Amanda Kay Montoya

Associate Professor of Quantitative Psychology
University of California - Los Angeles
Department of Psychology
502 Portola Plaza, Pritzker Hall 4530
Los Angeles, CA 90095
Email: akmontoya@psych.ucla.edu
Phone: (310)794-5069
Website: akmontoya.com

IDENTIFIERS

ORCID   0000-0001-9316-8184

ResearcherID   AAR-4439-2021

ACADEMIC APPOINTMENTS

Associate Professor, Department of Psychology, UCLA	July 2023 - Current
Assistant Professor, Department of Psychology, UCLA	November 2018 - July 2023
Acting Assistant Professor, Department of Psychology, UCLA	July 2018 - November 2018

EDUCATION

PhD, Psychology, Quantitative
The Ohio State University, Columbus, OH   2018
Dissertation: "Conditional Process Analysis in Two-Instance Repeated-Measures Designs"
Adviser: Andrew F. Hayes, PhD

M.S., Statistics
The Ohio State University, Columbus, OH   2016

M.A., Psychology, Quantitative
The Ohio State University, Columbus, OH   2016
Thesis: "Extending the Johnson-Neyman Procedure to Categorical Independent Variables:
Mathematical Derivations and Computational Tools"
Adviser: Andrew F. Hayes, PhD

B.S., Psychology, Minor: Mathematics
University of Washington, Seattle, WA   2013
Cum Laude, Departmental Honors
Thesis: "Increasing Interest in Computer Science through Group Work: A Goal Congruity Approach"
Adviser: Sapna Cheryan, PhD & Allison Master, PhD

RESEARCH INTERESTS

My research focuses on improving the ability of psychology researchers to answer their questions of interest using sound statistical methods and by developing easy-to-use tools to encourage researchers to use the most advanced methods available. I have focused my research on mediation, moderation, conditional process models, structural equation modeling, and measurement including factor analysis and item response theory. I am also interested in improving our ability to conduct meta-science by developing statistical methods in

meta-analysis, and understanding the impact of research practices on our ability to create replicable science. Additionally, I have previous experience and hope to continue my research focused on understanding and ameliorating issues of inequity in education, particularly for women in science, technology, engineering, and mathematics.

PUBLICATIONS

⬠ Preregistered, 🆁🆁 Registered Report, 📊 Open Data, ⬤ Open Access, 🗒 Preprint (PsyArXiv), ✒ Preprint (EdArXiv), ❇ Open Science Framework Page

Ramos, G.‡, **Montoya, A. K.**, Smith, D., Rith-Najarian, L., & Chavira, D. (in press). Digital intervention barriers scale (DIBS-7): Development, evaluation, and preliminary validation. *JMIR Formative Research*.

Grodin, E. N., **Montoya, A. K.**, Cruz, A.†, Donato, S., Baskerville, W.-A., Ray, L. A. (in press). Identifying Treatment Responders to Varenicline for Alcohol Use Disorder Using Two Machine Learning Approaches. *Clinical Psychological Science.* 🗒 ❇ ⓒⓘⓢ

Fossum, J. L.† & **Montoya, A. K.** (2023). When to use different tests for power analysis and data analysis for mediation. *Advances in Methods and Practices in Psychological Science*, *6*(2), 1-10. DOI: 10.1177/25152459231156606 ⬠ 📊 🗒 ❇ⓒⓘⓢ

Siy, J. O., Germano, A., Vianna, L., Azpeitia, J., Yan, S., **Montoya, A. K.**, & Cheryan, S. (2023). Does the follow-your-passions ideology cause greater academic and occupational gender disparities than other cultural ideologies? *Journal of Personality and Social Psychology.* DOI: 10.1037/pspi0000421 ⬠ ❇ 📊⬠

Media Coverage
- Cheryan, S. & Mortejo, T. A. The Most Common Graduation Advice Tends to Backfire, *New York Times.* Link

Tawa, J., & **Montoya, A. K.** (2023). Racial embodiment in virtual environments for facilitating students' understanding of racism. *Technology, Mind, and Behavior*, *4*(1), Special Collection: Technology in a Time of Social Distancing. DOI: 10.1037/tmb0000024 ⬤ ⬠ 🆁🆁 ❇

Green, R.‡, Lin, J., **Montoya, A. K.**, Bello, M. S., Grodin, E. N., Ryu, H., Ho, D., Leventhal, A. M., and Ray, L. A. (2022). Characteristics Associated with Treatment Seeking for Smoking Cessation Among Heavy-Drinking Research Participants. *Frontiers in Psychiatry*, Section: *Addictive Disorders*, *13*. DOI: 10.3389/fpsyt.2022.951364 ⬤

Tibbe, T. D.† & **Montoya, A. K.** (2022). Correcting the bias correction for the bootstrap confidence interval in mediation analysis. *Frontiers in Psychology*, *13*. DOI: 10.3389/fpsyg.2022.810258 🗒 ⬤ ❇

Meredith, L. R.‡, Grodin, E. N., **Montoya, A.K.**, Miranda Jr., R., Squeglia, L. M., Towns, B., Evans, C., Ray, L. A. (2022). The Effect of Neuroimmune Modulation on Subjective Response to Alcohol in the Natural Environment. *Alcoholism: Clinical and Experimental Research*, *46*(5), 876-890. DOI: 10.1111/acer.14821

Montoya, A. K. (2022). Selecting a Within- or Between-Subject Design for Mediation: Validity, Causality, and Statistical Power.*Multivariate Behavior Research.* DOI: 10.1080/00273171.2022.2077287 🗒 ⬠ ❇

Ramos, G.‡, Aguilera, A., **Montoya, A. K.**, Lau, A., Wen, Y., Torres, V., Chavira, D. (2022). App-Based Mindfulness for People of Color Who Experience Race-Related Stress: Protocol for a Randomized Controlled Trial. *JMIR Protocols*, *11*(4), e35196. DOI: 10.2196/35196.

Miocevic, M., Moeyart, M., Mayer, A., & **Montoya, A. K.** (2022). Causal Mediation Analysis in Single Case

Experimental Designs (SCEDs): Introduction to the Special Issue, *Evaluation & the Health Professions*,DOI: 10.1177/0163278721107319

Fossum, J. L.†, & **Montoya, A. K.** (2022). Heterogeneity. In B. Frey (Ed.), *The SAGE Encyclopedia of Research Design.* (Vol. 1, p. 656) Thousand Oaks, CA: SAGE. DOI: 10.4135/9781071812082.n245

Andre, Q., van Osselaer, S., Janiszewski, C., **Montoya, A. K.**, Hilgard, J., Charlton, A., Evangelidis, I., & Price, J. (2021). "Methodological Advances in Consumer Research", in NA - Advances in Consumer Research Volume 49, eds. Tonya Williams Bradford, Anat Keinan, and Matthew Matthew Thomson, Duluth, MN : Association for Consumer Research, Pages: 821-826.

Green, R.‡, **Montoya, A. K.**, Ray, L. A. (2021). The Relationship Between Drinking and Smoking in a Clinical Trial for Smoking Cessation and Drinking Reduction. *Experimental and Clinical Psychopharmacology.* DOI: 10.1037/pha0000536

Leathem, L. D.‡, Currin, D. L., **Montoya, A. K.**, & Karlsgodt, K. H. (2021). Socioemotional Mechanisms of Loneliness in Subclinical Psychosis. *Schizophrenia Research*, *238*, 145 - 151. DOI: 10.1016/j.schres.2021.10.002

Ramos, G.‡, Delgadillo, D., Fossum, J. L.†, **Montoya, A. K.**, Thamrin, H., Rapp, A., Escovar, E., & Chavira, D. (2021). Discrimination and Internalizing Disorders in Rural Latinx Adolescents: An Ecological Model of Etiology. *Children and Youth Services Review*, *130*, 106250.

Meredith, L. R. ‡, Grodin, E. N.‡, Karno, M. P., **Montoya, A. K.**, MacKillop, J., Lim, A. C., & Ray, L. A. (2021). Preliminary Study of Alcohol Problem Severity and Response to Brief Intervention. *Addiction Science & Clinical Practice*, *16*(54). DOI: 10.1186/s13722-021-00262-6

Montoya, A. K., Krenzer, W. D. L., & Fossum, J. L.† (2021). Opening the Door to Registered Reports: Census of Journals Publishing Registered Reports. *Collabra: Psychology*, *7*(1): 24404. DOI: 10.1525/collabra.24404

Cleveland, S., Reed, K., Thomas, J., Ajijola, O. A., Ebrahimi, R., Hsiai, R., Lazarov, A., **Montoya, A. K.**, Neria, Y., Shimbo, D., Wolitzky-Taylor, K., & Sumner, J. A. (2021). Key dimensions of posttraumatic stress disorder and endothelial dysfunction: A mechanism-focused cohort study. *BMJ Open*, *11*, e043060. DOI: 10.1136/ bmjopen-2020-043060

Grodin, E. N.‡, **Montoya, A. K.**, Bujarski, S., & Ray, L. A. (2021). Modeling motivation for alcohol in humans using traditional and machine learning approaches. *Addiction Biology*, *26*(2), e12949. [Link]

Montoya, A. K., & Edwards, M. C. (2021). The Poor Fit of Model Fit for Selecting Number of Factors in Exploratory Factor Analysis for Scale Evaluation. *Educational and Psychological Measurement*, *81*(3), 413 - 440. [Link].

Montoya, A. K. & Jeon, M. (2019). MIMIC models for testing uniform and non-uniform differential item functioning as moderated mediation models. *Applied Psychological Measurement*, *44*(2), 118 - 136.

Montoya, A. K. (2019). Moderation analysis in two-instance repeated-measures designs: Probing methods and multiple moderator models. *Behavior Research Methods*, *51*,(1), 61 - 82.

Tawa, J., & **Montoya, A. K.** (2018). Construals of self and group: How racial nominalism can promote adaptive intergroup outcomes for interdependent selves. *Group Processes & Intergroup Relations*, *22*(7), 1002-1020.

Montoya, A. K. (2018). Probing moderation analysis in two-instance repeated-measures designs. *Multivariate Behavior Research*, *53*(1), 140 - 141 [Abstract].

Dohle, S., & **Montoya, A. K.** (2017). The dark side of fluency: Fluent names increase drug dosing. *Journal of Experimental Psychology: Applied, 23*(3), 231 - 239. DOI: https://doi.org/10.1037/xap0000131

Stojek, M. K., **Montoya, A. K.**, Drescher, C., Newberry, A., Sultan, Z., Williams, C. F., Pollock, N. K., & Davis, C. L. (2017). Fitness, sleep-disordered breathing, symptoms of depression, and cognition in inactive overweight children: Mediation models. *Public Health Reports, 132*(Supplement 2), 65S - 73S.

Hayes, A. F., **Montoya, A. K.**, & Rockwood, N. J. (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal, 25*(1), 76 - 81.

Montoya, A. K., & Hayes, A. F. (2017). Two-condition within-participant statistical mediation analysis: A path-analytic framework. *Psychological Methods, 22*(1), 6-27.

Cheryan, S., Ziegler, S., & **Montoya, A. K.**, Jiang, L. (2017). Why have women entered some STEM fields more than others? *Psychological Bulletin, 143*(1), 1-35.

Hayes, A. F., & **Montoya, A. K.** (2017). A tutorial on testing, visualizing, and probing an interaction involving a multicategorical variable in linear regression. *Communication Methods and Measures, 11*(1), 1-30. 🏛

Work In Progress

Giner-Sorolla, **Montoya, A. K.**, R., Carpenter, T.*, Lewis, Jr. N. A.*, Aberson, C. L.*, Bostyn, D. H.*, Conrique, B. G.*, Ng, B. W.*, Reifman, A.*, Schoemann, A. M.*, Soderberg, C.* (under revision). Power to detect what? Considerations for planning and evaluating sample size. 📓 ✳

Montoya, A. K., Tibbe, T. D.[†], & Krenzer, W. L. D. (In-Principle Acceptance). A Registered Report on Registered Reports: Impact of Publishing Registered Reports on Questionable and Open Research Practices. ✳ ⬡

Montoya, A. K., Charlton, A., Price, J., Hilgard, J., Krebfeld-Schwab, A. (under review). Noise in the process: An assessment of the evidential value of mediation effects in marketing journals. 📓 ✳

Huang, Y.[†], Tibbe, T. D.[†], & **Montoya, A. K.**. (in prep). Lasso and Group Lasso with Categorical Predictors: Impact of Coding Strategy on Variable Selection and Prediction. 📓

Montoya, A. K., Hayes, A. F., & Gomez, N.[†] (in prep). Mediation Analysis in the Two Condition Pretest-Posttest Design: A Treatment-as-Moderator Conditional Process Approach.

Hubbard, A. S.[†], Edrosolan, K., Tan, J., **Montoya, A. K.**, Hunger, J. M., Tomiyama, A. J. (in prep). Ecological Momentary Assessment of Weight Stigma and Eating Behavior in Everyday Life.

Montoya, A. K. (invited). Combining Statistical and Causal Mediation Analysis. *Handbook of Research Methods in Social and Personality Psychology* (H. T. Reis, T West, C. M. Judd, Ed.) Cambridge University Press.

Lohmann, A., Luijken, K., Alter, U., Claramunt Gonzalez, J., Clouth, F., Fossum, J. L.[†], Hesen, L., Huizing, A., Ketelaar, J., **Montoya, A. K.**, Nab, L., Nijman, R. C. C., Penning de Vries, B. B. L., Tibbe, T. D.[†], Wang, Y. A., & Groenwold, R. H. H. (under review). Replicability of simulation studies for the investigation of statistical methods: The RepliSims project.

Schaerer, M., du Plessis, C., Nguyen, M., van Aert, R. C. M., Toikhin, L., Lakens, D., Clemente, E. G., Pfeiffer, T., Dreber, A., Johannesson, J., Clark, C. J., **Gender Audits Forecasting Collaboration**, Uhlmann, E. L. (Under Review). On the trajectory of discrimination: A meta-analysis and forecasting survey capturing 44 years of field experiments on gender and hiring decisions.

Guassi Moreira, J. F., Block, J.†, Cruz, A.†, Enders, C. K., & Montoya, A. K. A Preregistered Replication and Extension of Maas & Hox (2005). (in prep). ✦ ⓡⓡ

Fossum, J. L.†, Montoya, A. K., & Anderson, S. F. (Stage 1 Under Revision). How does model over- and under-specification impact statistical power and type 1 error rate in moderated mediation analysis? A Registered Report. ✦ ⓡⓡ

Litson, K. & **Montoya, A. K.**. (invited). Comparing approaches to examine multiple binary moderators in latent variable models. *Behavior Research Methods, Special Issue - Methodological Challenges of Complex Latent Mediator and Moderator Models.*

Montoya, A. K.. (under review). Conditional Process Analysis for Two-Instance Repeated-Measures Designs. 🟥

Silverstein, P., Elman, C., **Montoya, A. K.**, McGillivray, B., Pennington, C. R., Harrison, C. H., Steltenpohl, C. N., Röer, J. P., Corker, K. S., Charron, L. M., Elsherif, M., Malički, M., Hayes-Harb, R., Grinschgl, S., Neal, T. M. S., Evans, T. R., Karhulahti, V.-M., Krenzer, W. L. D., Belaus, A., Moreau, D., Burin, D. I., Chin, E., Plomp, E., Mayo-Wilson, E., Lyle, J., Adler, J. M., Bottesini, J. G., Schmidt, K., Reneau, K., Vilhuber, L., Waltman, L., Gernsbacher, M. A., Plonski, P. E., Ghai, S., Grant, S., Christian, T.-M. L., Ngiam, W. X. Q., & Syed, M. (under review). A Guide for Social Science Journal Editors on Easing into Open Science. ✦. Full Guide.

Ray, L. A., Grodin, E. N., Baskerville, W.-A., Donato, S., Cruz, A.†, **Montoya, A. K.** (under review). Gabapentin for the treatment of alcohol use disorder: A machine learning approach.

† Student or postdoc author (Primary mentor) ‡ Student or postdoc author (Non-primary mentor)

White Papers

Fossum, J. L.†, & **Montoya, A. K.** (2022). RepliSims - replication report for Fritz & MacKinnon (2007). Zenodo. DOI: 10.5281/zenodo.5975520

Tibbe, T. D.† & **Montoya, A. K.**. (2022). RepliSims - replication report MacKinnon, Lockwood and Williams (2004). Zenodo. DOI: 10.5281/zenodo.6460344

Aberson, C. L.⋆, Bostyn, D. H.⋆, Carpenter, T.⋆, Conrique, B. G.⋆, Giner-Sorolla, R.⋆, Lewis, Jr. N. A.⋆, **Montoya, A. K.**⋆, Ng, B. W.⋆, Reifman, A.⋆, Schoemann, A. M.⋆, & Soderberg, C.⋆ (2019) Techniques and solutions for sample size determination in psychology: A critical review. 🟥

Montoya, A. K., Master, A., & Cheryan, S. (2013). Increasing interest in computer science through group work: A goal congruity approach. (Senior Thesis). University of Washington, Seattle, WA. 🟥

⋆ Authors appear alphabetically, reflecting their equal contributions

BOOKS

Hayes, A. F., **Montoya, A. K.**, Preacher, K. J., & Page-Gould, E. (under contract). *Statistical mediation analysis: Within-subjects designs.* New York: The Guilford Press.

PRESENTATIONS

Invited Presentations

Montoya, A. K. (2023, Sept). Combining Statistical and Causal Mediation Analysis. Presented at the Princeton University Seminar in Advanced Research Methods, Princeton, NJ.*

Montoya, A. K. (2023, May). Mediation, Moderation, and Conditional Process Analysis in Two-Instance Repeated-Measures Designs. Presented at the CAIDe Lab Meeting, University of Oregon, Virtual.

Montoya, A. K. (2023, April). Incorporating Meta-Science in the development of mediation and moderation analysis. Presented at the University of Southern California, Los Angeles, CA.

Montoya, A. K. (2023, Jan). Incorporating Meta-Science in the development of mediation and moderation analysis. Presented at The Ohio State University, Columbus, OH.

Logan, J., **Montoya, A. K.**, & Strauss, C. (2022, Nov) Panel on teaching for diversity in quantitative courses. Presented at the Joint Quantitative Brownbag, Virtual.

Dawson, J., Edwards, J., **Montoya, A. K.**, & Preacher, K. (2022, Oct). Topic Interest Groups - Ask the Experts: Moderation and Mediation Analysis. Consortium for the Advancement of Research methods and Analysis, Texas Tech University, Virtual.

Montoya, A. K., Huang, Y.†, Tibbe, T. D.†, & Tang, A.† (2022, Sept.). When small choice have big impact: Handling categorical predictors in lasso & group lasso. Presented at the University of Virginia, Quant Lunch, Virtual.

Montoya, A. K. & McCoach, D. B. (2022, Feb). Registered Reports for Education Research. Presented at the Virtual Unconference on Open Scholarship in Education Research, Virtual.

Montoya, A. K. (2021, Sept). Mediation Analysis for Between- and Within-Subject Experimental Designs. Presented at the University of Manitoba, Psychology Colloquia Series, Winnipeg, Manitoba, Canada.

Montoya, A. K. (2021, May). Moderated Mediation Analysis for Repeated-Measures Designs. Presented at Mediation Days, Montreal, Quebec, Canada.

Montoya, A. K. (2021, Apr). Focusing on the Effect of Time: A Conditional Process Analysis Approach to Analyzing 2 (Within) X 2 (Between) Designs. Presented at the University of California - Santa Barbara, Quantitative Methods in Social Sciences Seminar, Santa Barbara, CA.

Montoya, A. K. (2021, Apr). Understanding When and For Whom: Moderation Analysis for Two-Instance Repeated-Measures Designs. Presented at the Princeton University Seminar in Advanced Research Methods, Princeton, NJ.

Montoya, A. K. (2021, March). Mediation and Moderation in Repeated-Measures Designs: Recent Developments and Future Directions. Presented at Logan Lab Meeting, Quantitative Research, Evaluation, and Measurement in the College of Education and Human Ecology, Ohio State University, Columbus, OH.

Montoya, A. K. & Rambo-Hernandez, K. (2021, Feb). Deep Dive into Open Scholarship: Preregistration

and Registered Reports. Presented at the Virtual Unconference on Open Scholarship in Education Research, Virtual.

Montoya, A. K. (2021, Jan.). Mediation and Moderation in Repeated-Measures Designs: Recent Developments and Future Directions. Presented at the University of Colorado Boulder, Graduate Professional Development Seminar in Social Psychology, Department of Psychology and Neuroscience, Boulder, CO.

Montoya, A. K. (2020, Nov). Quantitative Psychology and Meta-Science: Two Sides of the Same Coin, or Two Ships Passing in the Night? Presented at Arizona State University, Tempe, AZ.

Montoya, A. K. (2020, Aug). Quantitative Psychology and Meta-Science: Two Sides of the Same Coin, or Two Ships Passing in the Night? Presented at the University of North Carolina - Chapel Hill, Chapel Hill, NC.

Montoya, A. K. (2020, Apr) The More Things Change the More They Stay The Same: Model Equivalence in Repeated-Measures Mediation. Presented at University of California - Davis, Davis, CA. (Presentation Cancelled)

Montoya, A. K. (2019, Aug.) Understanding rigor and replicability: What can and cannot be gleaned from meta-analysis? Presented at the UC Consortium on the Developmental Science of Adolescence, Los Angeles, CA. ✸

Peer-Reviewed Presentations

Krenzer, W. L. D., Rhodes, D, Tibbe, T. **Montoya, A. K.** (2023, June). Preparing for a Bright Future with Registered Reports: A Hackathon to learn from and prepare undergraduates about this publishing mechanism. Hackathon at the annual Society for the Improvement of Psychological Science conference, Padua, Italy.

Flake, J., McCoach, B., Manapat, P., Howard, A., & **Montoya, A. K.** (2023, June). Transparency, Reproducibility, and Replicability of Modeling Methods: Problems and Solutions. Panel presented at the Modern Modeling Methods, University of Connecticut, Mansfield, CT.

Montoya, A. K. (2023, June). Causal Language in Evaluating Moderation/Interaction Hypotheses. Presented at the Modern Modeling Methods, University of Connecticut, Mansfield, CT.

Montoya, A. K. (2023, Aug). Inclusive Teaching with the General Linear Model. Session Title: Incorporating EDI Perspectives into Quantitative Methodology Teaching, Practice, and Research. Presented at the APA Annual Meeting, Washington, DC.

Krenzer, W. D. L., Tibbe, T. D.[†], **Montoya, A. K.** (2023, March.) Demystifying Registered Reports for the Advancement of both the Mentor and Mentee. Presented at the 32nd Annual APPE International Conference, Portland, OR.*

Montoya, A. K., Krenzer, W. D. L., Tibbe, T. D.[†], Fossum, J. L.[†] (2023, Feb.) Getting started with registered reports. Presented at the Society for Personality and Social Psychology, Virtual.*

Montoya, A. K. (2022, Dec). Using the General Linear Model to Teach about Race in Research. Presented at the PsychTERMS Virtual Conference, Virtual.

Charlton, A., **Montoya, A. K.,** Price, J., & Hilgard, J. (2022, Nov). Noise in the process: an assessment of the evidential value of mediation effects in marketing journals. Presented at the Society for Judgement

and Decision Making Annual Meeting, San Diego, CA.

Blankson, A. N., **Montoya, A. K.**, Flake, J. K., Garrison, S. M., Logan, J., Madison, M., Pek, J., Rhemtulla, M., Stapleton, L., & Sweet, T. (2022, Oct). QUAD Squad. Presented at the Society for Multivariate Experimental Psychology, Monterey Bay, CA.

Fossum, J. L.[†] & **Montoya, A. K.** (2022, July). Power analysis methods for mediation and moderated mediation models. Presented at the International Meeting of the Psychometric Society, Bologna, Italy.

Krenzer, W. D. L., Tibbe, T. D.[†], Fossum, J. L.[†], & **Montoya, A. K.** (2022, June). Discussion on registered reports: A new way to publish academic research. Presented at the Annual Meeting of the Society for the Improvement of Psychological Science, Victoria, BC, Canada.

Tibbe, T. D.[†], Krenzer, W. D. L., **Montoya, A. K.**. (2022, February). The Role of Registered Reports in Improving Responsible Research. Presented at Association for Practical and Professional Ethics Research Integrity Scholars and Educators Consortium Fourth Annual Pre-Conference Symposium, Cincinatti, OH.

Charlton, A., **Montoya, A. K.**, Price, J., & Hilgard, J. (2021). Noise in the Process: A Meta-Analysis of Mediation Effects in Marketing Journals. Presented at the Annual Meeting of the Association for Consumer Research, Seattle, WA.

Makel, M. C., **Montoya, A. K.**, Cook, B., & Smith, K. (2021, Apr.) Open Access and Preprints. Session: Actions for Increasing the Credibility of Educational Research. Chair: Peters, S. J. Presented at the Annual Meeting for the American Educational Research Association, San Francisco, CA.

Montoya, A. K. (2021, Feb). New Insights in Power and Power Analysis in Mediation Models. *Symposium Chair*. Presented at the Society for Personality and Social Psychology Annual Meeting, Virtual.

Fossum, J. L.[†] & **Montoya, A. K.** (2021, Feb). Comparison of power analysis methods for mediation. Presented at the Society for Personality and Social Psychology Annual Meeting, Virtual.

Krenzer, W. D. L., Tibbe, T. D. [†], & **Montoya, A. K.** (2020, Dec.). Registered Reports: What we know and understand, what you would like to know. Presented at the Annual Meeting of the Association for Interdisciplinary Meta-Research and Open Science, Virtual.

Montoya, A. K. (2020, May) The More Things Change the More They Stay The Same: Model Equivalence in Repeated-Measures Mediation. Presented at the Annual Meeting for the Association for Psychological Science, Chicago, IL.(Conference Cancelled)

Montoya, A. K., Makel, M. C., Cook, B., & Smith, K. (2020, Apr.) Open Access and Preprints. Session: Actions for Increasing the Credibility of Educational Research. Chair: Peters, S. J. Presented at the Annual Meeting for the American Educational Research Association, San Francisco, CA. (Conference Cancelled) [Link]

Giner-Sorolla, R., Lewis, N., **Montoya, A. K.**, Carpenter, T. (2020, Feb) Power Analysis: Insights and Techniques from the 2019 Working Group, Society for Personality and Social Psychology Annual Meeting, New Orleans, LA.

Montoya, A. K. (2019, Oct.) Focusing on the Effect of Time: A Conditional Process Analysis Approach to Analyzing 2 (Within) X 2 (Between) Designs. Presented at the Society for Experimental Social Psychology, Toronto, Canada.

Montoya, A. K. (Chair) (2019, Apr.) Adopting Open Science at Any Career Stage: A Panel Discussion. Presented at the Annual Meeting of the Western Psychological Association, Pasadena, CA.

Montoya, A. K., & Krenzer, W. (2019, Feb.) Registered Reports: Understanding Where and How to Publish (Presentation and Mini-hack). Presented at the Annual Meeting of the Society for Personality and Social Psychology: Society for the Improvement of Psychological Sciences Preconference, Portland, OR. ✿

Montoya, A. K., & Jeon, M. J. (2018, Apr). MIMIC models for uniform and non-uniform DIF as mediation and moderated mediation models. Presented at the 2018 AERA Annual Meeting, New York, NY.

Montoya, A. K., & Edwards, M. C. (2017, Apr). Cautions on using model fit to choose number of factors in EFA. Presented at the 2017 Annual Meeting of the National Council on Measurement in Education, San Antonio, TX.

Montoya, A. K. (2016, Mar). Two condition within-subjects mediation: Power and type I error for methods of inference for the indirect effect. Presented at the Annual Meeting for the Southeastern Psychological Association, New Orleans, LA.

Montoya, A. K. (2016, Jan). Multiple mediator models for two-condition within-subjects designs: Estimating and comparing indirect effects. Presented at the Annual Meeting of the Society for Personality and Social Psychology, San Diego, CA.

Stojek, M. M. K., Drescher, C., **Montoya, A. K.**, Newberry, A., Sultan, Z., Williams, C. F., Pollock, N. K., & Davis, C. L. (2015, Nov). Sleep-disordered breathing, depression symptoms, and cognition in overweight inactive children. Presented at Obesity Week 2015, Los Angeles, CA.

Hayes, A. F. & **Montoya, A. K.** (2015, May). Hacking PROCESS: Some advanced and undocumented applications in mediation and moderation. Presented at the 27th Annual Convention for the Association for Psychological Science, New York, NY.

Montoya, A. K., Master, A., & Cheryan, S. (2013, July). Working together to belong: Increasing women's feelings of fit in STEM through group work. Presented at the Annual Pacific Conference on Prejudice & Culture, Bellingham, WA.

Montoya, A. K., Master, A., & Cheryan, S. (2013, May). Using group work to recruit women to STEM: A goal congruity approach. Presented at the Annual UW Undergraduate Research Symposium, Seattle, WA.

Montoya, A. K., Master, A., & Cheryan, S. (2013, May). Using communal interactions to recruit women into STEM: A goal congruity perspective. Presented at the UCLA Psychology Undergraduate Research Conference, Los Angeles, CA.

Montoya, A. K., Ni, W., Pena, A., & Stillwell, E. (2013, Mar). Debunking stereotypes: Research on why the image of computer science matters. Presented at the Women in Science and Engineering Conference, Seattle, WA.

Colloquia

Montoya, A. K., Charlton, A., Price, J., & Hilgard, J. (2021, March). Mediation analysis in consumer behavior: Evaluating evidence for questionable research practices and publication bias. Behavioral Decision Making Meeting, UCLA, Los Angeles, CA.

Montoya, A. K. (2021, Mar). Quantitative Psychology and Meta-Science: Two Sides of the Same Coin, or Two Ships Passing in the Night? Presented at the Quantitative Psychology Seminar, UCLA, Los Angeles, CA.

Montoya, A. K. (2020, Feb). An Introduction to Power Analysis for Mediation. Behavioral Decision Making Meeting, UCLA, Los Angeles, CA.

Montoya, A. K., & Huang, Y.[†] (2019, Apr). Understanding performance of LASSO regression with categorical predictors: Variable selection and predictive ability. Quantitative Psychology Seminar, UCLA, Los Angeles, CA.

Montoya, A. K., Smith, S. M., Bjälkebring, P., & Tapal, A. (2018, Dec). Numeracy-Related Responding on Numeric Self-Report Scales. Behavioral Decision Making Meeting, UCLA, Los Angeles, CA.

Montoya, A. K. (2017, Oct). The Society of Multivariate Experimental Psychology: A graduate student perspective. Quantitative Psychology Seminar, Ohio State University, Columbus, OH.

Montoya, A. K. (2017, Mar). Estimating and probing interactions in two instance repeated-measures designs. Methodological Colloquium Series, College of Education and Human Ecology, Ohio State University, Columbus, OH.

Montoya, A. K. (2016, Sep). Extending the Johnson-Neyman procedure to categorical independent variables. Quantitative Psychology Seminar, Ohio State University, Columbus, OH.

Montoya, A. K., & Hayes, A. F. (2016, Mar). Two condition within-subjects mediation: Power and type I error for methods of inference for the indirect effect. Quantitative Psychology Seminar, Ohio State University, Columbus, OH.

Montoya, A. K. & Hayes, A. F. (2015, Apr). Within-subjects mediation: A path-analytic approach. Quantitative Psychology Seminar, Ohio State University, Columbus, OH.

Poster Presentations

Krenzer, W. D. L., Tibbe, T. D., **Montoya, A. K.** (2023 March). Demystifying Registered Reports for the Advancement of both the Mentor and Mentee. Presented at the 32nd Annual APPE International Conference.*

Block, J. & Montoya, A. K. (2022, November). Modeling Numeracy's Effect on Likert Data; An IR-Tree Based Approach. Presented at the Society for Judgement and Decision Making Annual Meeting, San Diego, CA.

Cruz, A. M.[†], **Montoya, A. K.**, Grodin, E. N., Donato, S., Baskerville, W.-A., & Ray, L. A. (2022, June). A Case Study with RCT of Varenicline Using Two Machine Learning Approaches. Presented at the Symposium for Data Science and Statistics, Pittsburgh, PA.

Meredith, L. R.[‡], Grodin, E. N., **Montoya, A.K.**, Miranda, R., Squeglia, L. M., Ray, L. A (2022, June). The effect of ibudilast on daily naturalistic reporting of subjective response to alcohol. Presented at the Research Society on Alcoholism Convention, Orlando, FL.

Grodin, E. N., **Montoya, A. K.**, Cruz, A. M.[†], Donato, S., Baskerville, W.-A., & Ray, L. A. (2022, June). Identifying likely treatment responders to Varenicline for Alcohol Use Disorders Using a Tree-Based Qualitative Interaction Analysis. Presented at the 45th Annual Research Society on Alcoholism Scientific Meeting, Orlando, FL.

Tibbe, T. D.[†], **Montoya, A. K.**, & Enders, C. (2022, May). Elevated type I error rates of the bias-corrected bootstrap in missing data methods for the indirect effect. Presented at the Annual Meeting of the Association

for Psychological Science, Chicago, IL.

Fossum, J. L.† & **Montoya, A. K.** (2022, May). Modeling latent interactions using the product indicator approach: An applied example in R. Presented at the Annual Meeting of the Association for Psychological Science, Chicago, IL.

Garcia Ruiz, E.†, Tibbe, T. D.† & **Montoya, A. K.**, (2022, May). Registered reports: The adoption of registered reports over time. Presented at the UCLA Undergraduate Research Week, Los Angeles, CA.

Yang, N.†, Fossum, J. L.† & **Montoya, A. K.**, (2022, May). Extending mediation analysis to within-subjects data with dichotomous outcomes. Presented at UCLA Undergraduate Research Week, Los Angeles, CA.

Garcia Ruiz, E.†, Tibbe, T. D.† & **Montoya, A. K.**, (2022, May). Registered reports: The adoption of registered reports over time. Presented at the 31st Annual UCLA Psychology Undergraduate Research Conference, Los Angeles, CA.

Yang, N.†, Fossum, J. L.† & **Montoya, A. K.**, (2022, May). Extending mediation analysis to within-subjects data with dichotomous outcomes. Presented at the 31st Annual UCLA Psychology Undergraduate Research Conference, Los Angeles, CA.

Block, J.†, Loran, Z.† & **Montoya, A. K.**, (2022, May). Using IR-trees to model numeracy's effect upon Likert scales. Presented at the 31st Annual UCLA Psychology Undergraduate Research Conference, Los Angeles, CA.

Cruz, A. M.†, & **Montoya, A. K.** (2022, April). Within-subject mediation analysis with more than two conditions: An applied example. Presented at the Annual Meeting of the Western Psychological Association, Portland, OR.

Lamarque-Navarrete, K.† **Montoya, A. K.** (2021, October). Propensity Score Matching Concurrently with Participant Recruitment: Examining Cardiovascular Health and PTSD. Presented at the Women in Statistics and Data Science Conference, Virtual.

Tibbe, T. D.†, **Montoya, A. K.**, Krenzer, W. D. L. (2021, May). A Registered Report on Registered Reports: Investigating Potential Benefits of and Barriers to Adopting Registered Reports. Presented at the Annual Convention of the Association for Psychological Science, Virtual.

Loran, Z.†, & **Montoya, A. K.** (2021, June). Methods for Detecting Numeracy's Effect on Trait-Unrelated Response Styles. Presented at the Symposium on Data Science and Statistics, Virtual.

Lamarque-Navarrete, K.† & **Montoya, A. K.**, (2021, May). Reducing Carryover Effects in Within-Subjects Design. Presented at the UCLA Undergraduate Research Week, Los Angeles, CA.

Loran, Z.† & **Montoya, A. K.**, (2021, May). Methods for detecting numeracy's effect on trait-unrelated reponse styles. Presented at the UCLA Undergraduate Research Week, Los Angeles, CA.

Yang, N.†, Fossum, J. L.† & **Montoya, A. K.**, (2021, May). Moderated mediation analysis across different research areas. Presented at the UCLA Undergraduate Research Week, Los Angeles, CA.

Lamarque-Navarrete, K.† & **Montoya, A. K.**, (2021, May). Propensity Score Matching Concurrently with Participant Recruitment: Examining Cardiovascular Health and PTSD. Presented at the 30th Annual UCLA Psychology Undergraduate Research Conference, Los Angeles, CA.

Fossum, J. L.[†], **Montoya, A. K.** (2021, April). Current Practices and Sample Sizes Used for Moderated Mediation. Presented at the Annual Meeting of the Western Psychological Association, Virtual.

Tibbe, T. D.[†], **Montoya, A. K.** (2021, April). Correcting the Bias Correction for the Bootstrap in Mediation Analysis. Presented at the Annual Meeting of the Western Psychological Association, Virtual.

Polad, V.[†] & **Montoya, A. K.**, (2020, November). Reducing Carryover Effects in Within-Subjects Design. Presented at the Electronic Undergraduate Statistics Research Conference. [Link to Video]

Polad, V.[†] & **Montoya, A. K.**, (2020, May). Reducing Carryover Effects in Within-Subjects Design. Presented at the 29th Annual UCLA Psychology Undergraduate Research Conference, Los Angeles, CA. ✿

Polad, V.[†] & **Montoya, A. K.**, (2020, May). Reducing Carryover Effects in Within-Subjects Design. Presented at the UCLA Undergraduate Research Week, Los Angeles, CA. ▶

Loran, Z.[†] & **Montoya, A. K.**, (2020, May). Numeracy Effects on Numeric Self-Report Scale Responses. Presented at the UCLA Undergraduate Research Week, Los Angeles, CA.

Leathem, L. D.[‡], Currin, D. L., Montoya, A. K. , & Karlsgodt, K. H. (2020, Apr). Social Cognitive and Neural Mechanisms of Loneliness in Subclinical Psychosis. Presented at the 2020 Society of Biological Psychiatry Virtual Symposium.

Montoya, A. K.. (2020, Feb.) Moderated Mediation for Integrating Between X Within-Subject Designs. Presented at the Annual Meeting of the Society for Personality and Social Psychology, New Orleans, LA.

Krenzer, W. D. L., & **Montoya, A. K.**. (2020, Feb.) Registered Reports: An Unbiased Future to Psychological Research. Presented at the Annual Meeting of the Society for Personality and Social Psychology, New Orleans, LA. ✿

Grodin, E. N., **Montoya, A. K.**, Bujarski, S., & Ray, L. A. (2019). A Machine Learning Approach to Modeling Motivation for Alcohol in Humans. Presented at the 58th Annual Meeting of the American College of Neuropsychopharmacology, Orlando, FL.

Loran, Z.[†], **Montoya, A. K.**, & Krenzer, W. D. L. (2019, May). Registered Report Early Adoption: Census of Journal Policies and Open Science Practices. Presented at the UCLA Undergraduate Research Week, Los Angeles, CA.

Huang, Y.[†], & **Montoya, A. K.** (2019, May). Comparing Performance of Lasso, Group Lasso, and Linear Regression with Categorical Predictors. Presented at the 28th Annual UCLA Psychology Undergraduate Research Conference, Los Angeles, CA.

Huang, Y.[†], & **Montoya, A. K.** (2019, May). Comparing Performance of Lasso, Group Lasso, and Linear Regression with Categorical Predictors. Presented at the Symposium on Data Science and Statistics, Bellevue, WA.

Montoya, A. K., Smith, S. M., Bjälkebring, P., & Tapal, A. (2018, Nov). Numeracy-Related Responding on Numeric Self-Report Scales. Presented at the Annual Meeting for the Society of Judgment and Decision Making, New Orleans, LA.

Silberstein, C.[†], & **Montoya, A. K.** (2018, May). Penalized regression within the game cribbage: A machine learning application. Presented at the Symposium on Data Science and Statistics, Reston, VA.

Montoya, A. K. (2018, Mar). Statistical power in mediation analysis for repeated measures designs. Presented at the Annual Meeting of the Society for Personality and Social Psychology, Atlanta, GA.

Montoya, A. K. (2017, Oct). Probing moderation analysis in two-instance repeated-measures designs. Presented at the Society for Multivariate Experimental Psychology, Minneapolis, MN.

Montoya, A. K. (2017, May). Simple slopes and Johnson-Neyman probing methods extended to two-condition within-subject designs. Presented at the Annual Convention of the Association for Psychological Science, Boston, MA.

Montoya, A. K., & Hayes, A. F. (2015, May). Estimating and testing indirect effects in within-subject mediation analysis: A path-analytic framework. Presented at the Annual Convention of the Association for Psychological Science, New York, NY.

Montoya, A. K., Flaherty, B., & Cheryan, S. (2015, Feb). Collapsing conditions increases type I error: Changing analysis of multiple control conditions. Presented at the Annual Meeting of the Society for Personality and Social Psychology, Long Beach, CA.

Montoya, A. K., Master, A., & Cheryan, S., (2014, Feb). Communal goal fulfillment through group work: A new direction in recruiting women into computer science. Presented at the Annual Meeting of the Society for Personality and Social Psychology, Austin, TX.

Montoya, A. K., Master, A., & Cheryan S., (2013, May). Using group work to recruit women to STEM: A goal congruity approach. Presented at the 42nd Annual Department of Psychology Research Festival, Seattle, WA.

Stillwell, E., **Montoya, A. K.**, Master, A., & Cheryan, S., (2013, May). Perceptions of group work in STEM fields: Explaining women's disinterest in computer science. Presented at the Annual UW Undergraduate Research Symposium, Seattle, WA.

Montoya, A. K., Master, A., & Cheryan, S. (2013, Jan). Students' goal endorsement predicts perceived fit in STEM fields. Presented at the Annual Meeting of the Society for Personality and Social Science, New Orleans, LA.

Montoya, A. K., Master, A., & Cheryan, S. (2012, May). Perceptions of communal goals predict students' interest in STEM fields. Presented at the Annual UW Undergraduate Research Symposium, Seattle, WA.

*Future presentations which have already been accepted.

† Student or postdoc author (Primary mentor) ‡ Student or postdoc author (Non-primary mentor)

MENTORSHIP

Dissertation Committee Members

Stefany Mena, Quantitative Psychology, Chair: Han Du   In Progress

Egamaria Alacam, Quantitative Psychology, Chair: Craig Enders   In Progress

Juan Diego Vera, Quantitative Psychology, Chair: Craig Enders   In Progress

Logan Leathem, Clinical Psychology, Chair: Katie Karlsgodt   In Progress

Giovanni Ramos, Clinical Psychology, Chair: Denise Chavira   2022

Blanche Wright, Clinical Psychology, Chair: Anna Lau 2022

Rejoyce Green, Clinical Psychology, Chair: Lara Ray 2021

Morgan Bartholomew, Clinical Psychology, Chairs: Greg Miller & Cindy Yee-Bradbury 2021

Chelsea Romney, Health Psychology, Chair: Ted Robles 2021

Beth Moroney, Clinical Psychology, Chair: Steve Lee 2021

Comprehensive Exam Committee Member

Gengrui (Jimmy) Zhang, Quantitative Psychology, University of Southern California, Chair: Mark Lai 2023

Juan Diego Vera, Quantitative Psychology, Chair: Craig Enders 2022

Egamaria Alacam, Quantitative Psychology, Chair: Craig Enders 2022

Graduate Students

Jared Block (co-mentored with Steve Reise) 2022 –

Alondra Cruz, Masters 2021 – 2023

Jessica Fossum, Advanced to Candidacy (2022) 2019 –
Currrent Position: Instructor of Research Psychology, Seattle Pacific University

Tristan Tibbe 2019 –

Undergraduates/Postbaccalaureate

Jun Yu (Johnny) Chen, UCLA, Research Assistant 2023 –

Eunwoo Kim, UCLA, Research Assistant 2023

Yiwei Wang, UCLA, Research Assistant 2022 –

Deana Moghaddas, UCLA, Research Assistant 2021 – 2023
Current position: Data and Policy Analyst I — Statistical Programmer, Acumen, LLC

Anushka Chakrabarti, UCLA, Research Assistant 2021 – 2023 Current position: HSBC Commercial Banking Graduate Analyst

Amy Tang, UCLA, Research Assistant 2021 – 2023 Current position: Master's student in Data Science at New York University

Nickie Yang, UCLA, Research Assistant/PROPS/PEERS 2020 –

Erika Garcia, UCLA, Research Assistant/PEERS   2020 – 2022

Jared Block, UCLA, Research Assistant   2021 – 2022
Currrent Position: PhD Student in Quantitative Psychology at UCLA

Yuhan (Bruce) Mei, UCLA, Research Assistant   2020 – 2022
Current Position: PhD Program in Management and Organization at Duke.

Carolyn Moore, UCLA, Research Assistant   2020 – 2021 Current Position: Associate Consultant, Bain &
Company

Kathleen Lamarque-Navarrete, Departmental Honors   2020 – 2022
Previous Position: Lab Manager for QRClab (PI: Montoya)

Yihuan (Charlotte) Huang, UCLA, Research Assistant   2018 – 2021
Current Position: Data Scientist at Facebook

Zach Loran, UCLA, Research Assistant   2018 – 2021
Current Position: Data Analyst at FieldLevel.com

Valerie Polad, PROPS   2019 – 2021
Current Position: PhD Student in Quantitative Psychology at UNC-Chapel Hill

Nancy Gomez, Research Assistant   2019 – 2021
Current Position: PhD Student in Quantitative Psychology at University of Washington

Anjum Farook, UCLA, Research Assistant   2019 – 2020
Current Position: Business Analyst at FMGG Direct

Kevin Le, UCLA, Research Assistant   2019 – 2020
Current Position: Masters Student in Data Science at Brown University

Chris Silberstein, OSU, Research Assistant   2017 – 2018
Current Position: Data Engineer at CVS Health

Mentee Awards

Block, J.[†] UCLA Graduate Division, Graduate Summer Research Mentorship Award,   2023

Cruz, A.[†] UCLA Graduate Division, Graduate Research Mentorship Award,   2022

Cruz, A.[†] UCLA Graduate Division, Graduate Summer Research Mentorship Award,   2022

Consultant to Erica Grodin (PI); Sponsor Lara Ray   04/01/2022-03/31/2027
"Characterizing the Microbiome-Gut-Brain Axis in Individuals with Alcohol Use Disorder" Ruth. L. Kirschstein
National Research Service
Award (NRSA) Predoctoral Fellowship, National Institute on Alcohol Abuse
and Alcoholism (NIAAA), NIAAA 1K01AA029712-01.

Consultant to Lindsay Meredith (PI); Sponsor Lara Ray   06/01/2022-05/31/2024
"Neuroimmune Treatment for AUD: Testing Moderators of Clinical Response
and Mechanisms of Action" Ruth. L. Kirschstein National Research Service

Award (NRSA) Predoctoral Fellowship, National Institute on Alcohol Abuse
and Alcoholism (NIAAA), NIH F31AA0292, $40,690 TDC.

Tibbe, T.[†] UCLA, Graduate Division, Graduate Dean's Scholar Award,   2020 – 2022

Fossum, J. L.[†] UCLA Graduate Division, Graduate Research Mentorship Award,   2021 – 2022

Tibbe, T.[†] National Science Foundation, Graduate Research Fellowship,   2021 – 2023
Mediation Analysis with Missing Data: Correcting the Bias-Corrected Bootstrap

Consultant to Anika Guha (PI); co-sponsors Cindy M. Yee-Bradbury and   02/01/21-01/31/23
Gregory A. Miller. Identifying Neural Mechanisms of Aberrant Inhibitory
Processing and Salience in Patients with Schizophrenia." Individual National
Research Service Award (pre-doc), National Institute of Mental Health F31
MH124421, $74,674 TDC.

Tibbe, T. D.[†] UCLA Graduate Division, Graduate Summer Research Mentorship Award,   2020

Huang, Y.[†] UCLA Library Prize for Undergraduate Research in the Science, Engineering,   2020
and Math, *Lack of Robustness of Lasso and Group Lasso with Categorical Predictors.* ($700)

FUNDING

Grants

Collaborator, National Science Foundation,   Pending
AccelNet-Implementation: Community of Open Scholarship Grassroots Networks (COSGN) Meta

Co-Investigator (PI: Lara Ray), National Institutes of Health,   Pending
Translational underpinnings of motivation for alcohol in humans ($1,994,247)

Institute for Digital Research and Education, Workshop Award ($5,000)   2022

Co-Principal Investigator (PI: Lara Ray), National Institutes of Health,   4/2021 - 3/2023
*Identifying treatment responders in medication trials for AUD using machine learning
approaches*, Award No: 1R03AA029244-01 ($149,553)

Faculty Affiliate, National Institutes of Mental Health,   2021 - 2026
T32: Biobehavioral Issues in Physical and Mental Health , UCLA

Faculty Career Development Award, UCLA Equity, Diversity, and Inclusion ($15,000)   2020

Collaborator, National Science Foundation,   2020 - 2025
Create a STEM Education Research Hub Meta

Principal Investigator, National Science Foundation, Ethical and Responsible Research, 2020 - 2023
*Aligning Incentives: Can Registered Reports Encourage Ethical and Responsible Research
Practices among Early Career Researchers*, Award No: 2024377 ($400,127)

Co-Investigator (PI: Jennifer Sumner), National Institute of Health, National Heart, 8/2018 - 6/2023
Lung, and Blood Institute, *Identifying Early Intervention Targets for Reducing
CardiovascularRisk in Posttraumatic Stress*, Award No: R01 HL139614 ($788,933).

Co-Investigator, Decision Sciences Collaborative, Small Research Grant, The Ohio State University,   2017
Numeracy-related responding to numeric self-report scales ($2,260)

Fellowships

National Science Foundation, Graduate Research Fellowship,   2015
Modernizing Within-Subjects Mediation Analysis ($102,000)

The Ohio State Unviersity, Susan L. Huntington Dean's Distinguished University Fellowship   2014
($85,500)

Honors & Awards

Quantitude Podcast, Meme Caption Awesomeness Award [LINK]   2022

UCLA, Undergraduate Research Week Faculty Mentor Award   2022

Department of Psychology, UCLA, Distinguished Teaching Award   2022

Association for Psychological Science, APS Rising Star Award   2022

Department of Psychology, UCLA, PGSA J. Arthur Woodward Graduate Mentoring Award   2020

Department of Psychology, The Ohio State University, Herbert Toops Research Award,   2017
Two-condition within-participant statistical mediation analysis: A path-analytic framework ($500)

Department of Psychology, The Ohio State University, Spring Graduate Research Forum, 1st Place,   2017
Extending the Johnson-Neyman procedure to categorical independent variables: Mathematical derivations and computational tools ($500)

Association for Psychological Science, Student Caucus Volunteer/Travel Assistance Award ($200)   2017

Council of Graduate Students, The Ohio State University, Ray Travel Award ($1000)   2017

Council of Graduate Students, The Ohio State University, Ray Travel Award ($750)   2016

Society for Personality and Social Psychology, Graduate Travel Award ($500)   2016

Society for Personality and Social Psychology, Diversity Fund Graduate Travel Award ($500)   2016

Association for Psychological Science, Student Caucus Volunteer/Travel Assistance Award ($200)   2015

Society for Personality and Social Psychology, Diversity Fund Undergraduate Registration Award   2013
($340)

Department of Psychology, University of Washington, Guthrie Price for Best Empirical Paper,   2013
Increasing interest in computer science through group work: A goal congruity approach ($250)

University of Washington, Mary Gates Research Scholarship,   2013
How increasing perceptions of communal goals in computer science can increase women's

interest ($4,000)

University of Washington, Undergraduate Research Travel Conference Award ($650)   2013

TEACHING EXPERIENCE

Invited Workshops

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis I,   2023, June
Global School of Empirical Research Methods, University of St. Gallen.

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis II,   2023, June
Global School of Empirical Research Methods, University of St. Gallen.

<u>Co-Instructor with William Krenzer and Tristan Tibbe</u>[†], Getting Started with   2023, June
Registered Reports, Institute for Digital Research and Education, UCLA,
Los Angeles, CA.

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis,   2023, April
Statistical Horizons, Virtual.

<u>Co-Instructor with Tristan Tibbe</u>[†], Best Practices in Mediation Analysis,   2023, April
Annual Convention of the Western Psychological Association, Riverside, CA.

<u>Co-Instructor with William Krenzer and Tristan Tibbe</u>[†], Getting Started with   2023, March
Registered Reports, Institute for Digital Research and Education, UCLA,
Los Angeles, CA.

<u>Co-Instructor with William Krenzer and Tristan Tibbe</u>[†], Getting Started with   2023, Jan
Registered Reports, Institute for Digital Research and Education, UCLA,
Los Angeles, CA.

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis I,   2023, Jan
Global School of Empirical Research Methods, University of Ljubljana.*

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis,   2022, Aug
Statistical Horizons, Virtual.

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis I,   2022, June
Global School of Empirical Research Methods, University of St. Gallen, Virtual.

<u>Co-Instructor with Jessica Fossum</u>[†], Introduction to Mediation Analysis,   2022, April
Annual Convention of the Western Psychological Association, Portland, OR.

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis,   2022
Anderson School of Management, UCLA, Los Angeles, CA.

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis I,   2022
Global School of Empirical Research Methods, University of Ljubljana, Virtual.

<u>Instructor</u>, Mediation, Moderation, and Conditional Process Analysis,   2022
Statistical Horizons, Virtual.

Instructor, Mediation, Moderation, and Conditional Process Analysis,   2021
Statistical Horizons, Virtual.

Instructor, Introduction to Mediation Analysis,   2021
Race, Ethnicity, Politics, and Society Lab (PI: Efren Perez), Los Angeles, CA.

Co-Instructor, Mediation, Moderation, and Conditional Process Analysis II,   2021
Global School of Empirical Research Methods, University of St. Gallen, Virtual.

Instructor, Mediation, Moderation, and Conditional Process Analysis I,   2021
Global School of Empirical Research Methods, University of St. Gallen, Virtual.

Instructor, Mediation, Moderation, and Conditional Process Analysis I,   2021
Global School of Empirical Research Methods, University of Ljubljana, Virtual.

Instructor, Mediation and Moderation for Two-Instance Repeated-Measures Designs,   2020
Annual Convention of the Western Psychological Association, Virtual.

Co-Instructor, Considerations for Planning and Evaluating Sample Size,   2020
Annual Convention of the Association for Psychological Science, Chicago, IL. (Conference Cancelled)

Instructor, Mediation, Moderation, and Conditional Process Analysis I,   2020
Global School of Empirical Research Methods, University of St. Gallen, St. Gallen, Switzerland.

Instructor, Mediation in Repeated Measures and Multilevel Designs,   2019
Annual Convention of the Association for Psychological Science, Washington DC.

Instructor, Introduction to Mediation Analysis,   2019
Annual Convention of the Western Psychological Association, Pasadena, CA. ✺

Instructor, Mediation in Repeated Measures and Multilevel Designs,   2019
Society for Personality and Social Psychology Annual Meeting, Portland, OR.

Instructor, Mediation, Moderation, and Conditional Process Analysis I,   2019
Global School of Empirical Research Methods, BI Norwegian Business School, Oslo, Norway.

Instructor, Mediation, Moderation, and Conditional Process Analysis I,   2018
Global School of Empirical Research Methods, University of Ljubljana, Ljubljana, Slovenia.

Instructor, Understanding PROCESS v3: New features, building, and editing models,   2018
University of Southern California, Los Angeles, CA.

Co-Instructor, Mediation in Repeated Measures and Multilevel Designs,   2018
Annual Convention of the Association for Psychological Science, San Francisco, CA.

Co-Instructor, Understanding PROCESS v3: New features, building, and editing models,   2018
Society for Personality and Social Psychology Annual Meeting, Atlanta, GA.

Instructor, Mediation, Moderation, and Conditional Process Analysis I,   2018
Global School of Empirical Research Methods, BI Norwegian Business School, Oslo, Norway.

Instructor, Introduction to R through Mediation and Moderation,   2017
Department of Psychology, University of Washington, Seattle, WA.

Instructor, MEMORE: Mediation and Moderation in Repeated Measures Designs,   2017
Society for Personality and Social Psychology Annual Meeting, San Antonio, TX.

Instructor, Using MEMORE: Mediation in Two-Instance Repeated Measures Designs,   2017
Social Psychology Graduate Student Workshop Series, Columbus, OH.

Instructor, Conditional Process Analysis: Moderation of Mediation,   2016
Annual Meeting for the Southeastern Psychological Association, New Orleans, LA.

Instructor, Conditional Process Analysis: The Moderation of Mediation,   2016
University of San Francisco, San Francisco, CA.

Course Assistant, Statistical Mediation and Moderation,   2015
Instructor: Andrew F. Hayes, Statistical Horizons, Philadelphia, PA.

*Future presentations which have already been accepted.

Courses Taught - UCLA

Instructor, Multivariate Analysis with Latent Variables (Psych M257), Enrollment: 21   Fall 2022

Instructor, Advanced Psychological Statistics, (Psych 250C), Enrollment: 36.   Spring 2022

Instructor, Mediation, Moderation, and Conditional Process Analysis (Psych 254B)   Winter 2022
Enrollment: 33.

Instructor, Psychological Statistics (Psych 100A), Enrollment: 246   Fall 2021

Instructor, Advanced Psychological Statistics, (Psych 250C), Enrollment: 33.   Spring 2021

Instructor, Psychological Statistics (Psych 100A), Enrollment: 174.   Winter 2021

Instructor, Advanced Psychological Statistics, Enrollment: 36. (Psych 250C)   Spring 2020

Instructor, Special Problems in Psychological Statistics: Mediation, Moderation,   Winter 2020
and Conditional Process Analysis (Psych 258), Enrollment: 35.

Instructor, Psychological Statistics (Psych 100A), Enrollment: 275.   Fall 2019

Instructor, Psychological Statistics (Psych 100A), Enrollment: 196.   Spring 2019

Instructor, Special Problems in Psychological Statistics: Mediation, Moderation,   Winter 2019
and Conditional Process Analysis (Psych 258), Enrollment: 27.

Additional Teaching

Guest Lecture, Advanced Psychological Statistics,   2019
Instructor: Jennifer Krull, UCLA, Los Angeles, CA.

Guest Lecture, Further Directions in Quantitative Psychology,   2017

Instructor: Leanne Stanley, The Ohio State University, Columbus, OH.

<u>Guest Lecture</u>, Error and Inference in Statistical Modeling,   2017
Instructor: Laura Little, University of Washington, Seattle, WA.

<u>Tutor</u>, Data Analysis in Psychology,   2016
Instructor: Joe Roberts, The Ohio State University, Columbus, OH.

<u>Tutor</u>, Quantitative and Statistical Methods in Psychology,   2015
Instructor: Joe Roberts, The Ohio State University, Columbus, OH.

<u>Guest Lecture</u>, Mediation and Moderation Analysis,   2015
Instructor: Andrew F. Hayes, The Ohio State University, Columbus, OH.

<u>Teaching Assistant</u>, Summer Challenge: Math Topics, Robinson Center for Young Scholars,   2014
Supervisor: Nancy Hertzog, University of Washington, Seattle, WA.

<u>Teaching Assistant</u>, Statistical Inference in Psychological Research,   2013
Instructor: Geoff Loftus, University of Washington, Seattle, WA.

<u>Teaching Assistant</u>, Introduction to Probability and Statistics in Psychology,   2013
Instructor: Geoff Loftus, University of Washington, Seattle, WA.

Efforts to Improve Teaching

Equitable Teaching Practices in Psychological Research Methods and Statistics: 2021
Professional Development Conference, University of California, Virtual

Engaging Students Remotely and Equitably,   2020
Center for Education Innovation and Learning in the Sciences, UCLA

Teaching Remotely: Statistics and Research Methods Webchat,   2020
Federation of Associations in Behavioral and Brain Sciences

Reducing Math Anxiety Among Your Students,   2020
Center for the Integration of Research, Teaching, and Learning

Planning for a Remote Spring Quarter - Where to Start?,   2020
Center for Education Innovation and Learning in the Sciences, UCLA

Summer Institute on Scientific Teaching,   2019
Center for Education Innovation and Learning in the Sciences, UCLA

Engaging Students in the Teaching of Statistics,   2019
Center for the Integration of Research, Teaching, and Learning

New Faculty Teaching Engagement, Office of Instructional Development, UCLA   2018

Best Practices in Teaching Workshop, Center for Education Innovation and   2018
Learning in the Sciences, UCLA

Teaching Outreach

Interviewee, How a UCLA Professor is Adapting Her Curriculum for Remote Learning   2020
Zoom Blog, [Link]

Transitioning to Online Teaching: A Case Study, Blog, [Link]   2020

<div align="center">

SERVICE

</div>

Academic Publishing

Editorial Roles

Scientific Reports, Editorial Board Member, Registered Reports Section   2020 –

Evaluation and Health Professions, Associate Editor,   2020-2021
Special Issue: Single Subject Causal Mediation Analysis

Meta-Psychology, Action Editor   2021 –

Advances in Methods and Practices in Psychological Science, Editorial Board   2021 –

Ad hoc Reviewer

Addictive Behaviors
Advances in Methods and Practices in Psychological Science
Behavior Research & Therapy
Behavioral Research Methods
BMC Medical Research Methodology
BMC Psychiatry
British Journal of Mathematical and Statistical Psychology
Communication Methods and Measures
Educational Psychologist
Evaluations & the Health Professions
Journal of Modern Applied Statistical Methods
Meta-Psychology
Multivariate Behavioral Research
Nature Human Behavior
Personality and Social Psychology Review
Psychological Methods
Psychological Review
Wellcome Open Research

Open Reviews

Clark, R., Drax, K., Chambers, C. D., Munafò, M., & Thompson, J. (2021). Evaluating registered reports funding partnerships: a feasibility study. *Wellcome Open Research*, *6*, 231. Article. Review

Olvera Astivia, O. L., Gadermann, A., & Guhn, M. (2019). The relationship between statistical power and predictor distribution in multilevel logistic regression: A simulation-based approach. *BMC Medical Research Methodology*, *19*. Article. Review

Grant Reviewing

NSF Reviewer   2022 – 2023

California Education Learning Lab   2019 – 2020

Professional Societies and Organizations

Committee Member (Methodology Representative), *Association for Psychological*   2021 – 2024
Science Program Committee, Association for Psychological Science

Preregistration Team Member, *Emerging Adulthood Measured at Multiple Institutions 3:*   2021
The International Edition (EAMMI3)

Reviewer, *2022 American Educational Research Association Annual Meeting*   2021
SIG - Systematic Review and Meta-Analysis; Division D - Measurement & Research Methodology

Conference Planning Committee, *Virtual Unconference on Open Scholarship in Education Research* 2021 -
2022
Center for Open Science

Methods Track Coordinator, *32nd Annual Convention for the Association for Psychological Science*,   2019
Association for Psychological Science

Panel Member, SPSPChat 13: First Gen, Society for Personality and Social Psychology   2018

Vice Chair of Steering Committee (Chair Elect), EdArXiv: a preprint server for the education research 2020
– community (elected)
    EdArXiv Pre-print Server Community Meeting [Recording]   Aug 12, 2020

Steering Committee, EdArXiv: a preprint server for the education research community   2018 –

Conference Volunteer, *30th Annual Convention for the Association for Psychological Science*,   2018
Association for Psychological Science

Conference Volunteer, *29th Annual Convention for the Association for Psychological Science*,   2017
Association for Psychological Science

Poster Judge, *2017 Graduate Poster Award*, Society for Personality and Social Psychology   2017

Conference Volunteer, *Annual Meeting of the Society for Personality and Social Psychology*,   2016
Society for Personality and Social Psychology

Conference Volunteer, *27th Annual Convention for the Association for Psychological Science*,   2015
Association for Psychological Science

Quantitative Psychology

Quantitative Access and Diversity (QUAD) Squad	2020 –
• Quantitative Methods Info Session, Virtual	2020
• Quantitative Methods Info Session, Virtual	2021
• Quantitative Methods Info Session, Virtual	2022

University of California, Los Angeles, CA

University Service

Planning Committee, GeekWeek, UCLA Residential Life	2023
Reviewer, UCLA's Fulbirght U.S. Student Program Campus Review Committee	2020
Panel Member, Academic and Research Speaker Panel, BruinSynaptoGenesis	2020
Host-Instructor, Fall 2019 Lecture Experience Program, Undergraduate Education	2019
Reviewer, Dr. Ursula Mandel Scholarship, Graduate Division	2019

Division Service

Committee Member, Quantitative, Computational, and Systems Biology, BioDataX Initiative	2020 –

Departmental Service

Committee Member, Executive Committee, Department of Psychology (elected)	2023 - 2024
Moderator, Psychology Undergraduate Research Conference, Department of Psychology	2023
Committee Member, Quantitative Psychology Hiring Committee, Department of Psychology	2022 - 2023
Committee Member, Quantitative Psychology Hiring Committee, Department of Psychology	2021 - 2022
Committee Member, Graduate Studies Committee, Department of Psychology	2021 – 2022
Committee Member, Quantitative Psychology Hiring Committee, Department of Psychology	2020 - 2021
Committee Member, Teaching Points Committee, Department of Psychology	2020
Panel Member, PROPS Faculty Mentorship Panel, Department of Psychology	2020
Committee Member, Merit Review Committee, Department of Psychology	2019 –
Panel Member, Acing the Interview, Department of Psychology	2018

Ohio State University, Columbus, OH

Committee Member, Senior Vice President of Research Search Committee	2017 – 2018
Committee Member, Council on Student Affairs, University Senate	2017 – 2018
Committee Member, Strategic Programming Grant Subcommittee of the Council of Student Affairs, University Senate	2017 – 2018
Committee Chair, Allocations Subcommittee of the Council on Student Affairs, University Senate	2017 – 2018
Committee Member, Graduate Compensation and Benefits Committee, University Senate	2017 – 2018
Committee Member, University Research Committee, University Senate	2017 – 2018
Treasurer, Council of Graduate Students	2017 – 2018
Committee Chair, Ray Travel Committee, Council of Graduate Students	2017 – 2018
Committee Member, Organizations and Elections Committee, Council of Graduate Students	2017 – 2018
Panel Member, University of Cincinnati McNair Scholars Visit, Office of Graduate Education	2017
Panel Member, Creating Pathways: Building Community and Engagement in Graduate and Professional Higher Education Affairs, Office of Student Life	2017
Panel Member, University of Illinois McNair Scholars Visit, Office of Graduate Education	2017
Moderator, Professional Development Panel, Hayes Graduate Research Forum, Council of Graduate Students	2017
Judge, Undergraduate Research Colloquium & Reception, Psychology Department	2017
Panel Member, Life at OSU, Office of Diversity and Inclusion	2016
Judge, Fall Student Poster Forum, Undergraduate Research Office	2016
Psychology Department Delegate, Council of Graduate Students	2016 – 2017
Committee Member, Hayes Graduate Research Forum Committee, Council of Graduate Students	2016 – 2018
Panel Member, Getting Into Graduate School, Psychology Department	2016
Proctor, Hayes Graduate Research Forum, Council of Graduate Students	2016
Panel Member, Funding your Graduate Education, College of Arts and Sciences	2016
Panel Member, Money Matters: A Student Led Panel about Finding Money, Psychology Graduate Student Association	2016

Proctor for Oral Presentations, Social and Behavioral Science, Hayes Graduate Research Forum	2016
Treasurer, Psychology Graduate Student Association	2015 – 2018
Panel Member, How to Get Into Graduate School, Graduate and Professional Students Recruitment Initiative	2015
Panel Member, Life at OSU, Office of Diversity and Inclusion	2015
Judge, Fall Student Poster Forum, Undergraduate Research Office	2015
Panel Member, Psychology Department Diversity Open House	2015
Panel Member, Applying to Graduate School in Psychology Workshop	2015
Panel Moderator, Life at OSU, Office of Diversity and Inclusion	2014

PROFESSIONAL DEVELOPMENT

Advancing Faculty Research Mentoring Refresher Workshop, Graduate Programs in Bioscience and National Research Mentoring Network, UCLA	2023
Developing a Toolkit for Fostering Open Science Practices, National Academies of Sciences, Engineering, and Medicine, Virtual	2020
Advancing Mentoring Practices Workshop, Graduate Programs in Bioscience and National Research Mentoring Network, UCLA	2020
Meta-Analysis Training Institute, Loyola University Chicago & Institute of Education Sciences	2019
Developing a Productive Writing Practice, UCLA Library	2018
Best Practices in Mentoring, UCLA Dept of Psychology	2018

SCIENTIFIC OUTREACH

Guest, S2E20 The Future of Teaching Quantitative Methods, Quantitude Podcast	2021

Youtube Video, How to See Presentation Notes while presenting PowerPoint slides on Zoom, ¿500K views 2020

Guest, S2E01 We Know What You Did Last Summer, Quantitude Podcast	2020

Young, J. R. (2020). Preprint servers have changed research culture in many fields. Will a new one for education catch on? *EdSurge* (**A. K. Montoya** interviewed for article). [Article Link]

Scientist, 500 Women Scientists, [Profile Link]	2019 –
Scientist, Skype a Scientist	2017 –

Cannon, B. (2018) Practicing Quantitative Psychology (From an Aerial Circus Trapeze!?) With Amanda Montoya, PhD. *Eye on PsiChi* https://doi.org/10.24839/2164-9812.Eye23.3.22.

Panel Member, Psi Chi Undergraduate Research Week, Psi Chi	2019