

### Q – When do unavailable options help or hurt an available product option?

Joining two distinct, previously unconnected literatures:

- Phantom Decoy (stock-outs): helps target preference
- Inaction Inertia (missed discounts): hurts target preference and purchase likelihood

## Introduction

### Phantom Decoys literature:

Phantom decoys, visible **stock-out** options, can increase preference for a target option that's similar but inferior (Farquhar and Pratkanis 1993). Mixed results about whether decoys increase or decrease purchase likelihood (Kramer and Carroll 2009; Hedgcock et al. 2016).

### Inaction Inertia literature:

When people **miss a discount**, they are less likely to purchase (Tykocinski and Pittman 2001) or prefer a less similar or competitor option (Zeelenberg and van Putten 2005).

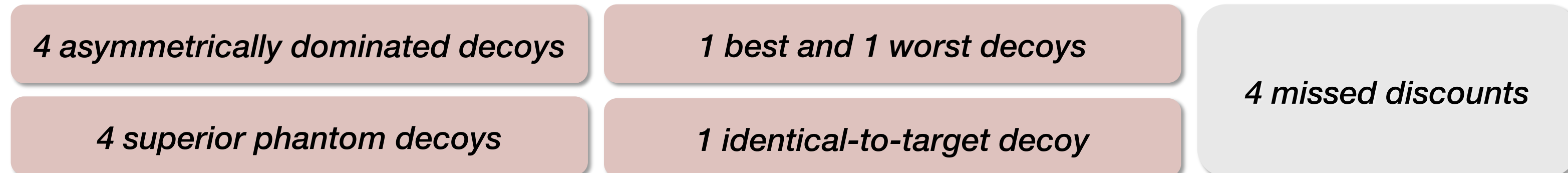
### Common feature: proximity of unavailable option to target

- We test the effects of phantom decoys and missed discounts on:
- relative preference between target and competitor
  - willingness to purchase anything
  - the choice to purchase the target

## Methods

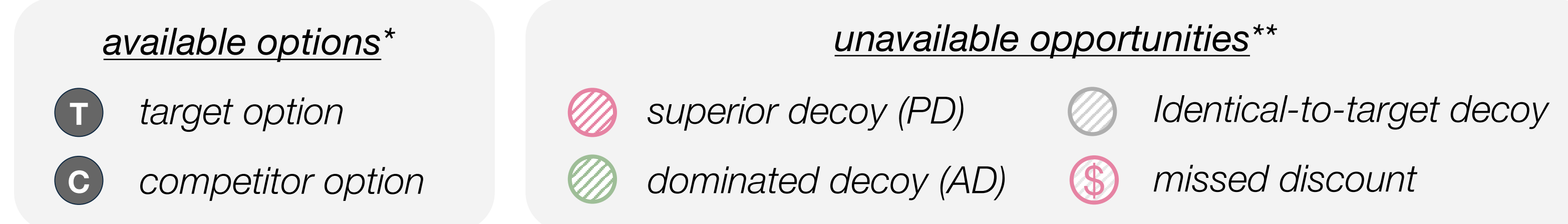
N = 1751

16 repeated choices per person:



### Phantom Decoy Locations

### Missed Discounts



**Notes** \* We varied which available option was considered the target option  
 \*\* We varied the distance of the ADs, PDs, and discounts relative to the target. They could be further away or closer to the target option.

**Fig. 1** Placement of the missed opportunities relative to the target and competitor options, for phantom decoy (left) and missed discounts (right). Price-quality trade-offs pretested such that no one option was preferred over the other more than 60% of the time.

## Choice Task

### Stock-out choices

Please imagine you are looking for a new Tupperware set.

Common household goods used as stimuli

You narrow your choice set to three products.

- Brand JUS: \$39.99, Quality rating = 84
- Brand HXN: \$39.99, Quality rating = 84
- Brand VBO: \$29.49, Quality rating = 72

However, you discover that one of these three products is **no longer available**: Brand JUS: \$39.99, Quality rating = 84

One of the brands is no longer available

Consider one of the two available products.

Based on your evaluation of the products, would you be likely to purchase one of these Tupperware set options?

### Missed discount choices

Please imagine you are looking for a new laptop case.

You had decided to purchase the following product at a discounted price of \$38.95: Brand YYM: \$38.95, Quality rating = 86

Preference for target option is signaled in the scenario

However, it turns out that this product is **no longer available at this price**. You may still purchase it at the regular price of \$45.95.

"Decoy" is discounted target that returns to regular price

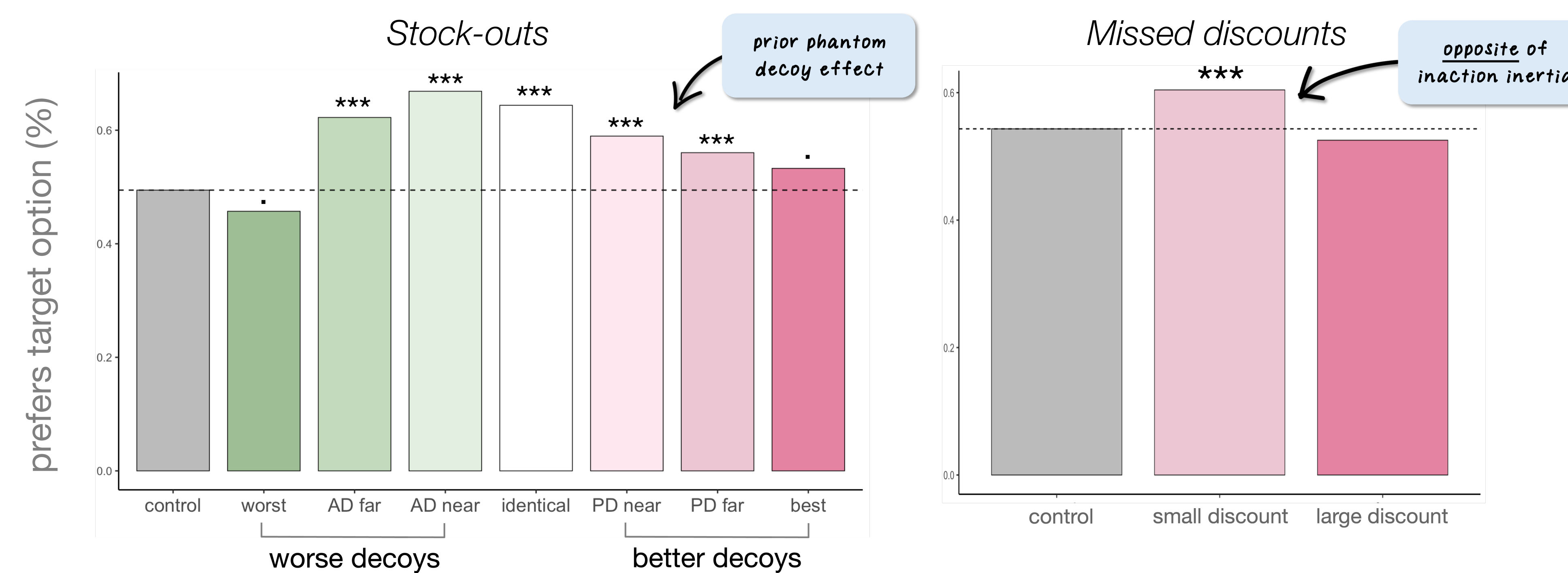
Alternatively, another product is also available: Brand LPQ: \$35.95, Quality rating = 79

Based on your evaluation of the products, would you be likely to purchase one of these laptop case options?

**Fig. 2** Stock-out (left), missed discount (right) choice task text shown to participants. Underlined inputs changed across trials.

## Results

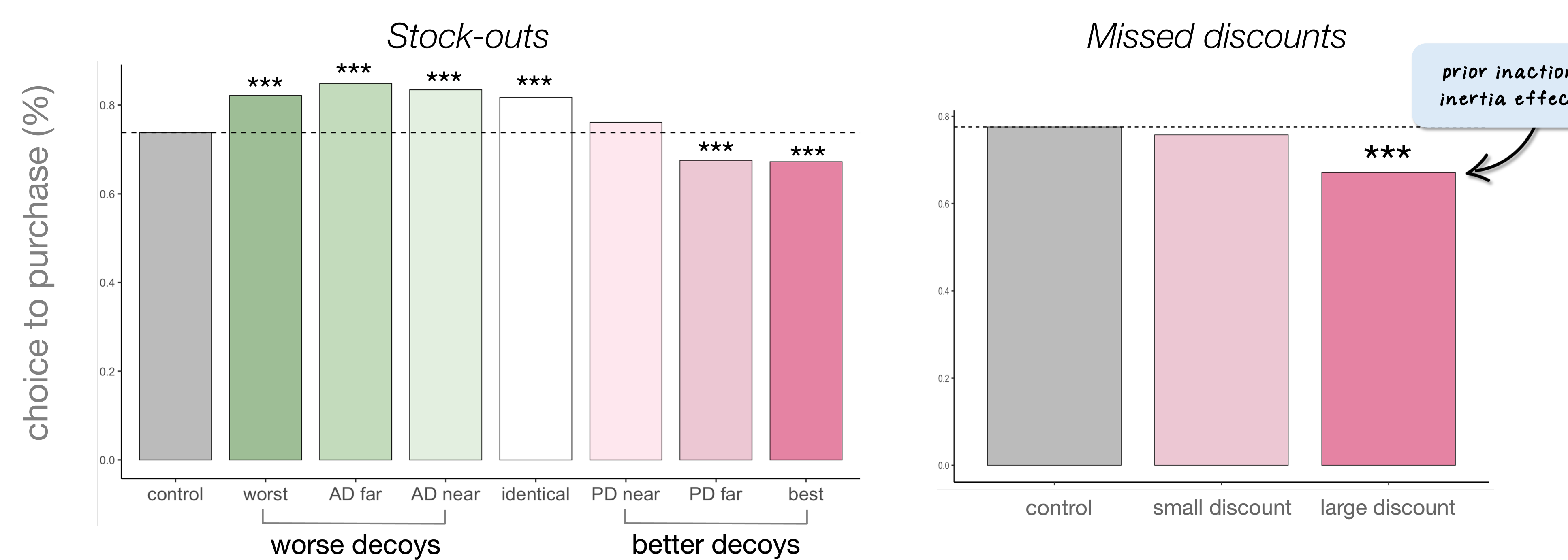
### Similar unavailable options increase relative preference



Stock out (L):  $N_{choices} = 16181$ ; PD slope (near-far):  $p < .001^{***}$ ; lift of AD (vs. PD):  $p = 0.01^*$ ; AD slope (vs. PD slope):  $p = 0.94$   
 Missed discount (R):  $N_{choices} = 5326$ ; small (vs. control):  $p < .001^{***}$ ; large (vs. control):  $p = 0.48$ ; small vs. large:  $p < .001^{***}$

**Fig. 3** Relative preference rates for the target option (DV 1), representing those who prefer the target over the competitor option, for different proximities of the missed opportunity to target. Analysis separated by type of missed opportunity: phantom decoy choice task (left) and missed discount choice task (right). Significance values in graphs compare bar to the control (gray) condition.

### Similar or worse unavailable options increase purchasing While better unavailable options decrease purchasing

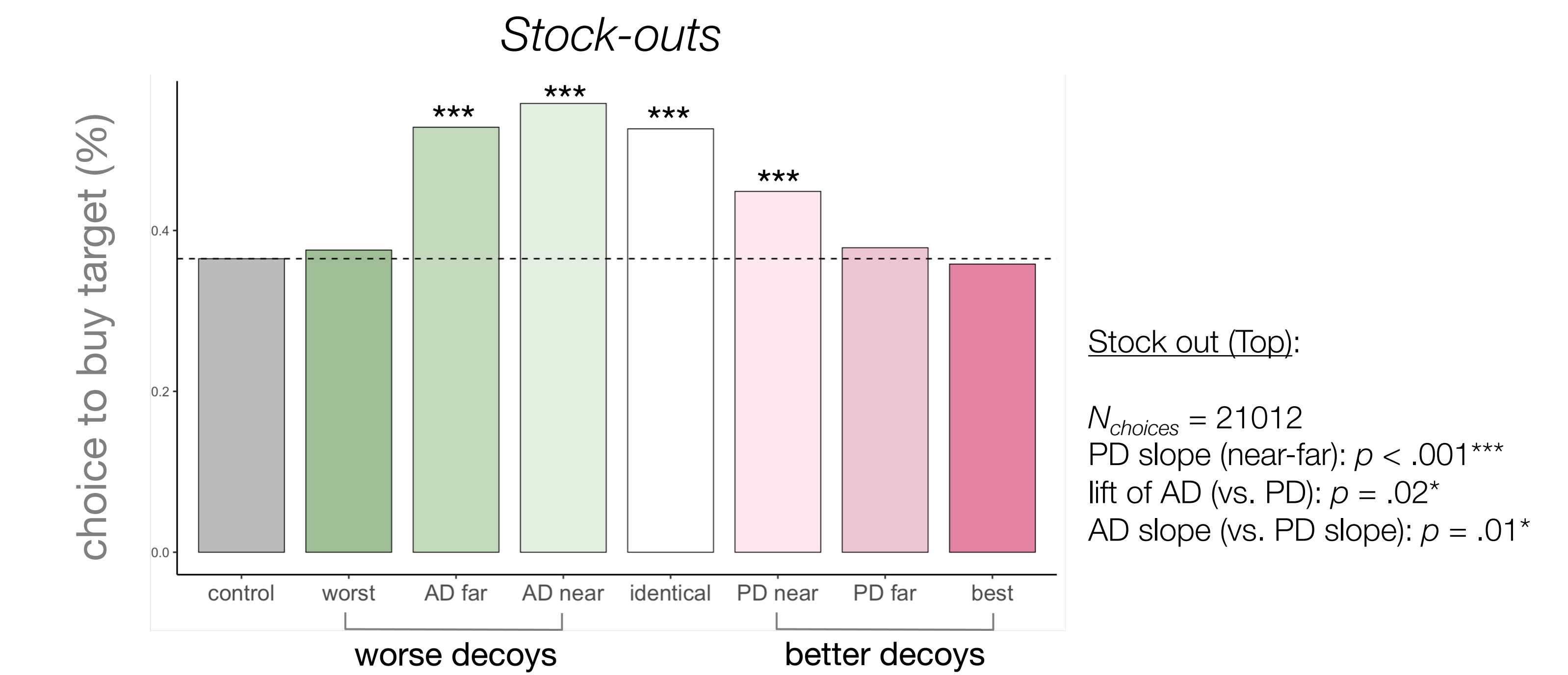


Stock out (L):  $N_{choices} = 21012$ ; PD slope (near-far):  $p < .001^{***}$ ; lift of AD (vs. PD):  $p = 0.82$ ; AD slope (vs. PD slope):  $p < .001^{***}$   
 Missed discount (R):  $N_{choices} = 5326$ ; small (vs. control):  $p = 0.29$ ; large (vs. control):  $p < .001^{***}$ ; small vs. large:  $p < .001^{***}$

**Fig. 4** Purchase choice rates for any available option (DV 2). Values represent the percentage of those who decided to purchase something, for both phantom decoy choice tasks (left) and missed discount scenario choice tasks (right).

### Combining preference and purchasing...

Similar or worse unavailable options helps the target but missing a large discount can hurt the target



**Fig. 5** Target choice rates (DV 3). Values represent the percentage of those who decided to purchase the target option, over choosing the competitor or not purchasing, for both phantom decoy choice tasks (top) and missed discount scenario choice tasks (bottom).

## Discussion

### A – Depends on how the missed option's effects on relative preference and purchase rates net out

Generally,

- Similar and identical missed opportunities boost relative preference for the target
- Inferior and very similar missed opportunities increase purchase rates
- Missing out on a sufficiently better option reduces purchase rates
  - ↳ For some elicitation methods, missing out on a much better option reduces target choice

### References

Farquhar, P. H., & Pratkanis, A. R. (1993). Decision structuring with phantom alternatives. *Management Science*, 39(10), 1214–1226.  
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