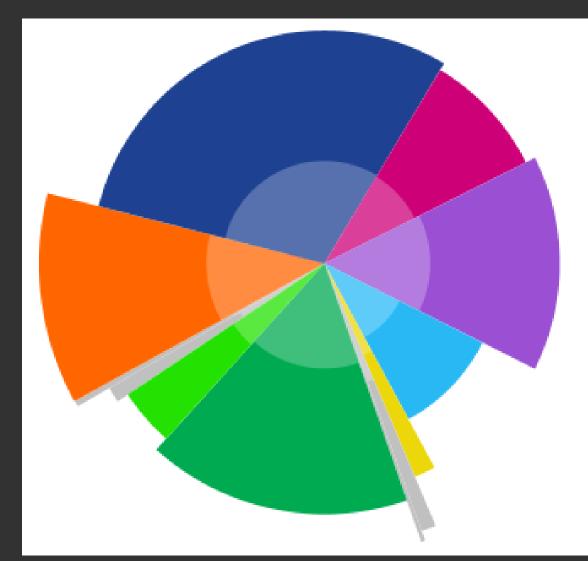
Visualization Evaluation of the Masses, by the Masses, and for the Masses.

Jeffrey Heer Stanford University



Depression

Average yearly health care cost of a 45-year-old with Depression: **\$4,454**

Personal Cost: \$901 Insurer Cost: \$3,552

Total yearly health care cost for the 780 patients with Depression: \$3,474,717

Age 45

A sick chart?

For most visualizations today an unsettling question remains: Is there α more effective design?

Two Ideas...

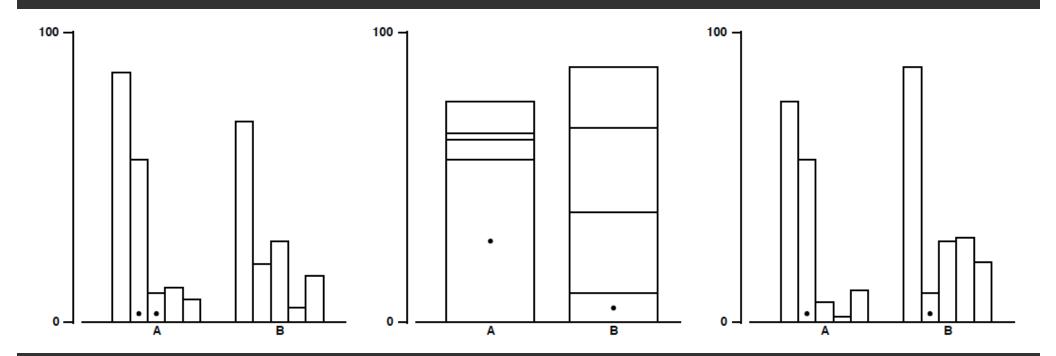
- An Analytic Framework for Visualization Criticism
- Cost-Effective Evaluation
 Techniques: Crowdsourced
 Experimentation





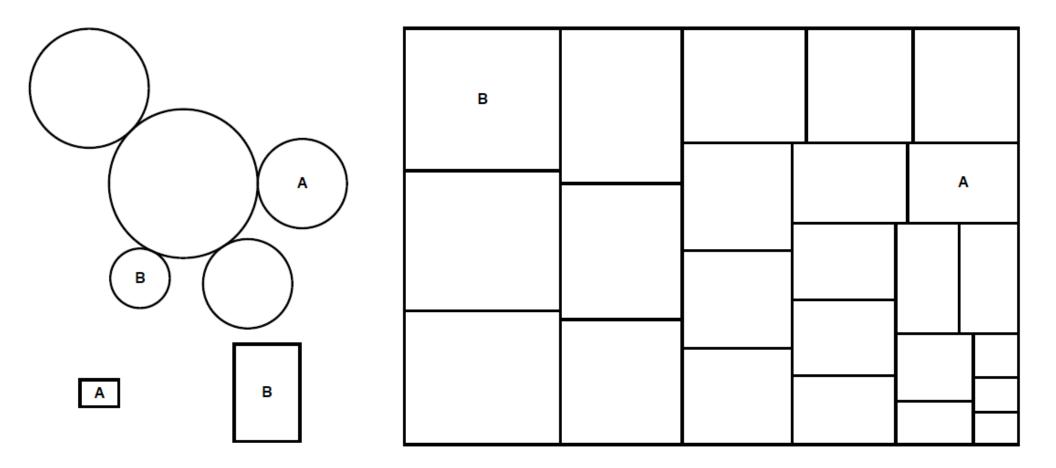


Cleveland & McGill, 1984



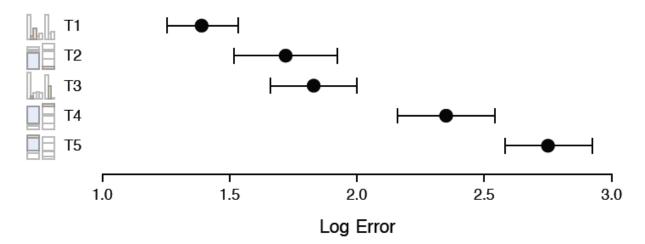
Stimuli for position encodings. Task: estimate **%** smaller element is of the larger

Area Judgment Stimuli



Task: estimate % smaller element is of the larger

Cleveland & McGill, 1984 (Lab Study)



Heer & Bostock, 2010 (Crowdsourced Study)

