

The Assumptions About Safety That Hold Us Back

A Quick Bit Of Brain Theory

I need to really quickly (and briefly) introduce a concept about the way you see the world before we get into the main discussion, and the guts of this concept is that some of your thinking is done consciously, and some of it is done unconsciously.

Most people accept that to some degree they think without always being aware of it, and that's our unconscious. What's interesting is in fact how much work it does, and how much influence it actually has. Generally, we drastically underestimate this. But as a quick example, just think of driving. If you had to consciously process and think about driving you just couldn't do it. The reality is that your unconscious does most of the heavy lifting when it comes to getting you through the day.

So What?

Well, to make it all work, you have developed a huge set of rules, short cuts and expectations about the way the world works, and these are sitting in your unconscious mind waiting to be used. The technical term for them is heuristics, and they are very handy, well most of the time anyway. You see, they are handy because it means your conscious mind (which is actually very very slow compared to your unconscious) is free to contemplate and rationalise, without having to worry about boring stuff like how the world works.

Heuristics Sound Great!

Well, mostly they are, but there is a trade-off, and that is that you don't notice them, and so you don't notice when they are wrong. Practical ones like the way light switches or brake lights work are easily checked of course because the evidence of them being incorrect is noticed. However some incorrect heuristics are much harder to notice, especially when other people seem to have them as well.

Heuristics About Safety that Harm

So here are some common "rules of thumb" that get a run in safety, and yet (in my opinion) are not true. These have become assumptions about "the way things are". They get talked about and taught to others (often informally). What is interesting is that the only get noticed when people challenge them, and then those people often get shouted down, or fired.

So here are a few of my favourites:

- **If you don't believe in zero harm then you must believe in harm** – This of course is rubbish. You can easily hold the belief that you don't want people to get hurt, while also holding a belief that we probably won't achieve it. This heuristic is a simplistic argument raised as a way of defending "zero harm" as a policy.

- **If you can't measure it you can't manage it** – Once again, a ridiculous belief. Many things that people value, like connection, safety, love, satisfaction or happiness cannot be measured, and yet we certainly take measures to manage these things in our life. The other danger with this belief however is that it leads to another heuristic, which is that only things you can measure are of value. It's why we think you can't have a safety strategy without also measuring.
- **The fewer minor incidents we have the fewer serious incidents we will have** – Byrd's Pyramid is responsible for a lot of bad safety strategy. The knowledge that incidents occur in a ratio (more minor compared to serious) somehow led to a heuristic that there is a causal link between injury and illness types. This in turn justifies the intense focus on minor (but easy and convenient) issues like wearing gloves and glasses, over dealing with the harder issues that lead to death, permanent injury, and chronic illness. The heuristic about a causal link is used to justify poor safety strategies. The reality is that the energy sources that cause fatalities are not the same as the ones that cause first aid injuries. There is no causal link.

Final Word

Heuristics are handy. They make life easy and efficient. However they can also reinforce things that are just not true (our beliefs), and because they operate unconsciously we just don't notice it. Often it doesn't really matter, but sometimes these heuristics lead to disastrous outcomes (this ship is unsinkable).

Interestingly, the feeling of mental discomfort you get when you hear something that you simply don't believe is the opportunity to question yourself. That is the indicator that one of your heuristics are being challenged, and if we accept that things need to change to gain improvements, then sometimes what might need to change is our beliefs...

Dave Whitefield
Director
People and Risk
0412 782 191