# Amanda Kay Montoya

**Assistant Professor of Quantitative Psychology**
University of California - Los Angeles
Department of Psychology
Los Angeles, CA 90095
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## 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

Fossum, J. L.[†], & **Montoya, A. K.**. (in press). Heterogeneity. In *The SAGE Encyclopedia of Research Design*. (2nd ed.) Thousand Oaks, CA: SAGE.

Grodin, E. N., **Montoya, A. K.**, Bujarski, S., & Ray, L. A. (in press). Modeling motivation for alcohol in humans using traditional and machine learning approaches.*Addiction Biology*. [Online First]

**Montoya, A. K.**, & Edwards, M. C. (in press). Cautions on using model fit to choose number of factors in

exploratory factor analysis. *Educational and Psychological Measurement*. Online First.

**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*, Online-First.

**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.

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

Tawa, J., & **Montoya, A. K.** (Stage 1 Registered Report, accepted in principle). Racial embodiment in virtual environments for facilitating students' understanding of racism. *Technology, Mind, and Behavior*

Delgadillo, D., Ramos, G., **Montoya, A. K.**, Thamrin, H., Rapp, A., Escovar, E., & Chavira, D. (under review). Discrimination and Internalizing Disorders in Rural Latinx Adolescents: An Ecological Model of Etiology.

**Montoya, A. K.**, Krenzer, W. D. L., Fossum, J. L.[†] (under review). Opening the Door to Registered Reports: Census of Journals Publishing Registered Reports.

Giner-Sorolla, R., Aberson, C. L.[*], Bostyn, D. H.[*], Carpenter, T.[*], Conrique, B. G.[*], Lewis, Jr. N. A.[*], **Montoya, A. K.**[*], 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.** (under revision). The Power of Design: Impact of Experimental Design on Statistical Power to Detect Indirect Effects Outweigh Impact of Inferential Methods. ▨ ⌂

Huang, Y.[†] & **Montoya, A. K.**. (in prep). The performance of lasso and group lasso with categorical predictors: Impact of coding strategy on variable selection and prediction. ▨

Leathem, L. D., Currin, D. L., **Montoya, A. K.**, & Karlsgodt, K. H. (under review). Socioemotional Mechanisms of Loneliness in Subclinical Psychosis.

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. (under review). Key dimensions of posttraumatic stress disorder and endothelial dysfunction: A mechanism-focused cohort study.

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

† Student or postdoc author

## White Papers

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.[★] 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.** (2021, Apr). Title TBD. Presented at the University of Colorado Boulder, Graduate Professional Development Seminar in Social Psychology, Department of Psychology and Neuroscience, Boulder, CO.

***Montoya, A. K.** (2021, Apr). Title TBD. Presented at the Princeton University Seminar in Advanced Research Methods, Princeton, NJ.

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

***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

***Montoya, A. K.**, Makel, M. C., 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.

**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.** (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

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). Registered Report 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

# MENTORSHIP

## Dissertation Committee Members

| | |
|---|---|
| Morgan Bartholomew, Clinical Psychology, Chairs: Greg Miller & Cindy Yee-Bradbury | In Progress |
| Beth Moroney, Clinical Psychology, Chair: Steve Lee | In Progress |
| Chelsea Romney, Health Psychology, Chair: Ted Robles | In Progress |
| Blanche Wright, Clinical Psychology, Chair: Anna Lau | In Progress |
| Rejoyce Green, Clinical Psychology, Chair: Lara Ray | In Progress |

## Graduate Students

| | |
|---|---|
| Jessica Fossum | 2019 – |
| Tristan Tibbe | 2019 – |

## Undergraduates

| | |
|---|---|
| Valerie Polad (PROPS) | 2019 – |
| Kathleen Lamarque-Navarrete (Departmental Honors) | 2020 – |
| Anjum Farook, UCLA, Research Assistant | 2019 – |
| Kevin Le, UCLA, Research Assistant | 2019 – |
| Yihuan (Charlotte) Huang, UCLA, Research Assistant | 2018 – |
| Zach Loran, UCLA, Research Assistant | 2018 – |
| Chris Silberstein, OSU, Research Assistant | 2017 – 2018 |

## Mentee Awards

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

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**FUNDING**

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## Grants

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|---|---|
| Principal Investigator, Johnson & Johnson Women in STEM$^2$D Scholar, *Understanding How and When: Conditional Process Analysis using Generalized Linear Mixed Models* ($150,000) | Pending |

Co-Principal Investigator, National Institutes of Health,                                                 Pending
*Identifying treatment responders in medication trials for AUD using machine learning approaches* ($149,553)

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

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

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

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, 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

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 ($340)                                                                           2013

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

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, Advanced Psychological Statistics, (Psych 250C), Enrollment: 36.        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),                                    Fall 2019
Enrollment: 275.

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

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.

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

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

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

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

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

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

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


## Efforts to Improve Teaching

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


## MEMBERSHIPS

American Educational Research Association

American Psychological Association
American Statistical Association
Association for Psychological Science
Society for Personality and Social Psychology
Society for the Improvement of Psychological Science
Southeastern Psychological Association
Western Psychological Association

<div align="center">**SERVICE**</div>

# Academic Publishing

### Editorial Roles

| | |
|---|---|
| Scientific Reports, Editorial Board Member, Registered Reports Section | 2020 – |
| Evaluation and Health Professions, Associate Editor, Special Issue: Single Subject Causal Mediation Analysis | 2020-2021 |

### 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 & Health Professions
Journal of Modern Applied Statistical Methods
Meta-Psychology
Multivariate Behavioral Research
Personality and Social Psychology Review
Psychological Methods
Psychological Review

### Open Reviews

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

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|---|---|
| California Education Learning Lab | 2019 – 2020 |

## Professional Societies and Organizations

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, 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

Organizer, Quantitative Methods Info Session, Virtual     2020

## University of California, Los Angeles, CA

### University Service

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

### Departmental Service

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 2017 – 2018
of Student Affairs, University Senate

Committee Chair, Allocations Subcommittee of the Council on Student Affairs, 2017 – 2018
University Senate

Committee Member, Graduate Compensation and Benefits Committee, 2017 – 2018
University Senate

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, 2017 – 2018
Council of Graduate Students

Panel Member, University of Cincinnati McNair Scholars Visit, Office of Graduate Education 2017

Panel Member, Creating Pathways: Building Community and Engagement in Graduate and 2017
Professional Higher Education Affairs, Office of Student Life

Panel Member, University of Illinois McNair Scholars Visit, Office of Graduate Education 2017

Moderator, Professional Development Panel, Hayes Graduate Research Forum, 2017
Council of Graduate Students

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, 2016 – 2018
Council of Graduate Students

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| 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

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| 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

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]

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|---|---|
| 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.

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