Graphical perception 🡪 the visual decoding of information encoded on graphs.

Graphical perception process:

* Identification of a set of elementary perceptual tasks.
* Ordering of the tasks on the basis of how accurately people perform them.
  + Graphs should employ elementary tasks as high in the ordering as possible.
* Conclusion is that radical surgery on these popular graphs is needed.

The real power of a Cartesian graph comes one’s ability to understand the relationship of x and y. The eye-brain system is capable of extracting such a slope by perceiving the direction of the line segment joining (Xi, Yi) and (Xj, Yj)

Triple Scatterplots contains 3 real variables. Third is encoded by the area of circles.

The following are the 10 elementary tasks in Figure 1, ordered from to least accurate.

1. Position along a common scale.
2. Positions along nonaligned scales.
3. Length, direction, angle.
4. Area
5. Volume, curvature
6. Shading, color saturation