

# Understanding the Behavioral Underpinnings of Assessment Center Role-Play Judgments: A Machine Learning Approach

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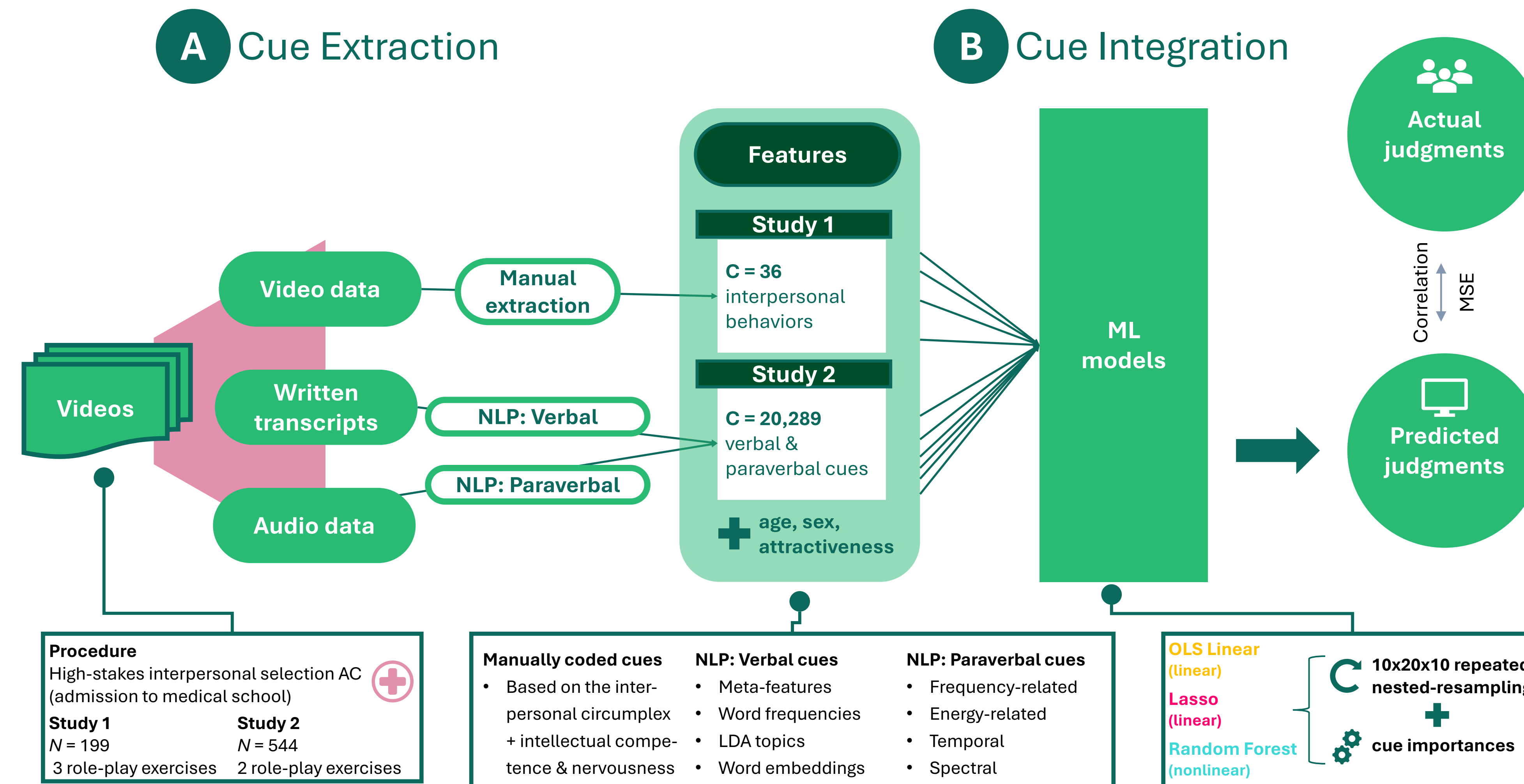
In press at HRM!  
Read it here:



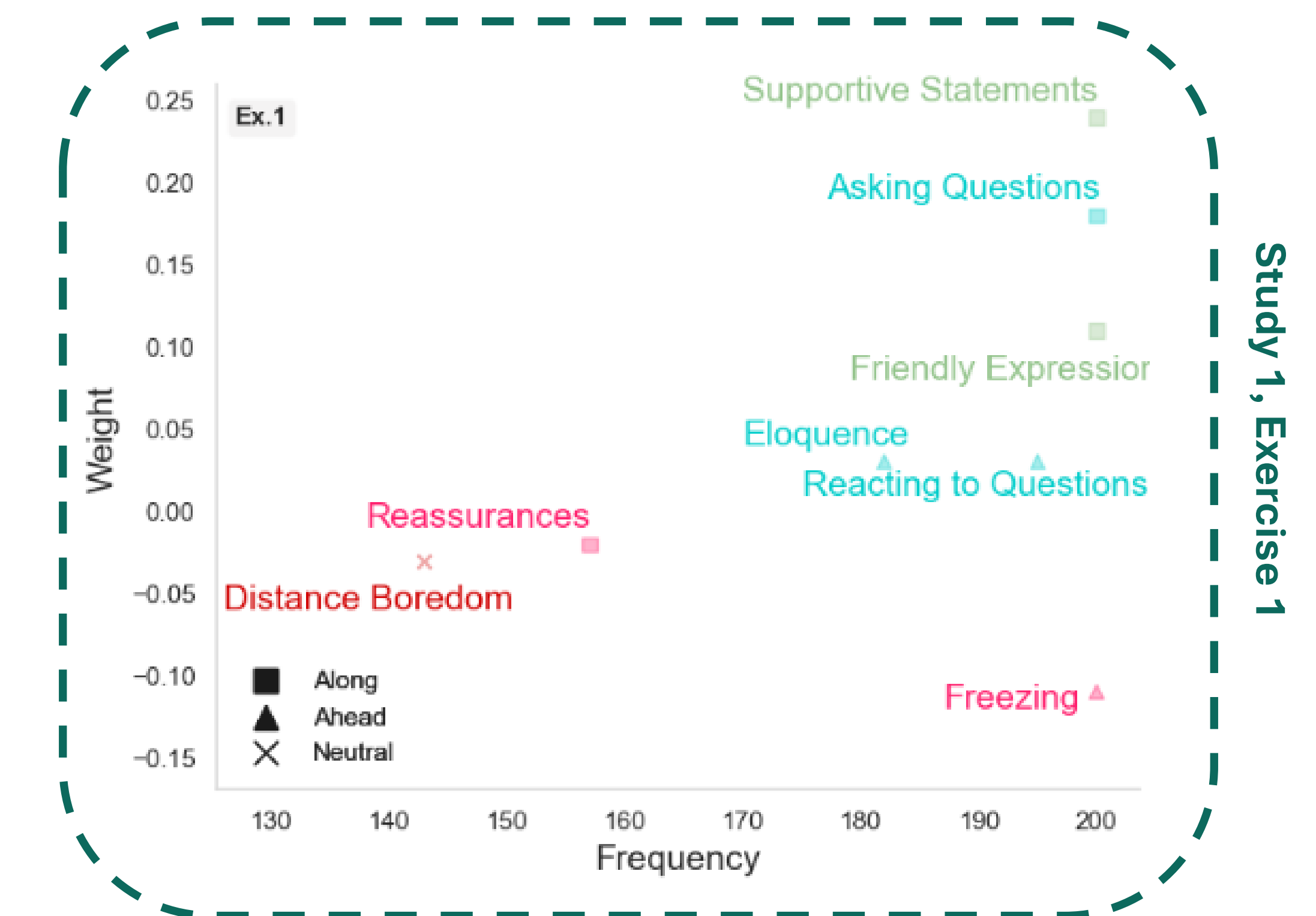
## Introduction

- Assessment Center (AC) role-plays are key vehicles for employee selection and development.
- However, assessors' **judgment processes** have received surprisingly **little attention**.
- Why? Costs** of cue extraction & **limitations** in modeling cue integration.
- We leveraged a **lens model-based machine learning (ML)** approach that allows for **cheap & scalable cue extraction** as well as **large-scale & more complex cue integration** modeling.

## Methods



**RQ3 (What?): Exercise-specific cue patterns, but cross-exercise consistency for behavioral dimensions and strategies: Intellectual competence and friendliness, and getting-along.**



## Research Questions

**Research Question 1 (How much?):**  
How much do assessors actually rely on behavioral information when making their judgments?

**Research Question 2 (How?):**  
How do assessors integrate the available behavioral information?

**Research Question 3 (What?):**  
What information do assessors rely on?

## Results

Combined Biases:  $r_{avg} = .12$

S2:  $r_{avg} = .12$

**RQ1 (How much?): Behaviors predict judgments above and beyond biases.**

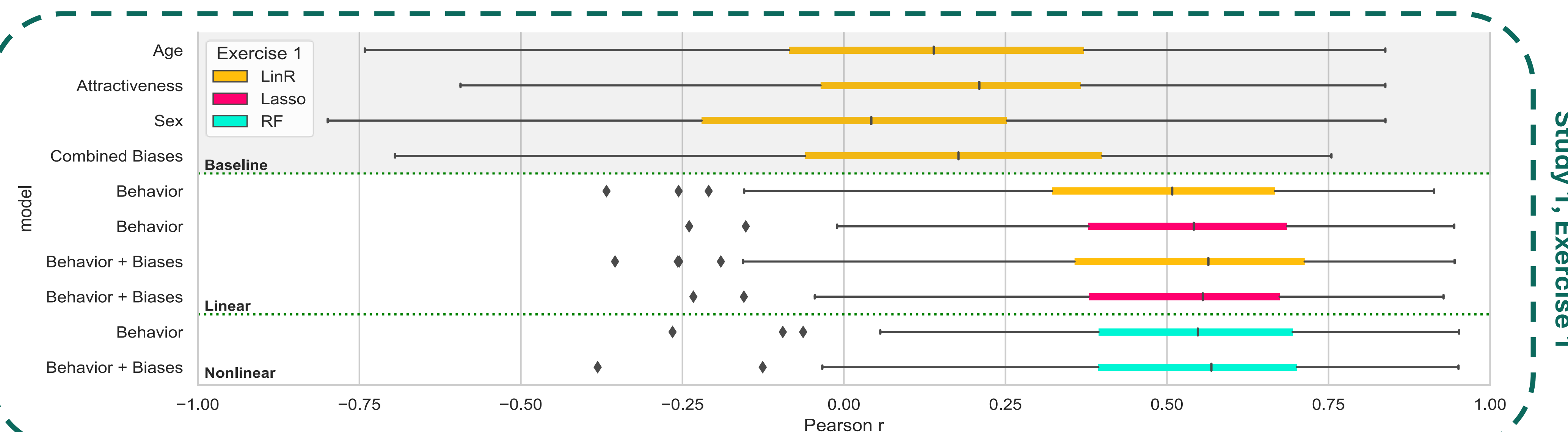
Lasso Behavior + Biases:  $r_{avg} = .49$

S2:  $r_{avg} = .32$

**RQ2 (How?): Significant performance increase when including nonlinear effects in S2 (fine-grained, objective cues) but not for S1 (manual cues).**

RF Behavior + Biases:  $r_{avg} = .52$

S2:  $r_{avg} = .39$



## Conclusion

- First real-life behavioral predictivity benchmark** for AC performance judgments.
- Assessors strongly rely on behavior.**
- Cross-exercise consistent, linear cue integration strategies** emerge for more **general & aggregated behavioral** measures.
- For **fine-grained & objectively extracted behavior, nonlinear and exercise-specific cue integration strategies** gain importance.



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