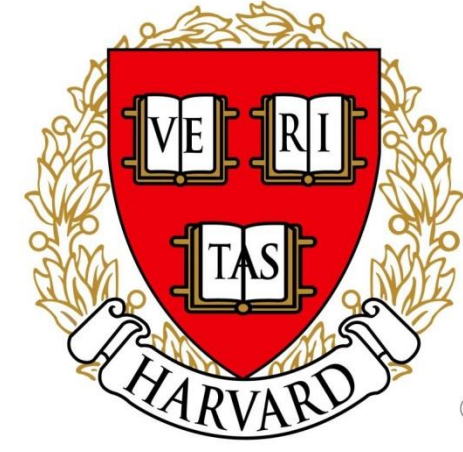


Task Sequence Design: Evidence on Price and Difficulty



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Summary: We experimentally studied the effects of two design variables, *price* and *difficulty* of tasks, on the quality of work produced in task sequences. Our preliminary results showed that while the prices of **all** previous tasks had some effects on work quality of the current task, the difficulty level of the previous task seemed to have **no** significant influence on it.

Motivation



- Many requesters in online labor markets offer workers opportunity to complete multiple tasks of the same type in a sequence.
- How should a task sequence be properly designed then?
 - How does the history of task prices affect the quality of work?
 - How does the difficulty of previous tasks affect the quality of work of the current task?

Effects of Task Price

Treatments: Sequences of three tasks with similar difficulty levels and varying bonus levels (cents): 4-4-4, 32-4-4, 4-32-4, 4-4-32, 4-32-32.

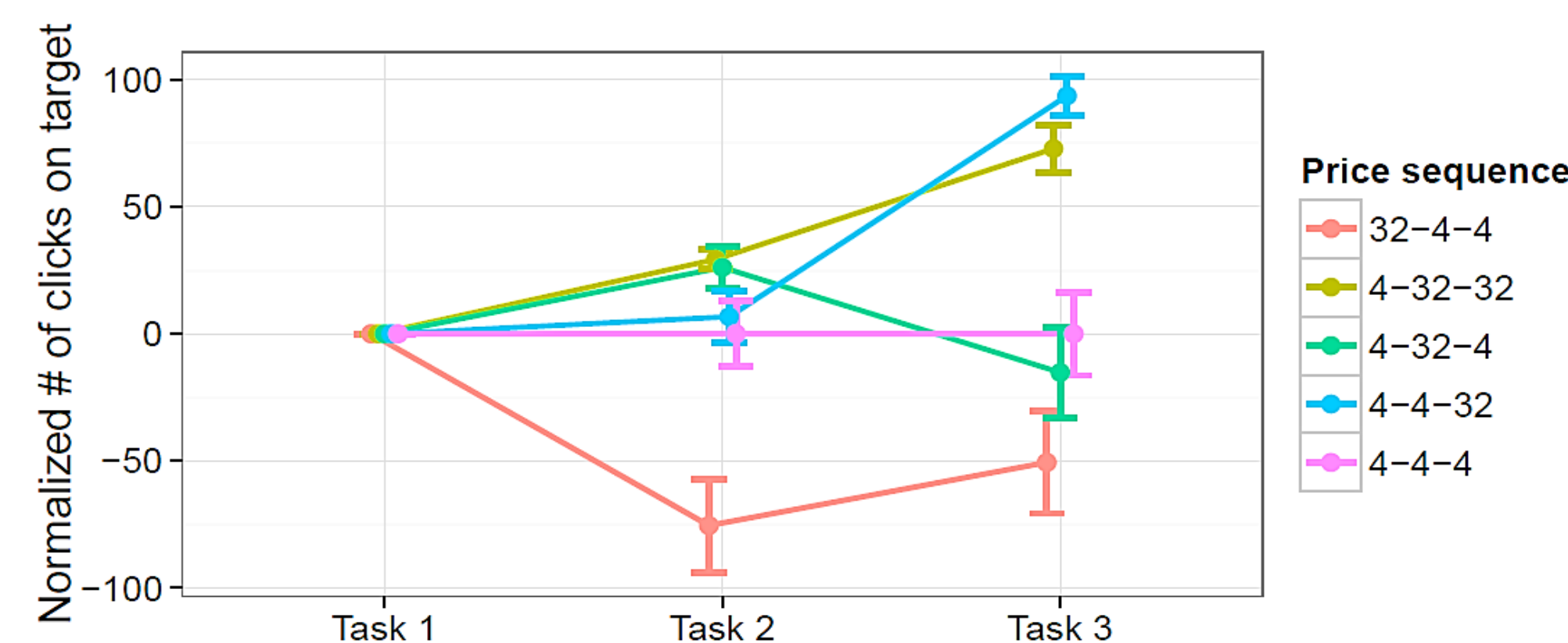


Tasks:

- Motor skill task – Button Clicking (BC)
- Cognitive skill task – Spotting Differences (SD)

Results:

- Effect of the price of task 1: 4-4-4 vs. 32-4-4
- Effect of the price of task 2:
 - 4-4-4 vs. 4-32-4
 - 4-4-32 vs. 4-32-32
- The price of task 1 has more influence: 32-4-4 vs. 4-32-4



Effects of Task Difficulty

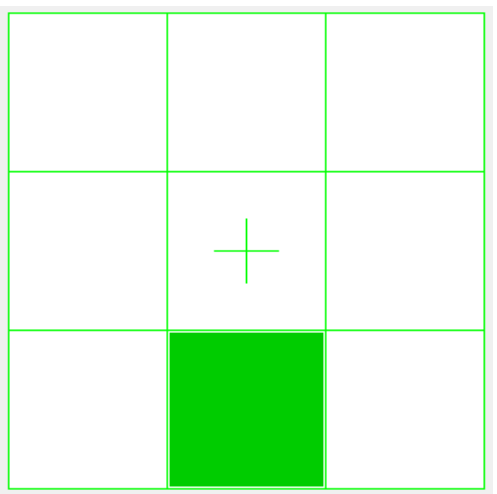
Hypotheses:

- Task switching effect: quality is lower when the previous task is different from the current task
- Sequential difficulty effect: quality is lower when the previous task is more difficult

Treatments: Sequences of two tasks with the same payment level; the difficulty level of task 2 is higher than, lower than or equal to that of task 1.

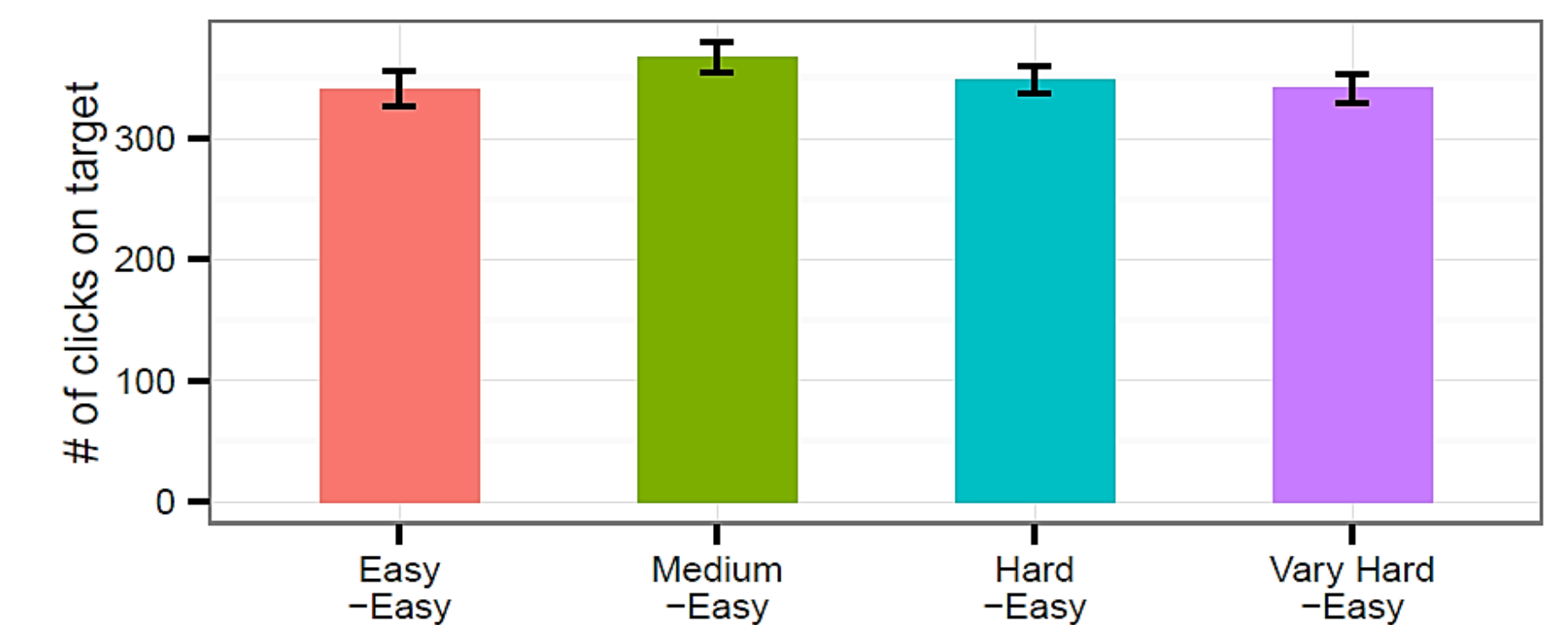
Tasks:

- Motor skill task – Button Clicking (BC)
- Cognitive skill task – N-back Game (NB)

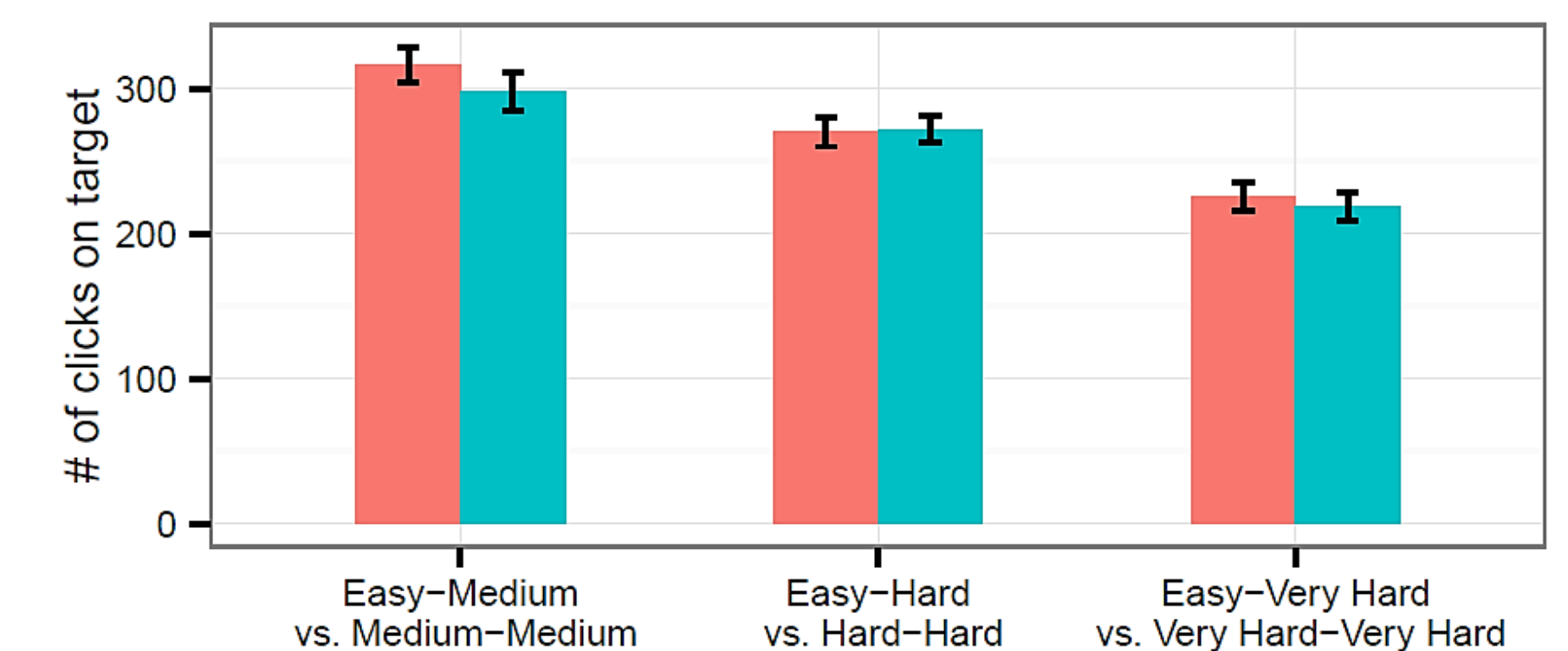


Results:

- The work quality of the current task was independent of the difficulty level of the previous task
- “Anchoring” on difficulty: workers adjusted their perception of fair payment according to the change of difficulty levels
- Is the insensitivity of the work quality to the change in difficulty levels caused by a mixture of different effects?



(a) A – A vs. B – A



(b) A – B vs. B – B