

Jolynn Pek

Associate Professor

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Education

8/2012	Ph.D., Quantitative Psychology , University of North Carolina at Chapel Hill
5/2010	M.S., Biostatistics , University of North Carolina at Chapel Hill
4/2006	M.Soc.Sc., Applied Psychology , National University of Singapore
9/2002	B.Soc.Sc., Psychology with Honors, National University of Singapore
9/2001	B.A., Psychology & Mathematics with Merit, National University of Singapore

Appointments

5/2021–present	Associate Professor , Quantitative Psychology Department of Psychology, The Ohio State University.
8/2017–5/2021	Assistant Professor , Quantitative Psychology Department of Psychology, The Ohio State University.
7/2012–12/2017	Assistant Professor , Quantitative Methods Department of Psychology, York University.
7/2013–7/2017	Associate Coordinator , Statistical Consulting Service Institute of Social Research, York University.
1/2010–4/2014	Statistical Consultant , Frank Porter Graham Child Development Institute University of North Carolina at Chapel Hill.
6/2005–8/2006	Senior Research Aide , Center for Child and Family Policy Duke University; Sanford School of Public Policy.
8/2004–6/2005	Visiting Scholar , Behavioral Medicine Research Center Duke University

Honors and Awards

2022	Anne Anastasi Distinguished Early Career Contributions Award , American Psychological Association, Division 5 (Quantitative & Qualitative Methods). Recognizes outstanding contributions to quantitative research methods.
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2022	Distinguished Teaching Award , Department of Psychology, The Ohio State University. Acknowledges the overall high quality of teaching activity in the department.
2021	Early Career Research Award , Society of Multivariate Experimental Psychology. The SMEP Early Career Research Award is given annually by the Society to a young researcher who has made outstanding contributions to multivariate experimental psychology and who shows promise of continued work of a very high quality.
2020	Fred Brown Research Award , Department of Psychology, The Ohio State University. Acknowledges an outstanding paper published in a given year. Awarded for Pek & Park (2019). Complexities in power analysis: Quantifying uncertainties with a Bayesian-classical hybrid approach. <i>Psychological Methods</i>
2020	Fellow , American Psychological Association, Division 5 (Quantitative and Qualitative Methods). Awarded on the basis of evaluated evidence of outstanding contribution in the field of psychology.
2018	Quantitative Methods Research Award , Canadian Psychological Association (Quantitative Methods Section) for “best research article published during the calendar year.” Awarded for Pek & Flora (2018). Reporting effect sizes in original psychological research: A discussion and tutorial. <i>Psychological Methods</i> .
2017	Rising Star Award , Association for Psychological Science. “Recognizes researchers whose innovative work has already advanced the field and signals great potential for their continued contributions.”
2017	Elected Member , Society of Multivariate Experimental Psychology (SMEP). SMEP was founded in 1960 as an organization of researchers interested in multivariate quantitative methods and their application to substantive problems in psychology and related fields. SMEP is a small elective society limited to 65 regular active members in order to facilitate high level research as well as intensive interaction among members.
2017	York Research Leader , York University. Annual university-wide recognition of exemplary research scholarship and creativity.
7/2013–6/2014	Dean’s Health Research Catalyst Award , York University.
8/2006–7/2007	University Merit Fellowship , University of North Carolina at Chapel Hill
8/2002–7/2004	Research Scholarship , National University of Singapore

Fellowship

2019	Summer Seminar in Philosophy of Statistics , Virginia Polytechnic Institute. A two-week immersive seminar on Philosophy of Statistics directed by Deborah G. Mayo and Aris Spanos. Participants receive private housing and a stipend.
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Peer-Reviewed Publications

*Indicates co-author who was a student at the time the research was conducted.

† Indicates co-author who was a postdoctoral fellow at the time the research was conducted.

41. **Pek, J.** & Bauer, D. J. (accepted). How can we move advanced methodology into practice more effectively? *Policy Insights from the Behavioral and Brain Sciences*.
40. Hoyle, R. H., Lynam, D. R., Miller, J., & **Pek, J.** (in press). The questionable practice of partialing to refine scores on and inferences about measures of psychological constructs. *The Annual Review of Clinical Psychology*, 19. doi: 10.1146/annurev-clinpsy-071720-015436
39. **Pek, J.**, Pitt, M. A., & Wegener, D. T. (in press). Uncertainty limits the use of power analysis. *Journal of Experimental Psychology: General*. doi: 10.1037/xge0001273
38. †Flake, J. K., *Davidson, I., J., *Wong, O., & **Pek, J.** (2022). Construct validity and the validity of replication studies: A systematic review. *American Psychologist*, 77(4), 576–588. doi: 10.1037/amp0001006
37. Chang, M. W., **Pek, J.**, Wegener, D. T., & Sherman, J. P. (2022). Lifestyle behavior intervention effect on physical activity in low-income overweight or obese mothers of young children. *Journal of Pediatrics, Perinatology and Child Health*, 6, 352–364. doi: 10.26502/jppch.74050119
36. *Park, J., & **Pek, J.** (2022). Conducting Bayesian-classical hybrid power analysis with R package hybridpower. *Multivariate Behavioral Research*. doi: 10.1080/00273171.2018.1557032
35. Wegener, D. T., Fabrigar, L. R., **Pek, J.**, & *Hoisington-Shaw, K. J. (2022). Evaluating research in personality and social psychology: Considerations of statistical power and concerns about false findings. *Personality and Social Psychology Bulletin*, 48(7), 1105–1117. doi: 10.1177/01461672211030811
34. Chang, M. W., Wegener, D. T., **Pek, J.**, & Lee, R. E. (2022). Associations between stress, body mass index, Demographics and Eating Behaviors in Low-Income Overweight or Obese Women. *Austin Journal of Public Health and Epidemiology*, 9(1), 1118
33. *Hoisington-Shaw, K. J., & **Pek, J.** (2021). Using dynamic graphics to teach the sampling distribution with active learning. *The Quantitative Methods for Psychology*, 17(2), v1–v9. doi: 10.20982/tqmp.17.2.v001
32. **Pek, J.**, Wegener, D. T., & McClelland, G. H. (2020). Letter to the Editor: Signal detection continues to be part of science. *Proceedings of the National Academy of Sciences*, 117(24), 13199–13200. doi: 10.1073/pnas.2005860117
31. **Pek, J.**, & Van Zandt, T. (2020). Frequentist and Bayesian approaches to data analysis: Evaluation and estimation. *Psychology Teaching and Learning*, 19, 21–35. doi: 10.1177/1475725719874542
30. **Pek, J.** & *Park, J. (2019). Complexities in power analysis: Quantifying uncertainties with a Bayesian-classical hybrid approach. *Psychological Methods*, 24(5), 590–605. doi: 10.1037/met0000208
29. **Pek, J.**, & Wu, H. (2018). Parameter uncertainty in structural equation models: Confidence sets and fungible estimates. *Psychological Methods*, 23(4), 635–653. doi: 10.1037/met0000163
28. **Pek, J.**, *Wong, O. & Wong, A. C. M. (2018). How to address non-normality: A taxonomy of approaches, reviewed and illustrated. *Frontiers in Psychology*, 9, 2104. doi: 10.3389/fpsyg.2018.02104
27. **Pek, J.**, & Flora, D. (2018). Reporting effect sizes in original psychological research: A discussion and tutorial. *Psychological Methods*, 23(2), 208–225. doi: 10.1037/met0000126
26. **Pek, J.**, *Wong, O., & Wong, A. C. M. (2017). Data transformations for inference with linear regression: Clarifications and recommendations. *Practical Assessment, Research & Evaluation*, 22(9). Available online: <http://pareonline.net/getvn.asp?v=22&n=9>
25. *Chalmers, R. P., **Pek, J.**, & Liu, Y. (2017). Profile-likelihood confidence intervals in item response theory models. *Multivariate Behavioral Research*, 52, 533–550. doi: 10.1080/00273171.2017.1329082

24. †Flake, J. K., **Pek, J.**, & Hehman, E. (2017). Construct validation in social and personality research: Current practice and recommendations. *Social Psychological and Personality Science*, 8, 370–378. doi: 10.1177/1948550617693063
23. **Pek, J.**, Wong, A C. M., & *Wong, O. (2017). Confidence intervals for the mean of non-normal distribution: Transform or not to transform. *Open Journal of Statistics*, 7, 405–421. doi: 10.4236/ojs.2017.73029
22. **Pek, J.**, *Chalmers, R. P., & Monette, G. (2016). On the relationship between confidence regions and exchangeable weights in multiple linear regression. *Multivariate Behavioral Research*, 51, 719–739. doi: 10.1080/00273171.2016.1225563
21. **Pek, J.**, & Hoyle, R. H. (2016). On the (in)validity of tests of simple mediation: Threats and solutions. *Social and Personality Psychology Compass*, 10, 150–163. doi: 10.1111/spc3.12237
20. **Pek, J.**, & Wu, H. (2015). Profile likelihood-based confidence intervals and regions for structural equation models. *Psychometrika*, 80, 1123–1145. doi: 10.1007/s11336-015-9461-1
19. Cagle, J. G., LaMantia, M. A., Williams, S. W., **Pek, J.**, & Edwards, L. (2016). Predictors of preference for hospice care among diverse older adults. *American Journal of Hospice and Palliative Medicine*, 33, 574–584. doi: 10.1177/1049909115593936
18. **Pek, J.**, *Chalmers, R. P., Kok, B. E., & Losardo, D. (2015). Visualizing confidence bands for semiparametrically estimated nonlinear relations among latent variables. *Journal of Educational and Behavioral Statistics*, 40, 402–423. doi: 10.3102/1076998615589129
17. **Pek, J.**, & *Chalmers, R. P. (2015). Diagnosing nonlinearity with confidence envelopes for a semiparametric approach to modeling bivariate nonlinear relations among latent variables. *Structural Equation Modeling*, 22, 288–293. doi:10.1080/10705511.2014.93779
16. Cagle, J. G., **Pek, J.**, Clifford, M., Guralnik, J., & Zimmerman, S. (2015). Correlates of a good death and the impact of hospice involvement: Findings from the national survey of households affected by cancer. *Supportive Care in Cancer*, 22, 809–818. doi: 10.1007/s00520-014-2404-z
15. Willoughby, M. T., **Pek, J.**, Blair, C. B., & the Family Life Project Investigators (2013). Measuring executive function in early childhood: A focus on maximum reliability and the derivation of short forms. *Psychological Assessment*, 25, 664–670. doi: 10.1037/a0031747
14. Sterba, S. K., & **Pek, J.** (2012). Individual influence on model selection. *Psychological Methods*, 17(4), 582–599. doi: 10.1037/a0029253
13. Willoughby, M. T., **Pek, J.**, Greenberg, M., & the Family Life Project Investigators (2012). Parent-reported attention deficit/hyperactivity symptomatology in preschool-aged children: Factor structure, developmental change, and early risk factors. *Journal of Abnormal Child Psychology*, 40, 1301–1312. doi: 10.1007/s10802-012-9641-8
12. **Pek, J.**, Losardo, D., & Bauer, D. J. (2011). Confidence intervals for a semiparametric approach to nonlinear relations among latent variables. *Structural Equation Modeling*, 18, 537–553. doi: 10.1080/10705511.2011.607072
11. **Pek, J.**, & MacCallum, R. C. (2011). Sensitivity analysis in structural equation models: Cases and their influence. *Multivariate Behavioral Research*, 46, 202–228. doi: 10.1080/00273171.2011.561068
10. Richman, L. S., **Pek, J.**, Pascoe, E., & Bauer, D. J. (2010). The effects of perceived discrimination on ambulatory blood pressure and affective responses to interpersonal stress modeled over 24-hours. *Health Psychology*, 29, 403–411. doi: 10.1037/a0019045
9. **Pek, J.**, Sterba, S. K., Kok, B., & Bauer, D. J. (2009). Estimating and visualizing nonlinear relations among latent variables: A semiparametric approach. *Multivariate Behavioral Research*, 44, 407–436. doi: 10.1080/00273170903103290

8. Fredrickson, B. L., Cohn, M. A., Coffey, K., **Pek, J.**, & Finkel, S. M. (2008). Open hearts build lives: Positive emotions induced through meditation build consequential personal resources. *Journal of Personality and Social Psychology*, 95, 1045–1062. doi: 10.1037/a0013262
7. Bishop, G. D., Ngau, F., & **Pek, J.** (2008). Domain specific assessment of anger expression and ambulatory blood pressure. *Personality and Individual Differences*, 44, 1726–1737. doi: 10.1016/j.paid.2008.01.024
6. Richman, L. S., Bennett, G., **Pek, J.**, Siegler, I., & Williams, R. B. Jr. (2007). Discrimination, dispositions and cardiovascular responses to stress. *Health Psychology*, 26, 675–683. doi: 10.1037/0278-6133.26.6.675
5. Eastwick, P. W., Eagly, A. H., Glick, P., Johannesen-Schmidt, M., Fiske, S. T., Blum, A., Eckes, T., Freiburger, P., Huang, L. L., Lameiras, M., Manganelli, A. M., **Pek, J. C. X.**, Castro, Y. R., Sakalli-Ugurlu, N., Six-Materna, I., & Volpato, C. (2006). Is traditional gender ideology associated with sex-typed mate preferences? A test in nine nations. *Sex Roles*, 54, 603–614. doi: 10.1007/s11199-006-9027-x
4. Bishop, G. D., **Pek, J.**, & Ngau, F. (2006). Blunted cardiovascular responses to daytime activities as related to reduced nocturnal blood pressure decline. *Annals of Behavioral Medicine*, 31, 248–253. doi: 10.1207/s15324796abm3103_6
3. Bishop, G. D., **Pek, J.**, & Ngau, F. (2005). Ethnicity, sex, trait anger and nocturnal blood pressure. *Psychophysiology*, 42, 290–297. doi: 10.1111/j.1469-8986.2005.00294.x
2. Glick, P., Lameiras, M., Fiske, S. T., Eckes, T., Masser, B., Volpato, C. Manganelli, A. M., **Pek, J. C. X.**, Huang, L.-L., Sakalli-Ugurlu, N., Castro, Y. R., D'Avila Pereira, M. L., Willemssen, T. M., Brunner, A., Six-Materna, I., & Wells, R. (2004). Bad but bold: Ambivalent attitudes toward men predict gender inequality in 16 nations. *Journal of Personality and Social Psychology*, 86, 713–728. doi: 10.1037/0022-3514.86.5.713
1. **Pek, J. C. X.**, & Leong F. T. L. (2003). Sex-related self-concepts, cognitive styles and cultural values of traditionality-modernity as predictors of general and domain-specific sexism. *Asian Journal of Social Psychology*, 6, 31–49. doi: 10.1111/1467-839X.t01-1-00008

Chapters

*Indicates co-author who was a student at the time the research was conducted.

† Indicates co-author who was a postdoctoral fellow at the time the research was conducted.

5. **Pek, J.**, Davisson, E. K., & Hoyle, R. H. (2022). Visualizations for structural equation modeling. In R. H. Hoyle & E. K. Davisson (Eds.), *Handbook of structural equation modeling* (pp. 76–96). New York, NY: Guilford Press.
4. **Pek, J.**, & *Hoisington-Shaw, K. J., & Wegener, D. T. (2022). Avoiding questionable research practices surrounding statistical power analysis. In W. O'Donohue, A. Masuda & S. Lilienfeld (Eds.), *Avoiding questionable practices in applied psychology*, (pp. 243–267). New York, NY: Springer. doi: 10.1007/978-3-031-04968-2_11
3. **Pek, J.**, & *Hoisington-Shaw, K. J. (2022). Semi-interquartile range. In B. B. Frey (Ed.), *The SAGE Encyclopedia of Research Design*, (2nd ed.) London, UK: Sage. doi: 10.4135/9781071812082.n553
2. **Pek, J.**, *Wong, O., & Wong, A. C. M. (2020). Data transformations for linear models. In P. A. Atkinson, S. Delamont, A. Cernat, J. W. Sakshaug, & R. A. Williams (Eds.) *SAGE research methods foundations*. London, UK: Sage. doi: 10.4135/9781526421036913343
1. †Flake, J. K., *Davidson, I. J., & **Pek, J.** (2020). Is methods research moving into practice? The critical role of formal methodological training. In J. L. Rodgers (Ed.), *Teaching statistics and quantitative methods into the 21st century*, (pp. 71–86). New York, NY: Taylor & Francis. doi: 10.4324/9780429442810-6

Abstracts

3. *Wang, S., Wu, H., & **Pek, J.** (2022). Performance of alternative regression weights in the context of prediction versus inference. [Abstract] *Multivariate Behavioral Research*, 57(1), 163. doi: 10.1080/00273171.2021.2009330
2. *Park, J., & **Pek, J.** (2019). HybridPower: An R package for a Bayesian-frequentist hybrid approach to power analysis. [Abstract] *Multivariate Behavioral Research*, 54(1), 151-152. doi: 10.1080/00273171.2018.1557032
1. **Pek, J.**, & MacCallum, R. C. (2010). Case diagnostics in structural equation models: Illustrations and issues. [Abstract] *Multivariate Behavioral Research*, 45(1), 1030. doi: 10.1080/00273171.2010.534382

Other

1. **Pek, J.** (October, 2022). Uncertainty quantification in power analysis. *The Score, the Division 5 (Quantitative and Qualitative Methods) Newsletter of the American Psychological Association*, 44(4). <https://www.apadivisions.org/division-5/publications/score/2022/10/power-analysis>

Software & Utilities

*Indicates co-author who was a student at the time the research was conducted.

3. Kok, B. E., **Pek, J.**, Sterba, S. K., Bauer, D. J., & *Chalmers, R. P. (June 2015) plotSEMM2.0 [Computer software]. Available from <http://cran.r-project.org/web/packages/plotSEMM/index.html>
2. **Pek, J.**, Sterba, S. K., Kok, B. E., & Bauer, D. J. (November 2008). Plot nonlinear relationships among latent variables via the application of structural equation mixture models [Online Utility]. Available from <http://www.unc.edu/psychology/dbauer/plotSEMM.htm>.
1. Kok, B. E., **Pek, J.**, Sterba, S. K., & Bauer, D. J. (November 2008) plotSEMM [Computer software]. Available from <http://www.bethanykok.com/plotSEMM.php>

Professional Presentations

Invited Colloquia

*Indicates co-author who was a student at the time the research was conducted.

† Indicates co-author who was a postdoctoral fellow at the time the research was conducted.

20. **Pek, J.** (October, 2022). *Reflections on the past and future of quantitative psychology*. Early Career Award Address presented at the Annual Meeting of the Society for Multivariate Experimental Psychology in Monterey, California.
19. Gallant, D. J., Yocom, A., & **Pek, J.** (June, 2022). *Equity in Quantitative Research - Part II: Faculty Experiences* Invited Panel Speaker at the Quantitative Methodology Center Conference. The Ohio State University, Columbus.
18. **Pek, J.** (November, 2021). *A discussion on the uses of power*. Department of Psychology. University of Southern California, Los Angeles, California.
17. **Pek, J.** (October, 2021). *A discussion on the uses of power*. Department of Psychology & Neuroscience. University of North Carolina at Chapel Hill, North Carolina, Chapel Hill.
16. **Pek, J.** (October, 2020). *Not so simple power analysis*. Department of Psychology, Arizona State University. Tempe, Arizona.

15. **Pek, J.** (June, 2020). *Quantifying uncertainties: A case study in statistical power*. Faculty of Economics and Social Sciences, University of Tübingen. Germany, Tübingen.
14. **Pek, J.**, & *Hoisington-Shaw, K. J. (August, 2019). *Misbeliefs in power*. Summer Seminar in Philosophy of Statistics. Virginia Polytechnic Institute and State University. Blacksburg, Virginia.
13. **Pek, J.** (February, 2018). *On the utility of data transformations: Misuses, uses, and pedagogy*. Department of Psychology, National University of Singapore, Singapore.
12. †Flake, J. K., *Davidson, I., & **Pek, J.** (March 2017). *Improving science through teaching quantitative methodology*. Invited talk for conference on Teaching Statistics and Quantitative Methods into the 21st Century. Department of Psychology & Human Development, Vanderbilt University. Nashville, Tennessee.
11. **Pek, J.** (January 2017). *Two types of Parameter uncertainty: Confidence sets and exchangeable parameter estimates*. Department of Psychology, The Ohio State University. Columbus, Ohio.
10. **Pek, J.** (January 2017). *Considering parameter uncertainty with confidence sets and exchangeable parameter estimates*. Department of Psychology, University of Virginia. Charlottesville, Virginia.
9. **Pek, J.** (December 2016). *Parameter uncertainties: Confidence sets and exchangeable parameter estimates*. Department of Psychology, University of Los Angeles. Los Angeles, California.
8. **Pek, J.** (December 2016). *Quantifying parameter uncertainty: Confidence sets and exchangeable parameter estimates*. Department of Psychology, University of Southern California. Los Angeles, California.
7. **Pek, J.** (December 2015). *Exploring and diagnosing latent nonlinear bivariate relationships: A semi-parametric and graphical approach*. Department of Psychology, University of Kansas. Lawrence, Kansas.
6. **Pek, J.** (September 2015). *Detecting latent bivariate nonlinearity with confidence envelopes: A semiparametric approach*. Department of Psychology & Human Development, Vanderbilt University. Nashville, Tennessee.
5. **Pek, J.** (December 2011). *Case influence in structural equation models: Illustrations and Issues*. Department of Psychology, The Ohio State University. Columbus, Ohio.
4. **Pek, J.** (December 2011). *Methods for detecting cases and that unduly influence results in structural equation models*. Department of Psychiatry & Human Genetics, Virginia Commonwealth University. Richmond, Virginia.
3. **Pek, J.** (December 2011). *Case diagnostics for linear latent variable models*. Department of Psychology, York University. Toronto, Ontario; Canada.
2. **Pek, J.** (November 2011). *Case influence in structural equation models: Illustrations and Issues*. Department of Psychology, Boston College. Chestnut Hill, Massachusetts.
1. **Pek, J.** (November 2011). *Outliers versus influential cases in structural equation models*. Department of Psychology, University of Minnesota. Twin Cities, Minnesota.

Conference Papers

*Indicates co-author who was a student at the time the research was conducted.

† Indicates co-author who was a postdoctoral research fellow at the time the research was conducted.

25. Blankson, A. N., Flake, J. K., Garrison, S. M., Logan, J., Madison, M., Montoya, A. K., **Pek, J.**, Rhemtulla, M., Stapleton, L. & Sweet, T. (October, 2022). QUAD Squad. Paper presented at the Annual Meeting of the Society for Multivariate Experimental Psychology in Monterey, California.

24. Hoisington-Shaw, K. J., & **Pek, J.** (June, 2022). *Study design and sample size justification: The disconnect between statistical conclusion validity and power analysis*. Paper presented at the Quantitative Methodology Center Conference at The Ohio State University, Columbus.
23. Coutts, J. J., & **Pek, J.** (June, 2022). *Power up: Exploring the use of the bootstrap in power calculations*. Paper presented at the Quantitative Methodology Center Conference at The Ohio State University, Columbus.
22. **Pek, J.**, Wegener, D. T., & Hoisington-Shaw, J. K. (October, 2021). *A discussion on the uses of power*. Paper presented at the Annual Meeting of the Society for Multivariate Experimental Psychology held online.
21. **Pek, J.**, Flake, J. K., *Davidson, I. J., & *Wong, O. (July, 2020). *Measurement invariance for replications: Observations from the Reproducibility Project: Psychology*. Paper presented at the International Meeting of the Psychometric Society at Baltimore, Maryland (canceled because of COVID-19).
20. Flake, J. K., *Cloos, L., *Davidson, I., *Elbaz, S. *Luong, R., **Pek, J.**, *Shaw, M., & *Wong, O. (May, 2020). *Construct validity and replications: Lessons learned from large scale replication studies*. Paper presented at Modern Modeling Methods Conference in Storrs, Connecticut (canceled because of COVID-19).
19. **Pek, J.**, & *Park, J. (May, 2020). *Incorporating uncertainty in power Analysis: A Bayesian-classical hybrid approach*. Paper presented at the Annual Meeting of the Association for Psychological Science in Chicago, Illinois (canceled because of COVID-19).
18. **Pek, J.** & *Hoisington-Shaw, K. J. (October, 2019). *Power schmower: Do we really need more power?* Paper presented at the Annual Meeting of the Society for Multivariate Experimental Psychology in Baltimore, Maryland.
17. **Pek, J.**, & *Park, J. (October, 2018). *Power analysis three ways*. Paper presented at the Annual Meeting of the Society for Multivariate Experimental Psychology in Albuquerque, New Mexico.
16. † Flake, J. K., **Pek, J.**, *Davidson, I., & *Wong, O. (May 2018). *The fundamental role of construct validation in original and replicated research*. Paper presented at the Annual Convention of the Association for Psychological Science in San Francisco, Washington.
15. **Pek, J.**, *Lee, J. A., †Flake, J. K., & †Zhang, R. (June 2017). *Mediation analysis in Psychological Research: Recommendations for best practice*. Paper presented at the Annual Convention of the Canadian Psychological Association in Toronto, Ontario.
14. †Flake, J. K., **Pek, J.**, & Hehman, E. (June 2017). *Construct Validation in Social and Personality Research: Current Practice and Recommendations*. Paper presented at the Annual Convention of the Canadian Psychological Association in Toronto, Ontario.
13. **Pek, J.**, *Wong, O., & Wong, A. C. M. (July 2016). *Constructing confidence intervals about the mean of non-normal distributions*. Paper presented at the International Meeting of the Psychometric Society in Asheville, North Carolina.
12. *Wong, O., & **Pek, J.** (May 2016). *To transform or not to transform: A study of confidence intervals*. Paper presented at the Ontario Undergraduate Psychology Thesis Conference in Waterloo, Ontario.
11. **Pek, J.**, & *Chalmers, R. P. (June 2015). *On the relationship between confidence regions and exchangeable weights in multiple linear regression*. Paper presented at the Annual Convention of the Canadian Psychological Association in Ottawa, Ontario.
10. **Pek, J.**, & *Chalmers, R. P. (May 2015). *On the relationship between confidence regions and exchangeable weights in multiple linear regression*. Paper presented at Modern Modelling Methods Conference in Storrs, Connecticut.

9. **Pek, J.**, & *Chalmers, R. P. (July 2014). *Detecting nonlinearity of latent relationships with confidence envelopes for a semiparametric approach to modeling bivariate nonlinear relations among latent variables*. Paper presented at the International Meeting of the Psychometric Society in Madison, Wisconsin.
8. **Pek, J.**, & Wu, H. (May 2013). *Profile likelihood-based confidence regions in structural equation models*. Paper presented at Modern Modelling Methods Conference in Storrs, Connecticut.
7. Cagle, J. G., LaMantia, M. A., Williams, S. W., **Pek, J.**, & Edwards, L. J. (November 2010). *Preference for hospice care among older adults: The roles of uncertainty, spirituality, gender and race*. Paper presented at the Gerontological Society of America meeting in New Orleans, Louisiana.
6. Cagle, J. G., Williams, S. W., LaMantia, M. A., **Pek, J.**, & Edwards L. J. (October 2010). *Preference for hospice care among older adults in North Carolina*. Paper presented at the North Carolina Conference on Aging in Research Triangle Park, North Carolina.
5. LaMantia, M. A., Cagle, J. G., Williams, S. W., **Pek, J.**, & Edwards, L. J. (October 2010). *Preference for being off life support at the end of life: The role of gender, health, and race*. Paper presented at the North Carolina Conference on Aging in Research Triangle Park, North Carolina.
4. Williams, S. W., Cagle, J. G., LaMantia, M. A. **Pek, J.**, & Edwards, L. J., (October 2010). *The preferred place of death for older North Carolinians*. Paper presented at the North Carolina Conference on Aging in Research Triangle Park, North Carolina.
3. **Pek, J.** (September 2010). *Case diagnostics in structural equation models: Illustrations and issues*. Paper presented at the Society of Multivariate Experimental Research Graduate Student Pre-Conference in Atlanta, Georgia.
2. Bauer, D. J., Mathiowetz, R. E., Gottfredson, N. C., **Pek, J.**, & Losardo, D. (July 2009). *Semiparametric modeling of nonlinear relationships among latent variables via mixtures of linear structural equations*. Paper presented at the Psychometrics Society meeting in Cambridge, England.
1. Bauer, D. J., **Pek, J.**, Sterba, S. K., & Kok, B. E. (September 2008). *Visualizing nonlinear relationships among latent variables using mixtures*. Paper presented at the Society for Multivariate Experimental Psychology meeting in Montreal, Canada.

Conference Posters

*Indicates co-author who was a student at the time the research was conducted.

† Indicates co-author who was a postdoctoral research fellow at the time the research was conducted.

‡ Awarded Best Poster of the 2014 International Meeting of the Psychometric Society in Madison, Wisconsin.

19. *Hoisington-Shaw, K. J., & **Pek, J.** (May 2022). *A snapshot of statistical reporting and power analysis in substantive psychological research*. Poster presented at the Association for Psychological Science in Chicago, Illinois.
18. *Coutts, J. C., & **Pek, J.** (May 2022). *BSpower: The efficacy of resampling methods in power analysis*. Poster presented at the Association for Psychological Science in Chicago, Illinois.
17. *Allen, W. B., Howard, K. P., **Pek, J.**, Cheavens, J. S., & Cocco, E. F. (November, 2021). *Parsing impulsive aggression in intermittent explosive disorder and borderline personality disorder*. Poster presented at the Association for Behavioral and Cognitive Therapies Annual Convention in New Orleans, Louisiana.
16. *Hoisington-Shaw, K. J., *Coutts, J. J., & **Pek, J.** (July, 2020). *Beyond fixed sample sizes: Sequential testing in psychology*. Poster session presented at the International Meeting of the Psychometric Society in Baltimore, Maryland (canceled because of COVID-19).

15. *Hoisington-Shaw, K. J., *Coutts, J. J., & **Pek, J.** (June, 2020). *An evaluation of sequential testing in psychological research*. Poster session presented at the Modern Modeling Methods Conference in Storrs, Connecticut (canceled because of COVID-19).
14. *Hoisington-Shaw, K. J., *Coutts, J. J., & **Pek, J.** (May, 2020). *Sequential testing methods and the replication crisis*. Poster session presented at the Annual Convention of the Association for Psychological Science in Chicago, Illinois (canceled because of COVID-19).
13. *Park, J. & **Pek, J.** (October 2018). *HybridPower: An R package for Bayesian-frequentist hybrid power analysis*. Poster presented at the Annual Meeting of the Society for Multivariate Experimental Psychology in Albuquerque, New Mexico.
12. **Pek, J.**, *Wong, O., & Wong, A. C. M. (July 2018). *Addressing data non-normality: Current trends and future recommendations*. Poster presented at the International Meeting of the Psychometric Society in New York City, New York.
11. *Adkins, M., & **Pek, J.** (June 2018) *Best practices for constructing confidence intervals for the general linear model under non-normality*. Poster presented at the Annual Convention of the Canadian Psychological Association in Montreal, Quebec.
10. *Wong, O., & **Pek, J.** (June 2017). *A study of confidence intervals for the mean of non-normal distributions*. Poster presented at the Annual Convention of the Canadian Psychological Association in Toronto, Ontario.
9. *Grant, N., **Pek, J.**, & †Flake, J. K. (June 2017). *Challenges in building a cumulative science on stereotype threat*. Poster presented at the Annual Convention of the Canadian Psychological Association in Toronto, Ontario.
8. *Andrews, G., Siden, H., **Pek, J.**, & Steele, R. (October 2016). *Respite care for families of children with life-threatening conditions*. Poster presented at the International Congress on Palliative Care in Palais des Congrès, Montréal.
7. *Kim, Y. J., & **Pek, J.** (August 2015). *Evidence-based recommendations for communicating results of mediation analysis*. Poster presented at the Annual Convention of the American Psychological Association in Toronto, Ontario.
6. *Kim, Y. J., & **Pek, J.** (June 2015). *Evidence-based recommendations for communicating results of mediation analysis*. Poster presented at the Annual Convention of the Canadian Psychological Association in Ottawa, Ontario.
5. ‡*Chalmers, R. P., & **Pek, J.** (July 2014). *Graphical utilities for semiparametric structural equation models in R*. Poster presented at the International Meeting of the Psychometrics Society in Madison, Wisconsin.
4. *Kim, Y. J., & **Pek, J.** (May 2014). *Review of mediation analysis in past 10 years (2002–2012)*. Poster presented at the Ontario Undergraduate Psychology Thesis Conference in Kingston, Ontario.
3. **Pek, J.**, & MacCallum, R. C. (July 2010). *Case diagnostics in structural equation modelling: Outliers versus good and bad influential cases*. Poster presented at the International Meeting of the Psychometric Society in Athens, Georgia.
2. Williams, R. B., **Pek, J.**, Richman, L. S., & Siegler, I. C. (May 2008). *The impact of perceived discrimination on depressive symptoms is moderated by social support and race*. Poster presented at the Association for Psychological Science meeting in Chicago, Illinois.
1. Kaufman, E. A., Richman, L. S., **Pek, J.**, & Genderson, A. (February 2008). *The effects of past discrimination on everyday physiological and emotional responses to social interaction*. Poster presented at the Society for Personality and Social Psychology meeting in Albuquerque, New Mexico.

Technical Reports

*Indicates co-author who was a student at the time the research was conducted.

† Indicates co-author who was a postdoctoral fellow at the time the research was conducted.

7. **Pek, J.**, *Armstrong, B., *Adkins, M. C., †Flake, J. K., & Spaniol, J. (2016). *Predictors of problem gambling among seniors in Ontario* (Gambling Exchange Research Ontario Technical Report). Retrieved from <http://www.greo.ca/Modules/EvidenceCentre/Details/predictors-of-problem-gambling-among-seniors-in-ontario>
6. **Pek, J.** (2006). *Financial stress questionnaire: Grade 3/Year 4* (Fast Track Project Technical Report). Retrieved from <http://www.fasttrackproject.org>
5. **Pek, J.** (2006). *Inventory of parent experiences: Kindergarten/Year 1* (Fast Track Project Technical Report). Retrieved from <http://www.fasttrackproject.org>
4. **Pek, J.** (2006). *Parent's check list: Kindergarten/Year 1* (Fast Track Project Technical Report). Retrieved from <http://www.fasttrackproject.org>
3. **Pek, J.** (2006). *Parent-child communication, child report: Grade 4/Year 5* (Fast Track Project Technical Report). Retrieved from <http://www.fasttrackproject.org>
2. **Pek, J.** (2006). *Parent-child communication, parent report: Grade 4/Year 5* (Fast Track Project Technical Report). Retrieved from <http://www.fasttrackproject.org>
1. **Pek, J.** (2006). *Teacher's check list: Kindergarten/Year 1* (Fast Track Project Technical Report). Retrieved from <http://www.fasttrackproject.org>

Books Under Contract

*Indicates co-author who was a student at the time the research was conducted.

5. Fabrigar, L. R., **Pek, J.**, & Wegener, D. T. (under contract). *An introduction to factor analysis and structural equation modeling*. New York, NY: Oxford University Press

Media Relations

Career featured in *The Observer*, Association for Psychological Science:

<https://www.psychologicalscience.org/observer/careers-up-close-jolyn-pek>

Teaching with instructional redesign showcased in:

<https://drakeinstitute.osu.edu/spotlight/jolynn-pek-phd>

Research in fundamental discovery in the natural and social sciences showcased in:

<http://health.research.yorku.ca/six-connected-themes/jolynn-pek/>

Funding for Research

External Support

9/2023–8/2025	National Science Foundation , <i>Reducing Inequities in STEM Exams: Psychological Mechanisms and Principles of Design</i> . Role: Co-I. Amount \$1,485,358. Under review.
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7/2016–6/2021	Project Scheme , Canadian Institutes of Health Research. <i>Cognitive behaviour therapy for mental health problems in children with neurodevelopmental disorders: A trans-diagnostic approach</i> . Role: Co-I. Amount: \$445,704.
6/2016–7/2021	Early Researcher Award , Ontario Ministry of Research and Innovation. <i>Enhancing research with uncertainty quantification: Assessing what we don't know about our results</i> . Role: PI. Amount: \$190,000.
1/2016–8/2017	Knowledge Translation Exchange Award , Gambling Research Exchange Ontario. <i>Predictors of problem gambling among seniors in Ontario</i> . Role: PI. Amount: \$20,000.
4/2014–3/2019	Discovery Grant , Natural Sciences and Engineering Research Council of Canada. <i>Quantifying and addressing uncertainty in latent variable models</i> . Role: PI. Amount: \$75,000.
4/2013–5/2016	Insight Development Grant , Social Sciences and Humanities Research Council of Canada. <i>Best practices for statistical mediation</i> . Role: PI. Amount: \$74,630.

Internal Support

6/2021–5/2022	InFACT: Linkages and Leverage Grant , The Ohio State University. <i>System change in early care and education: Improving dietary consumption through food education and access to local foods..</i> Role: Co-I. Amount \$34,998.
8/2020–5/2022	Institute for Population Research Seed Grant , The Ohio State University. <i>Development and testing of digital dating abuse measure for sexual minority youth</i> . Role: Co-I. Amount: \$84,715.
8/2020–5/2021	“Kick Start” Interdisciplinary Seed Grant , Department of Psychology, The Ohio State University. <i>Current practices in power analysis: Challenges and resolutions</i> . Role: PI. Amount: \$23,145.
1/2015–12/2016	Faculty of Health Junior Faculty Fund , York University. <i>Can measurement explain non-replicability? The case of stereotype threat</i> . Role: PI. Amount: \$2,000.
5/2016–5/2017	Institutional Small Grants Program , Social Sciences and Humanities Research Council of Canada. <i>Best practice in the use of psychometric measures</i> . Role: PI. Amount: \$3,500.
5/2013	Faculty of Health Conference Travel Funds , York University. Amount: \$1,000.
1/2013–12/2014	Faculty of Health Minor Research Grant , York University. <i>Confidence envelopes for evaluating latent variable regressions of unknown functional form</i> . Role: PI. Amount: \$2,800.
1/2013–12/2014	Faculty of Health Junior Faculty Fund , York University. <i>Case influence in item factor analysis</i> . Role: PI. Amount: \$1,900.

Teaching

*New courses prepared. †New courses developed.

Undergraduate	*Data Analysis in Psychology (Honors Section), The Ohio State University, Fall 2020, Fall 2018, Fall 2019
Graduate	*† Mediation and Moderation, The Ohio State University, Fall 2021, Fall 2022 *† Covariance Structure Analysis, The Ohio State University, Spring 2021, Spring 2023 *† Longitudinal Data Analysis, The Ohio State University, Spring 2020, Spring 2022 *Special Topics in Quantitative Psychology, The Ohio State University, Fall 2018, Spring 2019, Fall 2019, Spring 2020, Fall 2021, Spring 2022 *†Advanced Seminar: Power Analysis, The Ohio State University, Fall 2017 *†Hierarchical Linear Modeling, York University, Fall 2016 *†Univariate Analysis I: ANOVA, York University, Fall 2015 *†Univariate Analysis II: Regression, York University, 2 times *Univariate Analysis, York University, 2012–2014. 2 times
Short Courses	*†Practical Power Analysis, Institute of Social Research, Winter 2017. *†Introduction to Multilevel Modeling, Institute of Social Research, 2013–2015. 3 times

Mentoring

Postdoctoral Fellows

Supervision	2015–2017	Jessica K. Flake; York University
Independent Project	2015	Rui Zhang; York University

Graduate Students

Supervision	ongoing	Fancisco Leyva-Castro; M.Ed.; Psychology; The Ohio State University
	ongoing	Shannon M. Jacoby; M.A., Psychology; The Ohio State University
	ongoing	Kathryn Hoisington-Shaw; M.A., Psychology; The Ohio State University
	ongoing	Jacob Coutts; M.S., Psychology; The Ohio State University
	2017	Mark Adkins; M.A., Psychology; York University
	2017	R. Philip Chalmers; Ph.D., Psychology; York University
	2016	Yoosun (Jamie) Kim; M.A., Psychology; York University

Supervisory Committee	ongoing	Jingdan Diana Zhu, Ph.D., Psychology; The Ohio State University
	2022	Daniel Brunette, M.S., Psychology; The Ohio State University
	2021	Ivory Li, Ph.D., Psychology; The Ohio State University
	2021	Yiyang Chen, Ph.D., Psychology; The Ohio State University
	2020	Jacob Coutts, M.A., Psychology; The Ohio State University
	2020	Jingdan Diana Zhu, M.A., Psychology; The Ohio State University
	2019	Joonsuk Park, Ph.D., Psychology; The Ohio State University
	2019	Nicholas Rockwood, Ph.D., Psychology; The Ohio State University
	2019	Jack DiTripani, Ph.D., Psychology; The Ohio State University
	2019	Saemi Park, Ph.D., Psychology; The Ohio State University
	2019	Selena Wang, M.A., Psychology; The Ohio State University
	2019	Ivory Li, M.A., Psychology; The Ohio State University
	2018	Amanda K. Montoya; Ph.D., Psychology; The Ohio State University
	2017	Heather Davidson; M.A., Psychology; York University
	2017	Kristen Maki; M.A., Psychology; York University
	2015	Joo Ann Lee; M.A., Psychology; York University
Candidacy Exam Committee	2022	Sydney Williams, M. S., Psychology; The Ohio State University
	2022	Jingyi Wang, M. S., Psychology; The State University
	2021	Vanessa Ivy, M.S., Psychology; The Ohio State University
	2021	Courtney Moore, M.S., Psychology; The Ohio State University
	2021	Jacob Coutts, M.S., Psychology; The Ohio State University
	2021	Jingdan Diana Zhu, M.A., Psychology; The Ohio State University
	2021	Kathryn Hoisington-Shaw, M.A. Psychology; The Ohio State University
	2020	Phuong Q. Le; M.A., Psychology; The Ohio State University
	2020	Ivory Li; M.A., Psychology; The Ohio State University
	2020	Selena Wang; M.A., Psychology; The Ohio State University
	2018	Saemi Park; M.A., Psychology; The Ohio State University
Examining Committee	2012	Alyssa Counsell; M.A., Psychology; York University

Undergraduate Students

Honors Thesis	2017	Nyiesha Grant; York University
	2016	Octavia Wong; York University
	2014	Yoosun (Jamie) Kim; York University
Independent Study	2022	Kalina Soto Dusenbery; The Ohio State University
	2016	Nyiesha Grant; York University
	2013	Miles A. Mayodormo; York University

Funded Teaching Support

10/2019–9/2020	Affordable Learning Exchange , The Ohio State University. <i>Learning from Data: From Visualization to Inference</i> . Role: Principle Applicant. Amount: \$7,500.
1/2015–12/2015	Teaching-Learning Development Grant , York University Faculty Association. <i>Quantitative Methods Forum</i> . Role: Principal Applicant. Amount: \$5,000.

3/2014	Funding for Research Events and Scholarly Activities , The Office of the VPRI. <i>Quantitative Methods Research Colloquium</i> . Role: Principal Applicant. Amount: \$500.
1/2014–12/2014	Teaching-Learning Development Grant , York University Faculty Association. <i>Quantitative Methods Forum</i> . Role: Principal Applicant. Amount: \$3,000.
1/2013–12/2013	Teaching-Learning Development Grant , York University Faculty Association. <i>Quantitative Methods Forum</i> . Role: Principal Applicant. Amount: \$3,500.

University Service

College

2/2022	Faculty Judge , Edward F. Hayes Graduate Research Forum The Graduate School, The Ohio State University.
3/2021	Faculty Judge , Edward F. Hayes Graduate Research Forum The Graduate School, The Ohio State University.
11/2020	Panelist , Instructional Redesign Initiative Drake Institute for Teaching and Learning, The Ohio State University
2/2020	Faculty Judge , Edward F. Hayes Graduate Research Forum The Graduate School, The Ohio State University.
3/2019	Faculty Judge , Edward F. Hayes Graduate Research Forum The Graduate School, The Ohio State University.
11/2016	Faculty Volunteer , Fall Campus Day Faculty of Health & Department of Psychology, York University.
7/2012–4/2014	Member , Faculty of Health Petitions Committee York University.

Departmental

7/2020–present	Member , Executive Committee Department of Psychology, The Ohio State University.
9/2022–present	Chair , Search Committee Open Rank Professor in Quantitative Psychology Department of Psychology, The Ohio State University.
9/2022–present	Member , Search Committee Open Rank Professor in Decision Psychology Department of Psychology, The Ohio State University.
11/2021–7/2022	Chair , Search Committee Assistant/Associate Professor in Quantitative Psychology Department of Psychology, The Ohio State University.
8/2018–present	Member , Speaker's Committee Department of Psychology, The Ohio State University.
8/2018–5/2021	Member , Diversity Committee Department of Psychology, The Ohio State University.
8/2020–5/2021	Chair , Search Committee Visiting Assistant Professor in Quantitative Psychology Department of psychology, The Ohio State University.
5/2020–5/2021	Member , Research Advisory Committee Department of Psychology, The Ohio State University.

8/2019–5/2020	Member , Outreach Committee Department of Psychology, The Ohio State University.
1/2018–7/2018	Member , Graduate Studies Committee Department of Psychology, The Ohio State University.
2/2018	Faculty Rater , Psychology Summer Research Fellowship Department of Psychology, The Ohio State University.
10/2017	Faculty Volunteer , Graduate Prospective Diversity Student Visiting Day Department of Psychology, The Ohio State University.
7/2016	Member , Specialized Honours Admissions Committee Department of Psychology, York University.
7/2014–6/2017	Member , Undergraduate Studies Committee Department of Psychology, York University.
6/2016–6/2017	Chair , Undergraduate Studies Subcommittee on Course Learning Objectives Department of Psychology, York University.
6/2016–6/2017	Member , Undergraduate Studies Subcommittee on Missed Tests Department of Psychology, York University.
7/2015–6/2016	Chair , Undergraduate Studies Subcommittee on Non-thesis Stream Department of Psychology, York University.
7/2013–5/2014	Chair , Quantitative Methods Diploma Development Committee Department of Psychology, York University.
4/2013 & 4/2015	Coordinator , Departmental Colloquium Department of Psychology, York University.
7/2014 – 6/2016	Member , Masters Scholarship Rating Committee (NSERC) Department of Psychology, York University.
11/2013	Member , Doctoral Scholarship Rating Committee (NSERC) Department of Psychology, York University.
11/2012	Member , Dissertation Prize Examining Committee Department of Psychology, York University.

Quantitative Area

7/2020 – present	Area Coordinator , Quantitative Psychology Program Department of Psychology, The Ohio State University.
6/2017 – present	Webmaster , Quantitative Psychology Website Department of Psychology, The Ohio State University.
1/2013–6/2017	Webmaster , Quantitative Methods Website Department of Psychology, York University.
1/2013–5/2016	Faculty Coordinator , Quantitative Methods Forum Department of Psychology, York University.
1/2013–6/2016	Faculty Coordinator , Prospective Graduate Student Communications Department of Psychology, York University.
11/2013	Faculty Coordinator , Prospective Graduate Student Visit Department of Psychology, York University.

Student Group Advising

2019 – Present	Adviser , Graduate Student Committee for Diversity, Equity, & Inclusion Department of Psychology, The Ohio State University.
2018 – Present	Adviser , Quantitative Psychology Group Department of Psychology, The Ohio State University.

Service to the Profession

Program Coordinator

2023	Annual Meeting of the American Psychological Association Division 5 (Quantitative and Qualitative Methods)
2019–present	Joint Quantitative Psychology Brownbag https://jqbb.github.io/ Online research forum on research topics in quantitative methodology

Grant Review

2/2022	National Science Foundation (Decision, Risk, and Management Sciences)
8/2015	Fonds de la Recherche Scientifique Fund for Scientific Research (Human and Social Sciences)
12/2014	Natural Sciences and Engineering Research Council of Canada (Mathematics and Evaluations Group)

Consulting Editor

2019–Present	Psychological Methods
2017–2020	Journal of Personality and Social Psychology Interpersonal Relations and Group Processes

Ad-hoc Reviewer

Nature Human Behaviour
American Psychologist
Psychological Methods
Psychometrika
Multivariate Behavioral Research
Behavior Research Methods
Journal of Educational and Behavioral Statistics
Assessment
Psychosomatic Medicine
The American Statistician
Journal of Mathematical Psychology
Journal of Experimental Social Psychology
PLOS ONE
Journal of Modern Applied Statistical Methods
Social Psychological and Personality Science
Annals of Epidemiology

Submissions Reviewer

9/2018 American Psychological Association Dissertation Research Award
5/2017 Canadian Psychological Association Conference (Quantitative Methods Section)
12/2017 American Psychological Association Conference (Division 5)

Book Proposal Reviewer

2/2022 Cambridge University Press
9/2013 Sage Publications

Professional Affiliations

American Psychological Association
American Statistical Association
Association for Psychological Science
Canadian Psychological Association
Psychometric Society
Society for Multivariate Experimental Psychology