Critical Thinking Skills 2: Assigning Value



Agenda



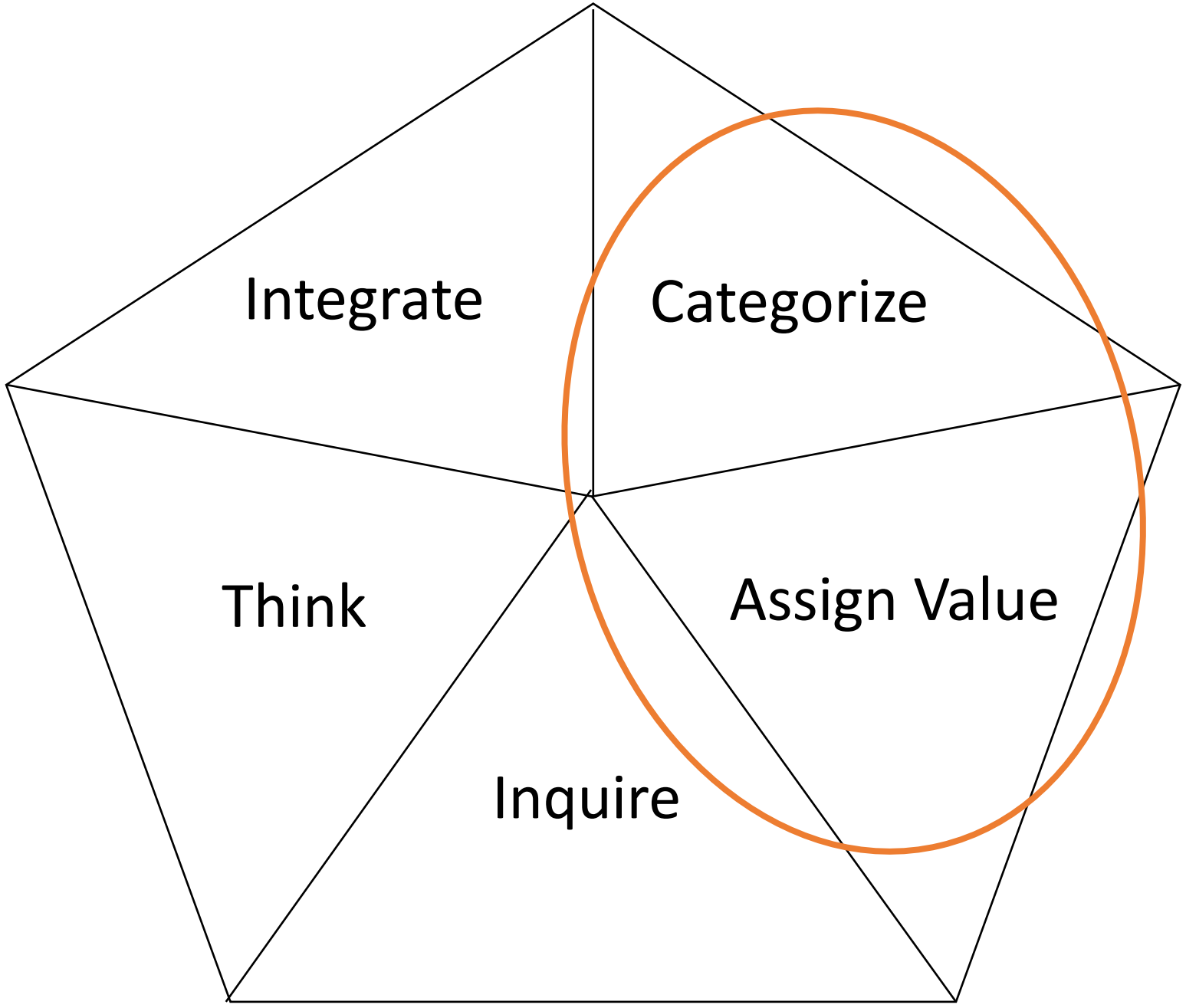
- Recap
- Perceptions and emotions
- The Ladder of Inference
- Several examples
- Practice activity
- Summary: Foundations of thinking



“…the [reading] reminds us of just how much time we spend sorting things into piles and then labeling the piles…”

Joan Sutherland, Vimalakirti text




Integrate
Categorize
Think
Assign Value
Inquire

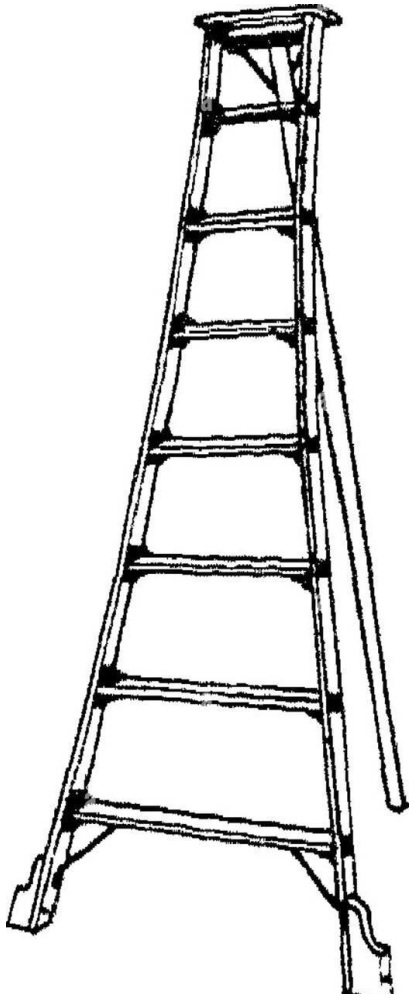
Perceptions and Emotions



- How and what we perceive has a profound influence on how and what we think…
- …especially when we feel a strong charge about a topic.
- A first step is to *recognize* when our perceptions and emotions are in play.
- For this we need a “way in” to this (often) hidden side of ourselves.

Senge's Ladder of Inference

7	**Take Action**	Act and order the world, based on these **assumptions.**
6	**Assumptions**	Formulate personal **beliefs** about the world.
5	**Conclusions**	Make judgments and conclusions about the situation.
4	**Judgments**	Assign value: “good vs bad,” “me vs them,” etc.
3	**Sort & Add Meaning**	Add cultural and personal meaning to perceptions (categorize).
2	**Select Perceptions**	Select elements from the given data.
1	**Observable Data**	The world of information and experiences.



Example: Ladder of Inquiry





Some Examples:
1. Neutral Text – A scientific paper



"Biologists have been concerned for many years about the future of alpine plant communities because of changing conditions related to global climate change.

Alpine ecosystems are acknowledged to be among the most vulnerable to warming, changes in precipitation, and other effects of increasing greenhouse gasses.

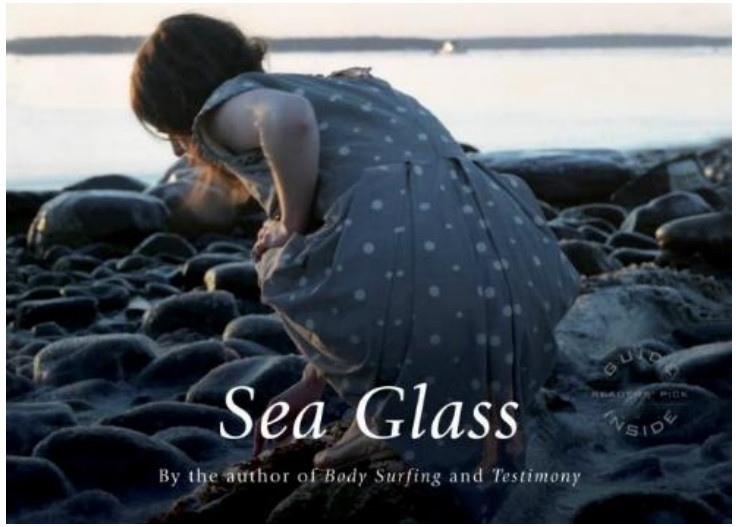
Research on alpine plant communities has increased dramatically as a result of these concerns."

(Capers, scientific paper in Rhodora, January 2025)



2. Sea Glass novel





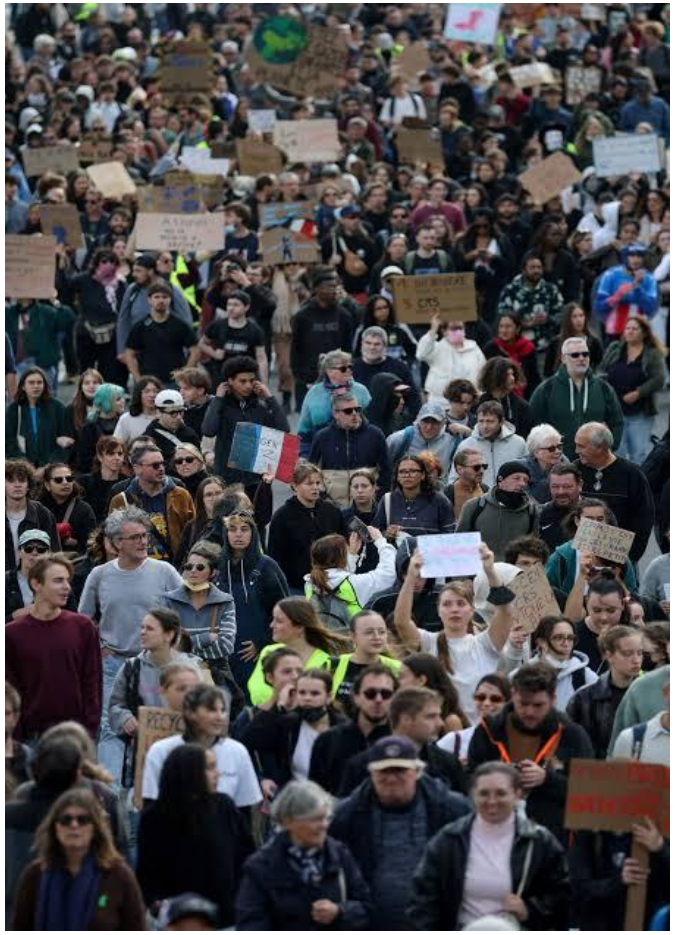
"After Sexton lost the one job and finally found another (far lesser) one, Honora tried to tell her husband to let the house go. It drained them of every cent, she said. There was precious little left over for food – often nothing at all for clothes. She could move into Ely and share an apartment with him, but Sexton wouldn't hear of giving up the house.

He worked, he said, to hold on to the one thing that hadn't yet been taken from him. And Honora understood finally, in a way she had not at first, that Sexton's manhood was more wedded to the house than it was to her. That something inside him would be irretrievably lost if he failed to keep the house that he had ruined himself to buy."

Anne Shreve, *Sea Glass*

3: Trouble in France





“Paris – As thousands of high school students took to the streets last week in a collective cry of youthful anger, President Emmanuel Macron of France traveled to a navy ship off the coast of Brittany.

From the deck, he watched the firing of a new ballistic missile from a French nuclear-powered submarine.

It was a telling display of Mr. Macron’s priorities…”

(Mark Landler, The New York Times, 10/14/2026, p. A9)






RECYCLE
RECYCLE



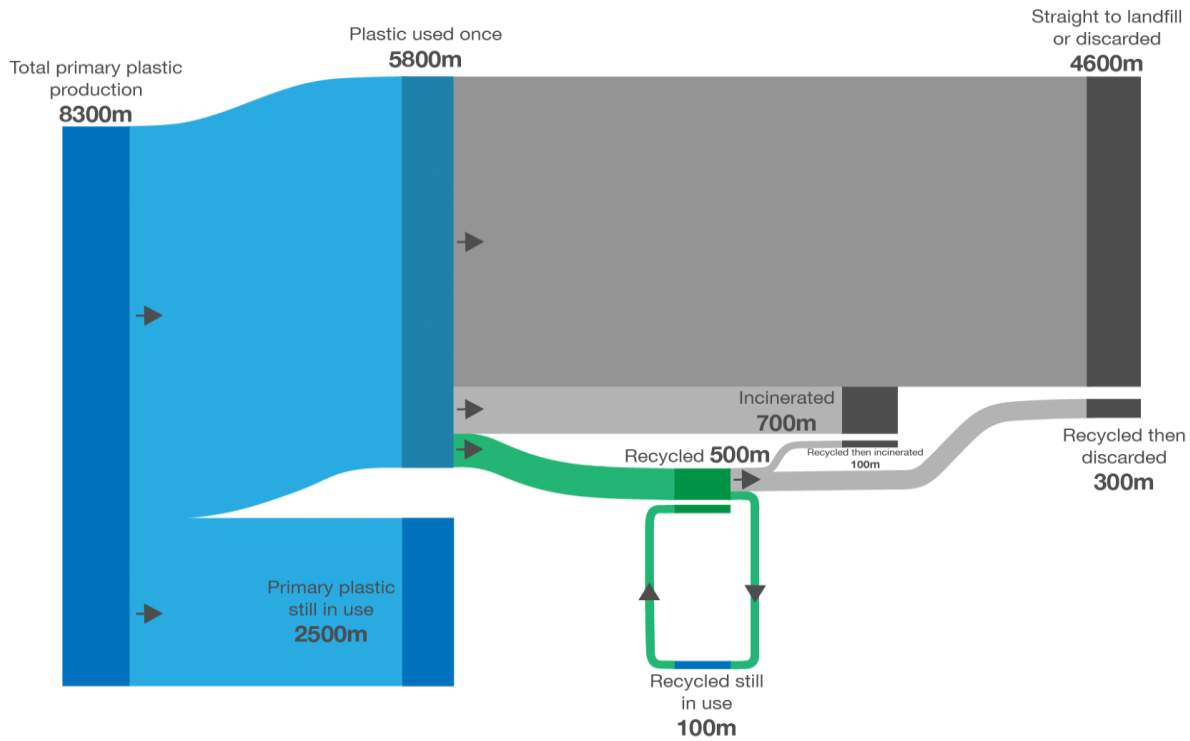
Global plastic production and its fate (1950-2015)

Our World in Data

Global production of polymer resins, synthetic fibres and additives, and its journey through to its ultimate fate (still in use, recycled, incinerated or discarded).
Figures below represent the cumulative mass of plastics over the period 1950-2015, measured in million tonnes.

Balance of plastic production and fate (m = million tonnes)

8300m produced → 4900m discarded + 800m incinerated + 2600m still in use (100m of recycled plastic)



Source: based on Geyer et al. (2017). Production, use, and fate of all plastics ever made.
This is a visualization from OurWorldinData.org, where you find data and research on how the world is changing. Licensed under CC-BY-SA by Hannah Ritchie and Max Roser (2018).




RECYCLE
RECYCLE

Recycling as a Charade?





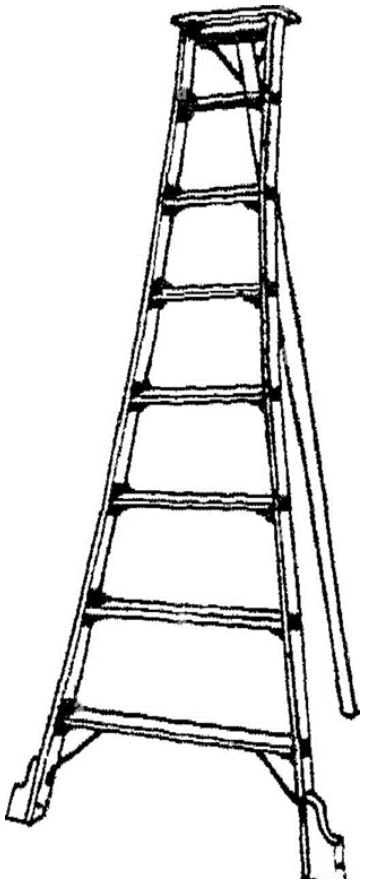
After reading the text against recycling:

- Are there any verifiable facts in the story?
- Are there any hints that the author is emotionally attached?
- Does the author make assumptions?
- Do the author's arguments convince you?
- What would you ask to probe more deeply?

Recap: Working with the Ladder of Inquiry



- Selected perceptions can lead to attachments, which can become assumptions, which can then become rigid biases.
- Attachments closest to one's identity are the most inflexible.
- The sorting and categorizing steps are not at issue; the problem comes from unconscious attachments, assumptions, conclusions and bias.



- Judgments, attachments, and biases are optional – they can change!