## **Module 2: Discussion**

What is your experience about the impact of cognitive bias on your or other's decision-making process? How do you manage the bias when making judgment calls?

Daniel Talamantez

Sep 1, 2020 Sep 1 at 1:26am

My personal experience with cognitive bias's has come in the form of risk bias in reviewing other engineer's behaviors. Some are so afraid of making a mistake that they entirely shutdown without making any decision at all. I know from experience that bad news is better than no news at all. It is interesting that they feel that a mistake will somehow get them fired and I am not referring to the career ending decisions. This moves us to escalation of commitment, and I see this all the time. The same exact unhealthy behavior continues, and they want to avoid that a mistake was actually made. When this happens, it is the responsibility of management to point this out and help them learn from their decisions moving forward. In some cases it is okay to make a mistake as long as you learn from it. Personally, I have managed risk by utilizing my peers or my boss at times when I was unsure about something. As I increased my experience, I was given the unofficial green light to manage without much oversight. Through careful analysis, following standard procedures, and keeping safety in mind I made sound decisions knowing that there was always some kind of inherent risk. It was the ways those risks were mitigated was how I constantly moved forward.

A personal cognitive bias that I work on everyday is unintentional stereotyping. Unfortunately in this day and age it is almost impossible not to see what is posted through words and video. The media is good at creating these concrete platforms of various types of people. I constantly have to remind myself that this portrayal is not a true reality of everyone. Therefore, I work to give everyone a chance and listen before I even begin to form a opinion.

Edited by Daniel Talamantez on Sep 2 at 4:15pm

Joe Williams
Joe Williams
Sep 1, 2020 Sep 1 at 6:34pm

Daniel, I like to see that you reviewing other engineer's behaviors to form a strategy. Are you in a position to where you can offer coaching to those engineers who completely shutdown? Not sure if it helps at all, but in my area we constantly strive to make the "weakest link" stronger so we can prevent a break in the chain down the road. It's good to hear that you are utilizing your peers or the boss to seek guidance on making the correct decision. That shows a great amount of humbleness which is key to success. Do you think you were really given the unofficial "green light", or do you think it was earned? Thanks for sharing your success with us as we could learn that analysis, following procedures, and keeping safety in mind, are the key factors that constantly helped you move forward in your career.

Daniel Talamantez

Daniel Talamantez

Sep 2, 2020 Sep 2 at 4:03pm

Hey Joseph,

I am actually out of the engineering realm (just over a year) but when I was apart of it, I constantly encouraged the newer engineers to get out there and make mistakes. I think they needed to hear that so they knew it was okay but to definitely learn from those situations. The autonomy was definitely earned after it was proven time and time again that I could handle my business. When I first started I was eager to learn and listen to my other colleagues who had been there forty plus years. I worked to earn their respect and became a go to person for the Dallas area. I believe these were all key to my success. Thanks for the feedback.

(1 like)

Xiaomin Yang Xiaomin Yang Sep 2, 2020 Sep 2 at 12:45pm

Dear Daniel,

Thank you for sharing your experience with other engineers' behaviors in your organization. Very insightful. May I also suggest you give some thoughts about the cognitive biases that you might exhibit with a purpose of identifying potential improvement opportunities. Thanks.

XΥ

Daniel Talamantez

Daniel Talamantez

Sep 2, 2020 Sep 2 at 4:16pm

Professor Yang,

I can definitely do that, I have edited my original post. Thank you for the feedback.

Timothy Koontz
Timothy Koontz
Sep 6, 2020 Sep 6 at 11:20am

Good day, Daniel.

I completely understand the risk bias at a professional level and on a personal level. As a safety professional, I sometimes act as a mediator between the Operations Group and the Engineering Department. The Operations Group will want a solution for a problem, and I am tasked with communicating the problem and finding the solution with the Engineering Department. The engineers that I deal with have a very low-risk tolerance, which I share the same predisposition. In my personal life, I will incapacitate myself with constantly researching and doubting that research before making a major financial decision like buying a house or vehicle. I have to make a conscientious effort to stop and take a holistic view of the situation. I tend to focus on the risks and not consider the rewards. Once I start looking at the bigger picture, I become empowered and can act logically. I have to use the same tactics when dealing with the Engineering Department. I have to provide them with all the available information, which includes the risks and benefits of the project. From there, they usually make the logically decision and act accordingly. For the Operations Group, I have to provide them all of the information but force them to focus more on the risk aspects of the operation or project because of their high-risk tolerance. For the company as a whole, there should not be significant repercussions to decisions that are made based on a methodical decision-making process. This will allow ideas to flourish into industry advancements.

Daniel Talamantez

Daniel Talamantez

Sep 6, 2020 Sep 6 at 1:03pm

Tim,

Thanks for the reply. I can appreciate looking at the bigger picture. Like you said, being methodical and reviewing all the relevant information helps get you towards your answer. I feel risk should never hinder a project as long as you can prove the answer is safe and makes financial sense. As an engineer, we can over analyze situations and become blinded by our own thoughts. Therefore, outside perspective

becomes key and the mediation helps solidify our decisions. You have a unique position in your current role to act as that mediator and decision maker.

Ken Wagner

Ken Wagner

Sep 6, 2020 Sep 6 at 8:48pm

This is a problem that use to haunt me on various projects or working situations. My fear of failure froze me on many tasks due to the requirement of people having to review what I have done after. I use to think if I messed up and one of the checkers caught it, it would mean serious trouble and potentially get fired. After some time I realized that, they were not trying to end my career and I was able to get my job done. The people who check up on you are only ensuring you did something correct and did not overlook something that others may have before. We are looking out for the company not trying to end a career for a mistake anyone can make.

(1 like)

Joe Williams

Joe Williams

Sep 1, 2020 Sep 1 at 5:21pm

My experience with cognitive bias when making decisions all comes down to 1) experience (lessons learned from similar situations), 2) the way people were raised by parents, 3) mentorship/network that they follow now, 4) ethical/moral obligations. Those four factors is what I constantly deal with that impacts my decision making. I really think that others have the same factors depending on their environment/culture that they were exposed to, and currently live in today.

How I manage the bias when making judgement calls is that I perform a "Risk Vs. Reward" analysis. I look at the all the NEGATIVE aspects of what could/would happen based on my previous experience, and I listen to subject matter experts who are familiar with the judgement call I'm looking to make. Then I think of all the POSITIVE aspects of it using the same think tank/brain pool. Once I'm able to gather all of this it can either support the cognitive bias that I have already in place, or it can help me see another side of things that my bias was blinding me to.

**Daniel Talamantez** 

**Daniel Talamantez** 

Sep 2, 2020 Sep 2 at 4:33pm

Joseph,

I will have to agree with your decision making process. I believe those four factors weigh a great amount on anyone making a rational decision. When I have recognized an irrational decision it easy to point back to one of these areas. I can also relate to your risk vs. reward analysis, most of my decisions were made in terms of safety and reliability. These are relatable however I think because of our different business objectives we have had to analyze in different contexts. Can you recall what personal bias comes up the most in your line of work?

(1 like)

Joe Williams

Joe Williams

Sep 3, 2020 Sep 3 at 8:24am

"Can you recall what personal bias comes up the most in your line of work?"

There is the thing called the "Duck Test (Links to an external site.)".... In our line of work it happens almost by the minute to where the Duck Test comes into play and based on that experience our personal bias is in effect. If person "A" says "yeah I can do this, I can do that, I've got this experience, i've got that experience" then we have a dynamic series of questions that can let us know whether its a "duck" or not:)

(1 like)

Jonathan Weiss

Jonathan Weiss

Sep 4, 2020 Sep 4 at 7:54am

Joseph,

Good points. The framework you laid out for what causes bias is spot-on, in my opinion. We all have deep-rooted biases based on how we were raised and what we have been exposed to in the past. It's hard to erase these biases. Some bias, in my opinion, is not necessarily a bad thing, I think it helps us make quick "informed" decisions when necessary.

I'm all about risk vs. reward. I use this logic when making almost every decision in my life. Taking risk has always been ok with me, but for any risk I need to know that the reward is more than worth it.

(1 like)

Carolyn Perez
Carolyn Perez
Sep 6, 2020 Sep 6 at 8:48am

Joseph,

I think the 4 factors you mentioned are huge in the decision making process. I can really resonate with the first one. I find that only being removed from undergrad by 4 years has really had an impact on my decision making processes due to my lack of experience. I rely heavily on "lessons learned from similar situations" in order to make, what I believed to be an "informed" decision since that is all I have to go off of. Now, being truly aware of this bias has really allowed me to look at situations more objectively, while still relying now and then on this heuristic.

Ken Wagner

Ken Wagner

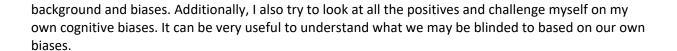
Sep 6, 2020 Sep 6 at 8:42pm

That is definitely a great method of overcoming bias. This method will definitely open you up to other ideas or show you how your thought process was wrong in the first place. The only thing that would make me curious is how would you prevent yourself from a confirmation bias? Certain tasks will obviously have different opinions or methods but if one person in the think tank confirmed what I was considering then I would probably use that as my excuse to do what I wanted to do instead of using the other 3 people who gave different information.

Kassie Mobley
Kassie Mobley
Sep 6, 2020 Sep 6 at 11:43pm

Joseph,

In your list regarding what affects cognitive bias, your second point about how a person is raised is not something I had thought about in this assignment. However, when I read what you wrote it seems obvious that a persons personal background has just as much of an impact as their professional



Eric Worley
Eric Worley
Sep 1, 2020 Sep 1 at 9:35pm

TAM-PrimaryMarkB-10.jpgEric Worley

TCMT 612 - Technical Management Decision Making

Module 2: Discussion

Discussion Prompt: What is your experience about the impact of cognitive bias on your or other's decision-making process? How do you manage the bias when making judgment calls?

Answer / Response:

I never realized how common biases are in our everyday lives until working through this module. I can immediately think of three examples; endowment effect through the process of selling my boat and truck, mental accounting relating to my finances, and escalation of commitment and status quo in a newly acquired business.

While selling my boat earlier this year, I felt that I was asking a competitive market price; the vessel was worth more due to the time, energy, maintenance, and upgrades I invested in it. The endowment effect was undoubtedly weighing on me, and the explosive response of interest that I received soon after posting the vessel only further exacerbated this pressure. However, I maintained the course and honored my originally requested price from the first buyer that agreed on the purchase even though I had received more attractive offers afterward. I also sold my truck soon after I sold my boat, but in this

case, what I will coin as a 'delayed endowment effect' got the best of me. Due to the recent experience, selling my boat so quickly, I counteracted with over-pricing my truck, which took over one month to sell, and I had to reduce my asking price twice.

Regarding mental accounting, I think most every biweekly compensated person can relate to the feeling of receiving a 'mini-windfall' during the two months where a third paycheck is issued. Even though this is simply due to the 26-biweekly payrolls distributed throughout a calendar year, it still feels like 'extra/free money.' My approach: I 'mentally account' for a little more than half of this money to make extra lump-sum payments on things like mortgage and vehicles and the remaining funds on 'nice to have' items, such as home improvements, investments, vacation savings, and ancillary purchases.

Lastly, concerning an example of status quo and escalation of commitment in business, occurred over a period of 6 years, I witnessed two VP-level business leaders with different approaches to a newly acquired company that had a struggling service segment, I'll call it 'SSS.' This 'SSS' only contributed about 5% of the newly acquired business' revenue and produced relatively low margins. However, part of the acquisition synergies that the executive team was initially convinced and keen to capitalize on was focused on this 'SSS,' which was supposedly a rising star for recurring revenue and high margins. Of course, the private equity firm that sold the business knew that the 'SSS' was not likely a rising star. However, the acquiring executive team was not sufficiently thorough throughout their due diligence process. Nonetheless, the first VP dedicated significant resources in an escalation of commitment to delivering on the expected synergies, but his efforts were futile. After three years, a second VP was assigned to lead the business, and he maintained the status quo. However, his process of maintaining the status quo was only for a short observation period of 6 months. He ultimately made the case to the executive team to divest the 'SSS' and dedicate all of the resources to the other 95% of the core business, which was performing respectably and improved with the newly aligned resources. This 6-year period was an excellent learning experience for me, and it will help guide my business decisions throughout my career.

**Eric Worley** 

ewworley@tamu.edu

Joe Williams

Joe Williams

Sep 2, 2020 Sep 2 at 9:14am

Eric thanks for sharing those personal examples of selling the boat and truck, your finances, and how the commitment went with the newly acquired business. Reading how much of these real world scenarios fits into the academics we are doing makes it allot easier for my comprehension. What was it that you feel really caused the pressure to hit you? Was it the boat sitting on the market for a short time, or other factors played into it? You are a much better person that I am! As soon as those larger offers came in, I would of told them "money talks, BS walks! You bring the money you got the boat. Whoever brings the money first gets it". How long did the truck sit on the market before you realized, "oh crap, I over priced it?" With your finances you have a great teaching point I would like to see more people follow. I like the idea of planning for 4 weeks of pay, and let those 5th weeks act as bonus to pay down debt, or possibly utilize for investing purposes. This is a very smart play in life, are there any others that you have I influenced to do the same?

Edited by Joe Williams on Sep 2 at 9:15am

Eric Worley
Eric Worley
Sep 2, 2020 Sep 2 at 3:15pm

Hello Joseph,

Thanks for your reply and questions. In composing my response, I realized that I might have made an oversight while addressing the prompt! The examples that I provided of the endowment effect, mental accounting, and escalation of commitment and status quo biases are covered topics in Chapter 5: Framing and Reversal Preferences of Max Bazerman's "Judgment in Managerial Decision Making." [1] I will answer your questions below, referencing biases from Table 3.2. [2]

Regarding selling my boat, I think since I had more than one buyer within the same week that I posted the listing, coupled with multiple offers and some being higher than what I initially asked for, made me feel that I priced it too low and 'left money on the table.' However, market research indicated that I had priced it competitively, and I priced it as 'firm/non-negotiable.' In hindsight, I think the 'boat buying frenzy' stemmed from the economy partially-reopening following the initially required pandemic 'shelter in place' quarantines and the general population looking for things to do outside of the house. While many things remained closed, the lakes were open for fun, at least in Texas! Nonetheless, this experience influenced me to knowingly price my truck slightly above competitive market rates, soon after selling my boat. Ultimately, it took over one month on the market and two price reductions to generate interest from prospective buyers. Since I sold my truck soon after my boat, this was a classic case of 'Ease of Recall' bias impacting my decision making where I improperly expected the same 'buying frenzy' from posting my truck, which did not occur.

In readdressing the business decisions, the first VP and executive team suffered from 'The Confirmation Trap' bias, where they continuously looked for data that further theoretically justified applying more resources to the 'SSS.' The second VP suffered from the 'Status Quo' bias, where he maintained the flawed approach temporarily. However, he did recognize this as an originally biased decision. He addressed it by making the case to the executive team to divest the 'SSS' and dedicate all of the resources to the other 95% of the core business, which was performing well.

6 · · · · · · · · · · · · · · · · · · ·
Thanks Again,
Eric Worley
ewworley@tamu.edu
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Daniel Talamantez
Daniel Talamantez
Sep 2, 2020 Sep 2 at 4:53pm
Eric,
I also fall under the spell of mental accounting. I think it is so crazy how our brains analyze money and how we classify it differently. Are you more generous when you receive "extra money"? I liked how one of the Youtube videos explained that "money is money no matter where it comes from." I feel it is still so difficult to not group various sources of money differently, do you? For instance when I get a bonus, I totally use that money in a different way than I would my normal paycheck. It is most likely a terrible practice, but I also feel it is engraved human nature.
Reference:

Investments, Sanlam, director. Mental Accounting (Explained in a Minute) - Behavioural Finance.

www.youtube.com/watch?time\_continue=51&v=1cQUImdQdOs&feature=emb\_logo.

Edited by Daniel Talamantez on Sep 6 at 1:12pm

Youtube.com, 2016,

Eric Worley
Eric Worley
Sep 2, 2020 Sep 2 at 7:11pm

Hello Daniel,

Agreed, 'mental accounting' with finances is like second nature and does not feel unnatural to categorize money differently. In terms of generosity, I am pretty consistent. Still, if I encounter a financial windfall (or what feels like that), I suppose I am more willing to 'pick up the tab' for family and friends on special occasions if appropriate. In the earlier years of my career, I indeed treated the extra paycheck differently and spent it much more freely than I do now. I think having a planned disciplined approach to distributing and utilizing this perceived bonus money (or extra check) across areas that are financially prudent and providing yourself with a little of what I call 'mad money' is a reasonable approach. You already know that 'extra check' is coming and what two months it arrives, so make a plan ahead of time, and stick to it!

Thanks,

**Eric Worley** 

ewworley@tamu.edu

Matthew Hudson

Matthew Hudson

Sep 4, 2020 Sep 4 at 7:50am

It is interesting how many different biases can be apart of 1 simple task. After reading about Hindsight and endowment, I can validate what you went through when selling off one item, and then looking back on that decision and contemplating. Did I make the best decision, the next one will be better? We know that once we make one decision, it might impact the next similar decision, your truck in this instance. I think about some of the bias and heuristics when watching "Pickers" on History channel. Why people price something so high when they have warehouses full of item. You can't take it with you, might as well make something from it. I would rather see an old car taken and restored than to see it slow decay into nothing.

Jonathan Weiss Jonathan Weiss Sep 4, 2020 Sep 4 at 8am

Eric,

I enjoyed your example with the endowment effect when talking about selling your boat. It's funny, I'm in the process of buying a boat right now, and have been on the opposite side of the endowment effect. The owner's asking price was sky-high, but he's proud of his boat and he has taken good care of it and put a lot of money into it. When I sent him my offer, which was way below his asking price, I explained to him and gave him examples for why his asking price was so unreasonable, and why my offer was still a really good offer. He must've at least heard me a little bit, because we're currently negotiating around a reasonable price.

Eric Worley
Eric Worley
Sep 6, 2020 Sep 6 at 2:51pm

Thanks Jonathan,

Yes, utilizing a tactful anchor technique on the polar opposite price spectrum should balance the negotiation. Now, if he only told you his reservation point! As we learned in Chapter 7, as long as you can agree with the seller and meet a mutually beneficial 'BATNA,' you all should be able to close the deal. "The value of a negotiator's BATNA provides a lower bound for determining the minimum outcome we require of a negotiated agreement. We should prefer any negotiated agreement that provides more value to us than our BATNA; likewise, we should decline any negotiated agreement that provides less than our BATNA. This assessment logically determines the negotiator's reservation point (also called an indifference point)—the point at which the negotiator is indifferent between a negotiated agreement and impasse." [1]

**Eric Worley** 

ewworley@tamu.edu

Works Cited

[1] Max H. Bazerman, "The Escalation of Commitment" in Judgment in Managerial Decision Making of His Published Book, 8th ed. US: Wiley Global Education, 2012, ch. 7, p. 177 Edited by Eric Worley on Sep 6 at 3:14pm Kacie Fischer Kacie Fischer Sep 6, 2020 Sep 6 at 1:31pm Eric, While doing the reading for this module, I couldn't help think of my recent home buying experience! It was quite a terrible actually, as the sellers were obviously experiencing the endowment effect. There was no negotiation, no bargaining, they were really set on one price (I assume to replace the cost of putting in a brand new workshop). This actually ended up working to my advantage, as the market was pretty crazy, so the unreasonable listing price allowed me the opportunity to make several offers before they were willing to make a compromise, in addition to the low appraisal price forcing them to lower the final purchase value. I also experienced the reverse while selling a home in 2016. I have a lot of regret about how I dealt with

it, and my realtor really didn't help either. I'm sure if I'd priced that house appropriately, it wouldn't have taken 6 months to sell. Ahh, well lessons learned.

Seeing this bias from both sides has certainly given me a lot to think about.

Kacie

Kaleigh Philips Kaleigh Philips Sep 11, 2020 Sep 11 at 6:33pm

Howdy Eric,

I have enjoyed reading through people's examples of the Endowment bias. I watch a lot of Hoarders (guilty pleasure!), and it always amazes me when they view items in their hoard as high dollar items. Usually in the items prime, they could have been worth something, but it is never as much as the owner expects and especially not after being a part of a hoard for a period of time. The connection I hadn't made was that to my own Endowment bias towards things I own. Garage sales come to mind. I put items up for sale because I clearly don't want them, but then the second someone offers me something lower I suddenly can't part with it!

Thank you for your insights!

Jeremy Meehleib Jeremy Meehleib Sep 2, 2020 Sep 2 at 12:32pm

My first week of employment introduced me to a just-completed project that was related to the customer I was to be the primary contact. The volume requirements of the new product were much greater than the incumbent product of acceptable but sub-optimal performance. The cost premium of the new product was 4-5 times the original product cost to the customer. I challenged this as being unacceptable and was rebuked for not understanding the requirements of the customer. A few weeks later, I was tasked with delivering customer feedback that the new product performed well but was too expensive. The amplified endowment bias of management, due to the focus to achieve new product performance targets, prevented constructive feedback from being considered.

A method of combating bias I've grown accustomed to using is I will end conversations by asking "Is there anything that we haven't discussed that we probably should have?" or "Is there anything I didn't ASK, that I should have?" These simple direct questions open the floor to topics I have not considered and acknowledges that others may possess expertise I do not have. This combats overconfidence bias and fosters communication.

(1 like)

Bill Osburn

Bill Osburn

Sep 5, 2020 Sep 5 at 8:54am

Howdy Jeremy,

It looks like management could have listened to and maybe other alternatives considered. At least it was a well performing product. I am sure they listen to your suggestions and comments more these days. I have the same issues happening at work. I am learning three new jobs because they want to basically make me the "Swiss Army Knife" at work and be able to do many jobs. I accept the challenge but when it comes to comments or suggestions, I get ignored at times.

I need to ask myself those two questions and more before I make decisions as well. I tend to rush decisions before considering alternatives and possible outcomes, both positive and negative. My overconfidence when making decisions gets the best of me sometimes. Great post. Thank you for sharing those experiences. Bill Osburn Jeremy Meehleib Jeremy Meehleib Sep 5, 2020 Sep 5 at 7:30pm Bill - Those two questions have kept me out of many binds, clued me into features of products I never would have known, and given me critical bits of information that allowed me to avoid or solve problems. It's that last little nudge to give someone the opportunity to say something they likely wanted to say, but couldn't fit it in. Jeremy (1 like) Rosanna Popa Rangel Rosanna Popa Rangel Sep 5, 2020 Sep 5 at 2:15pm

Thanks for sharing. It is important to understand the customers' needs and what are their requirements. I applaud you for asking yourself those questions to self-reflect, and dig internally to understand why you initially thought this was expensive which led to a poor feedback. Have you had the chance to

Jeremy,

understand more why this was happening in the first place, maybe a confirmation bias? What would you recommend me to do if I find myself in a situation like yours?

Jeremy Meehleib Jeremy Meehleib Sep 5, 2020 Sep 5 at 7:27pm

Rosanna - Remember, that was my first week with that employer. Only one person in the company knew me before that week. I eventually realized there was a lot of politics going on in the background before I arrived on the scene. My advice is, until you get the "lay of the land" in an organization, share your observations with the person who hired you or with whom you directly report. The information can then be delivered to the others from someone with which they have a history with and will more likely listen.

If you haven't established a history with a manager or a team you will depend on later, they don't know you as a reliable resource yet.

Rosanna Popa Rangel Rosanna Popa Rangel Sep 6, 2020 Sep 6 at 8:36am

Jeremy,

Thank you for your reply! I understand this fully since that is where I stand currently in my organization, I still haven't created enough strong bonds with upper management to be a reliable source, but my project leaders have and I discuss my recommendations with them and sometimes they quote me, sometimes they represent the Process department which in a certain project includes me, so it's nice to hear that there's is a way around it and honestly it's a matter of time and trust to get there.

Thanks!

Eric Worley
Eric Worley

Sep 6, 2020 Sep 6 at 3:14pm

Hey Jeremy,

Great post! Unfortunately, I have also seen this process of a former employee leaving an organization or being reassigned to another area at inopportune times. The new employee (you in this case) is left with finishing the project or managing forward the recently completed project. Any fallout from the subpar project ironically weighs on the new employee. In addition to the lack of accountability of the former employee's performance, it appears that the management team was also suffering from a 'confirmation trap' bias, where they were seeking reasons why the project should work. [1] However, they were unwilling to seek disconfirming information to understand why the project was, in fact, 4-5 times the original product cost to the customer.

Thanks,
Eric Worley
ewworley@tamu.edu
Works Cited
[1] Max H. Bazerman, "Common Biases" in Judgment in Managerial Decision Making of His Published Book, 8th ed. US: Wiley Global Education, 2012, ch. 7, p. 58
Edited by Eric Worley on Sep 6 at 3:15pm
Richard Pearson
Richard Pearson
Sep 2, 2020 Sep 2 at 5:17pm

I have worked with a variety of people in my short career, but I have seen many engineers believe they know it all because they are the engineer and they are the subject matter expert. I have seen those engineers submit work instructions to the field and gawk when they started receiving feedback about issues on the instructions they released. They would be prototypical examples of "The Confirmation Trap" or "Overconfidence".

As an engineer, a lof of us exhibits these biases when working with folks who may have less education or less experience than we do (or can be commonly perceived that is the way). Working at AA as an

engineer, I was lucky to have a good mentor when I started. I have spent a lot of time working hand in hand with mechanics on a variety of problems. One thing I have always tried to do is allow them to provide feedback before we release the work they are to do and/or ask for their feedback after we were done and what could we have done better. I believe working hand in hand with the folks in the trenches and being open to their feedback and criticism allows me to lessen the effect of these biases and produce work that helps them do their job in the best manner.

Edited by Richard Pearson on Sep 2 at 5:19pm (1 like)

Daniel Day
Daniel Day
Sep 2, 2020 Sep 2 at 11:06pm

Strongly agree, Richard.

Having for many years been one of those guys down on the shop floor, it's eminently frustrating to have instructions or directions come down "from on high" that, to the boots on the ground, are very plainly unrealistic, or just straight up wrong. Working on a particular system or equipment for a long time, and having someone dictate policy without consulting can be irritating.

On the other hand, we need to watch out that we don't simply assume that the most experienced guy knows best. Experience can sometimes stifle creativity, I think, when folks get accustomed to a certain way of doing things and become resistant to progress or process improvement.

It's a balancing act, but one that I think can be well managed.

Cheers!

John Schaub
John Schaub
Sep 4, 2020 Sep 4 at 8:49am

Richard,

Great post-I can relate both as an old aircraft maintainer and as a modification support engineer. When authoring technical directives for the field users I do lean on the overconfidence and have to catch myself that this bias can (and has done) create re-work in the future because i failed to seek objective feedback by the end user. Several years ago while taking over the SW authoring I was faced with a total revamp because our step sequencing was severely deficient in what the end user was experiencing due to modernization of offboard programable maintenance aides and how it in-turn worked with the aircrafts architecture.

Edited by John Schaub on Sep 4 at 8:49am

John Mullins John Mullins Sep 6, 2020 Sep 6 at 9:20am

I like how you mentioned a mentor, what would be one of the biggest pieces of advise that you channel when going through your projects? I personally witness the language barriers between engineers and field techs or management. One of the things I ask of my engineer is to follow up on all conversations with email referencing his marked up drawings or other documents for the field techs to review and I ask the same from them. This has bridged a communication gap.

(1 like)

Richard Pearson
Richard Pearson
Sep 6, 2020 Sep 6 at 8:42pm

John,

I wouldn't say I have a particular piece of advice I try to channel on a regular basis. I have had managers tell me something prolific once that I forgot the exact words, but in essence, he said I should ask questions when someone tells me how something is done and question my own knowledge even more (or something like that).

I think the biggest improvements I have made are specifically assigning action items and completing followup emails (or similar communication). I will say I VERY MUCH DISLIKE FOLLOWUP EMAILS, but I have found them effective in ensuring everyone is on the same page after our discussions and that everyone knows what they need to do. As you said, communication can go a long way and I think asking questions and sending followup emails not only lets me tell everyone what needs to be done, but allows

for other people to think about it and potentially raise questions or issues I haven't thought of or wasn't brought up in our discussions.

Tanner Welch

**Tanner Welch** 

Sep 6, 2020 Sep 6 at 11:12am

Richard,

I couldn't agree more about working hand in hand with the folks in the trenches. Does AA have a formal process to roll out new procedures in this fashion, or is it more left up to the engineer/author?

We have a process that before a technical document is released to the fleet, a group of SMEs that include field service technicians, reviews the document for accuracy.

Richard Pearson

**Richard Pearson** 

Sep 6, 2020 Sep 6 at 8:48pm

Tanner,

We have started standardizing some of this type of work, but it is still on a case-by-case or group-by-group basis. In most cases, the field has a representative that buys off on the instructions prior to publishing, but that person probably hasn't been in the field in years. Our powerplant engineering group set an internal policy that if new work is to be done at a station that hasn't been done before, an engineer needs to be on-site for the first accomplishment to oversee and address any questions or issues. A lot of groups have their own threshold of the number of aircraft to be done, the difficulty of the work, etc. to determine if prototyping of the work is necessary prior to full rollout. In the end, the need for the prototype or direct feedback is on a case-by-case basis.

Tyler Gilbreath

Tyler Gilbreath

Sep 6, 2020 Sep 6 at 7:20pm

Richard, I completely agree with the mindset of working hand in hand with the people our projects or new processes will impact. This is a mindset many new managers directly from college do not always come into their job with. I have watched managers hold conversations with the end result of "Well I'm the manager and this is what we are going to do" regardless of the feedback from the team.

I have had the opportunity to mentor and onboard many new managers and my first lesson is to always instill that it is okay to not know all the answers. It is best to tell someone you will follow-up with them rather than give them an answer they think is the right answer.

Showing humility and recognizing that you don't know all the answers can save you the tougher conversations that come from hastily rolled out processes or products.

Tyler

Richard Pearson

**Richard Pearson** 

Sep 6, 2020 Sep 6 at 8:50pm

Couldn't agree more! Plus I never want to work for a manager who knows everything hahaha. Humility can go a long way not only for the project but for the people you may manage, it shows a certain human element that helps the team (I think).

**Kacie Fischer** 

Kacie Fischer

Sep 2, 2020 Sep 2 at 6:42pm

What is your experience about the impact of cognitive bias on your or other's decision-making process? How do you manage the bias when making judgment calls?

My experience with the decision-making process has been one that, in most cases, reinforces what not do in certain situations. I have seen many, many cognitive biases (although I had no name for them at the time) in a variety of decisions that had huge impacts on our day to day life at work. I feel as though I mostly saw, or recognized at the time, the use of the representativeness heuristic at work. From the textbook, Chapter 3 states that "the representativeness heuristic may be so well institutionalized in our

decision processes that even scientific training and its emphasis on the proper use of statistics may not eliminate its biasing influence." Making a judgment call based upon stereotypes and not necessarily the available facts, can produce undesirable results.

I have only begun to really understand the cognitive biases and how they impact my personal decision-making. While reviewing the Table 3.1 Chapter problems, I recognized some ingrained bias of my own: misconceptions of chance and insensitivity to sample size and base rates. I recognize that having a deeper understanding of statistical analysis while also being more aware of these biases will go a long way to developing consistent, unbiased decision-making habits in the future.

Edited by Kacie Fischer on Sep 5 at 11:17am

Jeremy Meehleib Jeremy Meehleib Sep 4, 2020 Sep 4 at 2:41pm

Kacie – You're not alone. You mention insensitivity to sample size. Large sample sizes, associated with "Big Data", have their own set of problems. I have not had any formal training on this topic, but firsthand experience has highlighted some significant misunderstandings when interpreting results from large public data sets. It is generally perceived that because of the large amount of data, results generated from inquiry will be statistically reliable and therefore dependable for analysis and deriving actionable recommendations. People forget that any inquiry of a 'big data' source generates a subset of the original data. That new subset will have different statistical distribution characteristics than the original and those differences can significantly impact the subset's reliability for actionable information.

In the O & G industry there is a chemical registry called FracFocus (https://fracfocus.org/ (Links to an external site.)). It is a massive data base. When combined with public information, cross references can be compiled, and a host of interesting analysis can be done. Multiple businesses have been created to leverage the potential market of such analysis. However, I have seen analysis performed without proper understanding of the characteristics of new data subsets. The absence of the last step often renders recommendations worthless. For instance, the number of wells analyzed may have been statistically significant, but analysis will be different if those wells are from one producer or are from fifty producers. So even from a "Big Data" set, you can be plagued by sample size sensitivity. Understanding the bounds of the data subset is critically important to determining the reliability of the data for the intended analysis. So, for me, more data doesn't necessarily mean better data either.

Kacie Fischer
Kacie Fischer
Sep 5, 2020 Sep 5 at 11:26am

Jeremy,

Thank you for the reply. I am still trying to wrap my head around sample sizes and their affect on data interpretation. I find it similar to how framing works. If there is a lack of understanding about how to interpret data, there could be unintentional assumptions made (this could be in any industry, or any topic really). Looking at data in the wrong way can be a misrepresentation of, as you put it, the intended analysis. I never really considered a large sample size to fall into this category. It is a constant effort for sure to be unbiased!

Kacie

Jeremy Meehleib Jeremy Meehleib Sep 5, 2020 Sep 5 at 6:36pm

Kacie - Yes. It can become overwhelming. Some service providers will 'clean up' the data in an attempt to make the database 'more useful', but their approach or definition for their 'clean up' may not match your company's technical perspective. If they go too deep in managing the data, you are then stuck with their definitions and structure. It can get really frustrating.

Jeremy

(1 like)

**Kacie Fischer** 

Kacie Fischer

Sep 6, 2020 Sep 6 at 1:36pm

Jeremy,

I can see this, really with any process that is in place; years and years of doing the same thing in almost the same way, now bogged down by the years of useless data to boot. Add this to the stiff "definitions and structure" it becomes unusable, or worse, a skewed misrepresentation of what is actually occurring.

Kacie

John Mullins John Mullins Sep 6, 2020 Sep 6 at 9:27am

Kacie

Would you say that after these lessons the decision making process you go through will slow you down and process the information or decision differently. I really liked how you started of your statement with what not to do, I am quick to overlook what not to do at times. Your comments have really made me think differently, Thank you

(1 like)

Kacie Fischer

Kacie Fischer

Sep 6, 2020 Sep 6 at 1:42pm

John,

Thank you for your reply! My approach to decision-making is certainly going to go through a couple of tweaks. I think the biggest being my impulsiveness. I tend to jump into decisions without having all the facts (although up to this point, it has mostly reinforced this habit by being mostly good decisions). I really think I could benefit from slowing down, evaluating all the facts in an objective way, and making more consistent, data-driven decisions. This will go along way in improving my leadership skills as well.

Kacie

Matthew Hudson

Matthew Hudson

Sep 6, 2020 Sep 6 at 1:15pm

Sample Size bias is everywhere you look. Even one of my teenagers stated "4 out 5 of chefs recommend it", trying to convince me to buy an ingredient from the store. I looked at here and thought, well my daughter is biased towards this product and I am not sure if she realizes it. The Bias is use to make bad

decisions not just by ourselves but by others working to influence either consciously or unconsciously. She was using the phrase to convey that many people like, which is not necessarily the case. As you stated, "being more aware of these biases will go a long way to developing consistent, unbiased decision-making habits in the future" helps ourselves but we must also watch for the bias from others.

John Mullins
John Mullins
Sep 2, 2020 Sep 2 at 10pm

One of my biggest biases in the decision-making process is Overconfidence. I have had a lot of early successes and big wins in my profession which have led to overconfidence when making decisions. A current project where this is evident is several ammonia injection skids are having repeat fan failures from vibrations due to foundation issues. The overall repair is to replace the eroded grout and add more anchor points to make the skid more structurally sound. Best case scenario would be a lengthy outage to remove all the equipment and replace all the grout like new, but it is summertime and an outage is out of the question. Me knowing everything, I was ready to pull the trigger and make the repair until an internal structural engineer finally responded and pointed out that the regular concrete grout would have issues with flow-ability and that an epoxy grout would flow and set up better. My past success told me my way would work but I did not have the same experiences and was not accounting for all the variables like ambient conditions, or vibrations. The way I manage biases is by understanding that other people may know more or have experienced more than I. When making judgement calls, if possible, I tend to involve subject matter experts before deciding.

I wanted to share a story that happened yesterday when our plant was presenting our 5 year plan to the CEO of the company. I feel my overconfidence was on display again along with anchoring and status quo bias. Each year I am responsible for creating and presenting our plants operating and maintenance budget along with a 5 year plan. We have been tasked with creating and implementing projects that have a 3 year minimum rate of return and provide value to the facility. I sat down with my plant manager, production manager, plant engineer, and plant staff to see what projects we need to implement over the next 5 years to improve safety, lower heat rate, add megawatts. Last year was the first year with the new program Peoplesoft, we only had a handful of projects that were for full turbine overhauls. After the meeting was complete we came up with over 100 projects that would need to be vetted whether is a valuable project or not. In the end our plant entered 65 projects, on average the rest of the 49 plants had 20-30 projects. I was laughed at and teased from others throughout the remaining budget process at other plants but my plant manager, regional VP, director of generation did not object to any of the projects. They even had our corporate engineering review the projects for validity and was given approval. Again I felt great about the project entered and even believed the other plants did not do enough. Our plant was given the largest CAPEX budget for 2021 which made me feel like I nailed it. Well yesterday all of the plants in the fleet presented their plans to the CEO and he did not have the same opinion and even commented that if a facility required \$20 million + in CAPEX he would rather shut it down. He continued destroying the plan I created, my VP and director of generation came to my aid trying to help justify what I had built but he was having none of it. Needless to say my Overconfidence has been disintegrated. Just wanted to share with everyone my latest

example of overconfidence. I will end on this note, how do I pick myself up and move forward? All of my projects in 2021 and O&M Budget will finish with a strong safety record, on time, and on budget so that the man running the company sees he has not made the wrong choice in having me my in the position.

Edited by John Mullins on Sep 5 at 11:31am (2 likes)

**Daniel Day** 

**Daniel Day** 

Sep 2, 2020 Sep 2 at 10:59pm

Thanks for that, John.

I'm pretty sensitive to this issue. Not as much overconfidence, but rather the lack of it. I'm new in my industry, but have reached a supervisory position quickly. One of the most helpful processes I utilize daily is checks with my team members on issues I know they have more experience on than myself. Honest communication and letting people know, "Hey, I know you're good at this; can you give me a hand?" tends to mitigate a lot of issues that might otherwise arise when someone assumes they know what they're doing.

Xiaomin Yang

Xiaomin Yang

Sep 4, 2020 Sep 4 at 12:13pm

Daniel, there is a difference between being humble and lacking confidence. One valuable leadership behavior and also a trait of confidence is acknowledging our limitation and trusting subject matter experts, i.e. having the right people for the right tasks.

XΥ

(1 like)

**Daniel Day** 

**Daniel Day** 

Sep 5, 2020 Sep 5 at 1:04pm

Thanks for your response, professor! I totally agree. Understanding which team members have expertise in which areas, and tailoring the work flow to the strengths of the various individuals has been very helpful in my experience.

Travis Metz

**Travis Metz** 

Sep 3, 2020 Sep 3 at 7:29pm

I've definitely got to second you on that, John. Overconfidence is easily the most pervasive in the maritime world, and all it really tends to contribute to is damage to vessel equipment or personnel. On the other side of that, a lack of confidence in a decision can be just as harmful with a delayed or improper response. It's kind of a tightrope walk, tempering experience and skill versus perceptions and reality, which may or may not be the same. It never hurts to get a second opinion from a reputable, pertinent source. Great call, especially when dealing with ammonia.

Joseph Ramirez

Joseph Ramirez

Sep 4, 2020 Sep 4 at 12:20am

John,

It is great to see communication here between people with different experiences resolve an issue. There are some coworkers who beat me by 20 years of experience in my company and I will sometimes refer to them first before making decisions or working on an issue. I have also seen the overconfidence get the best of them at times and they have misdiagnosed issues on machines because of this. They rarely ask for my input on troubleshooting or issues but when they do, we typically come to a well thought-out and logical solution. I think it is typically the communication and brainstorming that helps us come to a solution rather than my short years of experience.

Xiaomin Yang

Xiaomin Yang

Sep 4, 2020 Sep 4 at 12:14pm

John, I agree with your point "When making judgement calls, if possible, I tend to involve subject matter experts before deciding.". XY

Jun Gao

Jun Gao

Sep 4, 2020 Sep 4 at 6:39pm

John,

I have to admit I have overconfidence bias as well when I make stock investment decisions. After I've made several success trades, I think I can catch and follow the wave of the market move. I believe I have ability to maximize gain at the right time. More frequently, I won't take the profit because I believe the price still can go up, or I will keep and put the money into an underperforming stock. It turns out, I did not make too much money or even lost money at the end. Instead of trusting my overconfidence, I should avoid any emotional trades, think about the efficient trading strategies and add more disciplines.

Rosanna Popa Rangel

Rosanna Popa Rangel

Sep 5, 2020 Sep 5 at 2:19pm

John,

Thank you for sharing. I have found myself on the other side of this conversation; I've been the person making recommendations to my Project Managers when they were about to pull the trigger on a vital decision for a project. I learned that by communicating and expressing my concern the right way, they listened; they understood it from my perspective and the process perspective, leading to longer operating cycles and better quality.

Now that you realized this is a bias you are using, what have you learned from it and how are you planning to avoid it in the future?

Jeremy Meehleib

Jeremy Meehleib

Sep 6, 2020 Sep 6 at 1:42pm

John - I guess I have more questions than answers, but if I was faced with your situation I would be asking these questions:

- a. How is the budget and projects I put forward different from previous years? What's different?
- b. Are there any categories of investment in my plan that are omitted in the plans of my peers? And vice versa?
- c. Did I prioritize my projects strategically for maximum contribution? (Relative to 'D', do those contributions have the same value to the CEO as they do to me?)
- d. From the CEO's feedback, do I have any better insight into corporate objectives relative to mine or my own resources (VP and Director of Generation)?

That's all I've got my friend. So did the budget get approved? You mention your 2021 projects will finish strong and show your value.

Jeremy

**Daniel Day** 

**Daniel Day** 

Sep 2, 2020 Sep 2 at 10:51pm

I think that the bias that I fall victim to most readily is the confirmation bias. I consider myself a skeptic, and I've made it a point since adopting this philosophy to be better about not taking claims at face value. So, I often find myself looking at a claim, or in the case of work, a proposal (usually a troubleshooting report from a technician) and I make a conscious effort to ask myself, "Is this claim really true, and how do I know?"

Now, this is a fine practice and has served me well. But in answering that question, I think I too often look for confirming evidence. I go in search of corroboration. Instead, as the text points out, I would be better served by seeking falsification. Falsification is the best way to really have confidence that a particular claim or proposition is true. If your attempt to falsify the proposition fails, that goes a long way toward building confidence in the proposition.

This is something I'm aware of, and I have some strategies in place to manage the tendency. Most often, I begin by looking for alternative propositions, claims, or explanations. This allows me to begin the falsification process by evaluating alternatives. If an alternative appears to be better supported by

the data or evidence, it can clue me in to the fact that I should be more thorough in falsifying the proposition in hand.

Edited by Daniel Day on Sep 2 at 11:08pm

Jordan Caddick Jordan Caddick Sep 3, 2020 Sep 3 at 11:45pm

Daniel,

I can identify with you as a skeptic. After 10+ years in the construction industry as a project manager, one develops some degree of skepticism in response to negotiating with subcontractors. I know because I was also a subcontractor to the US government. I like the idea of seeking falsification instead of or in addition to supporting evidence - another tool to conduct business as a firm and fair leader in one's profession.

Joseph Ramirez
Joseph Ramirez
Sep 3, 2020 Sep 3 at 11:45pm

Daniel,

I deal with confirmation bias myself and you have reminded me that I definitely need to use falsification more. I often want my solution to problems at work to be correct and I will sometimes find a way based on data to make it true. I will communicate with coworkers to get another perspective on an issue and this helps clear any bias but falsification is a great way for me to solve issues on my own when coworkers may not be available. Thanks for your insight on this topic!

John Schaub John Schaub Sep 4, 2020 Sep 4 at 8:58am

Daniel,

I too suffer from confirmation bias! When faced with pushback from peers, engineering IPT or end user, the first thing I do is run to share why I made the decision and provide the data to back that up. Notice how I said find that data I had to back that up? There is a plethora of data available to showcase why others have pushback on a decision I have made. I need to get better in collecting all data before making decisions and when facing push back I need to listen to others objective feedback.

Edited by John Schaub on Sep 4 at 8:58am

Jun Gao

Jun Gao

Sep 4, 2020 Sep 4 at 6:06pm

I'm experiencing confirmation bias in my project as well. We always want to have positive results to support our decision-making process. In reality, we do not always get positive results. Therefore, we have to use the combination bias to present our data. We always interpret that the prediction was supported by certain percentage of experimental results and future studies are need to draw the final conclusion. Although this is a good strategic to keep the project going, this is not a good practice to maintain our long-term success and scientific integrity.

**Troy Philips** 

**Troy Philips** 

Sep 5, 2020 Sep 5 at 12:10am

Daniel,

Your post really got me thinking about just how powerful confirmation bias is. People base their entire belief system on what is essentially confirmation bias. Take the conspiracy that the earth is flat for example, this community of people are 100% sure that the earth is flat regardless of the fact that science can prove it is a sphere. It's crazy to me that even with centuries of evidence that the earth is round, flat earthers still hold such a fierce stance on the subject because confirmation bias.

**Daniel Day** 

**Daniel Day** 

Sep 5, 2020 Sep 5 at 12:58pm

Too true, Troy.

The internet these days is full of conspiracy wack-jobs and naive non-skeptics. From flat earth, like you mentioned, to 9/11 "truthers", to Q conspiracy nonsense, to fad diets and misinformation about the current pandemic, I am daily confronted by friends and family who have failed to be sufficiently skeptical in their day-to-day lives. They are ready to disregard the evidence and learned opinion of the experts in a field, in favor of some flights of fancy that they saw on Twitter.

Its very frustrating, and confirmation bias plays a significant role. Instead of taking a claim and asking "How can I know if this is true? What is the evidence to support it, and is there significant evidence contrary to it?", they say "This seems true to me, I'll find corroboration and look no further."

(1 like)

**Tanner Welch** 

**Tanner Welch** 

Sep 6, 2020 Sep 6 at 11:19am

Daniel,

I can relate to reviewing troubleshooting reports through the lens of skepticism. I tend to follow the Occam's Razor approach to failure analysis by believing that the most simple hypothesis for failure is generally the correct theory. This is a bias I am aware that I exhibit, and I cognitively make myself aware of its presence prior to reviewing any report.

Travis Metz

Travis Metz

Sep 3, 2020 Sep 3 at 7:18pm

Speaking almost exclusively from an operational engineering standpoint, biases in my work environment can hastily lead to additional or unnecessary damage to equipment or worse, preexisting operational hazards are expanded or new dangers are introduced. To manage bias during a judgement call, even on a small scale, is really more of managing one's self. I've found that being a bit more aloof has been advantageous in that I'm able to absorb and process more information more rapidly when making a decision. Anytime that the opportunity arises to plan a decision, delving into pertinent information (manuals, drawings, etc.) to make a better thought out choice is always ideal, as that lends itself to a higher quality result.

Bill Osburn
Bill Osburn
Sep 5, 2020 Sep 5 at 9:02am

Howdy Travis,

Great Post. Damage to equipment or personnel should be at the forefront of any decisions. Managing the manager of the decision is perfect. It always starts with us and ignoring bias's for the most part will render better decisions. I know that in your position, like mine, time is not always our friend. Whenever possible taking the extra time to do the research pays off in the long run. Safety and Quality must always be considered before anything else.

Bill Osburn

Tyler Gilbreath

Tyler Gilbreath

Sep 3, 2020 Sep 3 at 9:55pm

I believe the impact of cognitive bias on the decision-making process of myself or someone else correlates to the amount of time spend in leadership roles. When I started as a processing department manager for FritoLay, I was eager to learn as much as I could on all the processes that took place in my processing department. I routinely leveraged my SME's to support me in decision making as well as team members that had extensive tenure in a process. This did not always benefit me in a positive manner when it came to making decisions because people were not always willing to make the best decision if it meant additional work for themselves.

As I have grown throughout my different leadership roles, I have learned that it is important to evaluate the information provided whether it be from my own memory of an event or from another team member. I believe acting as your own devil's advocate can prevent gut decisions from being made prematurely.

Travis Metz Travis Metz Sep 4, 2020 Sep 4 at 12:58am

Tyler,

Being one's own devil's advocate is good to make sure you're viewing the information clearly, but given what just occurred personally on a quiz, that second take led to me rereading and misreading a question which turned out not so ideal. Often times, if you're at the point of having a gut feeling about a decision, it's the right one. Self-imposed devil's advocacy has foiled me as often as its helped, but the ol' gut feeling hasn't let me down...yet.

Have you tried open-ended questions with your team and/or peers? That's often a good way to get somebody to play devil's advocate for you, particularly if it's with a peer in another department who has no hand in the decision.

Rosanna Popa Rangel Rosanna Popa Rangel Sep 5, 2020 Sep 5 at 2:26pm

Tyler,

In certain situations, it's harder to act as you own devils' advocate, especially if you have a hard time assessing that maybe you are not the right person to make a decision or maybe, even though you have the experience, you still lack the expertise to decide on certain important items. That is my case; I like to learn, I am always asking questions and going the extra mile to get more out the SMEs, but self acknowledging that even though I am eager, I still need more experience and time around these people to make the right decisions. Making any decision is not correct in my industry, it has to be the right decision, and this is a topic that I find myself evaluating constantly.

What advice would you give your younger self when you were in FritoLay to avoid this bias?

Joseph Ramirez

Joseph Ramirez

I will admit some of my personal and professional decisions have derived from confirmation bias. In my personal life, this has caused me to select the more expensive option rather than a cheaper option. Perhaps I will conduct biased research when it comes to new running shoes because there is a certain pair that I like and I will try to exclude other options even though there may be a cheaper pair that work just as well.

At work, when diagnosing a problem, I may select the first solution that presents itself instead of exploring other causes for the fault. I may target specific data that supports my belief and ignore any other data. I typically choose to ignore any bias because I like to be efficient with my time and I know if I had to perform more troubleshooting then this will delay me from moving on to my next task. When I am aware of my confirmation bias, I will actively seek input from other coworkers and understand that a decision can wait at the moment. Jumping to a solution too quickly could result in more time invested on a problem than originally spent.

Jordan Caddick Jordan Caddick Sep 4, 2020 Sep 4 at 12:06am

Joseph,

I understand the scarcity of time at work and wanting to be efficient. My biggest struggle at work is taking the time to slow down and employ system 2 cognitive function to recognize biases in my decisions. With less time to make decisions, it can be easy to rely (and sometimes fall prey to) our built-in heuristics instead of making thoughtful and calculated resolutions.

Matthew Hudson

Matthew Hudson

Sep 4, 2020 Sep 4 at 7:56am

I understand the confirmation bias with running shoes. I have used the same brand as they move to new versions of the shoe because when I research I find myself disregarding opinions and staying with the same brand. I was once forced to quickly research and try on a different shoes because my brand was backordered by several months and I wanted a new shoe in the next 2 days. I liked the new pair, I felt guilty for changing brands. Yes, the next time I bought shoes, I went back to the original brand, confirmation bias at work!

Ronnie Hurst Ronnie Hurst Sep 6, 2020 Sep 6 at 5:58pm

Joseph -

Battling confirmation bias is incredibly difficult mainly because it can really take a lot of resources to defeat it. It's incredibly common in our society and tends to build a lot of momentum (especially paired with the bandwagon effect) in an organization.

Earlier in my career, I fell victim to the same type of decision making with regards to problem-solving that you mention - jumping to conclusions. It was bad and took me making several mistakes before I realized how ingrained it was. What ended up helping me a lot was to become well-versed in a simple root cause analysis tool that allowed me to label my first intuition or observation as a potential cause but continue working the methodology to completion. Eventually, I altered my diagnosis approach to be more systematic and comprehensive, which allowed my brain to stop magnifying the first "smoking gun."

Jordan Caddick Jordan Caddick Sep 3, 2020 Sep 3 at 11:35pm

The "regression to the mean" bias emanating from the representative heuristic brings to mind two specific examples from my time as a project manager. First, I applied this bias to one of my employees while working at two US diplomatic facility construction projects based in Gabon and Morocco. In Gabon, I was encouraged when a mid-level manager of mine met and exceeded construction deadlines with a high degree of quality throughout a 22 month project. I offered the employee a position at the next project I managed in Morocco because he was a high performer. I gave him more responsibility, more individuals under his oversight, and more technically complex projects. In hindsight, I should have recognized the "regression to the mean" bias and not placed such pressure on him to perform. In Morocco, the employee struggled to maintain his success realized in Gabon and additional assistance was eventually brought in to aid in the completion of his projects. Second, I saw other manager's employees experience burnout when the regression to the mean bias became apparent. The employees, who were eager to showcase their abilities to perform, experienced success on one project and failure on the next because too much was expected of them from a single outlying success story. In retrospect, I haven't been the best at managing biases as a project manager, leader and decision maker. Because I wasn't actively searching to recognize and counteract cognitive biases, I relied on built-in

heuristics to guide my judgement, which worked some of the time, and other times did not. This resulted in misunderstanding and missteps as a project manager. I think the key to managing these biases is to stop and think "Am I falling prey to any common biases here?" before a judgement call is made. In the fast-paced world of construction project management, this isn't always easy, but it's always necessary.

Jeremy Meehleib Jeremy Meehleib Sep 4, 2020 Sep 4 at 12:37pm

John - In addition to the regression to the mean bias, which is a good read on what you observed by the way, there is a tendency for people that work in teams to continue those affiliations as they move on to new projects. We often attribute success to things we believe we have control over, such as the assembled team at the time of success. We will reconstruct conditions of that initial success with the expectation that success will continue. I believe this falls under the impression management category of escalation of commitment bias, "If I do things in the same way that proved successful in the past, I will remain consistent and cannot be blamed for failure." You were an astute observer to realize that additional resources were necessary to address the shortfalls of the second project. That is an extremely hard bias to overcome, especially when that success association is so strong and change is admitting previous decisions are not meeting objectives.

How did your colleague respond to the additional resources?

Jeremy Meehleib Jeremy Meehleib Sep 4, 2020 Sep 4 at 12:39pm

Sorry, Jordan....not sure why I had "John". Although we do have a lot of "J" names in this 2022 class.

John Mullins
John Mullins
Sep 6, 2020 Sep 6 at 9:42am

## Jordan

Thank you for your example as I was not able to relate anything to regression to the mean during the reading. But after reading your comments I had a similar situation where I promoted an Operator to a Shift Supervisor and he was not able to handle the pressures and responsibilities of being a leader, he lasted 3 months in the role. Early successes do not mean they will be successful in all endeavors.

Matthew Hudson
Matthew Hudson

Sep 4, 2020 Sep 4 at 7:33am

Cognitive bias can be used to manipulate decisions or make the wrong decisions. I know that bias is there when the car salesman asks "did you own X before?" I always say, "no". I bring my notes with prices and features so I have my known points to use against them and to control my own decisions. This way they cannot use my own bias (Anchoring, Confirmation) against me. I know I can be influenced, trying to avoid it is hard! The loss-aversion "The sale ends on Monday" can trigger a bad decision. I know I still make bad decisions, "how did he talk me into that option?" When making a judgement call, you should stop and think about the whole decision. Rushing to make the decision leads you to shortcuts and drops important data. Sometimes, I stop and weigh my options, many times writing them out; depending on need, I might ask for input from someone to stop a quick decision. I will step back and say "That's good information, let me review it, can you give me a short timeframe to get back to you?"

(1 like)

Mitchel Garrish

Mitchel Garrish

Sep 6, 2020 Sep 6 at 11:10am

Hi Matthew,

I also used vehicle shopping in my anecdote, and I see that several others in our group also did. This example, to me, stands out because we go into these situations knowing their sales techniques can be very persuasive. Knowing that we will have to be mindful of our needs and avoid a one-sided negotiation.

Zachary Smith
Zachary Smith
Sep 9, 2020 Sep 9 at 10:46pm

Matthew,

I recently went car shopping (browsing) and think this is a great scenario for us to reflect on our biases. My first big car purchase was in 2013 and I felt like I was rushed into the decision and didn't gather enough info from other sources to determine if I was actually making the best purchase for me. It was great that I often reflected on this experience because it has talked me out of buying a new car a few times.

So, once again, I ultimately decided to remain with the status quo even though they had a 0% APR special and were offering me more than was expected for my trade-in value. I realized that my current car can still more than serve its purpose for me especially since I have not been driving as much during the pandemic. Also, my car is paid off, so the smarter financial decision was to not make a decision that would've resulted in a monthly payment for the next 60 months.

Jonathan Weiss

Jonathan Weiss

Sep 4, 2020 Sep 4 at 7:48am

Often, when making a decision or observation, my brain typically will be flooded with my own bias opinions and points of view based on past experiences or general knowledge that I have already been made privy too. It's extremely easy to stick with original bias. In my head, if I maintain the decision or opinion based on my initial bias, I feel like whatever decision I'm making is going to be right. Oftentimes, this is the easier but, results in a less informed decision.

I'm aware of my personal biases. With that being said, there's another side of me that refuses to be ignorant or misinformed. I try to keep myself honest to the fear of sticking with the status quo. Believing that education is important, I think it's imperative to be fully educated and informed prior to making a decision, ideally negating the bias factor. I try to force myself to look at all sides and all options, arming myself with facts, not opinions.

In the end, if I end up making the same decision that my personal bias recommended in the first place, that's ok. At least I know that my decision was made based on objective facts, not my ignorant opinion.

Mitchel Garrish
Mitchel Garrish
Sep 6, 2020 Sep 6 at 11am

Hi Jonathan,

Recognizing your own biases is necessary to make sound decisions. Like you, I catch myself relying on different cognitive biases when making decisions. I often see myself using Status Quo Bias, and I cringe when others or myself respond to a challenging question at work with "its always been that way." Despite knowing this, I sometimes respond this way instinctually and have to stop myself to reconsider why it has always been done this way.

Richard Pearson
Richard Pearson
Sep 6, 2020 Sep 6 at 9:01pm

Jonathan,

I agree education can go a long way, I think most of us think that and that is why we are all here. Like you, I have found my brain trying to use my own experience and thoughts to drive me to a quick decision and it works from time to time. Sometimes I try to convince myself I am ignorant of a subject and try to set myself at 0 and do the research and ask questions to come to the appropriate answers. It will take a lot longer to come to an answer, decision, etc, but I find that I have an output that I can back up with facts (even if it is wrong).

John Schaub John Schaub Sep 4, 2020 Sep 4 at 8:39am

To simplify the decisions, we make day-to-day within our personal lives and careers, we lean on cognitive bias's to assist completing the decision making task. Of the many bias's we have studied in our current and past modules, I will focus my attention on ease of recall bias emanating from the availability heuristic. The ease of recall bias allows us to reach back in our most recent memories to form opinions

on decisions we have made abut similar tasks based on the ease of which they can be recalled due to vividness.

Recently I have come face to face with the impact of such ease of recall bias fall-out on a technical document authoring task. While authoring the task I remembered vividly the most recent technical directive I authored that was similar that was hampered by incomplete steps for a certain program load step missing. After its release action request to update were launched and of which we responded with a successful update. During this time, we also initiated format updating to better express steps in other area of the technical directive document. Moving forward to today, while author a current task and pouring through step sequencing I remembered vividly the failed program load step and ensured it was not missed again; interestingly what I missed was the formatting steps we introduced as during that same time. Luckily the directive was not released hampering the end user, but it was because I leaned on vividness of recent failures and the ease of recall bias to make my authoring decision making instead of relying on proper processes and instructional guidance to proper frame the directive and make judgment calls on the proper framing.

Many tools are available to us for managing the bias's we face, in this case ease of recall; we should try to disarm the bias by laying out all choices, collect and properly display data in unfiltered way. Chapter 3 of the weeks reading gave a great example of ease of recall (causes of death worldwide) in which we were given choice of what causes more death among our population. Remembering from the reading most people chose war and conflict when the choice of respiratory infections, including pneumonia was the correct choice. Likely this choice was made because of the vividness and influences of media coverage has on our memory. It is our job to properly collect the data behind each choice before making the final decision.

Rosanna Popa Rangel Rosanna Popa Rangel Sep 5, 2020 Sep 5 at 2:32pm

John,

Thanks for sharing. One of my life's' motto is "never trust your memory," write it down, send an email, always make sure you use the tools your company has given you, and your own personal experiences to make sure that you are not "missing something." There is a study that says we only remember things from the last time we remembered it, so our brains usually change how things actually happened. This is why it is always good to have a backup, a word document, etc., that remembers you, when it's needed, why certain things happened the way they happened, and why a particular decision was made. I apply this in my projects to go back when I don't remember why I chose this instead of that, I have it written from when it happened, and then I remember.



And yes, many times. Recently, Process Engineering have been more involved in the development of P&IDs, sometimes we delete certain manual valve which we assess as unnecessary, and in some instances we get asked why we did this, what other valve are we using to be able to just get rid of the one, etc. At first, I did not write the whys and after months in the project it was easily forgotten. I had to dig in my emails, talk to my co-workers to find an explanation that made sense for our stakeholders and that could stand in Process Hazard Analysis.

That is just one example

This made me have a log for each project with notes on decisions that could be easily questioned "because that's not how we usually do things", but that at the end would save money, piping, installation time, among other benefits.

Carolyn Perez

Carolyn Perez

Sep 6, 2020 Sep 6 at 9:01am

John,

Thanks for sharing this one. I find that I absolutely lean on this ability heuristic most often to compensate for my lack of experience on the job. The fall-out you described is one I am familiar with as I also did not rely on proper processes or instructional guidance to properly frame the directive and make the correct judgment call. It falls on us to see all the choices and collect the data given in order to make the right decision.

Mitchel Garrish

Mitchel Garrish

Sep 4, 2020 Sep 4 at 10:46am

I can easily think of numerous examples of how each covered cognitive bias has impacted my decisions. For instance, while truck shopping last year, I could not overcome the endowment effect and my mental allocations. During negotiations, I valued my truck higher than the appraisal resulting in a negative bargaining zone between myself and the dealership. Additionally, I had allocated a certain amount of money I was willing to spend total. Despite the dealership attempting to frame the cost as monthly payments, I was unwilling to overcome my pre-determined financial allocation. I inevitably did not purchase a new truck.

In this example, I understood my biases, and they helped me make sound decisions. However, my biases don't always help me make the right decision. When making decisions, this is something I am aware of

and try to manage by not rushing into an escalation of commitment or assuming that the status quo is correct. The best way for me to address these biases is by understanding and thoroughly think through the decision and recognizing how my bias can affect this process.

Logan Presnall

Logan Presnall

Sep 5, 2020 Sep 5 at 3:09pm

Mitchel,

Last month I experienced the same thing that you went through when I decided to purchase a new truck, my belief that my truck was worth more than the dealership would give forced me to step back and have a conversation with my wife about the purchase. In the end she explained that just because I believed it was worth something didn't mean everyone, or anyone in my case would. Being able to use her as a sounding board and someone to keep me in check really helped me overcome the endowment effect.

-Logan

Jacquelyn Lopez-Barlow
Jacquelyn Lopez-Barlow
Sep 4, 2020 Sep 4 at 11:13am

Cognitive bias does affect me personally and professionally. Heuristics that influence my decision-making in both areas are confirmation, anchor, and recall biases. Recall bias is probably the one that impacts me the most days because I do have to go off my memory a lot since I do not or cannot have all the data with me all the time. I manage bias by taking my time to make decisions to make sure I am in a more objective place mentally and emotionally. I also ask for advice when I have doubts and engage team members. At work, I try to keep up with research regularly, and I create fact sheets or cliff notes to keep with me, so when I am at a meeting, I can use them as reference material.

Edited by Jacquelyn Lopez-Barlow on Sep 4 at 1:26pm

Brandi Greenberg

**Brandi Greenberg** 

Jacquelyn, your strategies to manage bias seem well thought out and practical. I use another technique often that might help, I talk through my ideas with a peer, just talking out loud about these concepts seems to put them into perspective, I use this along with asking for advice.

Jacquelyn Lopez-Barlow Jacquelyn Lopez-Barlow Sep 6, 2020 Sep 6 at 3:51pm

Brandi-

Yes, I agree that is a good technique. We use it almost every day, that is probably why I did not list it. My boss, team and I call it our "thinking out loud" discussions. What other techniques do you use?

Jay Hembree Jay Hembree Sep 4, 2020 Sep 4 at 3:37pm

Cognitive bias affects nearly every decision made. In my work Anchoring and the Endowment effect seem to be the most noticeable. We are very quick to take the first viable answer and not consider other decisions that might be easier and more readily available. This happens often with corrective action where we have an easy answer to blame the employee when the solution might be training, better engineering, etc. In the past blaming the employee was quick, easy, accepted by management, and keeps things moving. While it sometimes is a workmanship issue, we too easily hinge on the first initial piece of information given as a path.

I have seen the endowment effect with computer programs developed at great expense to fix a problem. Once we have spent the money on something, we will continue to invest into a failing new system despite the previous older system having better functionality. I have heard statements like "It was \$80m to develop we can't throw it away. It should be less than \$15M more to add the functionality need". We are overvaluing our program partially because its our program and partially because the person who signed off on its development is still in charge of that area.

Brandi Greenberg
Brandi Greenberg
Sep 4, 2020 Sep 4 at 6:58pm

Jay, I do see the Endowment effect but mostly in the government and the Department of Defense. These agencies try to remove this bias by rotating their senior civilian employees and military officers, do you think your management would ever consider this type of rotation to help alleviate this bias?

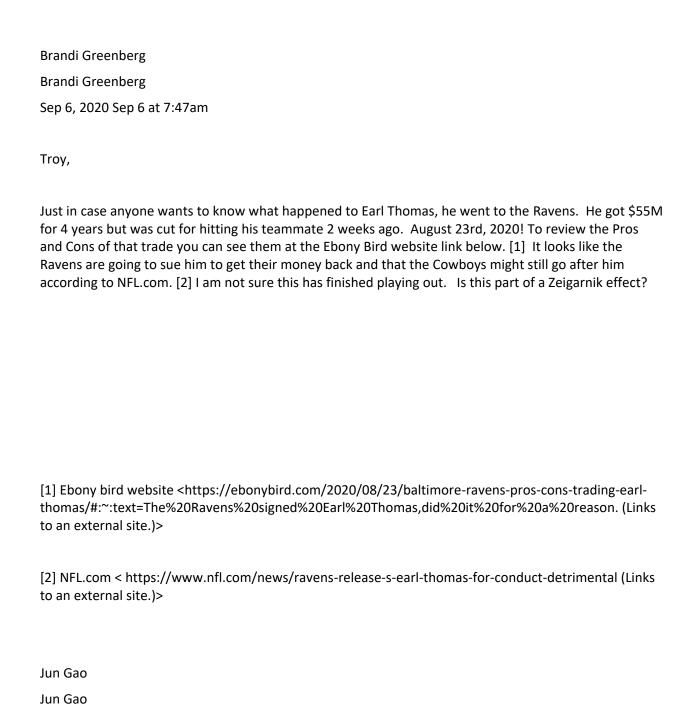
Jay Hembree Jay Hembree Sep 6, 2020 Sep 6 at 2:42pm

Howdy Brandi,

We have begun some "area swapping" among senior leadership the last few years which has made it feel a little more like the Air Force when we got a new commander and ours moved on. It hasn't really changed the endowment effect but it has decreased the amount of escalation of commitment. While its still a company project, they didn't actually sponsor it and their career isn't hinged to it. Unfortunately this has also created some unnecessary churn and a loss of consistency.

Troy Philips
Troy Philips
Sep 5, 2020 Sep 5 at 1:02am

One of the first things I thought of when I read about endowment effect was the sports world, more specifically trades. Every season or two a star player will be put on the trading block or request a trade for one reason or another. Logic says that all the other teams that need to improve at that position would be gearing up a proposal for said super star, but in some cases the endowment effect comes into play. The current team tend to overvalue the player to the point that interested teams can't justify the cost it would take to get the player. The situation with the Seattle Seahawks and pro bowl safety Earl Thomas in 2018 is an example of what I'm talking about. The Dallas Cowboys offered Seattle a third-round draft pick in return for the good but aging Earl Thomas. The offer was refused by the Seahawks so the Cowboys countered with a second-round pick, but this was also rejected. In the end the Cowboys felt the price was too high and ending trade negotiations.



My most recent cognitive bias impact experience was related with the Status Quo. Los Alamos holds the most advanced high explosive (HE) research. We have established many standards in HE sensitivity and compatibility. We have a list of inert materials which can be used for HE shipping. A motivated junior engineer suggested a 3D printing technology for fabricating the shipping furniture for HE. The advantage of this is the low cost and extensive design flexibility. However, it deviated from our traditional approach. Nobody realized that the 3D printed furniture has many porous structures. These features trapped a lot of printing processing solvent. The furniture damaged our HE after shipping. In this

Sep 4, 2020 Sep 4 at 5:39pm

example, we overestimated the advantage of the new technology and did not follow our self-established standard.

To minimize the potential impact of biases in our decision-making process, I implemented the following rules for Status Quo and other biases:

- 1) Fully evaluate the pro and cons of the new technology.
- 2) Prioritize our goals. If the goal is to evaluate the new technology in a small scale, this 3D technology would be a constructive novel idea. However, our goal is to deliver the HEs in a safe and stable configuration. Status Quo would be the best choice.
- 3) Evaluate the risk tolerance. We cannot tolerate the risk associated with HE; therefore, we should keep with the Status Quo. The decision we made was not thoughtful for this particular situation.
- 4) Emotional control. Accounting the emotional attachments and general personal emotional effects in the decision process.
- 5) Time pressure. Giving myself and team members enough time to think deep in the tough situation before decision-making to minimize the distortion and objectiveness.

Edited by Jun Gao on Sep 5 at 5:51pm

Rosanna Popa Rangel Rosanna Popa Rangel Sep 5, 2020 Sep 5 at 2:35pm

Jun,

I agree with the rules you numbered, particularly with "Prioritize our goals. If the goal is to evaluate the new technology in a small scale, this 3D technology would be a constructive novel idea. However, our goal is to deliver the HEs in a safe and stable configuration. Status Quo would be the best chose." While it is essential to understand why we are doing things, once the goals have been prioritized, it is easier to know what path to follow.

How do you manage the project's schedule while taking the time to think about the situation in-depth?

Jun Gao

Jun Gao

Sep 5, 2020 Sep 5 at 6:06pm

Rosanna:

When I manage the schedule, I actually spend more effort on the resource allocation, deflicting the workload and problem solving of the technical challenge. By doing this, you should not have too many schedule management issues. In fact, in our current program our team is not only ahead of the schedule to meet different milestones but also under the budget.

Rosanna Popa Rangel Rosanna Popa Rangel Sep 6, 2020 Sep 6 at 8:32am

Jun,

That is awesome, and that way you can actually put your time and energy in solving other issues that may come along, since you have a solid foundation with the way the schedule has been handled. This is great to hear!

Brandi Greenberg
Brandi Greenberg
Sep 4, 2020 Sep 4 at 6:21pm

Anchoring bias is one of the cognitive biases that is the most prevalent in my industry. The process to bid on different bodies of work for the government requires a proposal, these proposals are based on the Request for Proposal (RFP) that is issued by the contracting agency on behalf of the government. This RFP sets a monetary value that the bidder cannot exceed and establishes the overall statement of work (SOW). Each bidder of this RFP now tries to propose all the work they can do to reach that monetary limit, instead of proposing the best possible solutions to meet the government's needs. In this example, the government would only be getting what can be accomplished under that monetary limit. We try to manage this known bias when we reply to an RFP by working a best fit technical solution before we work the financial budget. This process allows for a solution-driven response that is acceptable to budgetary constraints or confirms that the financial limitations will not allow us to provide the best solution for the government.

Sarah Terrill
Sarah Terrill
Sep 6, 2020 Sep 6 at 1:52pm

I had never considered that the RFP which sets a monetary value being an anchor bias. One of the main reasons behind the government's use of outside groups is that they are wanting a more diverse set of solutions and to avoid getting into the rut of always using the same techniques for each of the tasks. Some times those solutions are driven by a desire to cut the cost of the bid and therefore looking for more creative methods in completing the work, this bias can really work against that main driver.

Damian Dalcour

Damian Dalcour

Sep 4, 2020 Sep 4 at 8:17pm

Module 2 Discussion

Prompt

In every single workplace, every single day, throughout the world, every single person is making decisions and taking actions based on their beliefs, perceptions, and thoughts of which they are completely unaware. Making decisions based on evidence and facts rather than jumping to conclusions can be a tough job. Unbiased leadership is important but rarely seen because of how our brains work. Unconscious drivers, known as cognitive biases, influence our decision-making and judgment, are developed by all of us. They are a big deal for leaders and they are universal in life and organizations. I've observed situations in the workplace where biases were adaptive and helpful. It was the tool used to allow us to use previous knowledge in making new decisions. At the same time, they have been unhelpful because there were times they blinded us to fresh information or considering a broad range of options. In several workplaces, I have seen unconscious biases manifest within business processes such as recruitment and performance reviews. This bias leads decision-makers to unfairly advantage some, whilst disadvantaging others. Great managers are aware of these biases, and they think about their thinking, which reduces the potentially negative impact of these biases.

The core of exemplary leadership is the ability to combine personal qualities with relevant knowledge and experience to form opinions and make decisions. I can't eliminate my bias because it is a natural part of human functioning; however, I have developed tactics that help me make decisions more consciously. I have built awareness, and because I am on the lookout for biases, so they are less likely to blindly dictate my decisions.

Kacie Fischer
Kacie Fischer
Sep 5, 2020 Sep 5 at 11:47am

Damian,

Before starting this course, I understood some of these biases and could see when others fell victim to their own biases. However, I did not apply the same thought process to myself, at least not as deeply and thoroughly as I've allotted to others. I think that taking this step to really understand each bias and taking a good look within ourselves, and our decision-making process will go a long way to developing our strengths as leaders/future leaders. As you've stated above, great managers recognize these biases and work with/through them to make good, consistent decisions based upon facts and data.

Kacie

Kaleigh Philips
Kaleigh Philips
Sep 4, 2020 Sep 4 at 10:42pm

When looking at the cognitive biases discussed in the material, I relate most recently to the regression to the mean bias resulting from the representativeness heuristic. Recently I had my fantasy football draft, and I began to remember the 2019 season and some of the judgement calls I made when picking players to play for a certain week. If a player had a standout week the week before, I often played them again regardless of their projected performance. Ignoring the fact that extreme events tend to regress to the mean, not continue to happen. Often times I was incorrect in picking them to play, leading to a less than desirable 2019 season. I plan to manage this better for the 2020 season by using the

knowledge gained from this course, and understanding that I cannot look at just a players highlight reel, but instead I need to look at their full season of work.

Marc Farias

**Marc Farias** 

Sep 5, 2020 Sep 5 at 1:20pm

Howdy Kaleigh!

I can totally relate with you on fantasy football. I had a team last year that looked great on paper, but I did not make the playoffs because I started my players based on historical performance and didn't factor in things such as future potential and opponents. On the flipside, I have seen other teams over analyze starting players, falling victim to the overconfidence bias. Knowing my limitations, I decided to take this year off of fantasy football to focus on school but good luck to you!

(1 like)

**Troy Philips** 

**Troy Philips** 

Sep 4, 2020 Sep 4 at 10:45pm

Framing bias is no doubt the cognitive bias I have the most experience with. Since I'm in somewhat of a sales role, it is common practice to lean very heavily on framing when talking to clients about getting more or new software. By framing information or data in a way the reflects positively on the software and its capabilities, the greater the chance of making a sale. While I am guilty of using framing bias and know I will probably use it again in the future, but I am aware of it and do try to give my customer every option so they can make the most informed decision possible.

Jeremy Smith
Jeremy Smith
Sep 6, 2020 Sep 6 at 5:03pm

I can see how framing bias is a definite tactic for a sales role. You see it all the time from buying cars, to trying to get your boss to agree with you. I think it is one of the more influential biases, but seems to ride with a pretty negative connotation most of the time. I have seen some instances where the framing bias can be used positively by shedding light on a problem in a different way. Putting a different "lens"

on a problem can help us to see different points of view and discover options that we didn't know were there. So I wouldn't feel guilty as when we are aware of how this bias works, we can employ it appropriately to help us grow, just like we are through this forum.

Bill Osburn

Bill Osburn

Sep 5, 2020 Sep 5 at 8:26am

TCMT-612:700-702

Technical Management Decision Making

Module 2 -- Discussion

Bill Osburn

What is your experience about the impact of cognitive bias on your or other's decision-making process?

A good example of a Cognitive Bias that is seen daily is Insensitivity to Sample Size. This Bias Emanating from the Representativeness Heuristic is used in daily advertising and is seen on the internet frequently. A good example of this is the commercial that states "4 out of 5 Dentists Approve" in the Trident Gum commercials. No one knows how many dentists were surveyed in this example. It could have been 5 dentists that chew Trident Chewing Gum or were paid for their approval.

Hindsight and the Curse of Knowledge, one of the Confirmation Heuristics, comes to play daily at work. Decisions are made by managers that are fallible. After the decision fails, they look back and make statements about how they knew they should have taken a different direction. They tend to think they know the answers when all they had to do was talk to people that did have the knowledge to make the right decisions for the given situation.

How do you manage the bias when making judgment calls?

At this point in life, I do not handle judgement calls well all the time. I tend to be overconfident with my decisions and I don't always look at the possible negative outcomes before a decision is made. Without this course I am not sure if my decisions would have continued to be made the same way. I am

learning that I must ignore bias when making decisions to make the best decisions at the time and to not rush into major life changing decisions, which I tend to do occasionally.

Kacie Fischer
Kacie Fischer
Sep 5, 2020 Sep 5 at 11:35am

Bill,

I noticed this as well. Consumers must constantly be vigilant with the information given in marketing. It is quite disheartening to know that most companies, if not all, use slightly skewed, biased data (while still being somewhat truthful) to coerce you into buying their product. It is quite interesting to read about these biases and see how they related to the every day world. As far as the hindsight and curse of knowledge, what would you think the best way to prevent yourself from falling into this trap? Why do you think some managers utilize this bias?

Kacie

Bill Osburn

Bill Osburn

Sep 6, 2020 Sep 6 at 8:56am

Howdy Kacie,

Thank you for you response. I think the best way to prevent Hindsight and Curse of Knowledge is to speak up during project planning if you see something that could be done better or not at all. Just because someone may have more authority than you does not mean they are not wrong with a decision that is being made. I tend to have something to say but I won't speak over people, my parents taught me well, and by the time I feel like I can speak the subject has moved on. I need to learn to redirect back to the previous subject to get my concerns and thought heard.

Managers use bias in several ways. Sometimes to get what they want but in most cases I feel like they do not even know they are using bias. That's what makes this course great. It should be part of every management course in all industries. I know it has brought a lot of insight to me. Many things that have been talked about, so far, have made me rethink how I make decisions, personally and professionally.

Bill Osburn

Zachary Smith
Zachary Smith
Sep 5, 2020 Sep 5 at 11:31am

A cognitive bias I often come across is mental accounting. It's become so accustomed for us to customize and categorize how we view money. This may be a generational thing, but I find myself way more likely to spend physical cash in my wallet versus money in my bank than I would spend through my debit card; this led me to really consider the psychology present in people's decisions when using a credit card. I believe credit card companies do a great job of capitalizing on the perks of using a credit card through "points" that can be used towards other specific purchases - they've done a great job tying this in to and guiding one's criteria on whether they want to spend their money via cash, debit, or credit cards. These "points" we accumulate by using our credit cards are essentially an evolved form of coupons that guide us towards spending more money towards something we typically wouldn't spend money on if we didn't have these "points". One of the ways I manage my mental accounting bias is that I have control over what credit card I can use, so I might as well find one that offers perks towards activities that I plan on doing or that I would like to plan on doing.

Edited by Zachary Smith on Sep 5 at 3:16pm

Sarah Terrill Sarah Terrill

Sep 6, 2020 Sep 6 at 1:57pm

The cards that I am most impressed with are the ones that convince you that you are part owner of their organization and that each dollar you spend with them increases your year-end dividend from them. REI handles that really well! Use their card throughout the year and you might be able to get \$30 off that pair of \$200 hiking boots you've been wanting. When that dividend check arrives (which can only be used at their stores) you feel justified in all those monthly bills you paid to their credit department.

(1 like)

**Robert Carrano** 

Robert Carrano

Sep 6, 2020 Sep 6 at 8:44pm

Good Evening Zachary,

I also find that mental accounting contributes to how I make choices in which card or method of payment I am going to use. If I am going to spend, I might as well get the most bang for my buck and take advantage of those perks. With that being said, I can certainly recall times I spent way more than intended because I justified it by saying I am getting something back in return. Lately, I have been trying to use strictly cash, knowing that how much I have on me will need to get me through the week. I find it helps me stay away from things I don't need. Also, you're absolutely right about credit card companies doing a great job on capitalizing the perks and rewards system. These seem really great to the consumer, and while they can be, these companies hope you don't make those payments. There are many studies on this topic, personally I find it really interesting and at times I wonder how it could be ethical.

Respectfully,

Rob Carrano

(1 like)

Marc Farias

**Marc Farias** 

Sep 5, 2020 Sep 5 at 12:45pm

A large part of my job is understanding and recommending corrective actions of F-35 fleet behaviors that impact part availability. Over the past month, I was a part of an engineering team that was trying to understand a trending demand of components at a site that were suspect to be false based on the failure data we had available. We were preparing a plan to prove these demands were false by challenging the customer with the data analysis that we performed. This was proven to be a classic case of confirmation trap bias. We were missing a critical piece of real-time data in which the customer was privy to, but we were not. The customer was cannibalizing these components from serviceable aircraft and moving the demands in the system to the aircraft that had no recent failure history. Our initial assumptions were inaccurate because we were looking at data that was not painting the complete picture of demands. We are taking valuable lesson learned in this case by capturing cannibalization data when performing similar behavioral analysis going forward.

Tom Cappucci

Tom Cappucci

Marc, great post. Sounds like you and your team were able to take your learnings and apply it to future data analysis. Its hard to make the best decision when you have not been able to collect a complete data set/looked at it from various perspectives!

(1 like)

Richard Pearson Richard Pearson Sep 6, 2020 Sep 6 at 8:33pm

Marc,

I have seen similar examples in my line of work. We may see a trend in overall component usage in our operation, but when we approach our inventory group it isn't matching up with what they were seeing. Come to find out, the line operation was robbing from aircraft in extended downtime on base and the real-world usage was hidden behind a base visit for a different aircraft. Our problem was centered around an inventory system change and the data analysis tools we used were never upgraded to account for some of the new ins and outs of our inventory systems. Our engineering groups have been so accustomed to using these tools and were never digging deeper into some of the details of what the data was providing. There are other problems such as why the reports weren't upgraded, but with a decent level of questioning the data, the issues could have been identified.

(1 like)

Amy Hollabaugh
Amy Hollabaugh
Sep 5, 2020 Sep 5 at 1:37pm

I use to work as a salesperson at a furniture store. Everyday was a maze of cognitive biases. Customer's would come in with champagne taste and a beer budget and try to haggle down the price even though there was a store policy of no haggling. Customer's would also walk in already mad that they had to deal with a salesperson and already be on the defense that all "we" wanted was there money. I had one customer tell me that they didn't want to work with me because of the sound of my voice. All of these experiences helped me not take the "public" too personally and treat everyone with respect, that was the only way I could survive in that kind of environment. Since I was in my early 20s this experience help me face my biases and not to be judgmental of other people and realize everyone has a story of why they treat people the way they do. Now when I am making a judgement call that needs to be made fairly

fast I think back on my sales days and ask myself if I am seeing everything, am I asking the right questions and am I on the defense because of how I am being treated in the situation. This has helped stay pretty level headed when I am making decisions but we are all human so we can't always manage our biases as the time.

Logan Presnall
Logan Presnall
Sep 5, 2020 Sep 5 at 3:25pm

Amy,

I agree with you that while we can't manage our biases all the time, one of the best things we can do is call on our past experience when we are forced to make a decision. This has helped me many times in meetings with customers and making decisions that will impact the future of a project I am working on. I think it is a great way to help us mitigate the risk of making a biased decision.

-Logan

Megan Wallace Megan Wallace Sep 6, 2020 Sep 6 at 10:45am

Amy,

Isn't it amazing how people seem to come in with that sort of defensive mindset, regardless of published policies and rules? I cannot imagine having to deal with that level of pushback in face-to-face interactions, I'm fortunate to be able to use the "mute" button on the phone if I need to get some of the sass out of my system. Despite it being a coping mechanism to survive in that particular sales environment, it seems to have helped you develop your skills towards handling it in future endeavors! Asking questions to get all the information you can is key, but you're right; at the end of the day, we're only human.

Rosanna Popa Rangel Rosanna Popa Rangel What is your experience about the impact of cognitive bias on your or other's decision-making process? How do you manage the bias when making judgment calls?

My personal experience with cognitive bias in the decision-making process can be divided into several groups:

Anchoring

Status quo

Ambiguity

**Dunning-Kruger effect** 

To exemplify my experience, I will discuss the Anchoring and Status quo examples from previous experiences.

As a Process Engineer, a lot of the valve/equipment sizing that is done can lead to assuming one path to find a solution-fits all mentality. Since I work in petrochemical, gas processing, and most recently, refinery projects, I can conclude that this statement is true; one solution does not fit all. I find myself constantly reminding this and avoiding anchoring to an idea of how I should attack a problem. In certain instances, I fail to recognize that I have set an anchor for a specific problem, and my co-workers need to remind me that I cannot make the decision based on that anchor. They act fast to make sure I don't establish and set that anchor for the future in a different project.

In my personal life, I tend to preserve the Status quo. I am not afraid of changes, but the transition periods between point A to point B limit my decision making while on this emotional bias. I evaluate all the options and what benefits can happen from altering it, but I usually lean more to remain the same to avoid that transition period. This may come as certain stability that in a lot of cases has worked in my favor but not in other cases where a change had to happen, and I avoided it in altogether.

Taking the last example as a reference, I manage the Status quo bias as analyzing how, from a third-party point of view, to assess the situation. To evaluate it as if it wasn't affecting me directly but instead a friend or a co-worker, what would that person do? What's makes sense?, and based on this, the real analysis of the situation implies. This is usually the hardest part, but intuitively I know what decision to make. Usually, this has been a good starting point for me throughout my life, and I can't say my intuition has failed me; call it a sixth sense. But even if I decide to alter the Status quo in my life, I need a period of time to prepare myself mentally to assess the difficulties this may bring (Affect heuristic). After I reached that period of time, I move forward to make the decision and avoid thinking of the alternative. Usually, what has happened is that this way to take was the right one, and I was afraid, scared of failure,

underestimating my abilities, and it was more an internal issue than the situation itself. Now that I've grown mentally, I can assess this situation, accept it, and avoid rushing myself, but I take the time, decide, and move forward. In a sense, I created a blueprint for the decision-making process to change the Status quo when my intuition and analysis indicate is the right thing to do.

Logan Presnall
Logan Presnall
Sep 5, 2020 Sep 5 at 3:03pm

I've been a part of two different project at my company that suffered from the escalation of commitment bias. One of the projects has since been completed after a 6 month delivery delay and an overblown budget, but the project was the pet project of a senior manager that was, and still is convinced that it was in the best interest of the organization for us to complete. The second is still on going, and while it has a great practical use for us, the cost of the project and that fact that we will see little to no return upon completion will make this project in the end a failure. The project manager believes that upon completion the market for the product will return, while the rest of us that have worked on it know that it will only be of use to our organization in the future.

Until taking this course I hadn't given much thought to how I manage bias decisions at work. Since completing these two modules, I've noticed that I tend to seek the advice of other engineers and SMEs before taking on a new project and while the project is underway, which is a way to mitigate escalation of commitment to the project.

Tom Cappucci
Tom Cappucci
Sep 5, 2020 Sep 5 at 5:01pm

Logan, great post. it sounds like the first project relates really well to what we are learning in both this course, and the project management course. Is the second project under the same senior manager as project #1? Sounds like that one may end up being "sunk cost" to your company, what data is that project manager using to say the market will return? Are they just using intuition?

Tom Cappucci
Tom Cappucci
Sep 5, 2020 Sep 5 at 4:54pm

I have found that earlier in my career, when attempting to solve a problem, I often succumbed to confirmation bias, and framing bias. I only looked for trends in data to support my initial hypothesis, thus having a biased interpretation of data. Often, my judgement was limited by using intuition rather than data. After reaching my conclusion on the best course of action, I would present my solution in only a positive way, sometimes without the full picture. Additionally, I would make decisions on course of action without including other departments, and when I would meet with other departments I felt that I needed to walk out of every meeting with a decision, no matter if I had a full understanding of the problem to solve or not. This often led me down the wrong decision path on projects, and sometimes led to project failure. To manage bias when making judgement calls, it is important to know yourself, and recognize when you are using bias to make a decision. To make a good decision, I need to collect multiple sets of data, and investigate options fully before pursuit, especially if the data indicates my hypothesis is incorrect. Also, understanding it is ok ending meetings without reaching a hasty decision, in favor of regrouping at a later time where more research and data is available.

Megan Wallace Megan Wallace Sep 6, 2020 Sep 6 at 10:25am

Tom,

It's great to see when someone is able to recognize their shortcomings in a decision-making environment and subsequently modify their approach to be more thorough in their process. All too often, especially in meetings as you mentioned, there's pressure to come to a solution right then and there, as opposed to holding back and collecting additional data. How do you approach that option? I know it likely comes back around to being assertive in a productive way, but it's still a difficult subject to broach when everyone is in a rush for a decision.

(1 like)

Amy Hollabaugh
Amy Hollabaugh
Sep 6, 2020 Sep 6 at 10:53am

Tom,

I think at the beginning of anyone's career there is pressure, either from society or ourselves, to prove ourselves to the world and we rely on our memories and data the confirms our hypothesis. To manage my biases I find that surrounding myself with people that have different perspectives helps me think

outside of myself and consider different points of views, which then leads to a solution that I wouldn't have been able to come up with by myself.

(1 like)

Tom Cappucci

Tom Cappucci

Sep 6, 2020 Sep 6 at 3:05pm

Megan & Amy, appreciate your perspectives. My strategy is to re-group the meeting at a later time, after everyone has time to think about it or collect data to better assist the decision. I will try to leave the meeting with each party having a smaller, more attainable, deliverable goal for the next meeting. And schedule the re-group meeting for a couple days or so later, so as not to delay the decision too long. Its a balance between assertiveness & compromise. Amy, I totally agree with your point, and I have found that surrounding myself with diverse opinions has enhanced my ability to make effective decisions and come up with creative solutions as a team.

Tim Parker

Tim Parker

Sep 6, 2020 Sep 6 at 4:27pm

Tom,

One of the biggest keys I've found in working with data, especially when trying to prove something, is take the same data set and try to prove a different decision than the original one trying to be made. Getting really into the weeds and trying to use the same information to a different problem means you have a far greater understanding of your dataset. Then by using it to help prove something else (that you may not even believe in) helps let you take an even deeper, critical look at your underlying assumptions.

(1 like)

Tyler Gilbreath

Tyler Gilbreath

Sep 6, 2020 Sep 6 at 7:12pm

Tom, I have worked with managers that have had the mindset that every meeting had to close with specific actions or a decision made. This would result in the team being hasty to make a decision without

due consideration of the things that could go wrong. I have felt like I'm being steamrolled by this mindset and often make decisions that aren't well thought out.

I'm glad you have been able to identify this early on and can be cognizant of it in the future. This is also a good development conversation to have with other new managers you continue to work with throughout your career.

Tyler (1 like)

Taylor Anderson Taylor Anderson Sep 6, 2020 Sep 6 at 8:57pm

Tom,

I have also found myself looking for data to support my judgment. It is easy to want to do this when there is pressure to come to a decision and you have a strong gut feeling about the decision. I am going to use your tactics of making sure to always collect multiple sets of data to make sure that all possibilities are being assessed even if it goes against mine or my team's original gut feeling.

(1 like)

Timothy Koontz
Timothy Koontz
Sep 5, 2020 Sep 5 at 6:49pm

Good day Fellow Leaders. My business-related experience involves the Escalation of Commitment bias involves which costs the Company approximately \$170,000 with no tangible benefits. The previous year, the director was at a conference where he was introduced to a salesman that was promoting his company's new safety initiative. The director was taken by the salesman's pitch so much that he persuaded our executive team to act on the initiative. Every year, each member of management must formulate and complete goals that will benefit the Company. The director thought that he could use the incorporation of the safety initiative into the Company's safety program as a quick and easy annual goal. When giving the budget for the safety department, the director presented the safety initiative to the CEO of the Company. The director promised a positive culture change would result from the safety initiative. The CEO agreed to include the safety initiative into the budget, and the task was delegated to

me to arrange training sessions with the selected crews. The sales team came to our office and introduced the other managers and me to their world-renown safety program. To my dismay, I was not impressed with the program and believed that the program was a step backward for our current safety culture. The initiative's primary focus was on personal safety while our current safety program had evolved into risk-based safety and process safety. During the presentation, I could tell that the director was not fully aware of the safety initiative's scope and looked unsure after the presentation. The other managers and I tried to persuade the director to forgo the safety initiative but to no avail. The director was persistent, and the safety initiative was adopted. After the training sessions, I gave the director a report on the crew's acceptance and feedback on the new initiative. To his dismay, the report did not align with what he hoped for the initiative. His response was that we would have to make it work because he had "sold" the program to the CEO, and he did not want to lose the CEO's confidence. Electronic devices specific for the initiative were purchased, and the supporting administrative paperwork was budgeted. The Operations Group voiced their concerns to the vice president, who then investigated the status of the initiative. The initiative was never implemented on the offshore assets and eventually abandoned.

The primary failure point in this event was that the misinterpretation of the purpose of the Company Goals. The Company's Goals are not a checkbox exercise and are meant to create tangible results. The safety initiative was never fully researched before we committed to the program because the director was looking for a quick goal to complete. The director dismissed the critique of the initiative from his team until it was too late. The director continued to invest resources despite conceding that the initiative did not meet the Company's business needs. The director was caught in the Escalation of Commitment bias after he was approved to pursue the program by the CEO and did not want to lose the CEO's confidence if the program failed.

Actions that can be taken to manage bias when making judgment calls is to understand the problem or situation. Before entering into negotiations, one needs to understand what is the Best Alternative to a Negotiated Agreement. This may help to negate the Anchoring bias whenever the opponent submits his or her initial offer. Considering input from others may also help with the Escalation of Commitment, where you go past the point where the current terms could create a negative impact on you or your business.

Jacquelyn Lopez-Barlow Jacquelyn Lopez-Barlow Sep 6, 2020 Sep 6 at 4:55pm

## Timothy,

The more I read about escalation of commitment, the descriptions and examples like yours reminded me of projects that my company started. In my directorate, we are also challenged to come up with ideas on how to improve safety, security, and overall benefit the way we do business. The director's concern about losing the CEO's confidence mirrors what I have seen as well. There was a project sold as the solution to all our production problems, I am exaggerating but not by much, by improving our data collection process using specific software. The manager who started the project retired after completing the planning phase and when the new project manager came in, he found things that concerned him. He found not all the implementation planning was completed because it only applied to one product stream. Also, in choosing this specific software, other alternatives were never sufficiently evaluated. It was a big deal, and our senior managers decided that a decision was already made to implement this software and the directorate had to figure out how to make it work. The rationale for this path forward was, mostly, because they did not want to admit to our sponsors that we made a mistake selecting this specific hardware. The project team developed a lessons learned document, replanned implementation, and eventually, our alternative analysis process was updated to be more formalized. During all of this, we kept the status quo because of management's commitment to the project.

Carolyn Perez
Carolyn Perez
Sep 6, 2020 Sep 6 at 8:24am

One of the biases that I often come across is retrievability and ease of recall. These ability heuristics were very prominent when I was working in industrial sales. I would immediately pull information from one customer and use that specific information on the next customer, since my experience was limited and I was learning as I go. Coming straight out of school and into a position where I needed to be the "expert" caused me to rely on these heuristics the most. This would be beneficial as there are the standard questions and issues that are asked/seen the most, but also caused issues as soon as I had a unique situation.

Being able to recognize that there is a bias at all is a huge step in managing it. Chapter 3 really shows how people's perception of a recent event (what we see in the news and media) directly affects our decision making processes. Now, that I am aware of the bias, I think a good tactic to manage it would be to take a step back and look at the situation from as much of an objective view as possible and understand how issues are similar or different with each situation. Taking the information I know and making sure the data I have is not just my perception of it and is in fact accurate, is key. Therefore, being able to distinguish when using heuristics is a good idea and when they can have a negative impact on judgment calls is ideal.

Edited by Carolyn Perez on Sep 6 at 9:05am

John Mullins

John Mullins

Sep 6, 2020 Sep 6 at 9:57am

Carolyn

Thank you for your comments, I believe many if not all of us experienced the retrievability bias as it keeps us afloat when entering the workforce and starting a new role. One thing that has helped me grow is engage Subject Matter Experts frequently to improve upon my knowledge and let them take the lead in the decision making process and I would be in a support role. It takes time and experiences to gain the confidence to move past retrievability bias.

Amy Hollabaugh Amy Hollabaugh Sep 6, 2020 Sep 6 at 10:44am

Carolyn,

I agree with you about being more aware of our biases and how it affects our decision making. The more we learn about biases and how they work ,not only will it make us better managers of other people but better managers of ourselves. I also think that another way to improve our ability to manage our biases is to create checklists and processes that assist in our decision making that help blind our biases and just focus on the data.

Jay Hembree
Jay Hembree
Sep 6, 2020 Sep 6 at 2:57pm

Howdy Carolyn,

I fully understand the issues that can arrive using data from one customer for another. It is readily available information that you can anchor to. It's even worse if you get two customers that want similar things and act similarly. We have DCMA and Delivery Operations of the F-35 as our direct customers. One is external and one is internal, but the internal customer has changed themselves to emulate the external to the point that they wanted the same reports with the same data. Unfortunately they have to act and report differently, and there are certain items that cannot be shared with an external

customer. We made a few mistakes last year and had to recover due to this. It seemed like less work and we all wanted them to be the same for ease of work and business assumptions. That bias ended up in some embarrassing mistakes. port differently, and there are certain items that cannot be shared with an external customer. We made a few mistakes last year and had to recover due to this. It seemed like less work and we all wanted them to be the same for ease of work and business assumptions. That bias ended up in some embarrassing mistakes.

report differently, and there are certain items that cannot be shared with an external customer. We made a few mistakes last year and had to recover due to this. It seemed like less work and we all wanted them to be the same for ease of work and business assumptions. That bias ended up in some embarrassing mistakes.

Megan Wallace Megan Wallace Sep 6, 2020 Sep 6 at 10:16am

One of the most common issues I've faced in dealing with cognitive bias is through conformity and maintaining the status quo - the decision to continue with whatever option is most popular and most familiar over innovation and exploration of new ideas. While I've never been in the position where I'm a major decision-maker in an organization, I have often seen where individuals are eager to stick with the status quo, whether for familiarity on the support side, or simply because getting users to try something new is difficult and, often, frustrating. One example of this would be the statistics software utilized by the NCAA. At least up until I left Texas A&M's Athletics Department last September, the NCAA standardized software is a DOS-based system, several versions behind what the software developer offered. The main kickback we faced was the desire not only to stick with what was known, but the initial release of the newer cloud-based option was buggy (when it was released in 2014). To put it simply, at least in our department, those using the software got burned by an initial release and refused to give it another chance for several years.

I try to sway my supervisors away from this, simply due to the industry we work in. If a company chooses to continue to utilize the same product instead of seeking out new concepts, progression within an IT department will stagnate and they'll fall behind on industry standards. I'd rather run a company's IT on the cutting edge of what's available; that way, we aren't the first adopters of a system prone to bugginess, but we're still up-to-date on our knowledge of products and practices throughout the technology industry. When it comes to the statistics software, unfortunately, those of us who were advocating for the new software were overruled due to the kickback we faced.

Edited by Megan Wallace on Sep 6 at 10:19am

**Timothy Koontz** 

Timothy Koontz
Sep 6, 2020 Sep 6 at 12pm

Good day Megan.

I believe that the older people get, the more diligent they have to be in combating the Maintaining the Status Quo bias. We take ownership of the "fruits of our labor" and can sometimes become offended when something new presents itself. This bias can become an issue when everything is operating without any major issues. Management may start asking why things must change if nothing is wrong. Change incurs more money and more hours spent to implement the change. The answer is that everything outside the company is changing, technology, ideologies, and society as a whole. If changes are not made to accommodate the current times, then the company will fall behind. To combat the bias, a company needs to acknowledge the bias. The company needs to be diligent in hiring and promoting people that do not just maintain the status quo but strives for change. Younger people should be brought into the company who will question why things are the way they are. Before that happens, management needs to ensure the environment is right for the younger people. The younger people should not have repercussions for asking questions and making recommendations

Jay Hembree Jay Hembree Sep 6, 2020 Sep 6 at 3:02pm

Howdy Megan,

Do you think the reservations was due in part to the NCAA being an auditor of the athletic department? I know that when asked by some agencies that audited my company in the past we were very hesitant to change over to a new system because we knew we would be audited on it and would have no real SME or highly trained individuals. I heard a VP infer that they were concerned that we were being "set up" with a software roll out that we would fail a government audit. We had triggers in the contract that had to do with compliance and they actually wanted to stay status quo because of a perceived malicious intent. While that wasn't true and we went ahead with the change over.

Tanner Welch
Tanner Welch
Sep 6, 2020 Sep 6 at 11:03am

The "that's the way we've always done it" cognitive bias phrase is prevalent and often used within my company. I have heard this phrase used in all aspects of our business. From the budgeting process, to operational procedures, to personnel movements hindsight bias plays a large role in the management decision making process.

Within our operations, we routinely identify the presence of hindsight bias when conducting after action reviews and incident investigations. We attempt to mitigate this bias through pre-job safety meetings, conducting a job safety analysis that is specific to the task at hand, and in the event of a severe incident, we perform a thorough root-cause-failure-analysis. We have found that our safety statistics have shown great improvement upon implementing a more scripted pre-job safety meeting. These meetings have become more formal, are led by a management level employee, ask pointed questions to identify risks and hazards, and provide more commitment to personal accountability by requiring the personnel to state that they have reviewed the procedure, understand the hazards, and will comply to our safety system. This program helps identify inefficient, potentially dangerous processes in the planning stages of projects and remove them accordingly.

Jay Hembree
Jay Hembree
Sep 6, 2020 Sep 6 at 3:17pm

Howdy Tanner,

I think you hit on it from the beginning that you have a Status Quo bias that is then re-enforced after the fact as people look for issues to show they were right. I think its hits at the example in the text book of the Confirmation Bias (Yes Person) consulting firm from chapter 3 page 49. The consulting firm that says yes and re-enforces what the manager wants to hear is more often rewarded. I think that is similar to looking back and trying to prove your previous assumptions so that you can stay with the status quo or the "we never done it that way before".

It's very interesting that your team and has found ways of formalizing safety and mitigate risk. Now that its a formalized, management led program, what feedback do you ask for to make sure its working as efficiently as possible? Is it metrics based or is there also a personnel feedback element?

Richard Pearson
Richard Pearson
Sep 6, 2020 Sep 6 at 8:15pm

Tanner,

In the aviation world, I have heard "That's the way we've always done it!" from day 1. I never quite understood that mindset, maybe it was how teaching has changed or maybe you just get so complicit over time it is hard to say. We have especially been seeing this said time and time again because we are migrating the entire way we do business to a "new" (more different than new) set of systems. It is like pulling teeth trying to convince others that this is a good thing.

Due to the nature of my job, I am aware of some of the shortcomings with the way we currently do things and how moving systems will help address these issues. I have taken started keeping a handful of examples where we had escapes related to how the old systems operated. I also understand that no system is perfect and the new systems may have their shortcomings as well, and they do, but not innovating and improving the way you do your work is a quick way to get left behind.

Damian Dalcour

Damian Dalcour

Sep 6, 2020 Sep 6 at 8:26pm

Sarah Terrill
Sarah Terrill
Sep 6, 2020 Sep 6 at 1:46pm

I work at a national laboratory with the Engineering Services group. Being a female working in a male-dominated field I often run into the Confirmation Trap along with the Anchoring effect. A male engineer often needs to only prove their potential to complete the task at hand, while the female candidate usually needs to prove they have completed that type of task successfully already. Experience normally involves a male engineer, while to many a female candidate is a new option and one that is not supported by past experiences. The Anchoring effect comes into play when the visual in their head of what a successful engineer looks like confirms a male candidate and it is hard for them to recall a female version. This anchor is confirmed every time they are working with a difficult or unsuccessful female employee. A way that a manager can handle this bias is when considering applicants to require the removal of all sexual indicators in the resume or application support documents. When working with employees, a manager must question any decision that involves a choice between employees of different sexes to ensure their bias is handled and that equality is maintained.

Jacquelyn Lopez-Barlow Jacquelyn Lopez-Barlow Sep 6, 2020 Sep 6 at 4:20pm

Sarah,

I understand where you are coming from and have experienced it in other situations. As a manager who has lead hiring teams in the past, I ensure Human Resources (HR) is available to help support the team. I bring in HR to help guide to make sure the process is appropriate and is defendable. In these situations, after retrospect, I believe the bias is not solely anchoring but confirmation and representativeness heuristic related biases. To help overcome these situations, I have found that bringing in other people or by updating requirements, if possible, helps balance the process. Using your example- I would ensure the hiring team consists of a diverse group that can each bring different perspectives to keep the hiring process objective. I would also make sure the requirements and the desirements are defined clearly in the job ad and the hiring matrix. I have HR review the matrix and have them part of the applicant scoring meetings. Now my methods for hiring the best applicant do not solve the problem entirely. But I believe these small steps educate us and bring in new ideas to the organization that will eventually change the culture of LANL.

Jeremy Smith
Jeremy Smith
Sep 6, 2020 Sep 6 at 4:46pm

That is an interesting outcome of the Confirmation trap that you mention. I see many that try to deny that being a female in the engineering world has an affect on how they are evaluated, but I see it constantly with my wife. She has recently become an engineering manager and has had to go above and beyond anything normal to get there. These are definitely hard biases to combat, and affect everything from technical work that influences the customer experience to internal treatment of employees. I agree that there are definite differences in the standards by which the different genders are measured in engineering and business.

Jeremy Smith
Jeremy Smith
Sep 6, 2020 Sep 6 at 4:09pm

Cognitive bias is such a pervasive attribute to decision-making and most of the time are subconscious and go un-recognized. I know my own decision-making process has been affected, for example, by the

Endowment Effect. I have created tools to try to help out with certain projects that I feel have great value, but when trying to get others' buy-in, I have attached more value than warranted.

The largest bias that I have currently witnessed, in an absolutely undeniable fashion, is the Status-quo bias. People aggressively discriminate against change in general. Several days ago I was in a knowledge sharing session at work and asked a question about whether we had thought about including a feature in our product to keep a recurrent product failure from re-occurring and was promptly cutoff and told no, that it was not possible. Several individuals cited everything from not enough space, to too expensive, to the loads are too large to do anything about.

I do my best to manage my biases by backing up my own thinking with both supporting and contrary evidence, thinking about other options, and stepping back and evaluating the whole as if I were an outsider looking in.

Edited by Jeremy Smith on Sep 6 at 4:32pm

Tim Parker

Tim Parker

Sep 6, 2020 Sep 6 at 4:21pm

Jeremy,

I think there is an interesting avenue we can explore within the interaction of endowment effect vs status quo. In your example for endowment effect, the tool you created seems to "fall flat". However, could the reason it fall flat be due to not wanting to change a process? Are you shaking up the status quo with this and it is not being well received? On the flip side, could you be attributing the endowment effect on your own perception and assigning the thought to status quo of others?

**Robert Carrano** 

**Robert Carrano** 

Sep 6, 2020 Sep 6 at 8:25pm

Jeremy,

You presented a great example of being affected by the Endowment Effect. I would say it is a given you would (or anyone) most likely over value a tool you created. It stemmed from an idea to solve or aid

certain projects, and you transformed it from that thought into something more or less operational. I could definitely see the emotional attachment in a case like that.

Also, I completely agree with your statement in which people aggressively discriminate against change. Being shut down down like that could be rough. I am sure you know, but don't quit attempting to provide input, it only takes one individual to like what you're saying!

Respectfully,

Rob Carrano

Tim Parker

Tim Parker

Sep 6, 2020 Sep 6 at 4:12pm

Most of the time, cognitive bias seems to damage the ability to craft systematic, data driven decision. Anchoring and confirmation bias are the two which I fight with the most. Anchoring is problematic due to once an initial result or thought is imprinted on the mind, it takes more resources, effort and a significantly large burden of proof to overturn the original thought process. Whereas confirmation bias comes from when I must utilize datasets from other groups, that are curated before getting to me.

One of my biggest methods for managing bias (especially confirmation) is to try to get to the root data set. that has no filters or people making judgment into what should be presented. Using as close to raw information as possible, this allos me to build several different tests. Throughout the analysis, even if searching for an answer to the question, does my data support this supposition, I make the cognitive effort to test if my data also disproves the supposition. Adding the extra tests is a lot more work, but it does allow for a new view point and shift away from perpetuating a lot of my internal biases.

Ronnie Hurst

**Ronnie Hurst** 

Sep 6, 2020 Sep 6 at 5:43pm

Tim -

I believe that certainly performing your own analysis of the data can help prevent the spread of bias as it is presented or framed by others. It is something I see a lot of people do in engineering settings. What do you or your company do to allow access to the raw data. Is this something that is typically public and available for people to go in and conduct their own analysis?

Ronnie Hurst

Ronnie Hurst

Sep 6, 2020 Sep 6 at 5:27pm

I started learning about cognitive bias several years ago and immediately started to realize how incredibly prevalent it was in my organization and in my industry. Organizations rely on leaders to guide the company and shepherd its resources and the presence of cognitive bias within decision-makers can have a tremendous impact.

Being in roles where I have to make decisions for the organization, I am always very appreciative in my education and awareness of the different cognitive biases that can influence decisions. No one is perfect and there are many reasons why we can be blindsided by any number of biases, but being aware of what could potentially be impacting the decisions is key. Personally, I have learned to step back and ask questions to evaluate whether I am allowing any of the cognitive biases to influence how I am approaching the decision. I also often seek third party answers to the same questions I ask myself.

One recent example I witnessed of cognitive biases impacting decision making was a recent program my company launched at a customer site about two years ago. Shortly after launch, our costs started to soar and our margins were dipping at or below zero. Something was clearly wrong, but when looking at the financial reports and other program information, managers were unable to discern problem areas and had no sense for how far any of the indicators were from baselines. This led to months of inaction and falling into status quo bias.

Edited by Ronnie Hurst on Sep 6 at 5:40pm (1 like)

Christopher Huebel
Christopher Huebel
Sep 8, 2020 Sep 8 at 8:50pm

Hi Ronnie,

I feel like I can relate to your post. I, at times, also fall to my own biases. And like you, I believe that being aware of these biases and how they affect our decision-making process is a great way to mitigate them. One thing I did, early in my career, was to sit down with those who had leadership and experience in decision-making and discuss our biases and how they might affect our decisions and others. We set up a plan for rational thinking and laid out a foundation that I still use to this day to help recognize these biases. There are times when I fall for biases, and when I do, I like to seek help from those around me. Taking a step back is a great way to help you be self-aware and something that I should honestly try to do more often. It is easy to get carried away on a project that is running behind or not living up to the expectations set for the project. But taking that step back allows you to ask the right questions and clear your mind of any biases that you may be bringing to the table. Thank you for the post!

Best Regards,

Chris Huebel

(1 like)

Christopher Huebel

Christopher Huebel

Sep 6, 2020 Sep 6 at 5:45pm

At the beginning of my career in the oil and gas industry, I was very unaware of my cognitive bias and how it affected my decision-making progress and others. I weighed heavily on past experiences and overconfidence as I was out to make a big first impression on my leadership. Part of the issue with this was my previous experiences were based on lessons I learned in the military. These lessons didn't always translate into the best decision-making practices in my position. My overconfidence put me into situations where I was unprepared for the challenges of projects better suited for those with project experience. In these situations, luckily, I was smart enough to invite help from those with experience. Collaborating with leaders in the industry helped me recognize my cognitive bias'. Through conversation and brainstorming, we set up a system for rational and dependable decision making in an effort to recognize these bias' and mitigate them properly. Although if I'm being honest, I still suffer from cognitive bias from time to time, however, these biases are more readily recognized and are able to be alleviated before any major damage is done.

(1 like)

Mariano Paoli

Mariano Paoli

Sep 6, 2020 Sep 6 at 7:14pm

Christopher,

I definitely feel the same way after going through the module. I do not think you can get rid of biases. Similar to the personal leadership course with emotions, we need to build up of bias awareness. We have started that process by defining the biases and then understanding how we and others use them. The next step will be to start recognizing them in practice and not allow ourselves to let them heavily affect our decisions, and if they do, acknowledge that we are consciously making a biased decision.

(1 like)

Damian Dalcour

Damian Dalcour

Sep 6, 2020 Sep 6 at 8:25pm

Hello Christopher,

Thanks for sharing. I respect your honesty regarding cognitive bias being present in each of our lives from time to time. Acknowledging that we have them is the first step to overcoming cognitive bias. I, too, had to admit, to be human is to be biased. Christopher, we're in good company; some of the most sophisticated thinkers fall prey to their own cognitive biases.

(1 like)

Christopher Huebel

Christopher Huebel

Sep 8, 2020 Sep 8 at 8:12pm

Hi Mariano and Damian,

Thank you both for the support. I don't necessarily think biases are a bad thing. While they can certainly hinder our decision-making process sometimes, those biases can help us as well. When we recognize these biases is when we can start to use them to our advantage and know when and when not to let them affect our decisions. Thank you both again for the comments.

Best Regards,

Chris Huebel
(1 like)

Mariano Paoli
Mariano Paoli
Sep 6, 2020 Sep 6 at 7:02pm

While I was relatively aware of some biases in my and other's decision-making process, I feel like the readings and lectures have exposed more. The impact of cognitive bias can be a downfall in someone's way of thinking, but it can also be used as a tool to get others to do something we want. For instance, I have used anchoring many times when working with project managers that had a reputation for being unreasonably demanding with deadlines. I would set the anchor high to give me enough room for a negotiation with the manager. The project manager was known for trying to see how much he could squeeze out of you. Therefore, the difference between the anchor and the final decision would end up serving as an ego boost for the manager and would leave me with a reasonable deadline.

When making judgment calls, I usually use a couple of ways to keep my biases in check. I like to be my own devil's advocate and question my train of thought when making decisions. Alternatively, when I have difficulties seeing another approach, I tend to seek other people's opinions. However, after reading through the course material, I need to be more aware of the confirmation bias of involving people with a similar way of thinking as mine.

(1 like)

Grant Shirley
Grant Shirley
Sep 6, 2020 Sep 6 at 8:03pm

Hi Mariano,

I definitely agree, the readings and lectures have exposed me to additional biases that were previously blind-spots. The retrievability bias resonated with me as something I was not privy to in my daily decision making. It's great that you have recognized other biases as well. I too like the devil's advocate tool to dispel bias in my own thinking. I work to employ this tool in my personal and professional decision making before settling on an opinion. Good luck with your Project Manager in the future!

Best,

Grant (1 like)
Mariano Paoli
Mariano Paoli
Sep 6, 2020 Sep 6 at 8:32pm
Thanks. Yes, I feel like I keep playing work scenarios in my head every time a new bias or topic is introduced.
Taylor Anderson
Taylor Anderson
Sep 6, 2020 Sep 6 at 8:52pm
Mariano,
I agree that after reviewing the lectures and readings there is more bias than I originally thought. Just this week I witnessed a bias impacting my teams overall decision and was able to realize what was happening and take it into consideration so that my judgment was not swayed by this.
How do you make sure that you do not talk yourself out of the right decision by being your own devil's advocate?
(1 like)
Mariano Paoli
Mariano Paoli
Sep 12, 2020 Sep 12 at 11:56am
Taylor,
I use the exercise of being my own devil's advocate as a form of rational thinking. Sometimes that leads to me changing the original decision, and other times it leads to me confirming what I initially thought.

Whatever I end up deciding is what I believe to be the right decision; however, this may not be the

correct choice. There is no full-proof method of always getting to the right decision, but we should try our best to correct any biases involved in the decision-making process.

Mariano

Zachary Smith
Zachary Smith
Sep 9, 2020 Sep 9 at 11:04pm

Great example, Mariano. I too have dealt with some at my company that like to squeeze the most out of a situation as possible and I think using these cognitive biases as a tool for our advantage can create a win-win situation.

The other point you mention about involving people with a similar way of thinking is a big eye opener to me. I think it's common for us to gravitate towards those who think similarly to us and that can create an echo chamber which probably excludes the other perspectives we need to understand the best outcomes possible from a decision.

(1 like)

**Robert Carrano** 

**Robert Carrano** 

Sep 6, 2020 Sep 6 at 7:44pm

In my current position, I definitely take advantage of using confirmation bias, specifically biased search and biased interpretation of information. While a lot of the tasks I deal with daily have specific guidance on how to complete them, there are some that have very vague guidance as well. Although from my experience, I might know the proper way to complete these tasks, there are times that I reference or search for information and interpret in my favor. This is not just to simply cut corners, but to help me accomplish the many tasks on my daily list of things to do. This may be common among different industries, but my work center and the organizations I work with are low manned and task saturated. With the experience I have, I understand when there is certain risk that I can take so I use confirmation bias to help solidify my decisions. I am comfortable making these judgement calls because I am aware of what I am doing and have had no negative implications of my actions. It is possible down the road something could go wrong, but I believe the risk I take is acceptable for the outcome.

**Grant Shirley** 

Grant Shirley Sep 6, 2020 Sep 6 at 7:57pm

Hi Robert,

I too am guilty of making decisions with confirmation bias. It seems like it is almost human nature to find information and data that sides with your point of view. In my personal life, I often find myself phrasing certain google searches to yield results that favor my viewpoint. This sort of bias can be dangerous and help perpetuate a false sense of the "truth". I work to be cognizant of this bias and try to find objective data to form an opinion on a subject rather than forming the opinion and then finding data to support it. It can often time work to our advantage but as you said, there is definitely a risk associated with forming all decisions around confirmation bias.

Best,

Grant

Grant Shirley
Grant Shirley
Sep 6, 2020 Sep 6 at 7:50pm

Cognitive biases are an inherent component to our personal and professional lives. When making impactful decisions, it is important to recognize cognitive bias and work to rationally combat bias. The impact of cognitive bias can negatively influence those around you and even damage professional reputations. Confirmation and anchoring biases can be difficult to fight in my daily work life.

As Quality Manager, these biases can negatively sway my decision-making process through root cause, corrective action efforts. Unbiased root cause analysis is imperative to recognize systemic issues and objectively identify the source of process failures. Anchoring bias can easily creep in to brainstorming activities. It is often the first offender that a team or individual will latch onto without diving deeper and making sufficient adjustments to identify other culprits. This sort of bias can lead to deeper mistakes in the long run because the true root cause was not identified, rather the first and most obvious choice.

It is important to combat this sort of bias by bringing in a diverse team with members that are not familiar with the issue at hand. It's also important to gather all of the data and quantitatively analyze before jumping to conclusions.

(1 like)

Mariano Paoli Mariano Paoli Sep 6, 2020 Sep 6 at 8:29pm

Grant,

I find it interesting that you mentioned root cause analyses. Have you encountered difficulties trying to remove biases from systematic approach processes? I work in the oil and gas industry, and one of the hardest things to remove is the status quo bias during some of these meetings. I have done process hazard analyses, and the role of a good facilitator becomes crucial when you constantly keep hearing "... because we have always done it that way" as the reasoning behind decisions.

Kaleigh Philips
Kaleigh Philips
Sep 11, 2020 Sep 11 at 6:48pm

Howdy Grant,

I like that you bring up including a diverse team. In my current position we try to bring together diverse groups for our system testing to make sure we are getting a well rounded assessment. We typically bring in those individuals that are our "problem children" who complain the most to provide feedback. We don't want to build a group with people who we know will agree with us, but instead will challenge our current way of thinking.

Great insights!

Ken Wagner

Ken Wagner

Sep 6, 2020 Sep 6 at 8:26pm

Over the course of my career, I have been susceptible to and have sees others impacted by cognitive bias. I have spent approximately 10 years working in the government through various ways such as through the military or agencies. The cognitive bias that seems to hamper the government the most is the status quo bias.

For certain major projects, I completely understand the status quo bias for many reasons. Since many areas of the government are essential services, changing things on a large scale could have serious repercussions. However, in my experience, this mentality has seemed into almost everything in the government. Some tasks that are done within an agency can be streamlined without changing the overall workflow.

The first instance I noticed this was when I did my first major project when joining the agency. It was something sample in that I was recreating and creating different types of data visualizations on a dashboard that could be interactive. The old method was to do data queries and download each set into numerous excel sheets and then using excel to calculate and create visualizations each time. My method automated this practice by keeping a constant stream of the data and keeping all information up to date. Once it was created, there was some pushback from different areas because 'this is not how we do it' and 'what is wrong with the way we have always done it'. But once you are able to jump those hurdles and show the functionality and the benefits of a new method that has little risk people will start to adopt the method.

The best way to manage this bias is to clearly explain how it will change they way they work. Luckily my project would not cause a disruption if it failed, so they could always return to the old method. Once there is an initial pushback I would go on with the project showing them how the program is working at certain milestone. Once I have a completed program, I would allow them to use it in parallel with their old methods. In many cases they find the new way easier and time efficient and will adopt it.

Edited by Ken Wagner on Sep 6 at 8:35pm

Harshvardhan Tirpude Harshvardhan Tirpude Sep 7, 2020 Sep 7 at 10:56pm

Hi Ken,

A good personal example is given for status quo bias, even I have seen pushback in India when digitalization was brought in the banking industry and it took time to adopt it. I can relate now what you have mentioned here.

Thanks,

Harshvardhan

Christopher Huebel
Christopher Huebel
Sep 8, 2020 Sep 8 at 8:05pm

Hi Ken,

Having a military background myself I can certainly agree with your status quo bias. Especially in the Marine Corps. We tend to stick tight to traditions and "how we do things around here". My First Seargent used to say that "we are the first to fight and the last to get anything". Mostly, this was of no one's fault, but ours and the government. The old adage "don't fix it if it's not broken" may as well be a slogan in the government. You are correct about combating these hurdles. If you could overcome those hurdles, they were generally well accepted and used for the next 100 years. Explaining things, sometimes in great detail, was a great way to change the minds of those who needed changing. It wasn't so much that they didn't want the change or need it. Some just had a hard time letting go of something with a proven track record with good results. Even if your new method was easier and more efficient, which I can almost guarantee it was, the certainty that their "old method" would still work was a valid selling point. My hats off to you for your patience and hard work, it may seem like a moot point sometimes, but I can assure you that your project, no doubt, streamlined the overall workflow for those who needed it most.

Best Regards,

Chris Huebel

Taylor Anderson
Taylor Anderson
Sep 6, 2020 Sep 6 at 8:48pm

I can recall both the positive and negative impacts of cognitive bias for myself and my team at work. Two bias that I feel are common within my organization is the ease of recall bias and the anchoring bias. Often many of the decisions that I make and my team make are data-driven decisions, which frequently opens the doors for the anchoring bias. Just this past week I witnessed the anchoring bias taking place. A chart was presented that had bad data and it was later discovered and redone, but certain members on the team could not let go of the original chart. They kept going back to that and it was swaying their judgment when working towards a decision.

The ease of recall also presents itself frequently when making decisions about manpower and if we need to hire more heads for the manufacturing shop. In times where it is a tough decision to hire or not to hire and there is not sufficient data to back it up, we often go off of judgment. It is easy in times like this to only remember the bad times when we did not have enough heads hired and therefore fell behind schedule leaning the team towards deciding to hire more heads. To try and combat this bias from leading to the wrong decision causing negative impacts we try and focus on the positives and negatives of both decisions so that we recall all situations and not just ones we easily remember.

Kassie Mobley
Kassie Mobley
Sep 6, 2020 Sep 6 at 10:25pm

Most recently in my career I have seen status quo bias, anchoring bias and hindsight and the curse of knowledge bias have a substantial impact on a variety of decisions. All my coworkers have a minimum of 20 years of experience in their current role. The substantial time in their role comes with both positive and negative impacts concerning cognitive bias. It has been negative when suggesting a change in contractor or questioning a decision made years ago that have impacts on current work. The positives, for me, is the amount of knowledge available that are highly valuable to professional growth.

In order to manage these biases, I try to be cognizant that even little changes suggested may be met with firm opposition because they have not been questioned in a long time, possibly ever; I strive to have a firm but fair approach when making suggestions. When learning from past projects or processes, it is important to separate facts from personal anecdotes in order to avoid creating my own negative biases.

Harshvardhan Tirpude
Harshvardhan Tirpude
Sep 7, 2020 Sep 7 at 11:19pm

Hi Kassie,

What do you mean by the curse of knowledge bias? Could you please elaborate and share any experience related to this.

Thanks,

## Harshvardhan

Harshvardhan Tirpude
Harshvardhan Tirpude
Sep 6, 2020 Sep 6 at 11:43pm

A cognitive bias is a systematic error in thinking that occurs when people are processing and interpreting information in the world around them and affects the decisions and judgments that they make.

In my workplace, I have always notice that my Leads/Managers putting some kind on deadlines during the initial part of the conversation and I have always relied and done work on basis of that. After going through this course module, I have now understood that it is one of the most used biases I have experienced at my work and is called "Anchoring Bias".

For example, last week my manager asked me to create a hardware inventory database that can be accessed through the web from any location and gave me two days to complete this. The work allocated was more and I couldn't complete it in said time. I then realized this is part of anchoring decision making bias and he wants me to follow his agenda by putting two days anchors though he knows that the work will need more time. During the later conversation, I told him that it would not be possible for me to complete this task in 2 days and will require more time, so he asked me the minimum required time and gave 5 days to complete.

Based on the above recent work experience, I was able to understand and related the anchoring bias more. I understood how anchoring is done and the ways it can be disarmed and how fast the process will be.