Thus, awareness of the availability bias can help us question our beliefs and realities. It can point out if our belief in the climate crisis is just based on our perception or the truth. With increased awareness, we can live in a reality built by research and proven facts, not just our opinions. Therefore, we can objectively see what is important and act on these significant matters – in this case, saving our one and only planet.

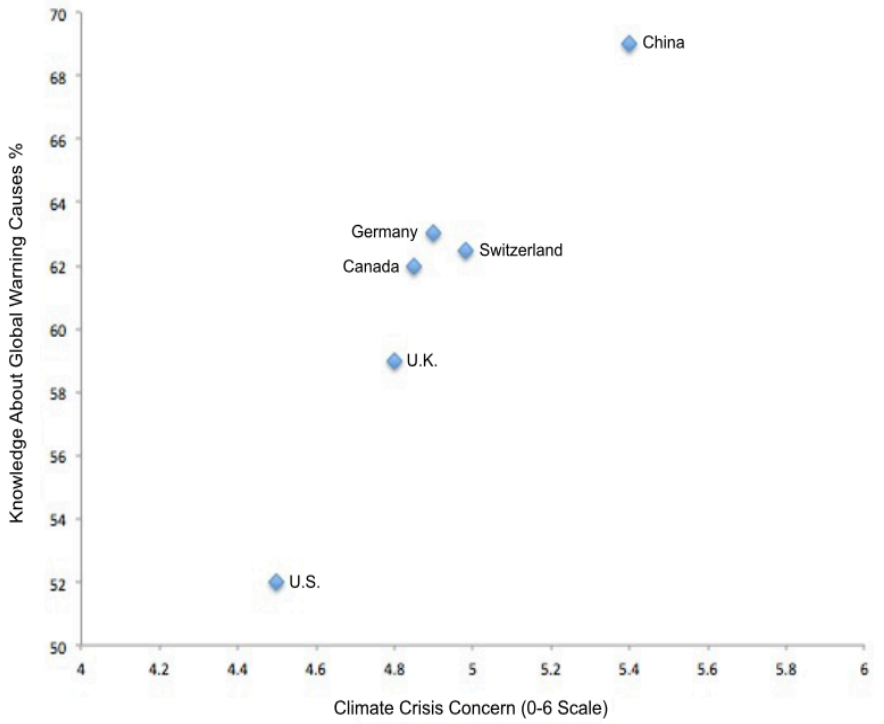


Figure 1: The illustration is originally drawn, and is inspired from Dana Nuccitelli's graph in The Guardian "Scientists are figuring out the keys to convincing people about global warming".

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IMAGE REFERENCES

1. (Cover Image) Creative Commons Licence. (n.d.). [Environment, disaster, global warming, climate change].Pixabay. https://pixabay.com/illustrations/climate-change-global-warming-2254711/
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