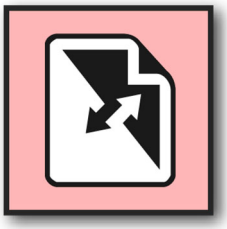
Insights from *The Great Mental Models* by Shane Parrish

"In life and business, the person with the fewest blind spots wins." – Shane Parrish

After reading *The Great Mental Models*, I've started considering three ***What I.F.S.*** when making big decisions and solving hard problems. The I.F.S. in ***What I.F.S.*** are three thinking methods, better known as mental models, that help reveal blind spots and uncover creative solutions to problems.



Inversion

When you're having trouble solving a problem, try solving the opposite problem.

- Instead of asking, *"How can I make a really good video?"* Ask, *"How can I make a really bad video?"*
- Instead of asking, *"How can I be more productive today?"* Ask, *"How can I be as unproductive as possible today?"*

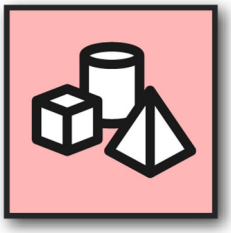
Once you've generated a list of ideas, invert them.

When I consider making a really bad video, I think of using PowerPoint slides with no images or examples, using a monotone voice that will put my audience to sleep, and making the video much longer than it needs to be. When I invert those ideas, I imagine a video with colorful examples, minimal text, and vocal variety. I also consider how I can make the video as short as possible.

When I wonder, *"How can I be as unproductive as possible today?"* I think of sleeping until noon, eating a big stack of pancakes for breakfast (which will make me lethargic all afternoon), and responding to emails all day. By inverting those ideas, I consider a highly productive day: wake up at 5:00 AM, fast until noon (water and coffee only), and check email after completing my most important task for the day.

Solving opposite problems or deliberately coming up with bad ideas is fun, and it gets your creative juices going. Plus, bad ideas are surprisingly valuable once you invert them.

"Avoiding stupidity is easier than seeking brilliance." – Shane Parrish



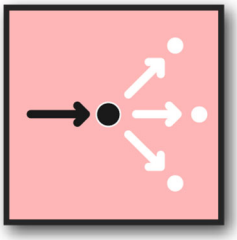
First principles thinking

Elon Musk had a problem: he wanted to go to Mars, but acquiring a rocket was too expensive. So Musk asked himself, "What is a rocket made of?" Aerospace-grade aluminum alloys, some titanium, copper, and carbon fiber. Then he wondered, "What is the value of those materials on the commodity market?" After some research, Musk discovered rocket materials were roughly 2% of a typical rocket price. A simple examination of the underlying components prompted Musk to consider creating a solution to his 'rocket to Mars' problem. Today, Musk runs SpaceX and builds the least expensive and most efficient rockets on the market.

Most people assume existing solutions exist for good reason and never question them. First principle thinkers don't take existing solutions at face value; first principle thinkers drill down to understand why a solution works.

A few decades ago, a group of food researchers liked the taste of meat but didn't like the idea of harming animals. After some first principles thinking, they realized the fundamental components of great tasting meat were a collection of amino acids and sugars - no animal necessary. This discovery led to the creation of the fake meat industry.

The next time you're faced with a highly consequential decision or problem, use first principles thinking to examine existing solutions, test assumptions, and understand the fundamental components that make a solution work. Adopt solutions with sound first principles or use first principles to create a better solution.



Second-order thinking

After World War I, the British and French forced Germany to disarm, give up territory, and pay reparations worth roughly $500 billion today. The British and French got what they wanted: a weak Germany that could not wage war again...or so they thought. The British, French, and other Allied powers failed to consider the second-order effect of their actions fueling the rise of Fascism in Germany and starting another World War.

Second-order thinking gets you to think beyond the outcome you want and consider reactions to that outcome. It's important to incorporate second-order thinking in your decisions to avoid disastrous unintended consequences that come from second-order effects.

If you're a CEO of a company and you demand everyone come back to the office after a year working from home during the COVID-19 pandemic, you might get what you want: renewed sense of belonging and strong culture. However, your actions might have the second-order effect of getting people to realize how much they hate commuting to work and miss the convenience of working from home. Those people might leave the company, which could ultimately destroy the culture.

Before implementing any solution or making any important decision, do some second-order thinking by taking a minute to simulate what the reaction to your solution or decision might lead to.