The Ladder of Inference

This article explains the **Ladder of Inference** by **Chris Argyris** and **Peter Senge** in a practical way. After reading it, you will understand the basics of this powerful **Decision-Making** tool.

What is the Ladder of Inference?

People are often lead by jumping to conclusions. These can be correct, but also wrong conclusions and can lead to conflicts with other people. The Ladder of Inference can help you to no longer jump to premature conclusions and to reason on the basis of facts.
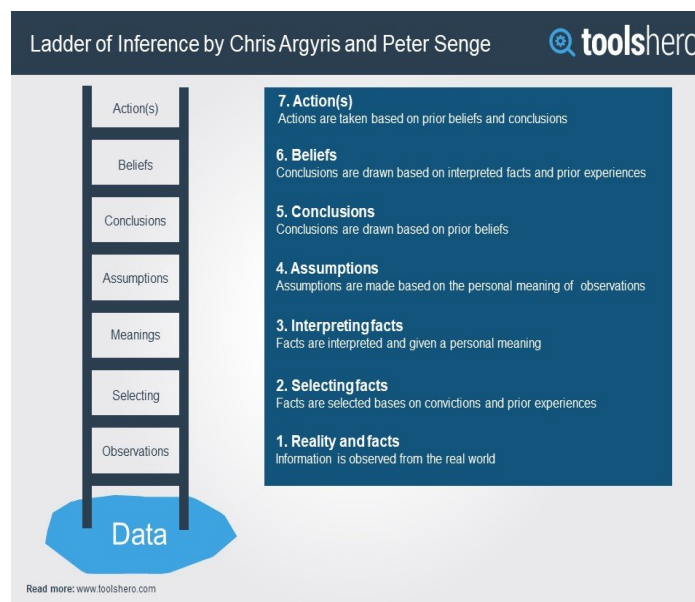
This so-called Ladder of Inference was developed by the American **Chris Argyris**, a former professor at Harvard Business School, in 1970. In 1992, The Ladder of Inference became popular after being described in the bestseller *The fifth discipline*, which **Argyris** wrote in collaboration with the American scientist **Peter Senge**.

Unconscious

The Ladder of Inference provides insight into the mental processes that occur within the human brain. It describes the perception starting from senses to the series of mental steps that need to be taken to work towards an action. This human thought process only takes a fraction of a second. That is why people do not realise how they developed a certain action or response; it is done unconsciously. The Ladder of Inference shows how mental models are formed unconsciously. They determine what and how you see and how your thought process and behaviour is led. Every person gives meaning to observations and bases their actions on them.

From bottom to top

The Ladder of Inference consists of seven steps and the reasoning process starts at the bottom of the ladder. People select facts from events, which they translate from prior experiences. These interpreted facts form the basis for assumptions, which in turn lead to certain conclusions. Then a person proceeds to (inter)act. All the steps are listed below, starting from the bottom level:

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7. **Action(s)**
Actions are taken based on prior beliefs and conclusions

6. **Beliefs**
Conclusions are drawn based on interpreted facts and prior experiences

5. **Conclusions**
Conclusions are drawn based on prior beliefs

4. **Assumptions**
Assumptions are made based on the personal meaning of observations

3. **Interpreting facts**
Facts are interpreted and given a personal meaning

2. **Selecting facts**
Facts are selected bases on convictions and prior experiences

1. **Reality and facts**
Information is observed from the real world

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1. Reality and facts
This level identifies what is directly perceptible. You observe all information from the real world.

2. Selecting facts
From this level, the facts are selected based on convictions and prior experiences. The frame of reference plays a role in this.

3. Interpreting facts
The facts are interpreted and given a personal meaning.

4. Assumptions
At this level, assumptions are made based on the meaning you give to your observations. These assumptions are personal and are different for every individual.

5. Conclusions
At this level, conclusions are drawn based on prior beliefs.

6. Beliefs
At this level, conclusions are drawn based on interpreted facts and prior assumptions.

7. Actions
This is the highest level. Actions are now taken based on prior beliefs and conclusions. The actions that are taken seem to be the best at that particular moment.

Vicious circle
The processes in The Ladder of Inference often occur unconsciously and in less than a second in the human brain. They happen imperceptibly fast. All the convictions that someone forms influence the next time a situation is perceived. The process continues to repeat itself and creates a vicious circle.

All of the conclusions reinforce the prior beliefs, which in turn influence the selection of facts. This can lead us to ignore certain facts altogether and jump to conclusions. The Ladder of Inference teaches you to take a few steps back in the reasoning process, allowing you to remain objective and not to immediately jump to conclusions.

Application
Using **The Ladder of Inference** teaches you to look at facts unbiased and not to judge too soon. It is a way to use your own convictions and experiences in a positive manner. The Ladder of Inference can be used in the three following ways:
1. Becoming aware of your own thoughts and reasoning.

2. Make clear to others how your own reasoning process works. This will allow others to have a better understanding of someone's motives.

3. Research the thought process of other people, by actively asking them about it.

The Ladder of Inference can be used in every stage of the thought process. Anyone can train him/ herself to do so by for example asking the following questions:

- Am I drawing the right conclusion?
- Why did I assume this?
- Is my conclusion based on facts?
- Why do I think this is the right thing to do?
- Can I do this in a different way?

It is also useful to identify the level of the ladder you are currently on. Sometimes it is smart to go back to a lower step. By asking yourself what you are thinking and why at each step, you will be able to analyse each step and no longer jump to premature conclusions.

More information

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