Debiasing Intuition

SCOTT HIGHHOUSE
BOWLING GREEN STATE UNIVERSITY

Overview
- We already know how to debias intuition in O
- Resistance to evidence-based decision aids
- Closing thoughts

Intuition
- Gut feelings based on experience
- Biased judgment (e.g., overconfidence, representativeness)
- As well as some benefits (e.g., recognition heuristic)

Importance of looking the part
- NY Giants Head Coach (2016-2017)
- NY Jets Head Coach (2019-2020)

$1000 annually per inch


$100 annually per inch

On-the-job experience does not improve predictions made by:

- clinicians/social workers
- parole boards/judges
- auditors
- surgeons/radiologists
- admission committees/interviewers


Are we aware of the cues that guide our decisions?


Debiasing the decoy effect

Solution is to determine beforehand the relative importance of the attributes (e.g., quality > quantity).


Decoy effects without numbers


Debiasing the interview

People preferred the structured interview (M = 3.64) over the unstructured interview (M = 3.27) regardless of presentation mode; d = .39

"Structure is good...Interviewing is as much an art as it is a science."
Anonymous HR manager

For reference, correlations between various hiring methods and job performance typically range from .02 (for handwriting analysis) to .54 (for work samples).

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Debiasing the assessment center

<table>
<thead>
<tr>
<th>ORR</th>
<th>Average of Dimension Score</th>
<th>Optimally Weighted</th>
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<tbody>
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<td>.00</td>
<td>.09</td>
<td>.12</td>
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Increment in prediction over ability and personality tests

Dilchert & Ones (2009) two large managerial samples (N = 4985)

Source of resistance

Assessors want to appear competent
"We believe that [IPA] requires sound assessor judgment. It is not a paint-by-the-numbers exercise and cannot be based solely on adding up a series of standardized test scores to find the best possible candidate."


Painting by the numbers

- 4 of the 5 validity coefficients for holistic judgments were below the validity of a GMAT test alone (Hepper, 1974).
- The validities of holistic ratings based on composite data were not higher than validities based solely on standardized tests (Hepper, 1974).
- However, in an independent study of objective predictors over a 4-year period, the validities of holistic judgments were not higher than those for predictions of judges who were not trained to rate the predictions (Huse, 1962).

Resistance to evidence-based practice

- Assessors want to appear competent.
- Assessors want autonomy.
- Assessors don't believe the evidence.

You can learn more from an informal discussion with job candidates than you can from scores on standardized tests.

Sources of disbelief


Growing distrust…
- Of academics
- Of scientific research
- Of professionals in general
- Negative emotional reactions to findings that threaten…
  - Cherished beliefs
  - Self-image
  - Self-interest
  - Social identity

Resistance to evidence-based practice
- Assessors want to appear competent
- Assessors want autonomy
- Assessors don’t believe the evidence
- Assessors have trouble evaluating the evidence

The minimum validity required of a test differs based on type of effect size:
- People demand more validity from \( r \) than from CLES

The correlation between attending a GRE training program and increasing your GRE score is \( r = 0.3 \)." "If you attend the GRE training program, there is a 60% chance of increasing your GRE score more than someone who did not attend the program."

The icon array was perceived to be more useful than the bar graph and CLES by people lower in graph literacy.

The common language effect size

"The correlation between attending a GRE training program and increasing your GRE score is \( r = 0.3 \)."

If you attend the GRE training program, there is a 60% chance of increasing your GRE score more than someone who did not attend the program.

Closing Thoughts

- If we believe perfect prediction is theoretically possible, then we begin with 100% \( r \)-square as our reference point.
- If we believe the baseline is a coin flip, then we begin with 0% \( r \)-square as our reference point.

Icon Array

Aukrustsky (2004) described his experience communicating a 30 validity coefficient for a mechanical comprehension test:  "...my pleasure regarding the findings was highly apparent to the client organization. It was at this point a senior company officer said to me, 'I tell you to see the basis for your enthusiasm.'"
Theoretical $R^2$

- Is it possible to have an estimate of the % of theoretical $R^2$?
- That is, can we assess the % of variance that is possible to explain given that perfect prediction is impossible?
- Survey experts about the variance that is theoretically explainable?