

My daughter Emily was just 6 months old, and the family is in the car driving down the highway and out of nowhere we hear her scream at the top of her lungs from the back seat. Being new parents, we were always on edge, this alarm really spun things up into a scene where everybody was upset. Somehow during all the commotion, we notice a big red mark on Emily's arm—she had bit herself. The mark was easy to recognize since I had been bitten more than once by those same sharp little teeth. Relief and satisfaction rarely come together in such quantity.



We are educated by a formal system from a very young age, but I don't recall actively learning a methodology for making good decisions. We typically learn to make decisions by watching others or like my daughter Emily, through our own trial and error.

My assertion in this article is that success is related to solving a never-ending series of problems and making good decisions. To make good decisions, we not only have to be experienced, but we need to learn from the results. Unfortunately, the results are clouded in external effects and internal bias which makes the learning process difficult.

Everybody's Biased

We all have our own needs, wants and experience so we are biased by our own view of the world. If you need convincing, a couple of minutes of cable news should make my point.

When I was in college, I drove my 2000 Oldsmobile Cutlass Ciera for over a year with a broken gas gauge. Rather than fixing it, I would reset the trip odometer every time I filled up the tank. I still remember I could get 330 miles to a tank of gas. It seemed clever at the time, but I took what could be considered a bad decision of not getting the gauge fixed and put in a whole new system to support my bad decision. Even if you don't think you have any fans out there, feel comfort in knowing that your mind will retweet every tweet and like every post, no questions asked. In fact, it will work overtime to find or make-up evidence to support your decisions. This is so basic to human behavior there's a name for it-Confirmation Bias. Funny thing about your brain is that it's so helpful that it will still do it when you're aware of the effect and trying to defeat it. Kahneman wrote a must read on how your brain processes information.¹

¹ Kahneman, Daniel. *Thinking, Fast and Slow*, ISBN-10: 9780374275631, 2011.

So humans are biased, no surprise there. Did you know that there a slew of these cognitive biases? [Wikipedia lists 113 of them](#). Here are some of my favorites:

Third-person effect — Belief that mass communicated media messages have a greater effect on others than on themselves.

Hindsight bias — Sometimes called the "I-knew-it-all-along" effect, the tendency to see past events as being predictable at the time those events happened.

IKEA effect — The tendency for people to place a disproportionately high value on objects that they partially assembled themselves, such as furniture from IKEA, regardless of the quality of the result. [Time management tip: Does it really bring you joy?]

Illusion of control — The tendency to overestimate one's degree of influence over other external events. [Management tip: try holding back a series of directives that your staff should know how to do without you and see if the outcomes are different]

Passive-Aggressive Magic 8 Ball — Biased to agree. 50% of the responses are positive, 25% negative and 25% non-committal. Ok, I made up the name, but not the results.

Law of the instrument — An over-reliance on a familiar tool or methods, ignoring or undervaluing alternative approaches. "...If all you have is a hammer, everything looks like a nail."²

Pro-innovation bias — The tendency to have an excessive optimism towards an invention or innovation's usefulness throughout society, while often failing to identify its limitations and weaknesses. [Start-up founders: You can benefit from this or fail because of it]

So, to reiterate my first point, you and everyone you know are biased. Awareness of

your biases can help you search for facts and ultimately make better decisions.

Probability, Luck, Opportunity, Chance

Have you ever asked yourself the question "How much of this decision is in my control?" Most of us don't. We related the outcome of our decision to our good judgment or just bad luck. The fact is, luck is a factor in all our decisions to some degree, and consciously assessing how much of the outcome is in our control can help with learning. The trouble with decision making is that you don't always know if a decision is a good one until sometime later, *if ever*, so how are you supposed to effectively learn? In fact, you can make a bad decision and still have a good result. In Annie Duke's book *Thinking in Bets*³, she does an excellent job of highlighting the factor of luck in our decisions and says that poker players call it "*Resulting*" when a bad decision turns out well. Furthermore, our mind takes credit for good results by viewing them as related to our skill and when things do not go our way it's counted as bad luck.

So, to increase your odds of better results you should:

- 1) Recognize how much influence you have over the situation
- 2) Put your effort towards the factors you can control
- 3) Remember that not every good outcome was a result of good decision making

The case of the Powerball® lottery: The odds of winning the jackpot are 1 in 292 million. I'm assuming nobody buys a ticket to win \$4. So in this case, you are in control of Y/N on buying a ticket and how many, but the result is overwhelmingly left to chance.

² Maslow, Abraham H. *The Psychology of Science*. p. 15. 1966.

³ Duke, Annie *Thinking in Bets*, ISBN-10: 0735216355, 2018.

The case of a spelling test: If I gave you an envelope with 10 words in it to learn for a spelling test next week, you could decide to do a range of things from nothing by not opening the envelope, or you could study them once, study them every day and look up the definitions or write them out 100 times. Your decision and actions have a significant influence on the outcome with the component of luck being nearly zero.

Most decisions fall into the middle ground where your amount of control is mixed with a component of chance. By raising your awareness that probability is part of the equation, you can better prepare for the decision and assess whether the outcome is related to your decision.

Information Accuracy

Another thing you should be aware of in the process of making good decisions you are always dealing with some level of incomplete information. So be as accurate as possible with the information you do have to base your decisions on. If the information is critical, try to check multiple sources for confirmation.

Use a Process

So, how do you tilt the outcome to your favor when feedback on learning to make good decisions is so muddled? This is where a process can help raise your awareness and make you more consistent.

I'm suggesting that our best decisions are thoughtful and well-informed.

The simplest approach championed by Ben Franklin is the pro/con list. You may have even used this technique yourself when you found yourself in a particularly difficult situation. Part of the reason I think it's helpful is that in general, writing things down serves to **Clarify**

your thoughts. Remember, a decision is just a choice between alternatives so having them clearly delineated is important.

Whatever method you use to make decisions, a key first step should be to write down the fundamental objective, assumptions, how much of the outcome is in your control, and your choices (options, alternatives) with their consequences. Consequences and obstacles are helpful because they add balance to the positive outcomes. Gabrielle Oettingen, a psychology professor at NYU, found in his studies that people who imagine the obstacles to their goals, rather than achieving those goals, are more likely to succeed.⁴

Estimate the Amount of Control you have on the outcome adds perspective and can help determine if your decision was important in the results. Determining how much the percentage of control is not an exact science so don't put a lot of effort into it. Think about what other factors are involved in the outcome and estimate to the nearest 10%.

Match the Effort to the Criticality of the decision. Consider how much effort should put forth:

Control – How much does your choice affect the result?

Criticality – How often does it occur? Is the outcome critical? Is risk increasing?

Time – How does the problem change over time?

Difficulty – Do you have the means to understand and investigate the alternatives?

Cost – Is your investigation and time worth it?

Seek out Quality Information. To be well-informed, gather enough information so you will be satisfied with your decision.

⁴ Oetting, Gabriele. *Rethinking Positive Thinking: Inside the New Science of Motivation*, New York, Current, 2014.

How much effort should you put in to get more information?

Are my assumptions and information accurate?

Is it possible to get more good information?

Counteract your Biases by working through the choices with these in mind:

Team approach – Do you have a variety of viewpoints?

Awareness of bias – Try to convince yourself of the opposite of your position.

Openness - What are the good arguments against your choices? Since team members are naturally discouraged from bringing up issues, it's best to set aside a time for everyone to bring up issues at the same time. The list of issues can be a source of strength if you work toward solutions for each issue⁵.

Decide. Making a decision quickly and thoughtfully reduces stress and frees up

resources. To be thoughtful, compare alternatives based on the most important factors. There are many different methods of decision making, but I think for most situations having a simple process that matches your style is best for regular use. If you're working with a team, a standard process builds capability and consensus. You decide.

In addition to being thoughtful in your decision making, communicating the decision with your reasoning to effected colleagues can be helpful for acceptance and strengthens your integrity and leadership. Learn from your decisions by tracking your win rate with more weight on decisions that you had significant control of the outcome.

Now that you have a higher awareness of your own decision-making methods I hope it will have a positive influence on the quality of your decisions. And if there was nothing new in this article for you, I'm sure there's a name for that bias too.

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The graphic is a rectangular box with a white top half and an orange bottom half. The text is centered. The top half contains the company name 'CoScientific LLC' in a sans-serif font, with 'Co' in orange and 'Scientific LLC' in black. The bottom half contains the name 'Darren Verebelyi, PhD' and title 'President' in white text. Below that is 'Science Based Manufacturing Consulting' in white. At the bottom, contact information is split by a vertical line: 'dv@coscientific.com' and 'Tucson' on the left, and '(520) 241-9928' and 'Arizona' on the right.

⁵ SWOT Analysis. [Wikipedia.org](#)