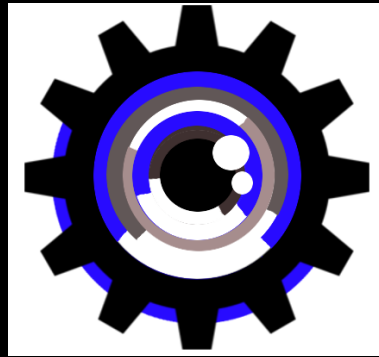
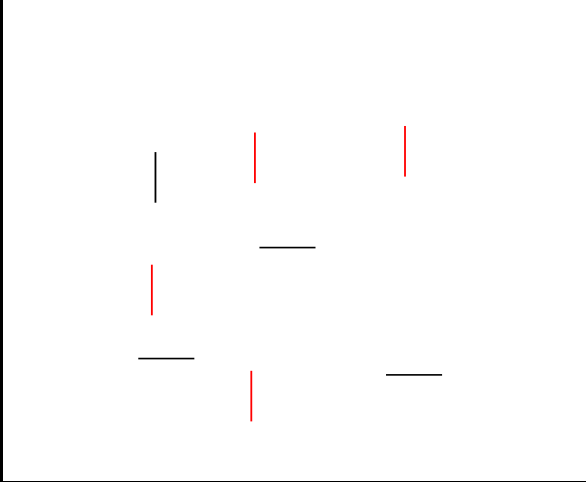


Task Demands Modulate Attentional Selection

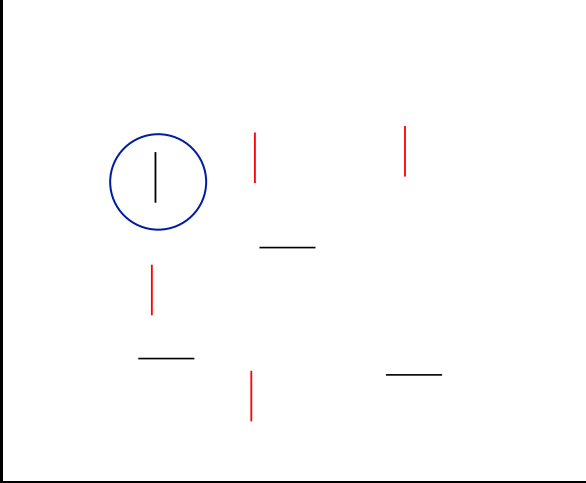


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October 4, 2017

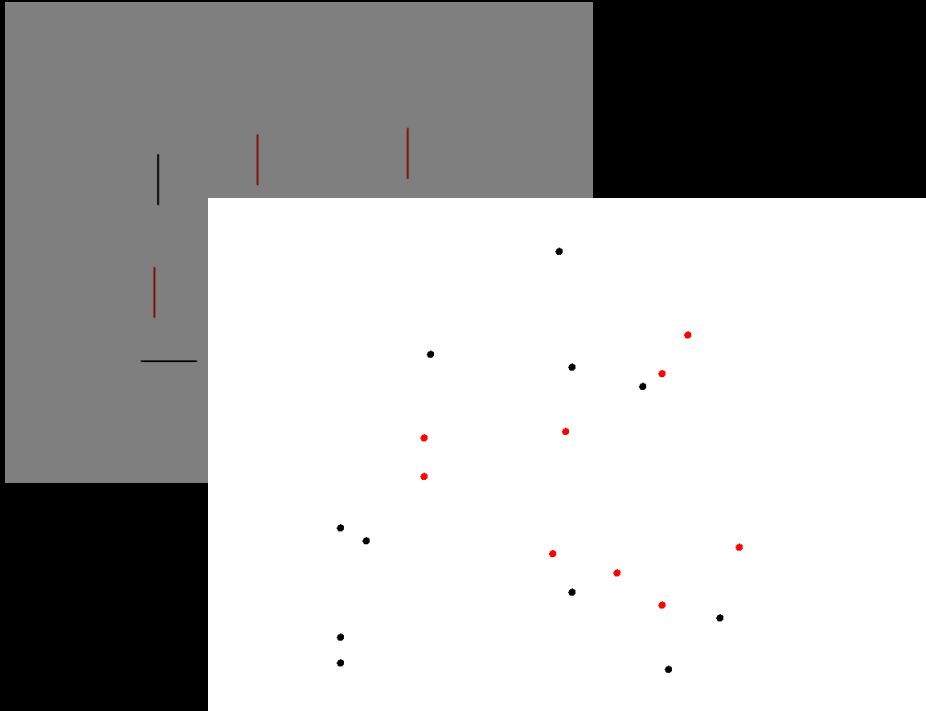
Graphs as Experimental Stimuli



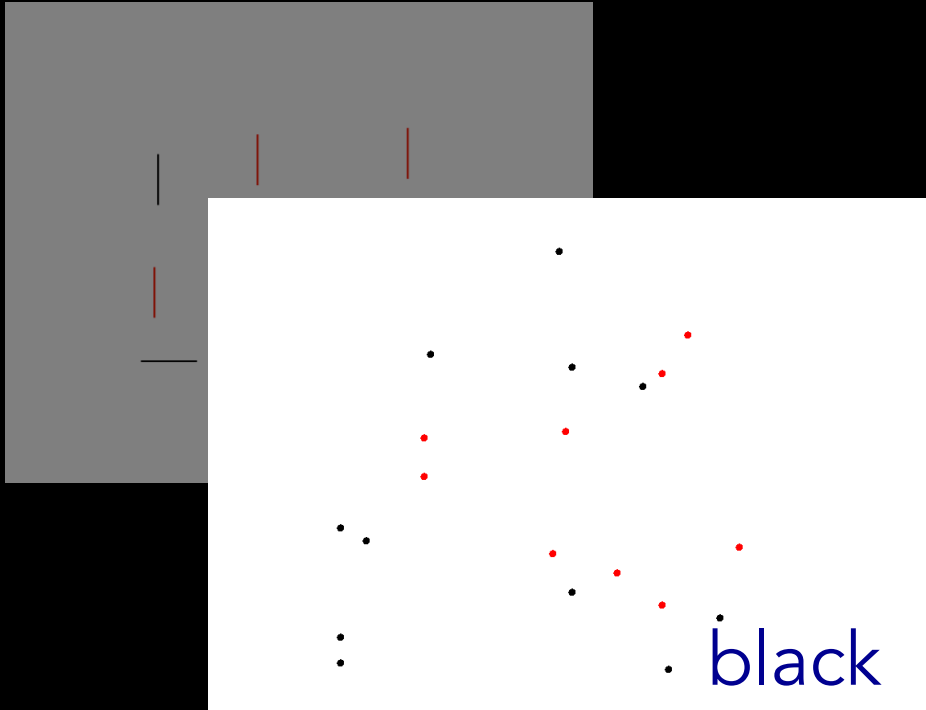
Graphs as Experimental Stimuli



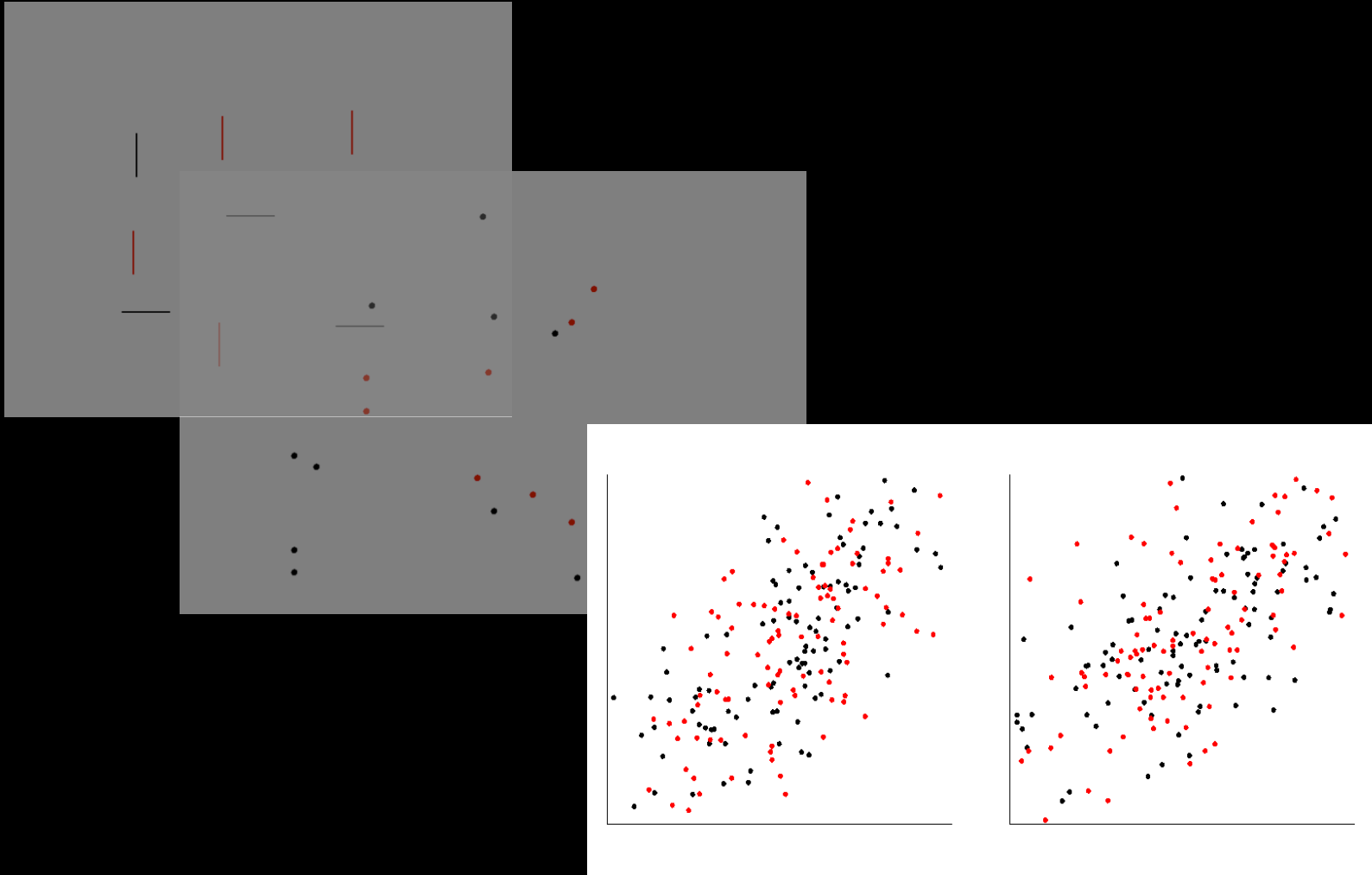
Graphs as Experimental Stimuli



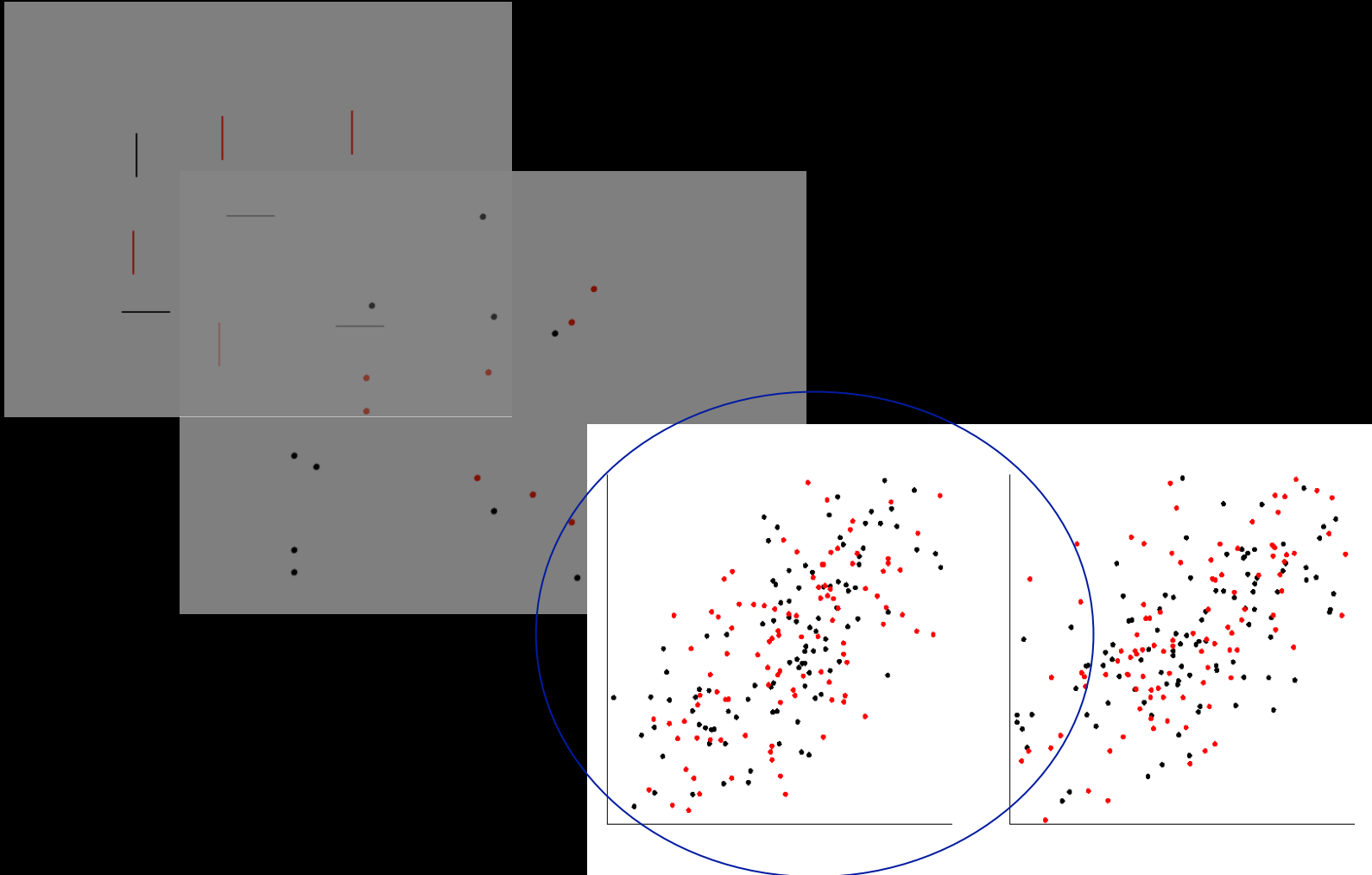
Graphs as Experimental Stimuli



Graphs as Experimental Stimuli



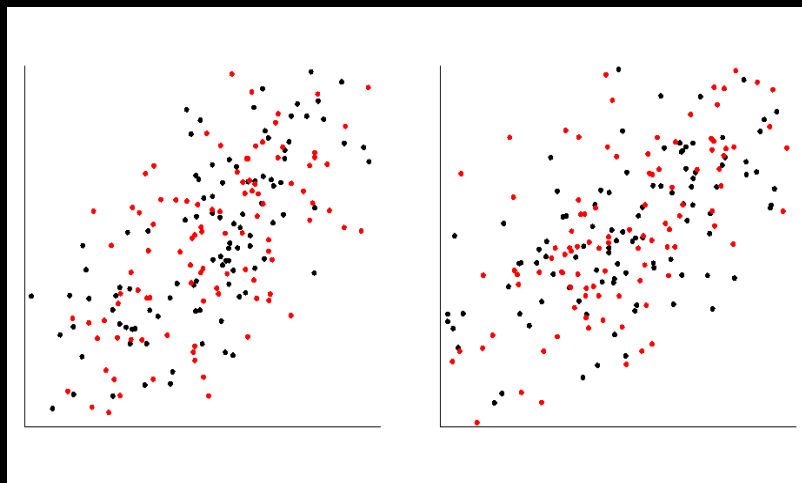
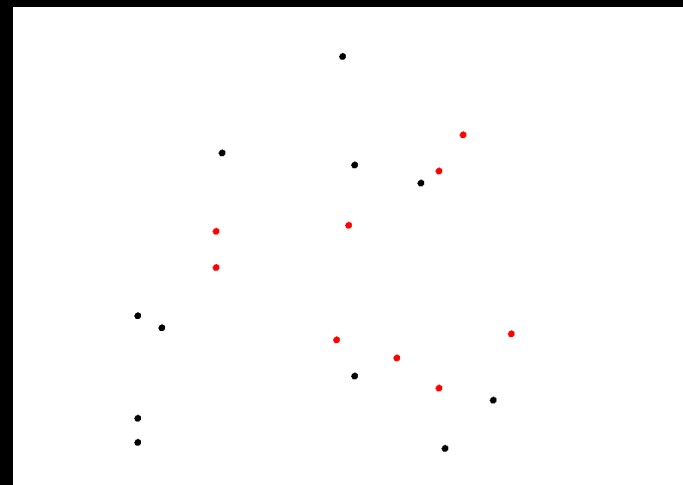
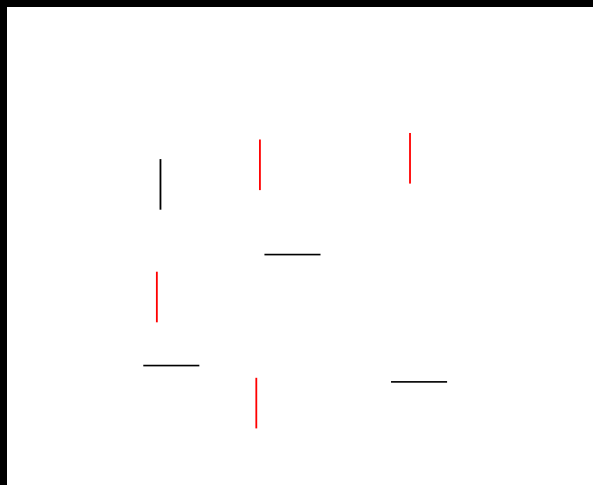
Graphs as Experimental Stimuli



Feature Selection in Attention

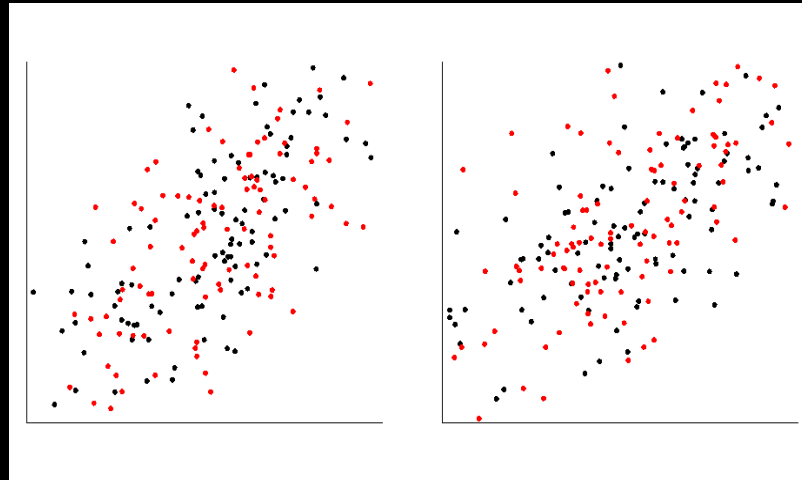
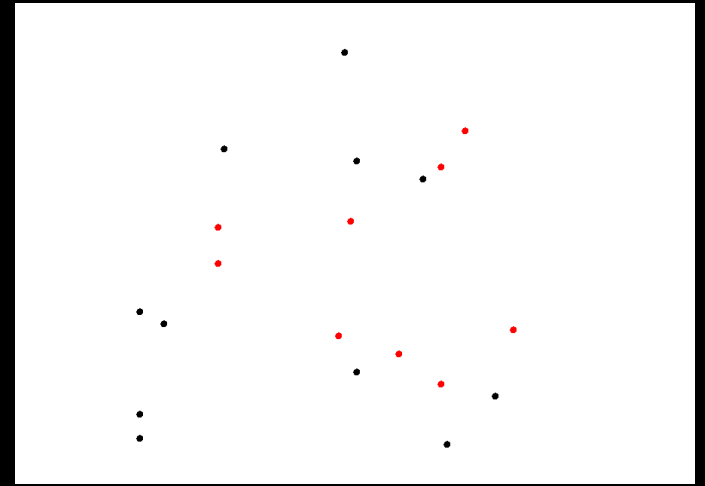
- These are all ways to measure visual attention

Feature Selection in Attention

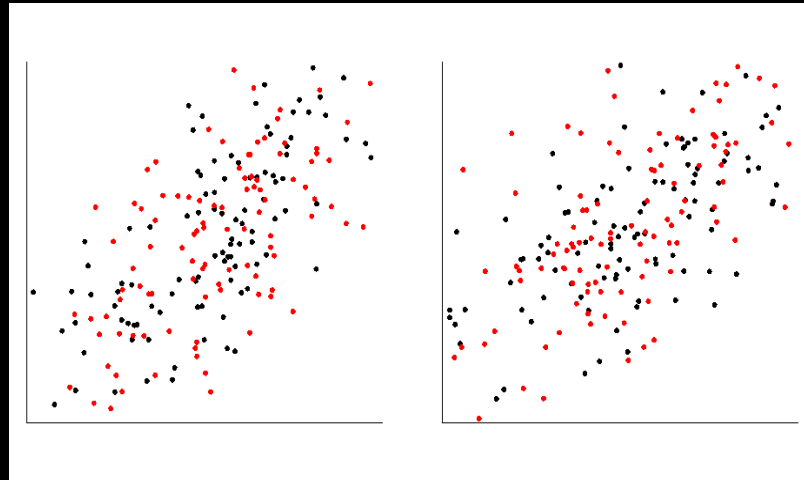
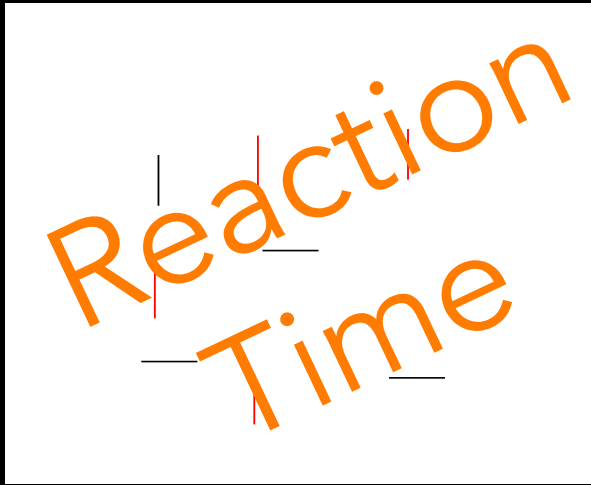


Feature Selection in Attention

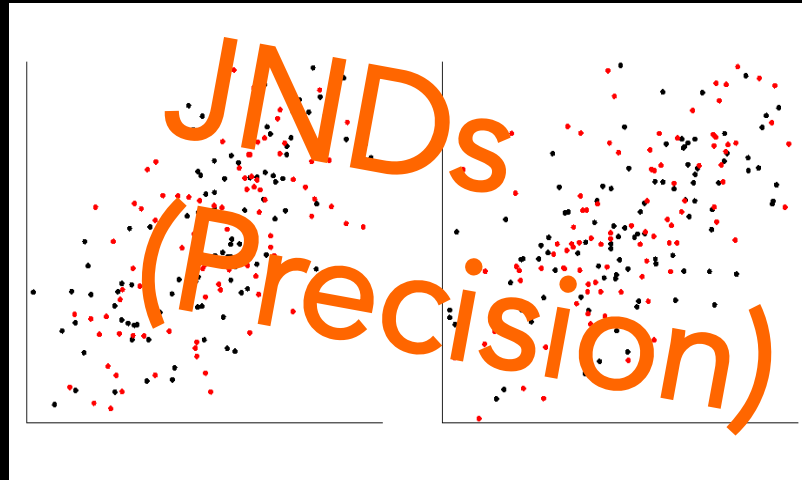
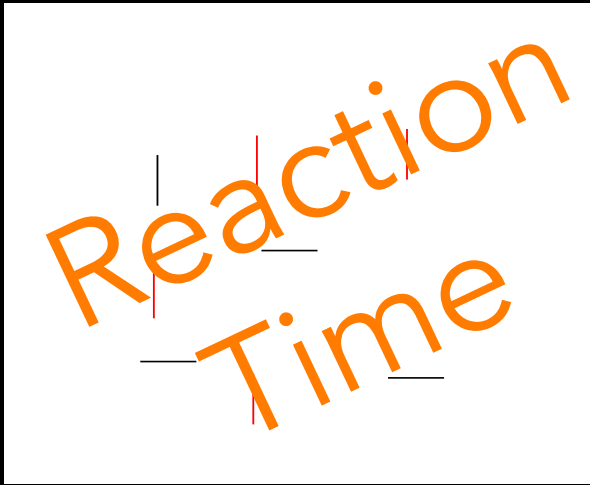
Reaction
Time



Feature Selection in Attention

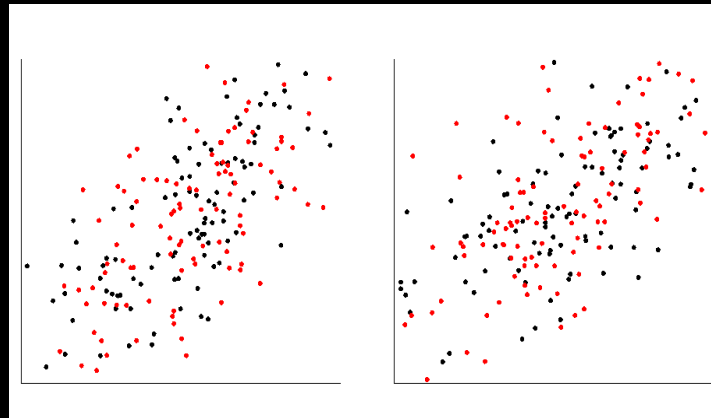
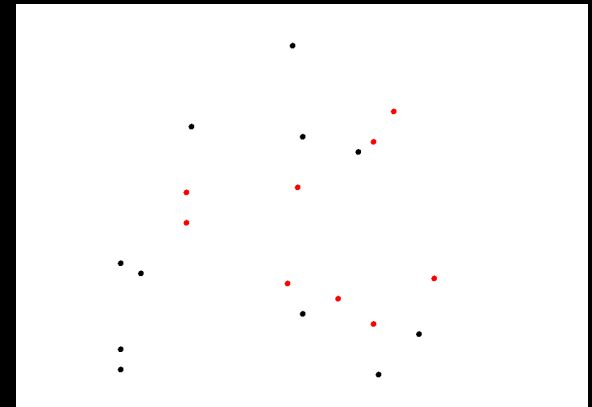
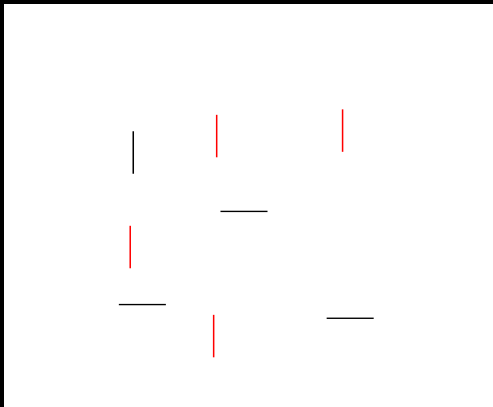


Feature Selection in Attention

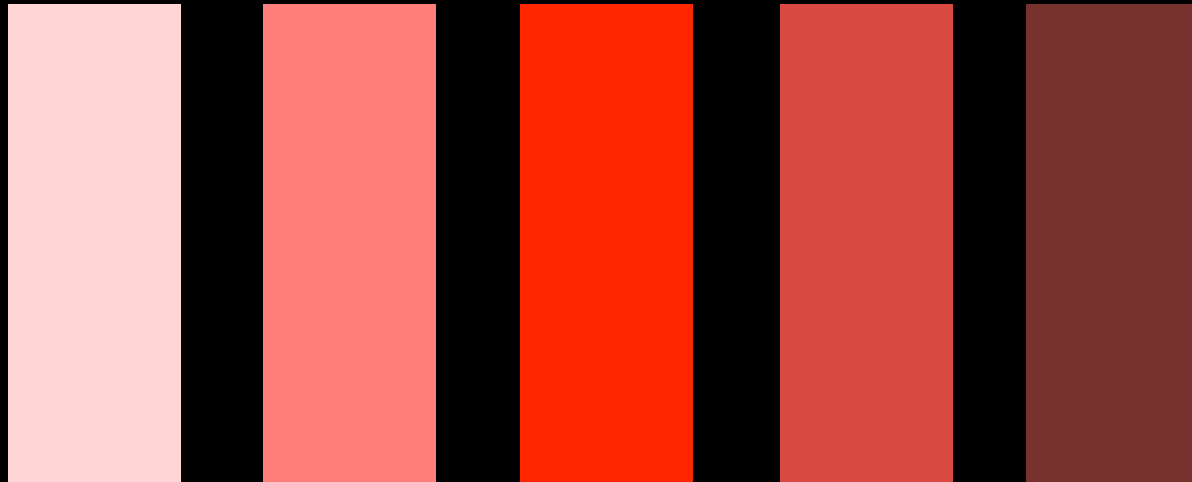


Feature Selection in Attention

- All three stimuli contain the exact same low-level information (**color** values)



Feature Selection in Attention



The color values that limited attentional selection differed for each task

Implications

- Scatterplots hold their own as stimuli that can measure visual attention

Implications

- Scatterplots hold their own as stimuli that can measure visual attention
- But the visual attention in a scatterplot task is NOT the same as attention in visual search or numerosity estimation

Implications

- New evidence for perceptual interactions between feature-based attention and task demands

Implications

- New evidence for perceptual interactions between feature-based attention and task demands
- Visualizations can be powerful tools for answering basic questions in vision science