The Ladder of Inference
How assumptions can cause miscommunication

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The Ladder of Inference

The Ladder of Inference comes from Peter Senge’s book “the Fifth Discipline Field book” and is based on our commitment to our beliefs once made.

We live in a world of beliefs we self-generate based on conclusions made and inferred from what we observe, plus our past experiences. Our ability to achieve results is eroded by feelings that are:

- Our beliefs are the truth
- The truth is obvious
- Our beliefs are based on true data
- The data we select are the real data

For example: You are working on a project and need help and information from Mary. Unable to reach her, you send her an email. When she does not respond, you leave her a voice mail or two, or three. You remember that the last time we worked together Mary and you had some disagreements. So you conclude that she is avoiding your communications. As the days roll by, you convince yourself that Mary is trying to sabotage you. In fact (you think to yourself) as you recall, she never liked you. You decide then and there that the next time she needs something from you for her projects you won’t give it to her. Soon you start looking for examples of how she is trying to get you and make you look bad. You decide that you can’t stand her either and might even bad mouth her and try to sabotage her. The next time you see Mary, you give her a dirty look and soon other team mates notice the communication breakdown between us.

You started with real observable data the way a video recorder would record it. Email and voice mail was not returned.

You added meanings and made assumptions based on the meaning added to that data/fact.

You drew conclusions and made decisions based on your assumptions.

Then you took action based on those conclusions and assumptions.

Going forward each time you interact with Mary, you seek evidence to support your conclusions and assumptions, as you constantly leap up the ladder of inference. Each time you do that, the reflexive loop gets tighter and tighter as you convince yourself that Mary is out to get you, when in fact, you are creating the reality to support your decision.

See below for a few pictures that demonstrate the Ladder of Inference. I have made them larger for readability.
Source: The Fifth Discipline by Peter Senge, 1994
How perceptions impact our beliefs

1. Data — What we actually see and hear

2. Interpretations/reasoning — How what we see and hear makes us think or feel

3. Conclusions — What we believe based on how we think and feel

Everything that is said or done
Other examples:

We can’t count on John. He’s unreliable.

John always comes in late.

John knew exactly when the meeting was to start. He deliberately came in late.

The meeting was called for 9 A.M. and John came in at 9:30. He didn’t say why.

This boss shouldn’t be supervising women.

He picks on Jane because she’s a woman.

The boss thinks Jane’s work is unacceptable.

The boss is chewing Jane out.

“Jane, your performance is not up to standard,” says the boss.

Remember that the walk up the ladder starts from the bottom rung.
I'm not going to bother to vote anymore.

Every politician lies and cheats.

Once again he shows he has no integrity.

It's another political sell-out.

A politician just made a statement which seems to contradict a campaign promise.

Mary can't keep up the pace, and so she's willing to have us lose our competitive edge.

She can't compete very well.

Mary doesn't like competition.

"We need to be less competitive," Mary says. "We need to find a way to reward people for the contribution they make to the whole."
There are ways to prevent yourself from leaping up the ladder of inference.

**Using the Ladder of Inference**

You can't live your life without adding meaning or drawing conclusions. It would be an inefficient, tedious way to live. However, you can improve your communications through reflection, and by using the ladder of inference in three ways:

- Becoming more aware of your own thinking and reasoning (reflection);
- Making your thinking and reasoning more visible to others (advocacy);
- Inquiring into others' thinking and reasoning (inquiry).

Once Mary and you understand the concepts behind the "ladder of inference," you have a safe way to stop a conversation in its tracks and ask several questions:

- What is the observable data behind that statement?
- Does everyone agree on what the data is?
- Can you run me through your reasoning?
- How did we get from that data to these abstract assumptions?
- When you said "[your inference]," did you mean "[my interpretation of it]"?

You can ask for data in an open-ended way: "Mary, why haven’t you returned my calls or answered my emails?"

You can test your assumptions: "Mary, are you upset with me?"

Or you can simply test the observable data: "You haven’t returned my calls or emails Mary." To which she might reply: "Yeah, I’ve been on vacation and I’m buried right now. What do you need?"

Note that you don't say, "Mary, I think you've moved way up the ladder of inference. Here's what you need to do to get down." The point of this method is not to nail Mary (or even to diagnose Mary), but to make your thinking processes visible, to see what the differences are in your perceptions and what we have in common. (You might say, "I notice I'm moving up the ladder of inference, and maybe we all are. What's the data here?")

Embedded into team practice, this ladder is a very healthy tool. You can get a feeling of accomplishment when showing others the links to your reasoning. While they may not agree with you, they can see how you reached your conclusions. In the end, you might even surprise yourself as you see how you got there, once you trace your steps up the ladder.

References: The Fifth Discipline, by Peter Senge, 1994