

Benjamin Lira Luttges

PhD Candidate at University of Pennsylvania

[lirabenjamin.github.io](https://github.com/lirabenjamin)

blira@sas.upenn.edu

3720 Walnut St., Philadelphia, PA.

+1 813 362 0500

My research explores how interactions with AI systems shape human learning, motivation, judgment, and decision-making. I design AI-powered interfaces—including conversational chatbots and intelligent writing assistants—as well as AI-driven decision-support tools (e.g., custom-trained language models for evaluating soft skills in college admissions), and systematically assess their educational, psychological, and social implications. Through pre-registered experimental studies, advanced NLP techniques, and analyses of real-world data, my work seeks to uncover how engagement with AI can durably augment—rather than replace or hinder—human capabilities.

1. Education

2021—2026	University of Pennsylvania PhD and MA in Psychology. GPA 4.0 Advisor: Angela Duckworth Dissertation: Enhancing Human Capabilities Through Interaction with Generative AI
2009—2017	Universidad de Lima BA. and Professional Licensure in Psychology. GPA 4.0 Thesis: Parental Predictors of Effortful Control
2013	Katholieke Universiteit Leuven, Belgium Exchange student in master level courses on AI and Education

2. Grants and Awards

2025	Psychology of Technology Network Dissertation Award
2025	SASGov Research Grant Grant Award: 2,000 USD
2018	Annual research competition winner, Pontificia Universidad Católica del Perú Awarded to the Motivation and Emotion Research Group (PUCP). Basic Psychological Needs in the Context of Poverty Grant Award: 135,000 and 45,000 PEN (53,576 USD)
2010—2015	Full honors scholarship, Universidad de Lima Est. Value: 146,523 PEN (43,612 USD)

3. Academic Positions

2021	Predoctoral Visiting Scholar , University of Pennsylvania Duckworth Lab, PI: Angela Duckworth PSYC 005-401: Grit Lab (TA)
2017—2019	Instructor , Pontificia Universidad Católica del Perú Motivation and Emotion, Psychological Measurement, Psychological Research Methods

4. Guest Lectures

2021	University of Pennsylvania. Self-Concordant Goals.
2018	Universidad Cayetano Heredia. Cognitive Behavioral Intervention Methods

5. Publications

[Google Scholar](#)

A. Highlighted

Lira, B., Goldstein, D., Rogers, T., Ungar, L., & Duckworth, A.L., Teaching by Example: Evidence that AI can improve writing skill. [[ArXiv](#). Under review at *Science Advances*.]

- Lira, B.,** Duckworth, A. L., Gardner, M., Quirk, A., Stone, C., Rao, A., ... & D'Mello, S. K. (2023) Using Artificial Intelligence to Assess Personal Qualities in College Admissions. *Science Advances*. [[link](#)] Press Coverage. [[Forbes](#)][[Counselor Bites](#)][[Higher Ed Dive](#)][[Inside Higher Ed](#)][[CU Boulder Today](#)][[University World News](#)][[EurekAlert!](#)]
- Lira, B.,** O'Brien, J., Peña, P.A., Galla, B.M., D'Mello, S., Yeager, D.S., Defnet, A., Kautz, T., Munkacsy, K., Duckworth, A.L., (2022). Large Studies Reveal How Reference Bias Limits Policy Applications of Self-Report Measures. *Scientific Reports* 12(1) 19189. [[link](#)]

B. Published

- Herrera, D. I., Lira-Delcore, A., **Lira Luttges, B.**, (2025). Beyond words: the relevance of autonomy-supportive language in university syllabi. *Frontiers in Psychology*, 16 p. 1476426).
- Herrera, D. I., Matos, L., Gargurevich, R., Gomez, M., **Lira Luttges, B.**, & Ferreyra Díaz, A. C. (2024). A potential exodus: What is behind dropping out intentions among university students?. *Frontiers in Education*, 9 p. 1476426).
- Putnam, S. P., Sehic, E., French, B. F., Gartstein, M. A., **Lira, B.**, & Peltola, M. (2024). The Global Temperament Project: Parent-Reported Temperament in Infants, Toddlers and Children from 59 Nations. *Developmental Psychology*. [[link](#)]
- Herrera, D., Costalat-Founeau, A. M., Chau, C., Mendoza, N., Arakaki, M., Cerna, Y., **Lira, B.** & Drouin, N. (2023). Adaptación de la escala de sentido de capacidad para estudiantes peruanos. *Liberabit*, 29(2). [[link](#)]
- Paredes, DIH, Arakaki, M, Dammert, M, **Lira, B.**, Orientación futura, bienestar y rendimiento en universitarios de un programa de tutoría durante la pandemia COVID-19. (2022). *Revista Peruana de Investigación Educativa* 14(17)
- Lira, B.** & Lopez, F. E. (2022). Evaluación psicométrica de una escala de creencias conspirativas para población peruana [Psychometric evaluation of a conspiracy belief scale in a Peruvian population]. *Persona* 25, 33-51.
- Duckworth, A.L., Kautz, T., Defnet, A., Satlof-Bedrick, E., Talamas, S., **Lira, B.**, & Steinberg, L. (2021). Students Attending School Remotely Suffer Socially, Emotionally, and Academically. *Educational Researcher* 50(7), 479-482. <https://doi.org/10.3102/0013189X211031551> [[link](#)] [[HealthDay](#)][[U.S. News](#)][[The 74](#)][[District Administration](#)][[Yahoo](#)][[Phys Org](#)]
- Caffarena, C., **Lira, B.**, Campos, A.L., Rojas-Barahona, C. (2021). Psychometric properties of the Child Behavior Questionnaire (CBQ) in Chile. *Current Psychology*. 1-10. <https://doi.org/10.1007/s12144-021-01871-9> [[link](#)]
- Herrera, D., Matos, L., Gargurevich, R., **Lira, B.**, & Valenzuela, R. (2021). Context matters: Teaching styles and basic psychological needs predicting flourishing and perfectionism in university music students. *Frontiers in Psychology* 12. 1-9. <https://doi.org/10.3389/fpsyg.2021.623312> [[link](#)]
- Lira, B.** (2017). *The predictive role of parental and maternal emotion regulation, empathy, and alexithymia in toddlers' effortful control*. Universidad de Lima Undergraduate Thesis. [[link](#)]
- Gleichgerricht, E., **Lira, B.**, Salvarezza, F., & Campos, A.L. (2015). Educational neuromyths among teachers in Latin America. *Mind, Brain, and Education* 9(3). 170–78. <https://doi.org/doi:10.1111/mbe.12086>. [[link](#)]
- Gleichgerricht, E. & **Lira, B.** (2014). *Attention: fostering educational neuroscience* 5. Lima: Cerebrum Ediciones.

C. Submitted

- Lira, B.**, Bartlett, Maria. E., Kautz, T., & Duckworth, A. L. (2024). Remote Schooling Depresses Grades for the Most Vulnerable. *Scientific Reports* [[link](#)]

D. In Preparation

- Lira, B.**, Goldstein, D., Rogers, T., Ungar, L., & Duckworth, A.L., Smart and Smarter. Pairing AI examples and metacognition improves writing skill.
- Lira, B.**, Ungar, L., Gross, J., & Duckworth, A.L., Delivering motivational interventions at scale using Artificial Intelligence in Khan Academy.
- Lira, B.**, Ungar, L., & Duckworth, A.L., Conversing with a Generative-AI powered chatbot increased critical thinking.

E. Conference Presentations

- Lira B.**, (2025, May), Learning, not cheating. Wharton Behavioral Lab Mini Conference. University of Pennsylvania.
- Lira B.**, (2025, April), Learning, not cheating. Social Psychology Meeting. University of Pennsylvania.

- Lira B.**, (2024, November), Can generative AI make you smart? Evidence that AI increases writing skill. NeurIPS Behavioral Machine Learning. Virtual.
- Lira B.**, (2024, August), Reference Bias is Driven By Peer Role Models, Not Friends. European Conference on Personality. Berlin, Germany.
- Lira B.**, Duckworth, A., Toll, B., Kim, B., (2024, June), Admissions practices and strategy in the era of Artificial Intelligence and Big Data. Panel. Common App Illuminate Conference. Philadelphia, US.
- Lira B.**, (2024, June), AI Fundamentals for Admissions Professionals. Enrollment Leaders Roundtable. Common App Illuminate Conference. Philadelphia, US. [[slides](#)]
- Lira B.**, (2024, May), When will Generative AI Make Us Stupid and when will it make us Smart?. Talking to Machines Workshop at International Meeting on Experimental and Behavioral Social Sciences (IMEBESS). Riga, Latvia.
- Lira B.**, (2024, February), Using Artificial Intelligence to Assess Personal Qualities in College Admissions. Society for Personality and Social Psychology Convention. San Diego.
- Lira B.**, (2024, February), Compared to Whom? Reference Bias is Driven by Peer Exemplars. Personality Preconference. Society for Personality and Social Psychology Convention. San Diego.
- Ungar, L., **Lira B.**, (2023, November) Using Large Language Models to Help People be their 'Best' Selves. Psychology of Technology Conference. UC Berkeley. [[link](#)][[slides](#)]
- Lira B.**, Seraj, S., Neiderhoffer, K., Ireland, M., (2023, February) Panel on collaboration between industry and academia. Language Preconference, Society for Personality and Social Psychology Convention. Atlanta.
- Chalén, J., **Lira B.**, & Herrera, D. (2022, July). Future Orientation, Wellbeing, Life Purpose& Academic Performance in University Students from Lima [Symposium]. 5th International Conference on Time Perspective. Vilnius, Lithuania (Virtual). [[link](#)][[link2](#)]
- Lira B.**, (2022, June). Using Artificial Intelligence to Assess Personal Qualities in College Admissions. Summer Institutes for Computational Social Science [[link](#)].
- Lira B.**, O'Brien, J., Peña, P., Galla, B. M., D'Mello, S., Yeager, D. S., Defnet, A., Kautz, T., Munkacsy, K., & Duckworth, A. L. (2022, July). Large Studies Reveal How Reference Bias Limits Policy Applications of Self-Report Measures. In C.J. Soto (Chair), Conceptualization, Assessment, and Implications of Social, Emotional, and Behavioral Skills [Symposium]. European Conference on Personality 2022, Madrid, Spain.
- Lira B.**, et al. (2021, September). Students Attending School Remotely Suffer Socially, Emotionally, and Academically. In B. Gill & E. Stuart (Chairs), Mental and Physical Health Implications of School Operating Approaches During the COVID-19 pandemic [Symposium]. Society for Research on Educational Effectiveness Conference 2021. [[link](#)]
- Lira B.** (2018, May). The predictive role of parental emotion regulation, empathy, and alexithymia on preschooler's effortful control [Poster presentation]. 22nd Occasional Temperament Conference (OTC). Murcia, Spain.
- Lira B.** (2016, November). Self-regulation and its impact in and out of the classroom [Presentation]. Self-Regulation Seminar: Cerebrum. Puerto Varas, Chile. [[link](#)]
- Lira B.** (2016, September). Educational neuromyths in Latin America [Conference Session]. Fifth Peruvian Society for Educational Research Conference (SIEP) Seminar. Ayacucho, Peru. [[link](#)]
- Lira B.** (2016, September). The importance of cognitive regulation in the classroom [Presentation]. Self-regulation Seminar: Cerebrum. Medellin, Colombia. [[link](#)]
- Lira B.** (2015, March). Neurodiversity and Inclusion in Education [Panel participant]. International Seminar on Neurodiversity: Cerebrum. Lima, Peru. [[link](#)]

6. Technical Skills

Programming. Python, R, Qualtrics, JavaScript, HTML, SPSS, Factor, MPlus, MLWin, Psychopy

Web Development. Flask, React, Supabase, MongoDB

ML/NLP/AI. Transformers, Deep Learning, Neural Networks, NLP (LDA, Naïve Bayes, etc.), Reinforcement Learning, Supervised and unsupervised learning (e.g., Random Forests, Boosting, Support Vector Machines, Auto-encoders)

Statistical Methods. Bayesian Modeling, Econometric Analysis, Social Network Analysis, Factor Analysis, Multilevel Modeling, Structural Equation Modeling, Cluster Analysis, Non-parametric Methods (Logistic, Poisson, Negative Binomial Regression, Beta regression.)

Natural Languages. Spanish—Native English—Fluent German—Basic

A. Additional Education

Summer Institutes Of Computational Social Psychology.

Foundations of Data Analysis – Part I. University of Texas at Austin. MOOC.

The Analytics Edge. MITx. MOOC.

Quantitative Biology Workshop. MITx. MOOC

B. Additional Projects

#Investigatips. Video library explaining research methods and statistics. +120K video views. (In Spanish)

Statistics for Psychologists with R. A series of self-guided tutorials and practice sets exploring common data manipulation, visualization, and analysis tasks in R. Collaboration with Chayce Baldwin

R Package. Custom functions for ordinal alpha, Mahalanobis outlier detection, discriminant validity analysis, and data simulation.

Natural Language Processing Tools. Custom R and Python functions and tutorials for Natural Language Processing in the Social Sciences.

7. Work Experience

2025	Incoming Research Intern, Microsoft Research Will work with the Computational Social Science Group at MSR NY
2020–2021	Visiting Scholar, Duckworth Lab, University of Pennsylvania Collaborated closely on the design, data collection, statistical analysis, writing, and revision stages of multiple research projects. Mentored undergraduate researchers and high-school interns, guiding research activities and analytical skill development. Designed curriculum and statistical analysis modules to teach R programming to undergraduates.
2016 – 2020	Research scientist, Pontificia Universidad Católica del Perú Conducted empirical research on motivation and emotional well-being, focusing on poverty, maternal autonomy support, and educational engagement. Designed and evaluated behavioral interventions to promote autonomy support and psychological well-being in educational and sports contexts.
2015 – 2017	Lead research analyst, Cerebrum Designed, implemented, and evaluated psychological intervention programs aimed at enhancing cognitive and emotional regulation. Developed educational neuroscience course materials for graduate-level programs. Mentored graduate students, supervised thesis projects, and presented findings at academic and professional conferences.
2015 –	Thesis advisor Coached and supported +30 undergraduate and graduate students from Universidad de Lima, Pontificia Universidad Católica del Perú, and Universidad Peruana de Ciencias Aplicadas in multiple stages of their thesis projects.
2014 – 2015	Research and educational psychology intern, Cerebrum Created an intervention program to foster self-regulation and executive function and designed a tool to evaluate its impact. Developed content for graduate courses in educational neuroscience.

8. Community & University Service

Mentored a more junior PhD student through a peer mentorship program.

Supervised two honors theses undergraduate students at UPenn which resulted in presentations at university research symposia and an award-winning thesis.