

Searching more or less:

The impact of value range on search behavior



Israeli Centers of Research Excellence

The Center for Empirical Legal Studies
of Decision Making and the Law

Kinneret Teodorescu & Yefim Roth

We search for...



Searching more when the decision is more important?



- An anecdotal evidence:
 - What I've learned from 10 years of selling wedding dresses? (Caroline Burstein, The Guardian): many women search for a wedding dress more than they searched for a groom...

Searching more when the decision is more important?



- An anecdotal evidence:
 - What I've learned from 10 years of selling wedding dresses? (Caroline Burstein, The Guardian): many women search for a wedding dress more than they searched for a groom...



Searching more when the decision is more important?



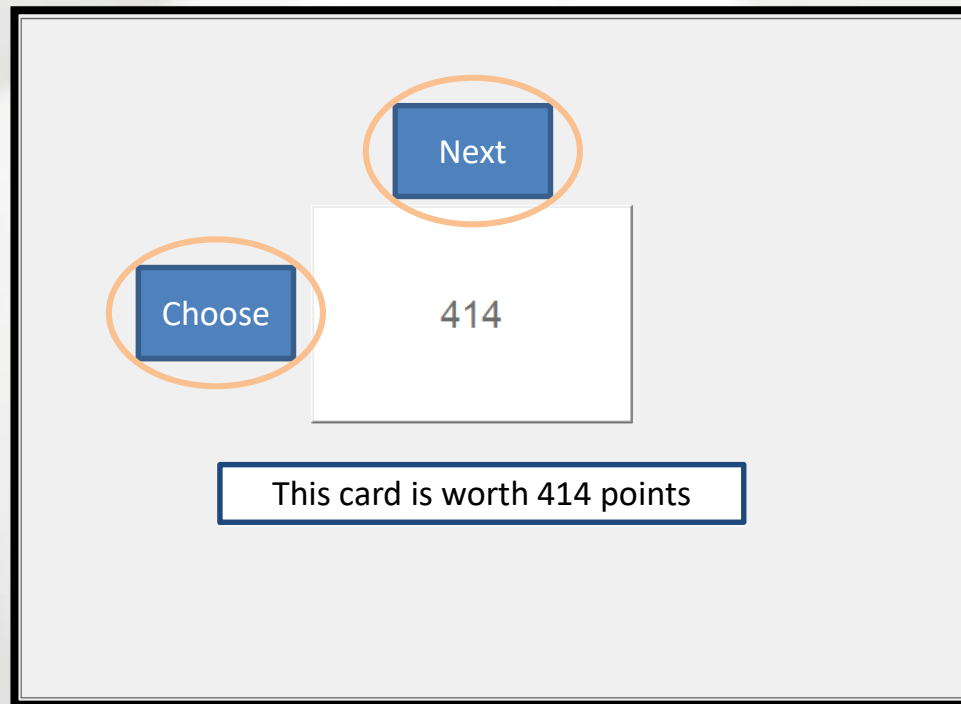
- An anecdotal evidence:
 - What I've learned from 10 years of selling wedding dresses? (Caroline Burstein, The Guardian): many women search for a wedding dress more than they searched for a groom...



- Do people actually search *less* in more important decisions?
- In real life, importance is difficult to measure, the cost of searching alternatives is varying and not always clear and also the variance of options value is changing...
- Rephrasing the question: Do people search less in higher value environments? (given the same variance of options value and the same search cost)

Lab experiments:

- The secretary problem with absolute values



A pre-registered lab experiment:

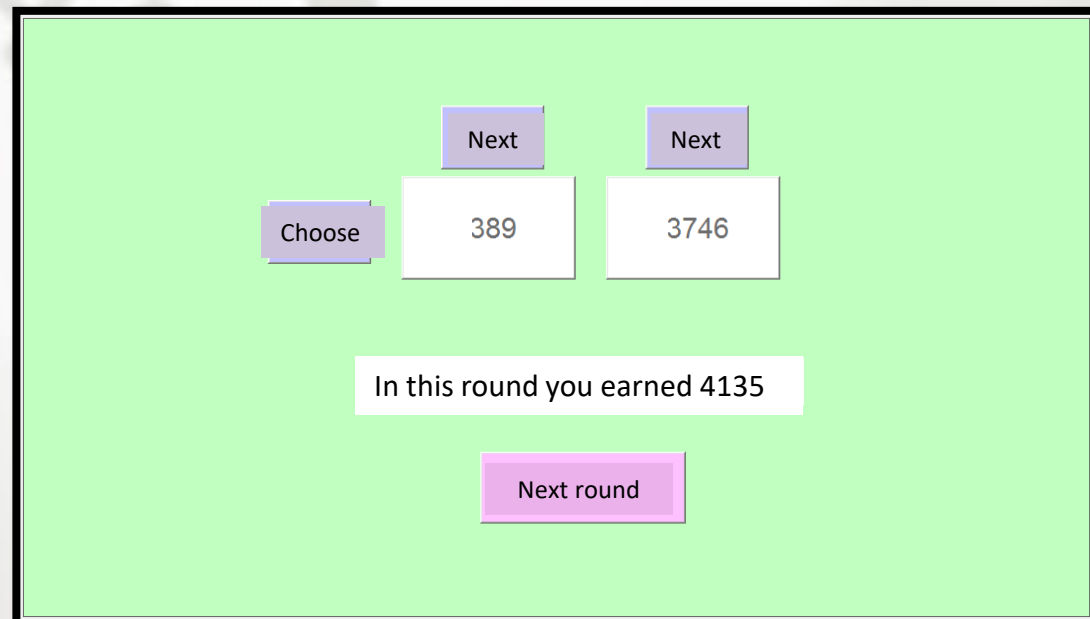
- The secretary problem with absolute values
 - High value environment $N \sim (4000, 200)$
 - Low value environment $N \sim (400, 200)$
- 30 rounds in each environment

A pre-registered lab experiment:

- The secretary problem with absolute values
 - High value environment $N \sim (4000, 200)$
 - Low value environment $N \sim (400, 200)$
- 30 rounds in each environment
- 4 groups (40 participants in each)
 - Blocked – High values first
 - Blocked – Low values first
 - Mixed
 - Simultaneous

A pre-registered lab experiment:

- The secretary problem with absolute values
 - High value environment $N \sim (4000, 200)$
 - Low value environment $N \sim (400, 200)$
- 30 rounds in each environment
- 4 groups (40 participants in each)
 - Blocked – High values first
 - Blocked – Low values first
 - Mixed
 - Simultaneous



A pre-registered experiment:

- The secretary problem with Absolut values
 - High value environment $N \sim (4000, 200)$
 - Low value environment $N \sim (400, 200)$
- 30 rounds in each environment
- 4 groups (40 participants in each)
 - Blocked – High values first
 - Blocked – Low values first
 - Mixed
 - Simultaneous

Mean amount of search

BLOCKED

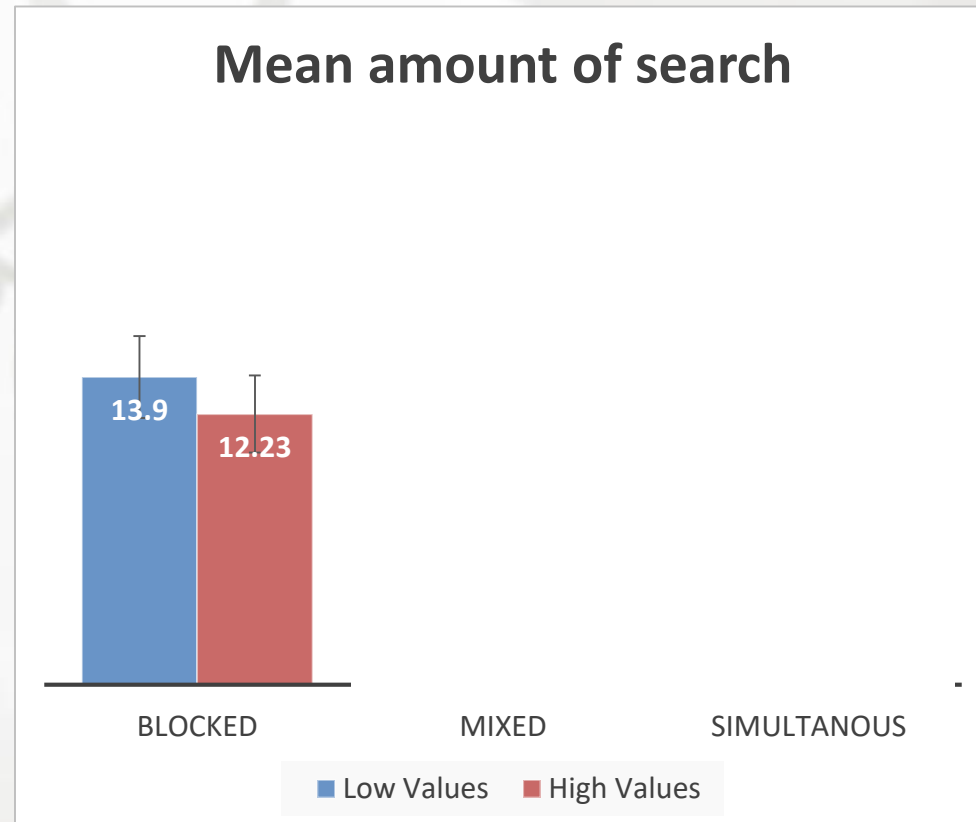
MIXED

SIMULTANOUS

■ Low Values ■ High Values

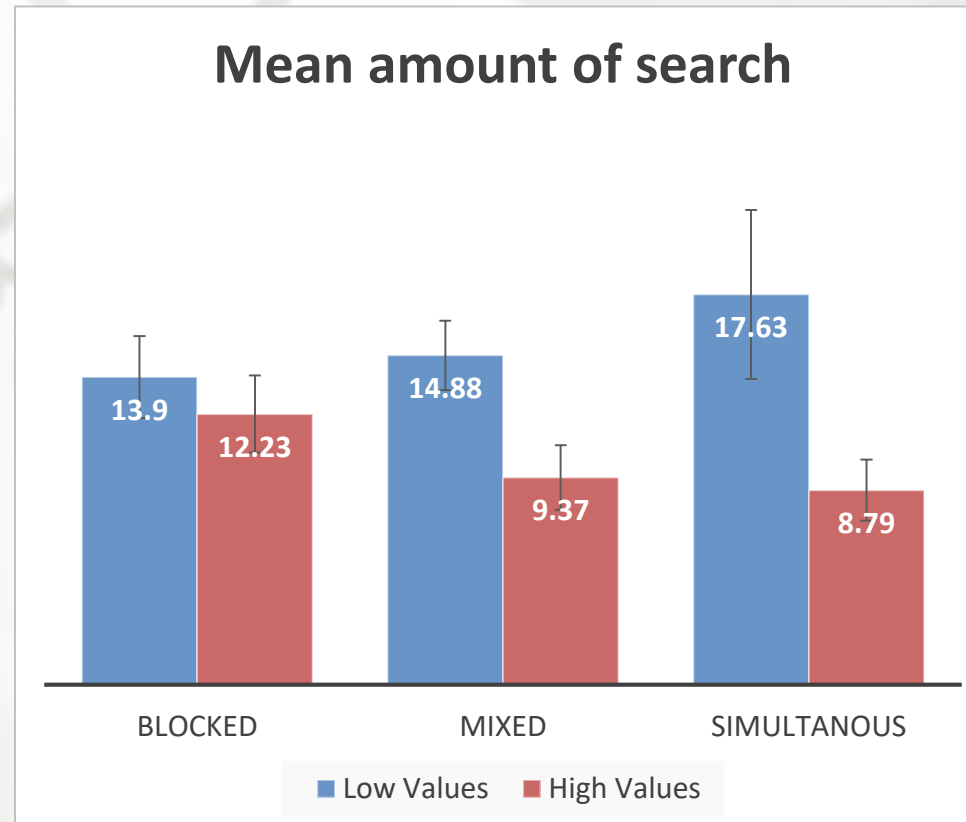
A pre-registered experiment:

- The secretary problem with Absolut values
 - High value environment $N \sim (4000, 200)$
 - Low value environment $N \sim (400, 200)$
- 30 rounds in each environment
- 4 groups (40 participants in each)
 - Blocked – High values first
 - Blocked – Low values first
 - Mixed
 - Simultaneous



A pre-registered experiment:

- The secretary problem with Absolut values
 - High value environment $N \sim (4000, 200)$
 - Low value environment $N \sim (400, 200)$
- 30 rounds in each environment
- 4 groups (40 participants in each)
 - Blocked – High values first
 - Blocked – Low values first
 - Mixed
 - Simultaneous



Summary:

- People search *less* in *higher* values environments when alternating between different search environments
- This bias is reduced and sometimes even reversed when decisions are made repeatedly in the same value environment.

Summary:

- People search *less* in *higher* values environments when alternating between different search environments
- This bias is reduced and sometimes even reversed when decisions are made repeatedly in the same value environment.
- Why?
 - Diminishing sensitivity to higher values ✗
 - Fixed threshold: ✓



Good luck in your searches!

kinnerett@technion.ac.il