

**ASSESS CRITICAL AND CREATIVE  
THINKING PROCESSES**

ADVANCED

**THE LADDER OF INFERENCE LEANS  
AGAINST THE PROBLEM TREE**



**SKILL ADDRESSED:**

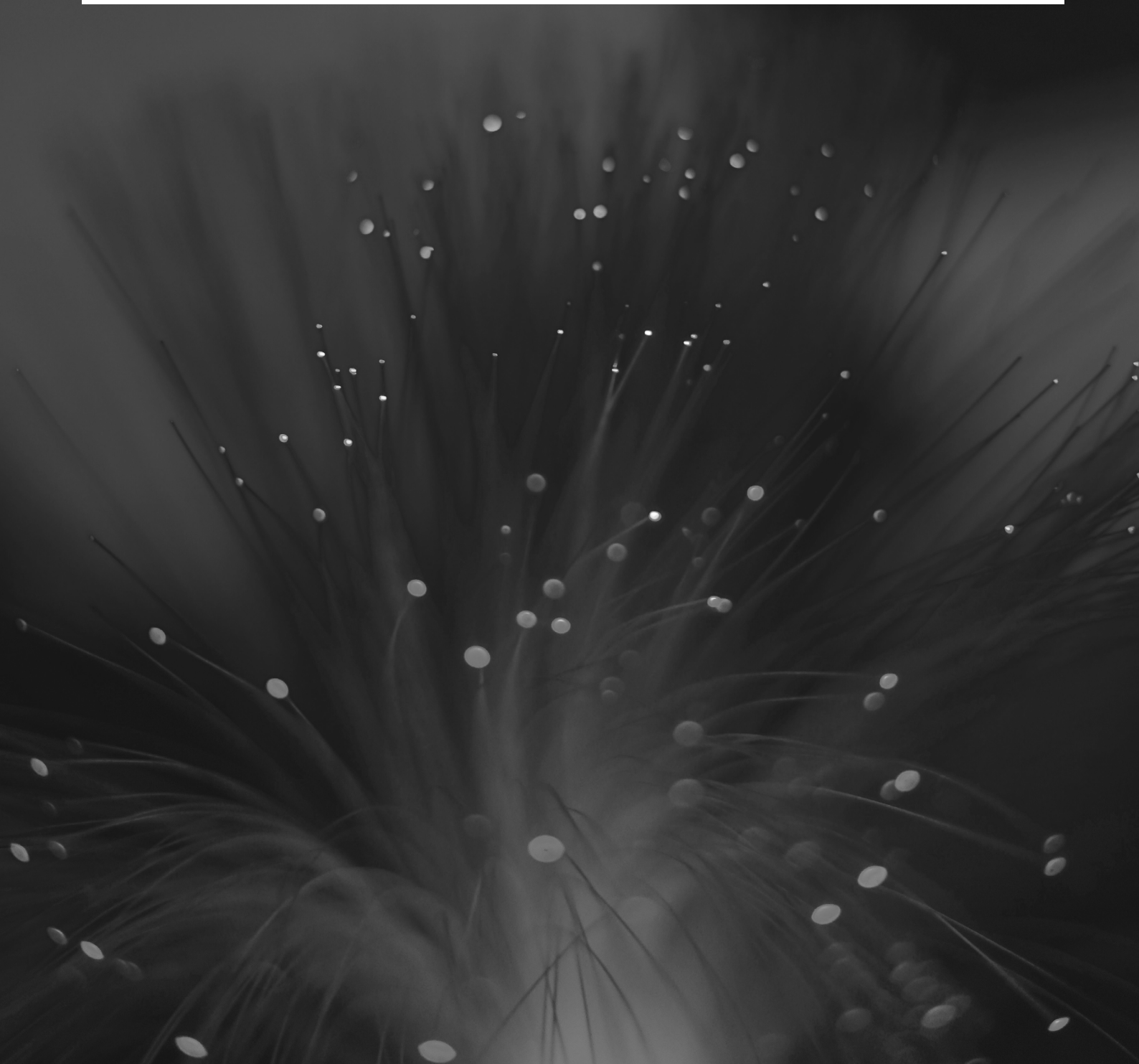
Assess critical and creative thinking processes

**LEVEL OF CHALLENGE:**

Advanced

**TITLE OF ACTIVITY:**

The Ladder of Inference Leans Against the Problem Tree



## INTRODUCTION TO THE SKILL

Critical and creative thinking go hand in hand and right now, we want to focus on examining how decisions are made and how we can improve this process. The goal is to assess career decisions and evaluate how creative and critical thinking may have altered the outcomes and how it can be applied in different scenarios.

For this, we will introduce two methods: the Problem Tree and the Ladder of Inference. The first will allow you to immerse in a scenario, for which you need your creative and critical thinking skills to solve the issue at hand and ultimately, transform the Problem Tree into a Solution Tree. The second method will help you reflect on your thinking process and allow you to refine your ideas and conclusions.

## THE CHALLENGE

To start working on the Problem Tree, you can use a topic of your own or try our example case, in which the problem is that a desired promotion has not yet taken place.

For now, try these methods on your own, but feel free to apply them in a collaborative creative process as well! You could even combine them with other methods, such as the Thinking Hats by Edward de Bono, which were introduced in the previous level.

We recommend to read and/or watch the following resources, before you start, as they will provide you with in-depth information:

Problem Tree: <https://mbspguide.org/2022/03/18/problem-tree/>

Ladder of Inference: <https://thesystemsthinker.com/the-ladder-of-inference/>

Rethinking Thinking (TED-Ed): <https://www.youtube.com/watch?v=KJLqOclPqis> (great visualisation of the Ladder of Inference)

## STRUCTURE

To start with your Problem Tree, write the main problem in the middle of a sheet of paper – it will be the stem.

Next, name potential causes of the problem – these are the roots of your problem, the WHY something is happening or not. Write them below the stem, so that your tree grows roots.

Now, name potential effects and consequences of the problem – these are the branches and leaves of your tree. A branch symbolises the categories of effects and the leaves the real, immediate consequences. Build the crown of the tree like a mind map by clustering the leaves around the related branches.

When you are done, take a step back from your tree. It is time to get the ladder of inference! Use it to critically assess if your problem tree is complete and objectively truthful. Try to mark subjectively, emotionally influenced statements – they are of course allowed and often relevant, but it is recommended to separate them from tangible facts to enable a mindful decision. Add, adapt or remove causes and effects from your tree if necessary.

When you are in a group, help each other to climb up the ladder consciously rather than jumping to conclusions too fast.



## DEMONSTRATION AND EVALUATION

How does your problem tree look? Were you able to visualise the problem in a way that helps you reflect on the roots and causes of it?

Ideally, the next step would be to transform the problem tree into a solution tree that provides you with a fruitful outcome. You can either create a second tree or “overwrite” the problem tree, by replacing the problem with the desired solution and outcome and then collect, what roots (pre-conditions, causes, needed actions) the solution needs to grow and what effects and outcomes it may have (positive, negative, neutral – the leaves and branches of your solution).

- *How does it look?*
- *Where you able to find a solution to your problem and decide, which actions need to be taken?*
- *How did the concept of the ladder of inference affect you? Was it helpful?*

We hope, this challenge and two methods provided you with new opportunities to facilitate and assess your decision-making process.





# INTERFACE



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