Don't Believe Everything You Think:
Exploring The Ladder of Inference

Ever jump to a conclusion, only to discover you were wrong? Or completely misread a situation at work or home, and then wonder why? Of course you have; this is the human condition. The Ladder of Inference is a model that explains the steps we take mentally to move ourselves from data-gathering to action. Its power lies in showing us exactly how we reach conclusions, whether during protracted deliberations or during split second impulses. Let's look closer at how we think and react, and see if we can discover any keys to being a more effective leader in a learning organization.

Typically, the first step we undergo in human cognition is the gathering of data. These data come from a variety of sources including our senses, previously formed attitudes, biases, beliefs, and assumptions (ABBAs), teachings of family, friends, teachers, bosses, and mentors, television, books, other media, and the list goes on.

The only data we are able to consider are those available to us; this may seem so obvious it does not need stating. What's available to me becomes my data. However, we overlook the fact that many pieces of data, sometimes critical pieces, are not available to us, such as someone's true feelings or intentions, or events that are forgotten, or simply not disclosed. We overlook the fact that we do not work with complete information in any given situation; therefore, we are unaware of the fact that we cannot operate with complete certainty. *All decisions are made with either incomplete or inaccurate data.*

Uncertainty in the Ladder

In addition to working with uncertainty, leaders must be aware of the influence of cognitive filters or screens on our conclusion constructions and decision making. Cognitive filters are screens that our brains use to prevent certain pieces of available information from entering.

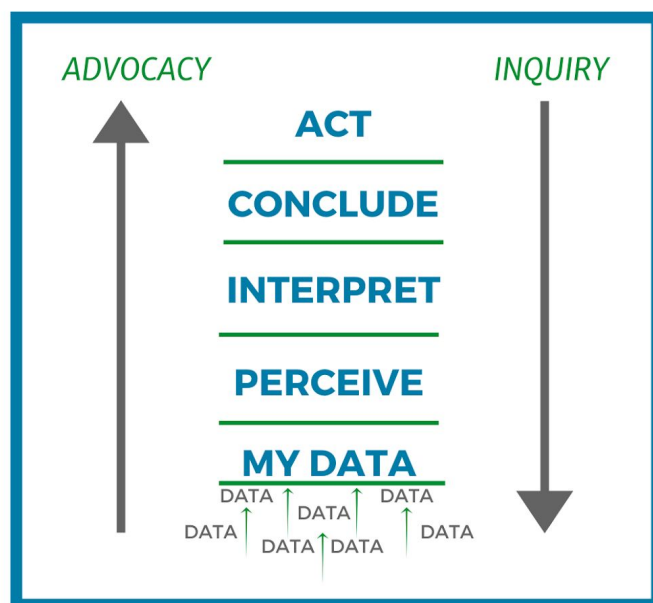There are five primary types of filters:

1. The confirmation or agreement filter or screen enables us to accept more readily information that supports what we already believe.
2. The enthusiasm screen makes us more apt to perceive that which is exciting, interesting, or which stimulates our senses.
3. The similarity screen causes our minds to classify and catalogue similar pieces of information ("seen one, seen 'em all").
4. The "curse of knowledge" (Heath and Heath) screen makes us believe that once an idea is known and understood, we knew it all along.

5. And, finally, information is more easily accepted from certain sources, depending upon our previous experiences and ensuing attitudes, beliefs, biases, and assumptions or Mental Models (e.g.: there are lies, damn lies and statistics (S. Clemens)).

Cognitive filters force us to avoid, suppress, or accept certain elements of data. These filters are a protection mechanism used by the brain, keeping us from thoughts that might be disturbing, disagreeable, harmful, or threatening. They cause us to perceive situations in the way that is most consistent with our personal beliefs, biases, attitudes, or assumptions and they cause us to project onto others beliefs we cannot accept in ourselves. Cognitive filters are a form of psychological self-preservation; they serve to shield our concept of self.

Stepping up the Ladder

ADVOCACY   INQUIRY

ACT

CONCLUDE

INTERPRET

PERCEIVE

MY DATA

DATA   DATA

DATA   DATA   DATA

DATA   DATA   DATA

Adapted from Chris Argyris

As we ascend the ladder, when available data makes it through our filters and becomes our data, they are then used to form our perceptions—our estimation of what has occurred. At the next rung, we interpret these perceptions based on concepts we already hold in our minds: our attitudes towards the event itself or those involved, our beliefs, our moral code, actions taken in similar situations and their results, and so forth. Based on this reasoning, we move to the third rung and draw a conclusion about what must be done. Then we act (and note that "act" means not only to take a specific physical action, but it could also mean to make a decision, form an opinion, or choose to believe a certain way).

It is essential for leaders to realize that their inferences and decisions are not set in stone; once made, they can be changed. Putting this concept into practice is difficult for many leaders; however, because they feel that changing their minds or rescinding decisions makes them appear weak or indecisive. But we should remember to leave room for balance. Our journey up the ladder is but half done and at this point is termed "advocacy"—by which we mean our ability to articulate the data, assumptions, and conclusions embedded in our opinions and invite others to refine our thinking. Inquiry enables our ability to use questions to draw out another's data, assumptions, and conclusions without providing a defensive reaction. When we balance

advocacy and inquiry as leaders, we now open up our thoughts to other possibilities to make more informed decisions. We now begin to value the collective opinions and thoughts of others.

What are the implications of the Ladder During Conversations?

When facilitating a meeting it is important to remember and to remind the participants that our thinking is automatic and a habit. Many times we can jump to the top of the Ladder of Inference without even realizing it and begin advocating our position, limiting our ability to see other people's perspectives. The Ladder of Inference reminds us of the following:

- We tacitly register some data and ignore other data.
- We don't realize we are making interpretations (moving up the ladder).
- Our conclusions feel obvious, so we see no need to test our views.
- We see data that confirms our perspective and miss data that does not.

How to Use The Ladder

The Ladder of Inference helps you draw better conclusions, or challenge other people's conclusions based on true facts and reality. It can be used to help you analyze hard data, such as a set of sales figures, or to test assertions, such as "the project will go live in April". Remember: people can be very critical of themselves, and can be especially worried about how they appear to senior leaders. As you take a longer view and carefully examine beliefs and core values in the interest of creating alignment for a learning organization, remain respectful and focused on how to grow stronger. As the leader, be willing to ask the hard questions, hold space for difference and be open to change, while continuously developing a dangerously safe space for those you lead.

> ***Tip 1: Slow Down and Question Your Own Thinking***
> At each stage, ask yourself WHAT you are thinking and WHY. As you analyze each step, you may need to adjust your reasoning. For example, you may need to change some assumptions or extend the field of data you have selected:
> - Why have I chosen this course of action? Are there other actions I should have considered?
> - What belief led to that action? Was it well-founded?
> - Why did I draw that conclusion? Is the conclusion sound?
> - What am I assuming and why? Are my assumptions valid?
> - What data have I chosen to use and why? Have I selected data rigorously?
> - Are there other facts I should consider?

Tip 2: Notice if You Are Skipping Rungs
When you are working through your reasoning, look out for rungs that you tend to skip.
- Am I making assumptions too easily?
- Do I tend to select only part of the data?

Tip 3: Talk It Out
Explain your thinking to a colleague or friend. This will help you check that your argument is sound.

During the meeting, notice when participants begin to go up their ladder, as it begins to make the space unsafe for quality discussion.
- By climbing the ladder of inference and not testing our views, we create misunderstandings.
- When people disagree, they often hurl conclusions at each other from the tops of their respective ladders making it difficult to resolve differences and learn from each other.

What can participants do to sustain safe space and enhance the quality of the conversations throughout the meeting?
- Explain and test our views and assumptions.
- Probe others' thinking with high quality questions.
- Develop a shared understanding of the differences in order to make better decisions.
- Encourage all participants to balance inquiry and advocacy.