The Role of Bias in Critical Thinking

Participant Workbook

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Introduction

Objective:

- To understand how to apply critical thinking, as well as the impact of personal bias on it.

Agenda:

- Components of Critical Thinking
- Understanding Bias
- Ladder of Inference
- Confirmation Bias

The Foundation of Critical Thinking

Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action.

Source: https://www.criticalthinking.org/pages/defining-critical-thinking/766ng

What are the key elements of critical thinking? Use the space provided here to capture your thoughts.

Key Elements of Critical Thinking:

- Requires reasoning, rejecting passive acceptance of information
- Is consistently questioning ideas and assumptions
- Maintains a growth mindset
- Requires self-awareness

Activity: Is drinking coffee good for us?

Use Google to search the following statements and make notes on what you find:

- "Reasons I should drink coffee"

Use the space provided to capture your notes on this search.

(empty box)

- "Reasons I should not drink coffee"

Use the space provided to capture your notes on this search.

(empty box)

What would be a better question to ask to give a more precise answer? Use the space provided to capture your thoughts.

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Perspective - Exercise

- Look away from your screen and cover your left eye with your hand and write down one thing you see.
- Now cover your right eye with your hand and write down what you see.
- Did what you see change at all when you changed which eye you were looking with?

Use the space provided here to capture your thoughts.

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Ladder of Inference – How We Create Biases

The Ladder of Inference is a model developed by Chris Argyris in the 1970s, and it shows how we create beliefs or biases by learning from our experiences, and that our beliefs and biases drive our actions.

Let's climb up this ladder and see how it works.

First rung: We have some sort of experience; this is something that a video camera could capture. *Example – It's Summer 2021. You are a project manager and attend a standing virtual meeting via Teams with other PMs so all of you can*

Actions

Beliefs

Conclusions

Assumptions

Affixed Meaning

Selected Data & Experience

Real Data & Experience

The Reflexive Loop
(Our beliefs affect what data we select the next time.)

stay aligned on activities and priorities. Matt, the lead overseeing supply chain, is not on the call. Later in the day, he reaches out to the call's facilitator and asks for the minutes from the meeting, so he knows what was discussed and if he has any actions or reports due. He also touched base with each of the leads that were waiting on materials and supplies for their projects.

Second rung: Here we start to sort through the data of the experience in our minds and select what we think is important to remember from it, usually solely based on our perspective. Too often we do not have all the facts or data of what is going on available to us when we are making decisions. *Example – Matt skipped the meeting.*

Third rung: We assign meaning to the information we selected from our experiences, based on our biases and beliefs. *Example – Supply chain has been a source of frustration for the organization over the past 18 months, and Matt has not been able to sort it out.*

Fourth rung: With a meaning assigned to the data that was based on our biases, we can make assumptions. This means we may ignore all other perspectives and facts and arrive at conclusions on what is happening. *Example - Matt is taking advantage of working remotely, sleeping in, and not interested in the success of the organization.*

Fifth rung: This is when we make a firm conclusion based on our assumptions, based on the meaning we assigned to the data we selected using our bias as our lens on the experience we had. Keep in mind that we still have not acknowledged all of the facts and realities that we could have been considering from the very beginning. *Example - Matt is not reliable and supply chain will continue to be a mess as long as he is running it.*
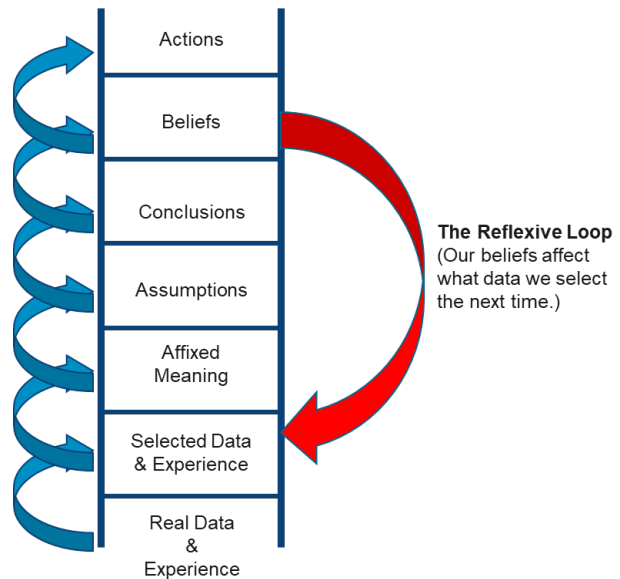
Sixth rung: Working from the conclusions that we came to, based on our assumptions from the meaning we gave to the data we selected through the lens of our own bias of the experience we had, we adopt beliefs which then become a new lens or perspective that we will see the world through moving forward. These beliefs are going to drive future actions and judgements. *Example – Matt is just one more example of an incompetent Supply Chain managers, and the system needs to be overhauled*.

Seventh rung: Putting our beliefs into action is how we interact with the world. Remember though, we are taking action based on our beliefs that are grounded in nothing more than our own assumptions and not all of the possible facts of the situation. *Example – I will avoid engaging with Matt and his team if possible unless I see someone in his group that seems competent, then I will only deal with them, otherwise I will try to go straight to a handful of suppliers I know that are reliable.*

There is also another phenomenon that happens when we go up this ladder. When we get to the top, we then put on the goggles of experience and beliefs, and it is through these lenses that we will select any and all data moving forward. Argyris called this the reflexive loop. We do not even see data or information that does not support what we already believe to be true, so in the case of Matt in our example, we did not consider that there is a worldwide pandemic disrupting supply chains on every continent, and ignored that he may have been engaging with a supplier in another time zone during the standing meeting, as well as the fact that he did get the minutes from the meeting, and he did touch base with the PMs that were waiting on information from him.

What are some biases you may hold based on your own experiences? Are they creating possible blind spots? Use the space provided here to capture your thoughts.

Confirmation Bias

How do you combat confirmation bias? Use the space provided here to capture your thoughts.

We have to take a step back and examine our own beliefs and biases, as they relate to the issue we are working on. Ask yourself:

1. What do I think about this?
2. Why do I think this? What is it based on?
3. Can I find an example of when this is not true?
4. Is this belief serving me or holding me back?
5. What is another way of seeing this?

Strategies for Gaining Other Perspectives

What are some of the strategies for gaining other perspectives? Use the space provided here to capture your thoughts.

Strategies for Gaining Other Perspectives:

1. Talk to someone else who is familiar with the issue.
2. Get up and look at it from a different angle.

Summary- Critical Thinking:

- Rejects passive acceptance of new ideas
- Questions everything
- Requires seeing multiple perspectives
- Requires self-awareness of personal bias and its impact on decisions

Key Takeaways

What are some of the key takeaways from today's course?

Final Reflection

- How can you apply these Critical Thinking techniques at your workplace?

- What is the most important tip you will share with a co-worker?

Use the space provided to capture your response.

Contact Information

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- NAVFACHQTotalForceDevelopment@navy.mil

Development Resources

Career Compass Resource Center: An online source of information that provides NAVFAC civilian employees access to professional growth and development opportunities.

- https://www.navfac.navy.mil/ccrc

To access more content specific to the **Problem Solving** competency:

- https://www.navfac.navy.mil/problem-solving

Career Compass Catalog: an online tool which provides you with information to help you take ownership of your professional development. It identifies options to assist in planning and creating a successful career path within NAVFAC.

- https://www.navfac.navy.mil/ccc

Course Credit

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