

- The authors listed three misconceptions based on “accuracy-effort trade-off”:
  1. Heuristics are always second-best.
  2. We use heuristics only because of our cognitive limitations.
  3. More information, more computation, and more time would always be better.

- The authors propose “less-is-more” effects: More information or computation can decrease accuracy; therefore, minds rely on simple heuristics in order to be more accurate than strategies that use more information and time. This contradicts accuracy-effort trade-offs.

- Homo heuristicus can rely on heuristics because they are accurate, not because they require less effort at the cost of some accuracy.

- take-the-best heuristic: a person sets an aspiration level, chooses the first one that meets the aspiration, and then terminates search. 3 building blocks:
  1. Search rule: Search through cues in order of their validity.
  2. Stopping rule: Stop on finding the first cue that discriminates between the objects (i.e., cue values are 1 and 0).
  3. Decision rule: Infer that the object with the positive cue value (1) has the higher criterion value.

- Main strength of take-the-best: ignore cue dependencies => reduce variance

- Bias-variance dilemma: heuristics increase biases, but reduces (error) variance in prediction, and thus are more accurate than complex strategies.

- Criticism of labeling heuristics (in one word) instead of modeling them: vague, and thus can be used to explain all phenomena, some of which are contradicting.

- Heuristics are an adaptive toolbox
- The mind select heuristics by:
  - memory constrains the choice set of heuristics
  - second: feedback
  - structure of the environment, as analyzed in the study of ecological rationality (e.g. recognition heuristic involves two processes: first, recognition to see whether the heuristic can be applied, and second, evaluation to judge whether it should be applied)