Causes and effects in Dichotomous Comparative Judgments: an information-theoretical system of plausible mechanism

Jose Manuel Rivera Espejo^{a,*}, Tine van Daal^a, Sven De Maeyer^a, Steven Gillis^b

^a University of Antwerp, Training and education sciences, ^b University of Antwerp, Linguistics,

Abstract

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Keywords: causal inference, probability, Thurstone, comparative judgement, directed acyclic graph, structural causal models, statistical modeling

1. Introduction

Over the past decade, numerous studies have documented the effectiveness of the *comparative judgment* (CJ) method (Thurstone, 1927; Pollitt, 2012a) for assessing competencies and traits. These studies have examined the method's strengths from two main perspectives: its capacity to produce reliable and valid trait scores, and its practical applicability. In terms of reliability and validity, research indicates that CJ generates precise and consistent scores that accurately represent the traits being measured. Key contributions in this area include those by Bramley (2008), Pollitt (2012b), Whitehouse (2012), Lesterhuis (2018), van Daal et al. (2019), Bramley and Vitello (2019), Verhavert et al. (2019), Crompvoets et al. (2022), and Bouwer et al. (2023). Regarding practical applicability, several studies have demonstrated the method's versatility in both educational and non-educational settings, offering an efficient and effective alternative for measurement and evaluation. Notable examples include the works of Jones (2015), Bartholomew et al. (2018), Jones et al. (2019), Marshall et al. (2020), Bartholomew and Williams (2020), and Boonen et al. (2020).

 $^{^*}$ Corresponding author

 $Email\ addresses:\ {\tt JoseManuel.RiveraEspejo@uantwerpen.be}\ ({\tt Jose\ Manuel\ Rivera\ Espejo}), \\ {\tt tine.vandaal@uantwerpen.be}\ ({\tt Tine\ van\ Daal}),\ {\tt sven.demaeyer@uantwerpen.be}\ ({\tt Sven\ De\ Maeyer}), \\ {\tt steven.gillis@uantwerpen.be}\ ({\tt Steven\ Gillis})$

2. Theory

- 2.1. A scientific model for the CJ
- 2.2. From theory to statistical model

3. Discussion

- 3.1. Findings
- 3.2. Limitations and further research
- 4. Conclusion

Declarations

Funding: The project was founded through the Research Fund of the University of Antwerp (BOF).

Financial interests: The authors have no relevant financial interest to disclose.

Non-financial interests: Author XX serve on advisory broad of Company Y but receives no compensation this role.

Ethics approval: The University of Antwerp Research Ethics Committee has confirmed that no ethical approval is required.

Consent to participate: Not applicable

Consent for publication: All authors have read and agreed to the published version of the manuscript.

Availability of data and materials: No data was utilized in this study.

Code availability: All the code utilized in this research is available in the digital document located at: https://jriveraespejo.github.io/paper2_manuscript/.

Authors' contributions: Conceptualization: S.G., S.DM., T.vD., and J.M.R.E; Methodology: S.DM., T.vD., and J.M.R.E; Software: J.M.R.E.; Validation: J.M.R.E.; Formal Analysis: J.M.R.E.; Investigation: J.M.R.E; Resources: S.G., S.DM., and T.vD.; Data curation: J.M.R.E.; Writing - original draft: J.M.R.E.; Writing - review & editing: S.G., S.DM., and T.vD.; Visualization: J.M.R.E.; Supervision: S.G. and S.DM.; Project administration: S.G. and S.DM.; Funding acquisition: S.G. and S.DM.

5. Appendix

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