

Decisions from experience: Competitive search and choice in kind and wicked environments

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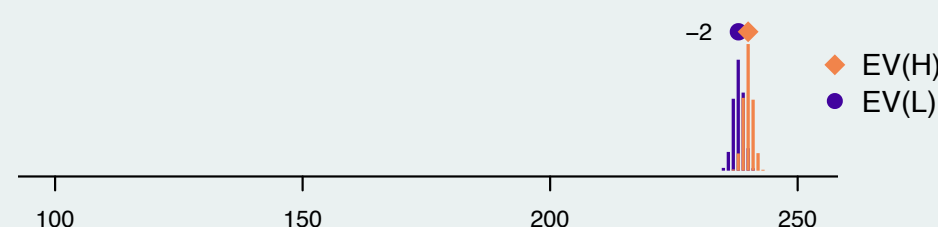
**ZOOM
MEETING**

<https://unibas.zoom.us/j/94850697694>

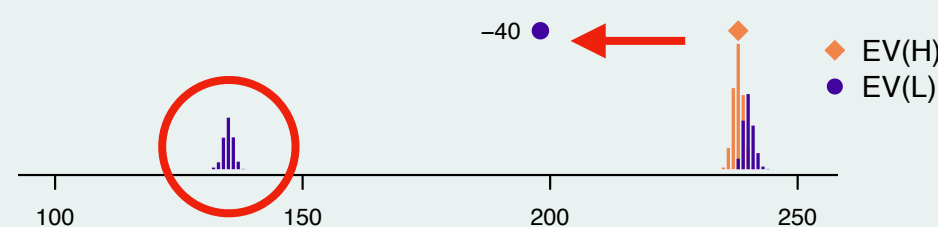
Background:

Many decisions require an exploration of the available choice options, to thus learn about their statistical properties and become aware of rare but potentially momentous consequences. This is particularly important in “wicked environments” with options that seem attractive *most of the time*, but are disadvantageous in the long run.

Kind environment: $p(\text{rare}) = 0$



Moderately wicked environment: $p(\text{rare}) = .4$



Research questions:

Do people **adapt their pre-decisional exploration** as a function of **different choice environments**? And what if **competitors simultaneously explore the same choice options**, aiming to choose the best option first?

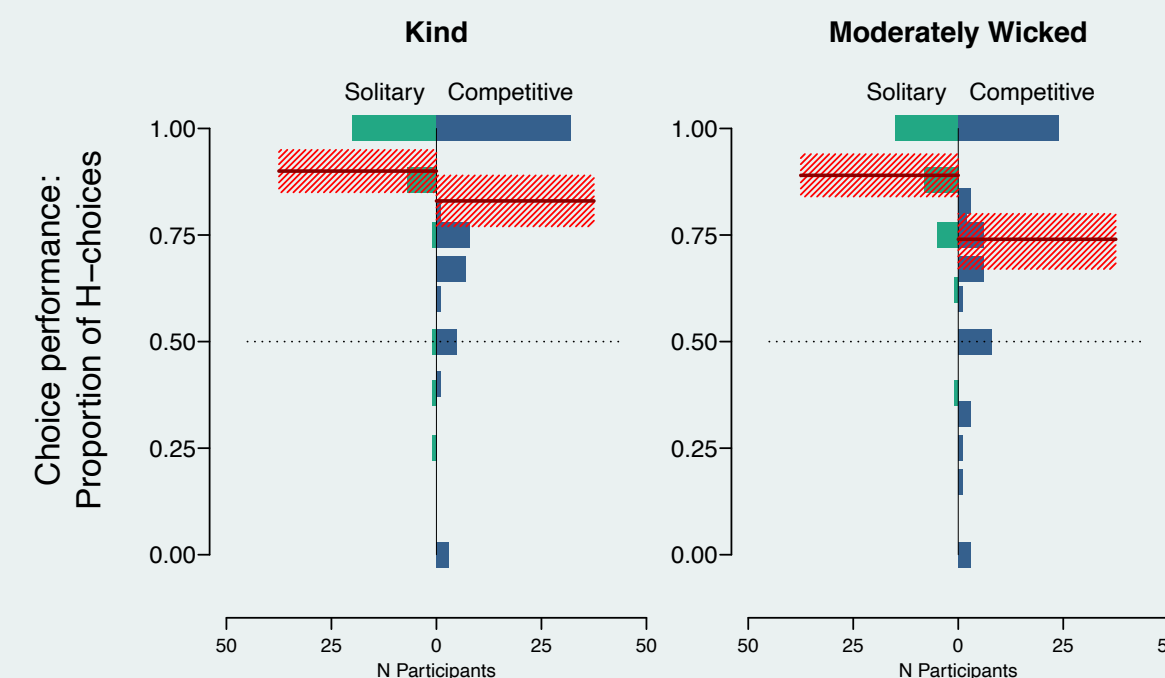
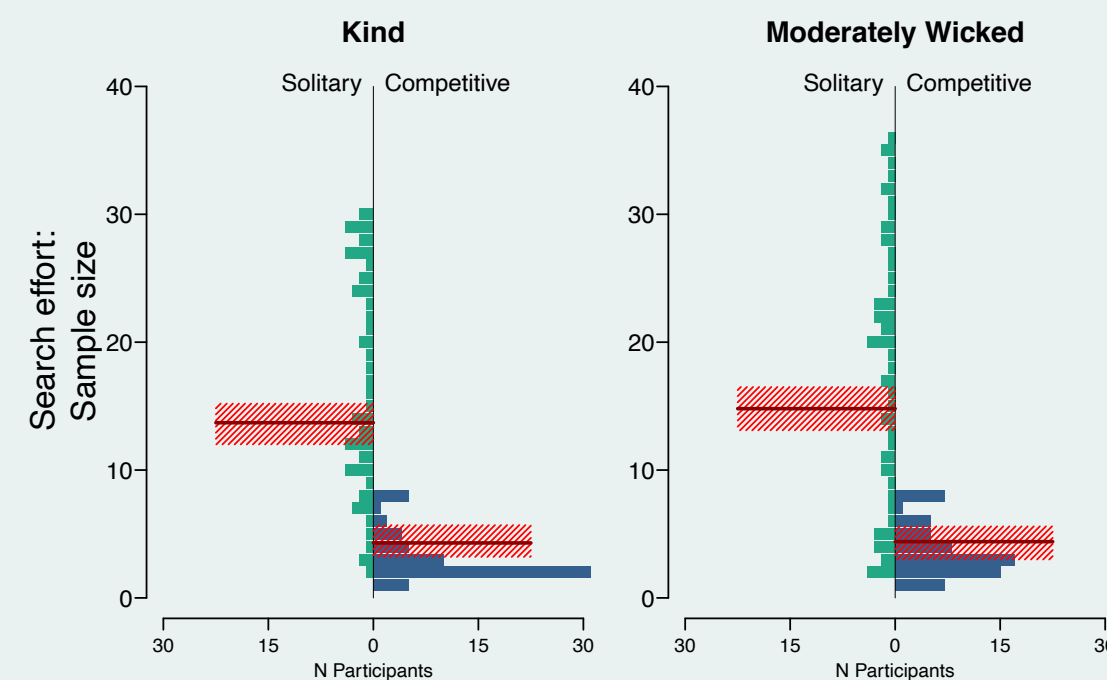
One theoretical view is that competitive pressure encourages efficiency and boosts adaptive search. Alternatively, competitive pressure may trigger agency-related concerns, thus leading to minimal search irrespective of the choice environment – and hence to lower choice performance in wicked environments.

Methods:

In this registered report (N = 277), people’s search and choice behaviors were investigated in an **online sampling game**. In the **solitary condition**, participants could explore choice options as long as they liked. In the **competitive condition**, pairs of participants explored choice options simultaneously, and the first person to stop exploration could freely choose one of the two options. Participants made choices either in a **kind, moderately wicked, or extremely wicked environment** (only the first two are shown here).

Results:

There were **no signs for adaptive search**: Participants did not change their pre-decisional exploration as a function of the underlying choice environment. Conversely, **competitive pressure had a substantial effect**, reducing pre-decisional search from 14 samples (solitary search) to 4 samples (competitive search).



As a consequence of the reduced search under competitive pressure, choice performance (i.e., proportion of higher expected-value choices; “H-choices”) declined in wicked environments. Yet, from a cost-benefit perspective ([see full paper for details](#)), choices based on frugal search can be considered to be more “efficient”.

Conclusions:

In sum, this paper suggests that in situations of competitive pressure (e.g., “only one room left at this price”), people may not be willing to sacrifice choice autonomy: They tend to choose quickly, irrespective of whether the choice environment (e.g., kind vs. wicked) would require ample pre-decisional exploration to make advantageous choices. As a consequence, competitive pressure may substantially hamper people’s choice performance in wicked environments.