

# sorites update

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## 1 intro

Sorites paradox.

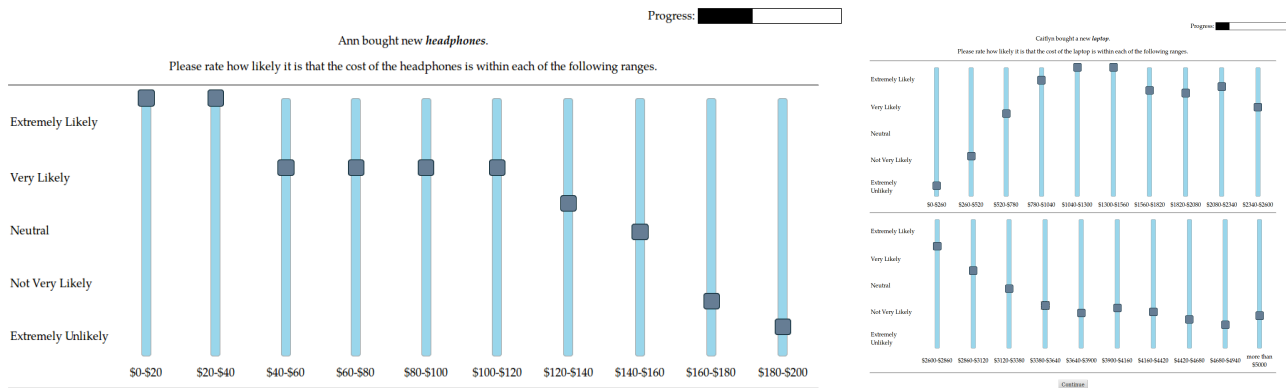
## 2 model

Basic adjectives model. Then use inferred theta and degree to check both concrete and inductive premises.

## 3 prior elicitation(s)

### 3.1 basic setup

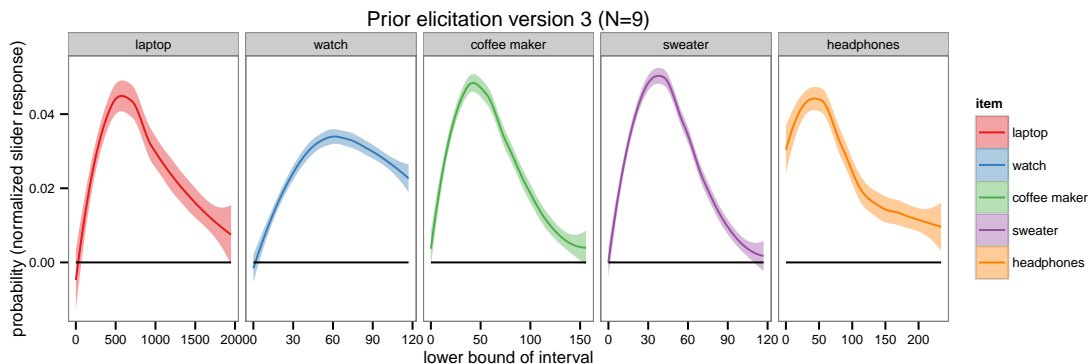
We gave people a bunch of bins representing ranges of prices and ask how likely an object is to cost a price within each range. Within each version, we gave participants the same bins for each object. There were many bins, so there were multiple rows of sliders that participants had to mark.



### 3.2 versions

**Version A** In version A, we had 10 participants in total, but one of them appeared to be an outlier, so I excluded the data from that participant. There were 40 bins for each of the 5 objects.

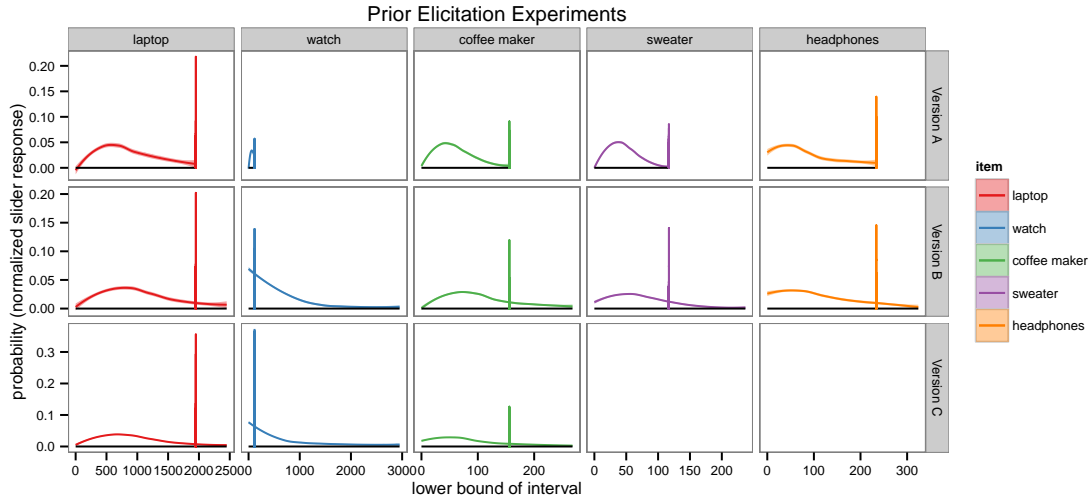
The graphs below are the normalized probability distributions elicited from participants, with loess smoothing.



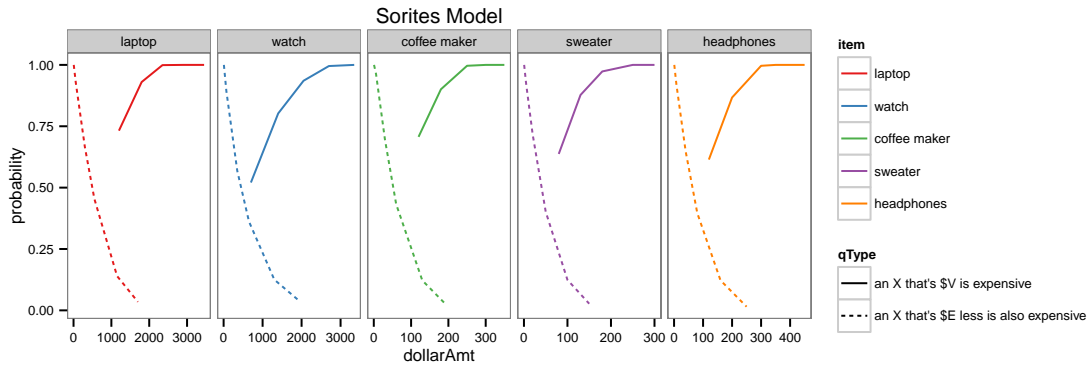
**Version B** Because the tails of the distributions in version A got cut off (especially for watches), we changed the number and width of the bins for version B. We had 10 participants for version B.

**Version C** In version C, we had 36 participants. We used similar number and width of bins as in version B.

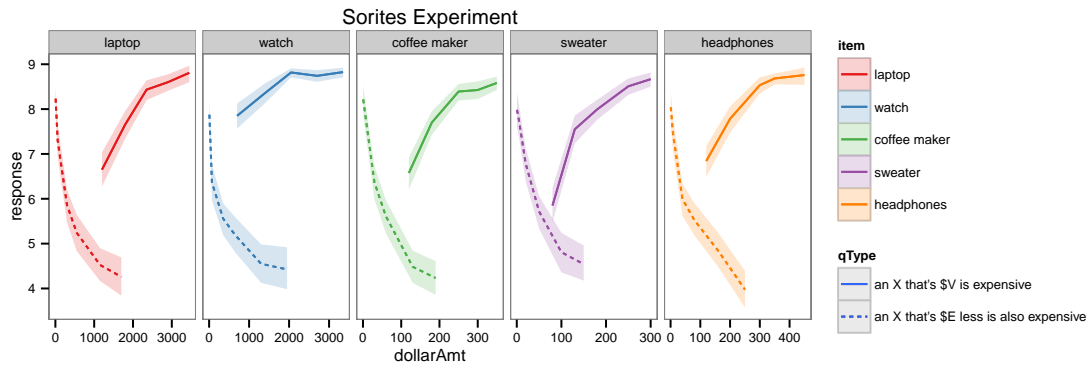
**Summary** The vertical lines below represent the maximum value tested in version A. Comparing the version B and C graphs before the cutoff to the version A graphs, they look pretty similar.

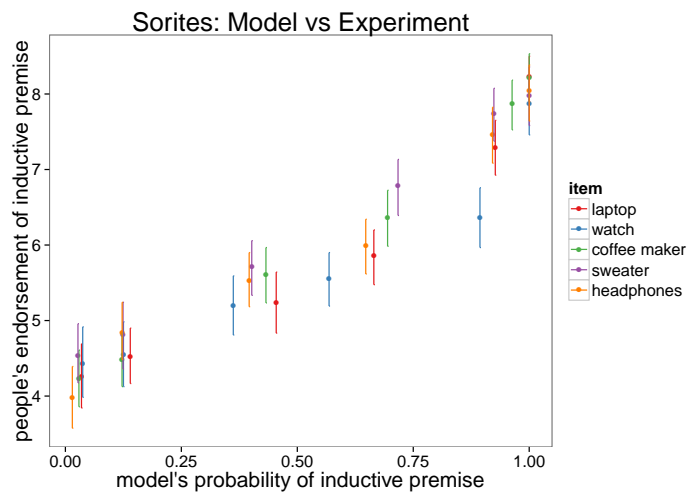


## 4 simulations



## 5 sorites experiment





Pearson's product-moment correlation: 0.9437625.