# Ricardo Rey-Sáez

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## Education

- 2024–present | **Ph.D.** *Psychology*, Universidad Autónoma de Madrid
  - Developing and validating psychometric models for the study of individual differences in experimental psychology.
- 2020–2022 | **M.S.** *Quantitative Research Methods for Behavioral and Health Sciences*, Complutense University of Madrid
- 2017–2020 | **B.S.** *Psychology*, Complutense University of Madrid

## Additional Training

- 2024 | **Bayesian Cognitive Modeling: A Practical Course**, University of Amsterdam
- 2023 | **Practical Introduction to Advances in Exploratory Factor Analysis Applied to Item Analysis**, University of the Basque Country
- 2022 | **Introduction to Exploratory Graph Analysis (EGA) with R**, Zaragoza University
- 2020 | **Principles, Statistical and Computational Tools for Reproducible Data Science**, Harvard University (HarvardX) | Verified Certificate
- 2020 | **Professional Certificate in Data Science**, Harvard University
  - *Data Science: R basics* | Verified Certificate

  - *Data Science: Visualization* | Verified Certificate

  - *Data Science: Probability* | Verified Certificate

  - *Data Science: Inference and Modeling* | Verified Certificate

  - *Data Science: Productivity Tools* | Verified Certificate

  - *Data Science: Wrangling* | Verified Certificate

  - *Data Science: Linear Regression* | Verified Certificate

## Teaching and Educational Activities

- 2025 | **Meta-analysis, Latent Class and Latent Profile Analysis**
  - Lead instructor, Advanced Statistical Training for Researchers

  - Organized by Deusto FamilyPsych, Deusto University

- 2025 | **Introduction to Bayesian Psychometrics: Applications to Factor Analysis**
  - Seminar instructor, National interfaculty training seminar

  - Organized by ASCOFAPSI (Colombian Association of Faculties of Psychology)

- 2025 | **Beyond Maximum Likelihood: Introduction to Bayesian Factor Analysis**
  - Seminar instructor, Master's program in Quantitative Research Methods

  - Organized by Autonomous University of Madrid

- 2024 | **ChatGPT and Psychometrics: Optimizing the Design, Refinement, and Data Analysis of Measurement Instruments**
  - Seminar instructor, Master's program in Quantitative Research Methods

  - Organized by Autonomous University of Madrid

- 2023–2024 | **Data Analysis in Psychology**
  - Course instructor, Undergraduate program (Bachelor's in Psychology)

  - Organized by Nebrija University

- 2023 | **Adapting Our Teaching to the Revolution of AI and ChatGPT**
  - Workshop instructor, Faculty training

  - Organized by Universidad Autónoma de Madrid

- 2023 | **How can we Adapt Our Teaching to the Revolution of AI and ChatGPT?**
  - Workshop instructor, Faculty training

  - Organized by University of Costa Rica

## Textbooks

- **Rey-Sáez, R.**, & Estrada, E. (2023). **Análisis de datos con R en Ciencias Sociales y de la Salud**. Editorial Síntesis: https://www.sintesis.com/libro/analisis-de-datos-con-r-en-ciencias-sociales-y-de-la-salud

## Awards

- 2025 | Best Oral Communication Award | Ibero-American Association for Research on Individual Differences
  - Presentation Title: **New Hierarchical Models to Answer Old Psychometric Questions in Experimental Research: Which Task Best Measures Inhibition?**

  - Prize: **MASK-5** Measurement Instrument

- 2024 | Dissemination and Transfer in Methodology Award | Spanish Association of Methodology for Behavioral Sciences
  - Project **Ecuación Triunfo**

  - Funding: €1,000
- 2024 | Julio Olea Grant | Spanish Association of Methodology for Behavioral Sciences
  - Funding to carry out the research project **The union of psychometrics and experimental psychology: Bayesian hierarchical models with common factors for response times**

  - Funding: €2,400

## Publications

**Rey-Sáez, R.**, Franco-Martínez, A., Revuelta, J. & Vadillo, M. A. (2025, December 29). A Unified Framework for Psychometrics in Experimental Psychology: The Standardized Generalized Hierarchical Factor Model. *PsyArxiv*. https://doi.org/10.31234/osf.io/gv6k7_v1

Franco-Martínez, A., **Rey-Sáez, R.**, Shanks, D. R., Soto, D., & Vadillo, M. A. (*in press*). Replicating the unconscious working memory effect: A multisite preregistered study. *Neuroscience of Consciousness.* https://doi.org/10.1093/nc/niaf046

Pacheco-Romero, A. M., Martín-García, Ó., **Rey-Sáez, R.**, Boemo, T., Blanco, I., Vázquez, C., & Sánchez-López, Á. (2024). An integrative analysis of potential mechanisms of reduced positive affect in daily life in depression: an ESM study. *Cognition and Emotion, 38*(4), 587–604. PDF

Gracia, E., Martín-Fernández, M., **Rey-Sáez, R.**, & Yount, K. M. (2024). Attitudes justifying partner violence against women in Latin-American and Caribbean countries: A measurement invariance study. *Psychology of Violence, 14*(2), 127–136. https://doi.org/10.1037/vio0000497

Vega-Sanz, M., **Rey-Sáez, R.**, Berástegui, A., & Sánchez-López, Á. (2024). Difficulties in pregnancy adjustment as predictors of perinatal depression: Indirect effects through the role of brooding rumination and maternal–fetal bonding. *American Journal of Perinatology, 41*(S 01), e2870–e2877. https://doi.org/10.1055/s-0043-1776062

Franco-Martínez, A., **Rey-Sáez, R.**, & Castillejo, I. (2023). The seven wonderings of large language models as psychometric designers, refiners, and analysts. PsyArXiv. https://doi.org/10.31234/osf.io/kmqy5

**Rey-Sáez, R.** (2022). Réplica a: Validación cruzada sobre una misma muestra: Una práctica sin fundamento. *R.E.M.A. Revista Electrónica de Metodología Aplicada, 24*(1), 41–44. PDF

## Conference Presentations

1. **Rey-Sáez, R.**, Franco-Martínez, A., Revuelta, J., & Vadillo, M. A. (2025). *New Hierarchical Models to Answer Old Psychometric Questions in Experimental Research: Which Task Best Measures Inhibition?* [Oral presentation] XIV Conference – Asociación Iberoamericana para la Investigación de las Diferencias Individuales (AIIDI).
2. **Rey-Sáez, R.**, Franco-Martínez, A., Revuelta, J., & Vadillo, M. A. (2025). *Where psychometrics meets experimental psychology: Bayesian hierarchical factor models for response times.* [Oral presentation] XI Conference – European Congress of Methodology.

3. **Rey-Sáez, R.**, Revuelta, J., & Vadillo, M. A. (2025). *From random effects to common factors: Latent dimensionality assessment in experimental psychology.* [Oral presentation] XI Conference – European Congress.

4. **Rey-Sáez, R.**, Garre-Frutos, F., Franco-Martínez, A., Castillejo, I., & Vadillo, M. A. (2025). *Addressing methodological challenges in unconscious process research: A hierarchical modeling approach.* [Poster presentation] 27 Annual Meeting of the Association for Scientific Studies of Consciousness.

5. **Rey-Sáez, R.**, Garre-Frutos, F., Franco-Martínez, A., Castillejo, I., & Vadillo, M. A. (2025). *Hierarchical models in experimental psychology: A solution for measuring unconscious psychological processes.* [Poster presentation] XIV Reunión Científica sobre Atención.

6. **Rey-Sáez, R.**, Garre-Frutos, F., & Vadillo, M. Ángel. (2024). *What psychometrics can offer to experimental psychology: The multilevel model as the legacy of factor analysis.* [Oral presentation] XVIII Congreso de Metodología de las Ciencias Sociales y de la Salud.

7. **Rey-Sáez, R.**, Lecuona, Ó., & Martín-Fernández, M. (2024). *Approximate measurement invariance with multiple groups: A comparison between Bayesian SEM and the alignment method.* [Oral presentation] XVIII Congreso de Metodología de las Ciencias Sociales y de la Salud.

8. Lecuona, Ó., **Rey-Sáez, R.**, & Martín-Fernández, Manuel. (2024). *Studying invariance with multiple groups in large datasets: A comparison of bayesian SEM and alignment method.* [Oral presentation] 13th Conference of The International Test Commission.

9. **Rey-Sáez, R.**, Franco-Martínez, A., Castillejo, I., & Vadillo, M. A. (2024). *From unconscious to unreliable? Measurement error biases evidence on studies of unconscious processing.* [Poster presentation] 27 Annual Meeting of the Association for Scientific Studies of Consciousness.

10. Franco-Martínez, A., **Rey-Sáez, R.**, Shanks, D. R., Soto, D., & Vadillo, M. A. (2024). *Advances in "replicating the unconscious working memory effect: A multisite preregistered study."* [Poster presentation] 27 Annual Meeting of the Association for Scientific Studies of Consciousness.

11. Pacheco-Romero, A. M., Martín-Gracía, Ó., **Rey-Sáez, R.**, Boemo, T., Blanco, I., & Sánchez-López, Á. (2023). *Affective reactivity to daily events predicts changes in future psychopathology and is modulated by the use of different forms of rumination.* [Oral presentation] International Convention of Psychological Science (ICPS).

12. Aivar, P., **Rey-Sáez, R.**, & Vadillo, M. A. (2023). *Hard to ignore? Irrelevant distractors cannot be completely suppressed in a contextual cueing task.* [Poster presentation] 23 Annual Meeting of the Vision Sciences Society.

13. Martin-Garcia, O., **Rey-Sáez, R.**, Boemo, T., Pacheco-Romero, A., Blanco, I., & Sanchez-Lopez, A. (2023). *Modulatory role of motivational self-focuses on the relation between perceived stress and momentary affect: An ESM study.* [Oral presentation] Emotions Congress 2023.

14. Pacheco-Romero, A. M., Martín-Gracía, Ó., **Rey-Sáez, R.**., Boemo, T., Blanco, I., Vázquez, C., & Sánchez-López, Á. (2022). *Intra-individual mechanisms of positive affect regulation deficits in depression: An experience sampling study.* [Oral presentation] 52nd European Association for Behavioural; Cognitive Therapies.

15. **Rey-Sáez, R.**, & Nájera, P. (2022). *Investigando metodología en el multiverso de la academia: Comunidad, recursos y estrategias por y para jóvenes.* [Symposium Organizer] XVII Congreso de Metodología de las Ciencias Sociales y de la Salud.

16. **Rey-Sáez, R.** (2022). *Investigación, paso 1: ¿Cómo y dónde busco información? Nuevas herramientas para la detección eficiente de bibliografía de interés.* [Oral presentation] XVII Congreso de Metodología de las Ciencias Sociales y de la Salud.

17. **Rey-Sáez, R.** (2022). *Approximate measurement invariance: Assessing the accuracy and sensitivity of alignment optimization under partial invariance with multiple groups.*

[Oral presentation] XVII Congreso de Metodología de las Ciencias Sociales y de la Salud.

18. Martín-Fernández, M., & **Rey-Sáez, R.** (2022). *Approximate measurement invariance in surveys on attitudes toward intimate partner violence in 12 Latin American countries.* [Poster presentation] XVII Congreso de Metodología de las Ciencias Sociales y de la Salud.

19. **Rey-Sáez, R.** (2022). *Approximate measurement invariance in surveys on attitudes toward intimate partner violence in 12 Latin American countries.* [Oral presentation] Research Conference of the Faculty of Psychology, Universidad Autónoma de Madrid