The Autonomy-Validity Dilemma in Mechanical Judgment Procedures: The Quest for a Compromise
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Introduction

Background

• In personnel- and educational selection, information from multiple assessments (e.g., test scores and interview ratings) is often used, which can be combined in two ways:1,2
  - Holistic judgment: information is subjectively combined in the mind
  - Mechanical judgment: information is combined with an explicit decision rule
  ◦ Prediction = predictor 1 * w1 + predictor 2 * w2
  - Mechanical judgment is on average more valid than holistic judgment1,2

Conclusion

• Two promising procedures in terms of an autonomy-validity tradeoff emerged
  1. Choosing general weights when predictor validity information is available
  2. Holistically adjusting optimal model predictions
• Yet, our results prevent a clear conclusive statement regarding a compromise between autonomy and validity

Method

• Prediction task: Predict first-year GPA (FYGPA) of S (10 in Study 2) applicants using high school GPA, admission test scores, and personal statements. Participants (students) were informed about predictor validities
• Study 1 (N = 150): within-subjects design. Autonomy in making predictions was varied in five conditions:
  1. Holistic: Holistic (subjective) predictions based on the predictor scores
  2. Individual: Assign percentage predictor weights for each of the applicants judged
  3. General: Assign one set of percentage predictor weights for all applicants
  4. Adjust: Participants adjusted the predictions of a statistical model unrestrictedly
  5. Optimal: Participants imagined a statistical model would make predictions that they could not adjust

Study 2 (N = 192): mixed design

- Same within-subjects factor as in Study 1. The “individual” condition was dropped because Study 1 results were not promising. Furthermore, participants could only restrictedly adjust model predictions in the “adjust” condition
- Between-subjects factor: A random half of participants was not informed of predictor validities

Results and Discussion

Autonomy and use intentions means and 95% confidence intervals per condition

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<tr>
<th>Study 1</th>
<th>Study 2</th>
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Validity coefficients and 95% confidence intervals per condition

• Participants’ judgment validity • Optimal model validity

Key references