

Bias and Noise in Risk Assessment & Decision Making

Bias and noise creep into our decision making, and hence, our ability to assess risk. Without awareness of where these two very powerful influencers can creep in, we're left to our weakest angels. Below are some considerations to remind you of what was discussed during the presentation.

Optical Illusions are like Cognitive Illusions

If you're thinking your risk assessment and decision making are free from any biases or noise, think again. When you need a reminder of the frailty of our cognitive illusions, check out an optical illusion or two. Remember that while you may "know" the "right" answer, the illusion still exists: your eyes still see something that isn't accurate in the real world.

Link to some great optical illusions: <https://www.verywellmind.com/cool-optical-illusions-2795841>

Cognitive Illusions Impact Our Decisions

There are several ways in which our unconscious mind is influenced by images, words, and other environmental and contextual effects. Here's a few to keep in mind:

- Priming: Note that an **image** watermarked on a page can influence the productivity of the workers.
- Choice Architecture: Note that the use of **defaults** can be very powerful for impacting choices.

Biases Impact How We Decide

Bias is the tendency to make decisions or act in an unknowingly irrational way. These include many documented biases, but a few that will impact risk awareness include:

Bias	Definition
Confirmation Bias	The tendency to search for, interpret, focus on, and remember information in a way that confirms one's preconceptions.
Diversification Bias	The way we often overstate our desire for diversity.
Output Bias/Resulting	The way we judge the quality of the decision merely by the output.
Distinction Bias	The way things are presented make them more (or less) distinct.
Numerosity Bias	The way we interpret value by the way numbers are presented.

Noise Impacts Our Decisions

Noise is the unwanted variability in our professional judgments. As risk professionals, noise must be paid attention to because is a very silent, and very powerful, adversary.



Low Bias, Low Noise



Low Bias, High Noise



High Bias, Low Noise



High Bias, High Noise

Decision Hygiene is the Path to Risk Reduction

Decision hygiene is a set of specific procedures for reducing noise, it is not a specific remedy to an identified problem. And, yes, it can be a little bit thankless.

- Pay Attention
- Hunt Down Noise
- Implement Decision Hygiene

Signal



Noise

