Set Composition Induces Overbuying

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SUMMARY

Sets of products are ubiquitous in the marketplace. While prior research on sets primarily focused on understanding how *aesthetic* features of a product set motivate preference (Barasz, John, Keenan, and Norton 2017; Carey 2008; Evers, Inbar, and Zeelenberg 2014; Gao, Huang, and Simonson 2014), insights on how *non-aesthetic* features of set members (e.g., quantity, and items distribution) shape purchases remain sparse. Across three preregistered studies, holding aesthetic features of set items constant, we find that the mere composition of an owned set of possessions (i.e., whether items are equally or unequally distributed within it) affects subsequent product purchases in a predetermined manner.

We identify a *set equalization tendency*, a preference for items that numerically equalize an unequally distributed set of items, even if the latter more accurately reflects one's differential preferences and consumption rates. Studies 1-2 demonstrate that inequality in the distribution of a set of possessions (vs. equality) increases choice of bundles of goods (Study 1) and of individual items (Study 2) that correct the inequality, even if those are less preferred and consumed less frequently than others. Study 3 uncovers a potential mechanism of the set equalization tendency: In unequally (vs. equally) distributed sets, the most numerous items act as a reference point, triggering a perception of 'not having enough' (and therefore needing more) of all items owned in lower quantities – irrespective of how numerous the original endowment set is.

The effect is robust across several product categories and numerosities, influences both product restock (Studies 1-3) and new purchases (Study 2), and leads to preference neglect (Study 2) and to the accumulation of redundant, suboptimal possessions (Studies 2-3).

Preregistrations available at:
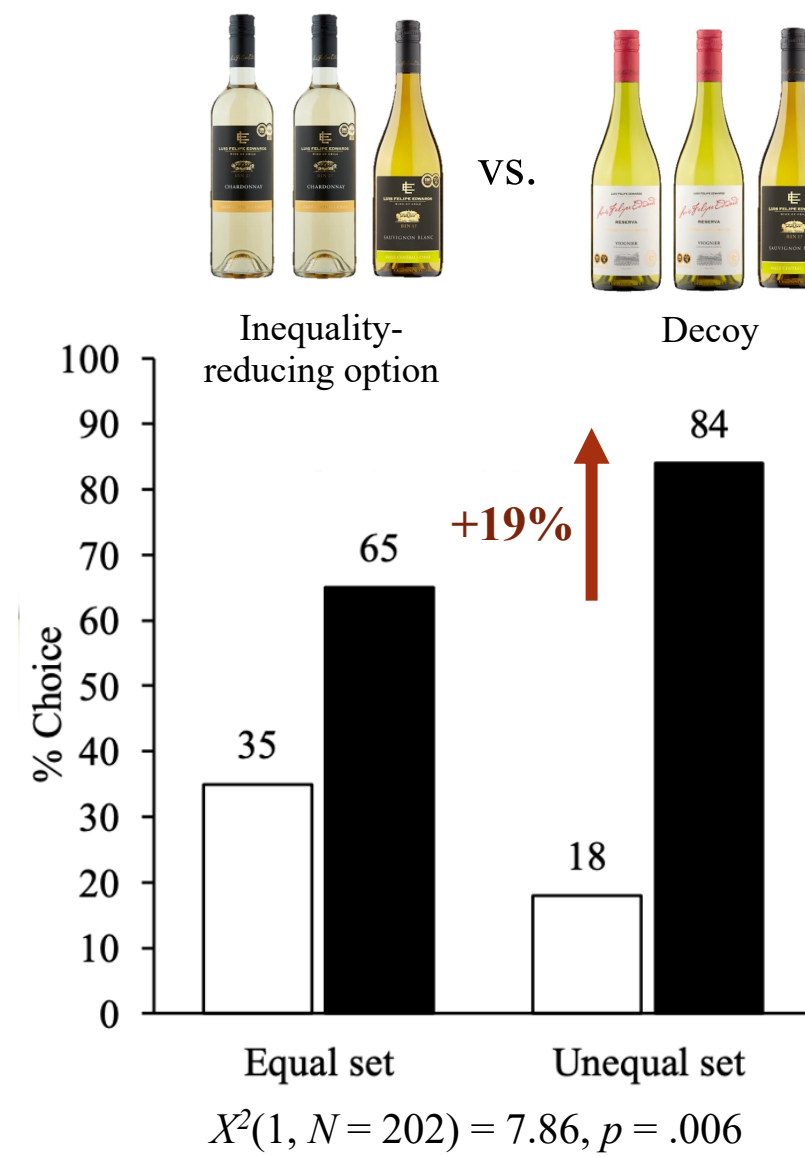https://researchbox.org/2129&PEER_REVIEW_passcode=JNXWSJ

STUDY 1

METHODS

- $N = 202$, 2 conditions, between-Ps

EQUAL SET

Reserva Viognier   Chardonnay   Sauvignon Blanc

UNEQUAL SET

Reserva Viognier   Chardonnay   Sauvignon Blanc

- DV: Choice inequality-reducing option (black bars) vs. decoy (white bars)
- Incentive-compatible: 9 bottles shipped

RESULTS

Inequality-reducing option   VS.   Decoy

$X^2(1, N = 202) = 7.86, p = .006$

STUDY 2

METHODS

EQUAL SET

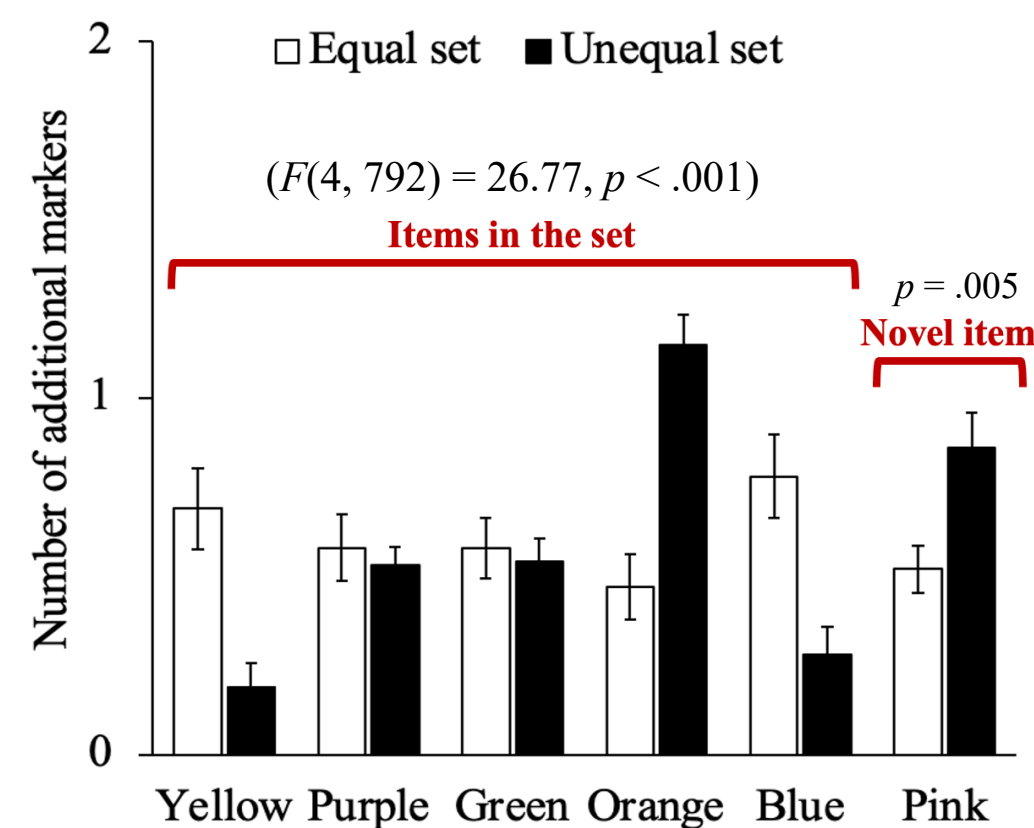UNEQUAL SET

- $N = 200$, 2(set, between) x 6(color, within)
- Unequal set **calibrated on preference and consumption rate**
- DV: Quantity of additional markers (0-10)
- For each color, and a new one (pink)

RESULTS

□ Equal set   ■ Unequal set

$(F(4, 792) = 26.77, p < .001)$

Items in the set

$p = .005$
Novel item

Product restock:
- Equal set: **Preference match**
- Unequal set: **Preference neglect**

Novel product (pink):
- Unequal set: Boost in purchase

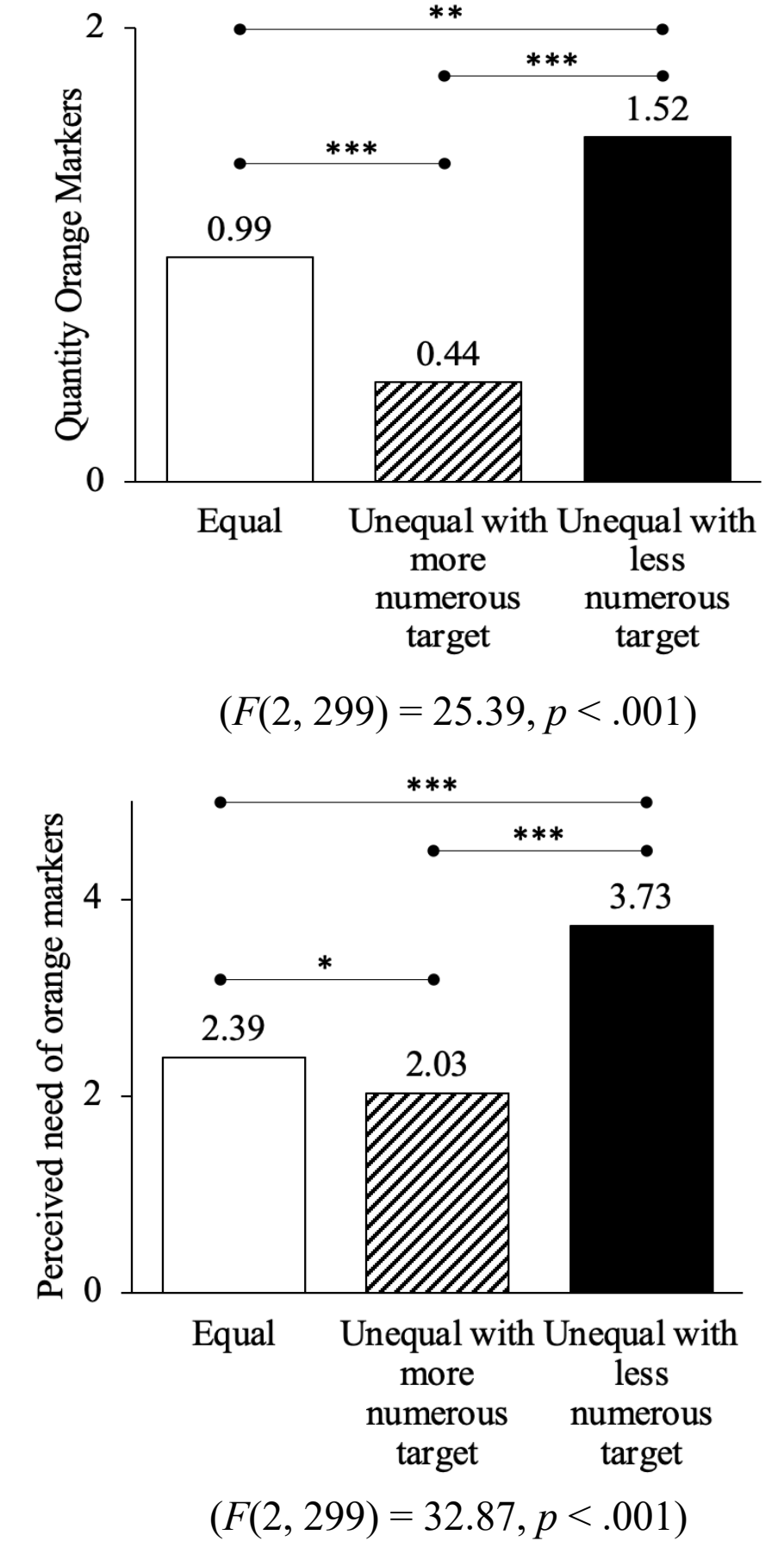## STUDY 3

METHODS

- $N = 300$, 3 conditions, between-Ps
- DV: Quantity of additional orange markers (*target* – quantity constant, least liked and used) (0-10)
- M: Perceived need of additional orange markers

EQUAL SET

UNEQUAL SET WITH **MORE** NUMEROUS TARGET

UNEQUAL SET WITH **LESS** NUMEROUS TARGET

RESULTS

$(F(2, 299) = 25.39, p < .001)$

$(F(2, 299) = 32.87, p < .001)$

CONCLUSION

- Unequally (vs. equally) distributed sets of possessions boost preference for options that equalize the set → *Set Equalization tendency*. Such tendency emerges even if a) the unequal set reflects one's preferences and consumption rate, and b) it is objectively more numerous overall.

- The effect is due to the unequal distribution inflating perceived need of less numerous items, leading people to desire more, and purchase more of them.

- Downside: neglect of preference for individual items, acquisition (hoarding) of unnecessary items.