

The background is a dark purple color with a repeating pattern of three icons: a bar chart, an eye, and a bar chart with a magnifying glass. These icons are arranged in a grid-like fashion, with some overlapping.

THEORY

Purpose of Visualization

- Visualization is not just “making charts” — it is about **making data interpretable and usable**.
- Two main functions:
 - **Exploratory visualization** → helps you *discover* patterns, anomalies, and relationships in the data.
 - **Explanatory visualization** → helps you *communicate* findings clearly to others (team, stakeholders, non-technical audience).
- In practice: Always ask yourself — *am I exploring, or am I explaining?* This changes the choice of visualization.

Purpose of Visualization

- See: What's Vis, and Why Do It? (Ch 1)
(Tamara Munzner: Visualization Analysis & Design)
 - <https://www.cs.ubc.ca/~tmm/talks/vad/VAD-2021.pdf#page=1.00>
- A good visualization highlights patterns and relationships more effectively than raw numbers.

Gestalt principles

- Law of proximity:
 - *close elements are seen related.*
- Law of similarity:
 - *similar shapes/colors are grouped together.*
- Law of closure:
 - *incomplete shapes are perceived as whole.*
- Law of continuity
- Law of common fate

Optical illusions

- Size, length, and color can be misjudged depending on context.
- Classic illusions:
 - Hermann grid
 - Hering illusion
 - Ebbinghaus illusion
 - Chromostereopsis
 - ...
- In practice: Avoid clutter, unnecessary patterns, or misleading scales in visualizations.