betaSandwich: References

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References

- Aalen, O. O., Røysland, K., Gran, J. M., Kouyos, R., & Lange, T. (2016). Can we believe the DAGs?
 A comment on the relationship between causal DAGs and mechanisms. Statistical Methods in Medical Research, 25(5), 2294–2314. https://doi.org/10.1177/0962280213520436
- Aalen, O. O., Røysland, K., Gran, J. M., & Ledergerber, B. (2012). Causality, mediation and time: A dynamic viewpoint. *Journal of the Royal Statistical Society. Series A (Statistics in Society)*, 175(4), 831–861. https://doi.org/10.1111/j.1467-985X.2011.01030.x
- Adolf, J. K., Loossens, T., Tuerlinckx, F., & Ceulemans, E. (2021). Optimal sampling rates for reliable continuous-time first-order autoregressive and vector autoregressive modeling. *Psy*chological Methods, 26(6), 701–718. https://doi.org/10.1037/met0000398
- Andrews, D. W. K. (1991). Heteroskedasticity and autocorrelation consistent covariance matrix estimation. *Econometrica*, 59(3), 817. https://doi.org/10.2307/2938229
- Andrews, D. W. K. (2000). Inconsistency of the bootstrap when a parameter is on the boundary of the parameter space. *Econometrica*, 68(2), 399–405. https://doi.org/10.1111/1468-0262.00114
- Andrews, D. W. K., & Monahan, J. C. (1992). An improved heteroskedasticity and autocorrelation consistent covariance matrix estimator. *Econometrica*, 60(4), 953. https://doi.org/10. 2307/2951574

- Antonakis, J., Bastardoz, N., & Rönkkö, M. (2019). On ignoring the random effects assumption in multilevel models: Review, critique, and recommendations. *Organizational Research Methods*, 24(2), 443–483. https://doi.org/10.1177/1094428119877457
- Arbuckle, J. L. (1996). Full information estimation in the presence of incomplete data. In G. A. Marcoulides & R. E. Schumacker (Eds.), *Advanced structural equation modeling*. https://doi.org/10.4324/9781315827414
- Arbuckle, J. L. (2020). Amos 27.0 user's guide. Chicago, IBM SPSS.
- Arbuckle, J. L. (2021). Amos 28.0 user's guide. Chicago, IBM SPSS.
- Arnold, L. (1974). Stochastic differential equations: Theory and applications. Wiley.
- Aroian, L. A. (1947). The probability function of the product of two normally distributed variables.

 The Annals of Mathematical Statistics, 18(2), 265–271. https://doi.org/10.1214/aoms/
 1177730442
- Ash, G. I., Gueorguieva, R., Barnett, N. P., Wang, W., Robledo, D. S., DeMartini, K. S., Pittman, B., Redeker, N. S., O, S. S., & Fucito, L. M. (2022). Sensitivity, specificity, and tolerability of the BACTrack Skyn compared to other alcohol monitoring approaches among young adults in a field-based setting. Alcoholism: Clinical and Experimental Research, 46(5), 783–796. https://doi.org/10.1111/acer.14804
- Asparouhov, T., Hamaker, E. L., & Muthén, B. (2017). Dynamic structural equation models. Structural Equation Modeling: A Multidisciplinary Journal, 25(3), 359–388. https://doi.org/10.1080/10705511.2017.1406803
- Asparouhov, T., & Muthén, B. (2018). Latent variable centering of predictors and mediators in multilevel and time-series models. Structural Equation Modeling: A Multidisciplinary Journal, 26(1), 119–142. https://doi.org/10.1080/10705511.2018.1511375
- Asparouhov, T., & Muthén, B. O. (2022). *Multiple imputation with Mplus* (tech. rep.). http://www.statmodel.com/download/Imputations7.pdf
- Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). The Alcohol Use Disorders Identification Test: Guidelines for use in primary care (2nd ed.). Department of Mental Health; Substance Dependence, World Health Organization.

- Baker, T. B., Piper, M. E., McCarthy, D. E., Majeskie, M. R., & Fiore, M. C. (2004). Addiction motivation reformulated: An affective processing model of negative reinforcement. *Psychological Review*, 111(1), 33–51. https://doi.org/10.1037/0033-295x.111.1.33
- Bakk, Z., & Kuha, J. (2020). Relating latent class membership to external variables: An overview.
 British Journal of Mathematical and Statistical Psychology, 74(2), 340–362. https://doi.org/10.1111/bmsp.12227
- Baltes, P. B., & Nesselroade, J. R. (1979). History and rationale of longitudinal research. In J. R. Nesselroade & P. B. Baltes (Eds.), Longitudinal research in the study of behavior and development. Academic Press.
- Barker, J. M., & Taylor, J. R. (2014). Habitual alcohol seeking: Modeling the transition from casual drinking to addiction. *Neuroscience & Biobehavioral Reviews*, 47, 281–294. https://doi.org/10.1016/j.neubiorev.2014.08.012
- Barnard, G. A., Collins, J. R., Farewell, V. T., Field, C. A., Kalbfleisch, J. D., Nash, S. W., Parzen, E., Prentice, R. L., Reid, N., Sprott, D. A., Switzer, P., Warren, W. G., & Weldon, K. L. (1981). Nonparametric standard errors and confidence intervals: Discussion. The Canadian Journal of Statistics / La Revue Canadienne de Statistique, 9(2), 158–170. https://doi.org/10.2307/3314609
- Barnett, N. P. (2014). Alcohol sensors and their potential for improving clinical care. *Addiction*, 110(1), 1–3. https://doi.org/10.1111/add.12764
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173
- Bauer, D. J., & Curran, P. J. (2005). Probing interactions in fixed and multilevel regression: Inferential and graphical techniques. *Multivariate Behavioral Research*, 40(3), 373–400. https://doi.org/10.1207/s15327906mbr4003_5
- Bauer, D. J., Preacher, K. J., & Gil, K. M. (2006). Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. Psychological Methods, 11(2), 142–163. https://doi.org/10.1037/1082-989x.11.2.142

- Bell, A., & Jones, K. (2014). Explaining fixed effects: Random effects modeling of time-series cross-sectional and panel data. *Political Science Research and Methods*, 3(1), 133–153. https://doi.org/10.1017/psrm.2014.7
- Bentler, P. M., & Lee, S.-Y. (1983). Covariance structures under polynomial constraints: Applications to correlation and alpha-type structural models. *Journal of Educational Statistics*, 8(3), 207. https://doi.org/10.2307/1164760
- Bentler, P. M. (2007). Can scientifically useful hypotheses be tested with correlations? *American Psychologist*, 62(8), 772–782. https://doi.org/10.1037/0003-066x.62.8.772
- Beran, R. (2003). The impact of the bootstrap on statistical algorithms and theory. *Statistical Science*, 18(2). https://doi.org/10.1214/ss/1063994972
- Bergstrom, A. R. (1984). Continuous time stochastic models and issues of aggregation over time. In Z. Griliches & M. D. Intriligator (Eds.), *Handbook of econometrics* (Vol. 2).
- Bernardo, A. B., Wang, T. Y., Pesigan, I. J. A., & Yeung, S. S. (2017). Pathways from collectivist coping to life satisfaction among chinese: The roles of locus-of-hope. *Personality and Individual Differences*, 106, 253–256. https://doi.org/10.1016/j.paid.2016.10.059
- Biesanz, J. C., Falk, C. F., & Savalei, V. (2010). Assessing mediational models: Testing and interval estimation for indirect effects. *Multivariate Behavioral Research*, 45(4), 661–701. https://doi.org/10.1080/00273171.2010.498292
- Blanca, M. J., Arnau, J., Lopez-Montiel, D., Bono, R., & Bendayan, R. (2013). Skewness and kurtosis in real data samples. *Methodology*, 9(2), 78–84. https://doi.org/10.1027/1614-2241/a000057
- Boettiger, C., & Eddelbuettel, D. (2017). An introduction to Rocker: Docker containers for R. *The R Journal*, 9(2), 527. https://doi.org/10.32614/rj-2017-065
- Boker, S. M. (2002). Consequences of continuity: The hunt for intrinsic properties within parameters of dynamics in psychological processes. *Multivariate Behavioral Research*, 37(3), 405–422. https://doi.org/10.1207/s15327906mbr3703_5

- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, 54(1), 579–616. https://doi.org/10.1146/annurev.psych.54.101601. 145030
- Bolger, N., & Laurenceau, J.-P. (2013). Intensive longitudinal methods: An introduction to diary and experience sampling research. Guilford Publications.
- Bollen, K. A. (1987). Total, direct, and indirect effects in structural equation models. *Sociological Methodology*, 17, 37. https://doi.org/10.2307/271028
- Bollen, K. A., & Brand, J. E. (2010). A general panel model with random and fixed effects: A structural equations approach. *Social Forces*, 89(1), 1–34. https://doi.org/10.1353/sof. 2010.0072
- Bollen, K. A., & Stine, R. (1990). Direct and indirect effects: Classical and bootstrap estimates of variability. *Sociological Methodology*, 20, 115. https://doi.org/10.2307/271084
- Bond, J. C., Greenfield, T. K., Patterson, D., & Kerr, W. C. (2014). Adjustments for drink size and ethanol content: New results from a self-report diary and transdermal sensor validation study. *Alcoholism: Clinical and Experimental Research*, 38(12), 3060–3067. https://doi.org/10.1111/acer.12589
- Boos, D. D. (2003). Introduction to the bootstrap world. Statistical Science, 18(2). https://doi.org/10.1214/ss/1063994971
- Bou, J. C., & Satorra, A. (2017). Univariate versus multivariate modeling of panel data: Model specification and goodness-of-fit testing. *Organizational Research Methods*, 21(1), 150–196. https://doi.org/10.1177/1094428117715509
- Bradley, J. V. (1978). Robustness? British Journal of Mathematical and Statistical Psychology, 31(2), 144–152. https://doi.org/10.1111/j.2044-8317.1978.tb00581.x
- Bringmann, L. F., Vissers, N., Wichers, M., Geschwind, N., Kuppens, P., Peeters, F., Borsboom, D., & Tuerlinckx, F. (2013). A network approach to psychopathology: New insights into clinical longitudinal data. *PLoS ONE*, 8(4). https://doi.org/10.1371/journal.pone.0060188
- Brockwell, P. J., & Davis, R. A. (1991). Time series: Theory and methods. Springer New York. https://doi.org/10.1007/978-1-4419-0320-4

- Browne, M. W. (1984). Asymptotically distribution-free methods for the analysis of covariance structures. *British Journal of Mathematical and Statistical Psychology*, 37(1), 62–83. https://doi.org/10.1111/j.2044-8317.1984.tb00789.x
- Casella, G. (2003). Introduction to the silver anniversary of the bootstrap. Statistical Science, 18(2). https://doi.org/10.1214/ss/1063994967
- Casella, G., & Berger, R. L. (2002). Statistical inference. Thomson Learning.
- Chen, G., Glen, D. R., Saad, Z. S., Hamilton, J. P., Thomason, M. E., Gotlib, I. H., & Cox, R. W. (2011). Vector autoregression, structural equation modeling, and their synthesis in neuroimaging data analysis. Computers in Biology and Medicine, 41(12), 1142–1155. https://doi.org/10.1016/j.compbiomed.2011.09.004
- Cheong, J., MacKinnon, D. P., & Khoo, S. T. (2003). Investigation of mediational processes using parallel process latent growth curve modeling. Structural Equation Modeling: A Multidisciplinary Journal, 10(2), 238–262. https://doi.org/10.1207/s15328007sem1002_5
- Chesher, A., & Jewitt, I. (1987). The bias of a heteroskedasticity consistent covariance matrix estimator. *Econometrica*, 55(5), 1217. https://doi.org/10.2307/1911269
- Cheung, G. W., & Lau, R. S. (2007). Testing mediation and suppression effects of latent variables. Organizational Research Methods, 11(2), 296–325. https://doi.org/10.1177/1094428107300343
- Cheung, M. W.-L. (2007). Comparison of approaches to constructing confidence intervals for mediating effects using structural equation models. Structural Equation Modeling: A Multidisciplinary Journal, 14(2), 227–246. https://doi.org/10.1080/10705510709336745
- Cheung, M. W.-L. (2008). A model for integrating fixed-, random-, and mixed-effects meta-analyses into structural equation modeling. *Psychological Methods*, 13(3), 182–202. https://doi.org/10.1037/a0013163
- Cheung, M. W.-L. (2009a). Comparison of methods for constructing confidence intervals of standardized indirect effects. *Behavior Research Methods*, 41(2), 425–438. https://doi.org/10. 3758/brm.41.2.425

- Cheung, M. W.-L. (2009b). Constructing approximate confidence intervals for parameters with structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, 16(2), 267–294. https://doi.org/10.1080/10705510902751291
- Cheung, M. W.-L. (2013). Multivariate meta-analysis as structural equation models. Structural Equation Modeling: A Multidisciplinary Journal, 20(3), 429–454. https://doi.org/10.1080/10705511.2013.797827
- Cheung, M. W.-L. (2015). Meta-analysis: A structural equation modeling approach. Wiley. https://doi.org/10.1002/9781118957813
- Cheung, M. W.-L. (2021). Synthesizing indirect effects in mediation models with meta-analytic methods. *Alcohol and Alcoholism*, 57(1), 5–15. https://doi.org/10.1093/alcalc/agab044
- Cheung, S. F., Cheung, S.-H., Lau, E. Y. Y., Hui, C. H., & Vong, W. N. (2022). Improving an old way to measure moderation effect in standardized units. *Health Psychology*, 41(7), 502–505. https://doi.org/10.1037/hea0001188
- Cheung, S. F., & Pesigan, I. J. A. (2023a). FINDOUT: Using either SPSS commands or graphical user interface to identify influential cases in structural equation modeling in AMOS. *Multivariate Behavioral Research*, 58(5), 964–968. https://doi.org/10.1080/00273171.2022. 2148089
- Cheung, S. F., & Pesigan, I. J. A. (2023b). semlbci: An R package for forming likelihood-based confidence intervals for parameter estimates, correlations, indirect effects, and other derived parameters. Structural Equation Modeling: A Multidisciplinary Journal, 30(6), 985–999. https://doi.org/10.1080/10705511.2023.2183860
- Cheung, S. F., Pesigan, I. J. A., & Vong, W. N. (2022). DIY bootstrapping: Getting the non-parametric bootstrap confidence interval in SPSS for any statistics or function of statistics (when this bootstrapping is appropriate). Behavior Research Methods, 55(2), 474–490. https://doi.org/10.3758/s13428-022-01808-5
- Chow, S.-M., Hamagani, F., & Nesselroade, J. R. (2007). Age differences in dynamical emotion-cognition linkages. *Psychology and Aging*, 22(4), 765–780. https://doi.org/10.1037/0882-7974.22.4.765

- Chow, S.-M., Ho, M.-h. R., Hamaker, E. L., & Dolan, C. V. (2010). Equivalence and differences between structural equation modeling and state-space modeling techniques. Structural Equation Modeling: A Multidisciplinary Journal, 17(2), 303–332. https://doi.org/10.1080/10705511003661553
- Chow, S.-M., Losardo, D., Park, J., & Molenaar, P. C. M. (2023). Continuous-time dynamic models:

 Connections to structural equation models and other discrete-time models. In R. H. Hoyle

 (Ed.), Handbook of structural equation modeling (2nd ed.). The Guilford Press.
- Chow, S.-M., Witkiewitz, K., Grasman, R., & Maisto, S. A. (2015). The cusp catastrophe model as cross-sectional and longitudinal mixture structural equation models. *Psychological Methods*, 20(1), 142–164. https://doi.org/10.1037/a0038962
- Clapp, J. D., Madden, D. R., Mooney, D. D., & Dahlquist, K. E. (2017). Examining the social ecology of a bar-crawl: An exploratory pilot study (E. Ito, Ed.). PLOS ONE, 12(9), 1–27. https://doi.org/10.1371/journal.pone.0185238
- Cloninger, C. R. (1987). Neurogenetic adaptive mechanisms in alcoholism. *Science*, 236 (4800), 410–416. https://doi.org/10.1126/science.2882604
- Cochran, W. G. (1952). The χ^2 test of goodness of fit. The Annals of Mathematical Statistics, 23(3), 315-345. https://doi.org/10.1214/aoms/1177729380
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Routledge. https://doi.org/10.4324/9780203771587
- Cole, D. A., Martin, N. C., & Steiger, J. H. (2005). Empirical and conceptual problems with longitudinal trait-state models: Introducing a trait-state-occasion model. *Psychological Methods*, 10(1), 3–20. https://doi.org/10.1037/1082-989x.10.1.3
- Cole, D. A., & Maxwell, S. E. (2003). Testing mediational models with longitudinal data: Questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology*, 112(4), 558–577. https://doi.org/10.1037/0021-843x.112.4.558
- Collins, L. M., & Horn, J. L. (Eds.). (1991). Best methods for the analysis of change: Recent advances, unanswered questions, future directions. American Psychological Association. https://doi.org/10.1037/10099-000

- Collins, L. M., & Sayer, A. (Eds.). (2002). New methods for the analysis of change: [based on a conference held in 1998 at the pennsylvania state university, a follow-up to the los angeles conference best methods for the analysis of change] (2nd ed.). American Psychological Association.
- Cooper, M. L., Frone, M. R., Russell, M., & Mudar, P. (1995). Drinking to regulate positive and negative emotions: A motivational model of alcohol use. *Journal of Personality and Social Psychology*, 69(5), 990–1005. https://doi.org/10.1037/0022-3514.69.5.990
- Courtney, J. B., & Russell, M. A. (2021). Testing affect regulation models of drinking prior to and after drinking initiation using ecological momentary assessment. *Psychology of Addictive Behaviors*, 35(5), 597–608. https://doi.org/10.1037/adb00000763
- Cox, W. M., & Klinger, E. (1988). A motivational model of alcohol use. *Journal of Abnormal Psychology*, 97(2), 168–180. https://doi.org/10.1037/0021-843x.97.2.168
- Craig, C. C. (1936). On the frequency function of xy. The Annals of Mathematical Statistics, 7(1), 1–15. https://doi.org/10.1214/aoms/1177732541
- Cribari-Neto, F. (2004). Asymptotic inference under heteroskedasticity of unknown form. Computational Statistics & Data Analysis, 45(2), 215–233. https://doi.org/10.1016/s0167-9473(02)00366-3
- Cribari-Neto, F., & da Silva, W. B. (2010). A new heteroskedasticity-consistent covariance matrix estimator for the linear regression model. *AStA Advances in Statistical Analysis*, 95(2), 129–146. https://doi.org/10.1007/s10182-010-0141-2
- Cribari-Neto, F., Souza, T. C., & Vasconcellos, K. L. P. (2007). Inference under heteroskedasticity and leveraged data. *Communications in Statistics Theory and Methods*, 36(10), 1877–1888. https://doi.org/10.1080/03610920601126589
- Cribari-Neto, F., Souza, T. C., & Vasconcellos, K. L. P. (2008). Errata: Inference under heteroskedasticity and leveraged data, Communications in Statistics, Theory and Methods, 36, 1877–1888, 2007. Communications in Statistics Theory and Methods, 37(20), 3329–3330. https://doi.org/10.1080/03610920802109210

- Crocetti, E., Hale, W. W., Dimitrova, R., Abubakar, A., Gao, C.-H., & Pesigan, I. J. A. (2014).

 Generalized anxiety symptoms and identity processes in cross-cultural samples of adolescents from the general population. *Child & Youth Care Forum*, 44(2), 159–174. https://doi.org/10.1007/s10566-014-9275-9
- Cronbach, L. J., & Furby, L. (1970). How we should measure "change": Or should we? *Psychological Bulletin*, 74(1), 68–80. https://doi.org/10.1037/h0029382
- Cudeck, R. (1989). Analysis of correlation matrices using covariance structure models. *Psychological Bulletin*, 105(2), 317–327. https://doi.org/10.1037/0033-2909.105.2.317
- Curran, P. J., & Bauer, D. J. (2011). The disaggregation of within-person and between-person effects in longitudinal models of change. *Annual Review of Psychology*, 62(1), 583–619. https://doi.org/10.1146/annurev.psych.093008.100356
- Curran, P. J., Howard, A. L., Bainter, S. A., Lane, S. T., & McGinley, J. S. (2014). The separation of between-person and within-person components of individual change over time: A latent curve model with structured residuals. *Journal of Consulting and Clinical Psychology*, 82(5), 879–894. https://doi.org/10.1037/a0035297
- Davidson, R., & MacKinnon, J. G. (1993). Estimation and inference in econometrics. Oxford University Press.
- Davison, A. C., & Hinkley, D. V. (1997). Bootstrap methods and their application. Cambridge University Press. https://doi.org/10.1017/CBO9780511802843
- Davison, A. C., Hinkley, D. V., & Young, G. A. (2003). Recent developments in bootstrap methodology. Statistical Science, 18(2). https://doi.org/10.1214/ss/1063994969
- de Haan-Rietdijk, S., Voelkle, M. C., Keijsers, L., & Hamaker, E. L. (2017). Discrete- vs. continuoustime modeling of unequally spaced experience sampling method data. Frontiers in Psychology, 8. https://doi.org/10.3389/fpsyg.2017.01849
- Deboeck, P. R., & Boulton, A. J. (2016). Integration of stochastic differential equations using structural equation modeling: A method to facilitate model fitting and pedagogy. Structural Equation Modeling: A Multidisciplinary Journal, 23(6), 888–903. https://doi.org/10.1080/10705511.2016.1218763

- Deboeck, P. R., & Preacher, K. J. (2015). No need to be discrete: A method for continuous time mediation analysis. Structural Equation Modeling: A Multidisciplinary Journal, 23(1), 61– 75. https://doi.org/10.1080/10705511.2014.973960
- Deboeck, P. R., Preacher, K. J., & Cole, D. A. (2018). Mediation modeling: Differing perspectives on time alter mediation inferences. In *Continuous time modeling in the behavioral and related* sciences (pp. 179–203). Springer International Publishing. https://doi.org/10.1007/978-3-319-77219-6-8
- DeMartini, K. S., Gueorguieva, R., Taylor, J. R., Krishnan-Sarin, S., Pearlson, G., Krystal, J. H., & O'Malley, S. S. (2022). Dynamic structural equation modeling of the relationship between alcohol habit and drinking variability. *Drug and Alcohol Dependence*, 233, 109202. https://doi.org/10.1016/j.drugalcdep.2021.109202
- Demeshko, M., Washio, T., Kawahara, Y., & Pepyolyshev, Y. (2015). A novel continuous and structural VAR modeling approach and its application to reactor noise analysis. *ACM Transactions on Intelligent Systems and Technology*, 7(2), 1–22. https://doi.org/10.1145/2710025
- Didier, N. A., King, A. C., Polley, E. C., & Fridberg, D. J. (2023). Signal processing and machine learning with transdermal alcohol concentration to predict natural environment alcohol consumption. Experimental and Clinical Psychopharmacology, 32(2), 245–254. https://doi. org/10.1037/pha0000683
- Doñamayor, N., Strelchuk, D., Baek, K., Banca, P., & Voon, V. (2017). The involuntary nature of binge drinking: Goal directedness and awareness of intention. *Addiction Biology*, 23(1), 515–526. https://doi.org/10.1111/adb.12505
- Dora, J., Piccirillo, M., Foster, K. T., Arbeau, K., Armeli, S., Auriacombe, M., Bartholow, B., Beltz, A. M., Blumenstock, S. M., Bold, K., Bonar, E. E., Braitman, A., Carpenter, R. W., Creswell, K. G., De Hart, T., Dvorak, R. D., Emery, N., Enkema, M., Fairbairn, C. E., ... King, K. M. (2023). The daily association between affect and alcohol use: A meta-analysis of individual participant data. Psychological Bulletin, 149(1-2), 1-24. https://doi.org/10.1037/bul0000387

- Driver, C. C., Oud, J. H. L., & Voelkle, M. C. (2017). Continuous time structural equation modeling with R package ctsem. *Journal of Statistical Software*, 77(5). https://doi.org/10.18637/ jss.v077.i05
- Driver, C. C., & Voelkle, M. C. (2018). Hierarchical Bayesian continuous time dynamic modeling.

 Psychological Methods, 23(4), 774–799. https://doi.org/10.1037/met0000168
- Dudgeon, P. (2017). Some improvements in confidence intervals for standardized regression coefficients. *Psychometrika*, 82(4), 928–951. https://doi.org/10.1007/s11336-017-9563-z
- Dumenci, L., & Windle, M. (1996). A latent trait-state model of adolescent depression using the Center for Epidemiologic Studies-Depression Scale. *Multivariate Behavioral Research*, 31(3), 313–330. https://doi.org/10.1207/s15327906mbr3103_3
- Duncan, O. D. (1969). Some linear models for two-wave, two-variable panel analysis. *Psychological Bulletin*, 72(3), 177–182. https://doi.org/10.1037/h0027876
- Eddelbuettel, D. (2013). Seamless R and C++ integration with Rcpp. Springer New York. https://doi.org/10.1007/978-1-4614-6868-4
- Eddelbuettel, D., & Balamuta, J. J. (2017). Extending R with C++: A brief introduction to Rcpp.

 PeerJ Preprints, 3188v1(3). https://doi.org/10.7287/peerj.preprints.3188v1
- Eddelbuettel, D., Francois, R., Allaire, J., Ushey, K., Kou, Q., Russell, N., Ucar, I., Bates, D., & Chambers, J. (2023). Rcpp: Seamless R and C++ integration. https://CRAN.R-project.org/package=Rcpp
- Eddelbuettel, D., & François, R. (2011). Rcpp: Seamless R and C++ integration. *Journal of Statistical Software*, 40(8). https://doi.org/10.18637/jss.v040.i08
- Eddelbuettel, D., & Sanderson, C. (2014). RcppArmadillo: Accelerating R with high-performance C++ linear algebra. Computational Statistics & Data Analysis, 71, 1054–1063. https://doi.org/10.1016/j.csda.2013.02.005
- Efron, B. (1979a). Bootstrap methods: Another look at the jackknife. *The Annals of Statistics*, 7(1). https://doi.org/10.1214/aos/1176344552
- Efron, B. (1979b). Computers and the theory of statistics: Thinking the unthinkable. SIAM Review, 21(4), 460–480. https://doi.org/10.1137/1021092

- Efron, B. (1981a). Nonparametric standard errors and confidence intervals. Canadian Journal of Statistics / La Revue Canadienne de Statistique, 9(2), 139–158. https://doi.org/10.2307/3314608
- Efron, B. (1981b). Nonparametric standard errors and confidence intervals: Rejoinder. The Canadian Journal of Statistics / La Revue Canadianne de Statistique, 9(2), 170–172. https://doi.org/10.2307/3314610
- Efron, B. (1987). Better bootstrap confidence intervals. Journal of the American Statistical Association, 82(397), 171–185. https://doi.org/10.1080/01621459.1987.10478410
- Efron, B. (1988). Bootstrap confidence intervals: Good or bad? *Psychological Bulletin*, 104(2), 293–296. https://doi.org/10.1037/0033-2909.104.2.293
- Efron, B. (2003). Second thoughts on the bootstrap. Statistical Science, 18(2). https://doi.org/10. 1214/ss/1063994968
- Efron, B. (2012). Bayesian inference and the parametric bootstrap. The Annals of Applied Statistics, 6(4). https://doi.org/10.1214/12-aoas571
- Efron, B., & Tibshirani, R. J. (1993). An introduction to the bootstrap. Chapman & Hall. https://doi.org/10.1201/9780429246593
- Eilers, P. H. C., & Marx, B. D. (1996). Flexible smoothing with B-splines and penalties. *Statistical Science*, 11(2). https://doi.org/10.1214/ss/1038425655
- Enders, C. K. (2010). Applied missing data analysis. Guilford Publications.
- Enders, C. K., Fairchild, A. J., & MacKinnon, D. P. (2013). A Bayesian approach for estimating mediation effects with missing data. *Multivariate Behavioral Research*, 48(3), 340–369. https://doi.org/10.1080/00273171.2013.784862
- Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. *Science*, 196(4286), 129–136. https://doi.org/10.1126/science.847460
- Epskamp, S., Borsboom, D., & Fried, E. I. (2017). Estimating psychological networks and their accuracy: A tutorial paper. *Behavior Research Methods*, 50(1), 195–212. https://doi.org/10.3758/s13428-017-0862-1

- Epskamp, S., Cramer, A. O. J., Waldorp, L. J., Schmittmann, V. D., & Borsboom, D. (2012).

 Qgraph: Network visualizations of relationships in psychometric data. *Journal of Statistical Software*, 48(4). https://doi.org/10.18637/jss.v048.i04
- Epskamp, S., Waldorp, L. J., M ottus, R., & Borsboom, D. (2018). The Gaussian graphical model in cross-sectional and time-series data. *Multivariate Behavioral Research*, 53(4), 453–480. https://doi.org/10.1080/00273171.2018.1454823
- Ernst, M. D., & Hutson, A. D. (2003). Utilizing a quantile function approach to obtain exact bootstrap solutions. *Statistical Science*, 18(2). https://doi.org/10.1214/ss/1063994978
- Fairchild, A. J., & MacKinnon, D. P. (2014). Using mediation and moderation analyses to enhance prevention research. In *Defining prevention science* (pp. 537–555). Springer US. https://doi.org/10.1007/978-1-4899-7424-2_23
- Fernandez, E. (2002). Anxiety, depression, and anger in pain: Research findings and clinical options.

 Advanced Psychological Resources.
- Ferrer, E., & McArdle, J. (2003). Alternative structural models for multivariate longitudinal data analysis. Structural Equation Modeling: A Multidisciplinary Journal, 10(4), 493–524. https://doi.org/10.1207/s15328007sem1004_1
- Finkel, S. E. (1995). Causal analysis with panel data. Sage.
- Finlay, A. K., Ram, N., Maggs, J. L., & Caldwell, L. L. (2012). Leisure activities, the social weekend, and alcohol use: Evidence from a daily study of first-year college students. *Journal of Studies on Alcohol and Drugs*, 73(2), 250–259. https://doi.org/10.15288/jsad.2012.73.250
- Flor, H., & Turk, D. C. (2011). Chronic pain: An integrated biobehavioral approach. IASP Press.
- Fridberg, D. J., Wang, Y., & Porges, E. (2022). Examining features of transdermal alcohol biosensor readings: A promising approach with implications for research and intervention. *Alcoholism:*Clinical and Experimental Research, 46(4), 514–516. https://doi.org/10.1111/acer.14794
- Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect.

 Psychological Science, 18(3), 233–239. https://doi.org/10.1111/j.1467-9280.2007.01882.x

- Fritz, M. S., Taylor, A. B., & MacKinnon, D. P. (2012). Explanation of two anomalous results in statistical mediation analysis. *Multivariate Behavioral Research*, 47(1), 61–87. https://doi.org/10.1080/00273171.2012.640596
- Gatchel, R. J., Peng, Y. B., Peters, M. L., Fuchs, P. N., & Turk, D. C. (2007). The biopsychosocial approach to chronic pain: Scientific advances and future directions. *Psychological Bulletin*, 133(4), 581–624. https://doi.org/10.1037/0033-2909.133.4.581
- Gates, K. M., Chow, S.-M., & Molenaar, P. C. M. (2023). Intensive longitudinal analysis of human processes. Chapman & Hall/CRC Press, https://doi.org/10.1201/9780429172649
- Gates, K. M., Molenaar, P. C., Hillary, F. G., Ram, N., & Rovine, M. J. (2010). Automatic search for fMRI connectivity mapping: An alternative to Granger causality testing using formal equivalences among SEM path modeling, VAR, and unified SEM. *NeuroImage*, 50(3), 1118–1125. https://doi.org/10.1016/j.neuroimage.2009.12.117
- Georgeson, A. R., Alvarez-Bartolo, D., & MacKinnon, D. P. (2023). A sensitivity analysis for temporal bias in cross-sectional mediation. *Psychological Methods*. https://doi.org/10. 1037/met0000628
- Gollob, H. F., & Reichardt, C. S. (1987). Taking account of time lags in causal models. *Child Development*, 58(1), 80. https://doi.org/10.2307/1130293
- Gollob, H. F., & Reichardt, C. S. (1991). Interpreting and estimating indirect effects assuming time lags really matter. In L. M. Collins & J. L. Horn (Eds.), Best methods for the analysis of change: Recent advances, unanswered questions, future directions (pp. 243–259). American Psychological Association. https://doi.org/10.1037/10099-015
- Goodman, L. A. (1960). On the exact variance of products. *Journal of the American Statistical Association*, 55(292), 708–713. https://doi.org/10.1080/01621459.1960.10483369
- Graham, J. W., Olchowski, A. E., & Gilreath, T. D. (2007). How many imputations are really needed? some practical clarifications of multiple imputation theory. *Prevention Science*, 8(3), 206–213. https://doi.org/10.1007/s11121-007-0070-9
- Granger, C. W. J. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica*, 37(3), 424. https://doi.org/10.2307/1912791

- Grundy, A. M., Gondoli, D. M., & Blodgett Salafia, E. H. (2007). Marital conflict and preadolescent behavioral competence: Maternal knowledge as a longitudinal mediator. *Journal of Family Psychology*, 21(4), 675–682. https://doi.org/10.1037/0893-3200.21.4.675
- Gu, F., Preacher, K. J., & Ferrer, E. (2014). A state space modeling approach to mediation analysis.
 Journal of Educational and Behavioral Statistics, 39(2), 117–143. https://doi.org/10.3102/1076998614524823
- Gunn, R. L., Steingrimsson, J. A., Merrill, J. E., Souza, T., & Barnett, N. (2021). Characterising patterns of alcohol use among heavy drinkers: A cluster analysis utilising alcohol biosensor data. Drug and Alcohol Review, 40(7), 1155–1164. https://doi.org/10.1111/dar.13306
- Hall, P. (2003). A short prehistory of the bootstrap. Statistical Science, 18(2). https://doi.org/10. 1214/ss/1063994970
- Hamaker, E. L., Ceulemans, E., Grasman, R. P. P. P., & Tuerlinckx, F. (2015). Modeling affect dynamics: State of the art and future challenges. *Emotion Review*, 7(4), 316–322. https://doi.org/10.1177/1754073915590619
- Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. P. P. (2015). A critique of the cross-lagged panel model. *Psychological Methods*, 20(1), 102–116. https://doi.org/10.1037/a0038889
- Hamaker, E. L., & Muthén, B. (2020). The fixed versus random effects debate and how it relates to centering in multilevel modeling. *Psychological Methods*, 25(3), 365–379. https://doi.org/10.1037/met0000239
- Hamaker, E. L., Schuurman, N. K., & Zijlmans, E. A. O. (2016). Using a few snapshots to distinguish mountains from waves: Weak factorial invariance in the context of trait-state research. Multivariate Behavioral Research, 52(1), 47–60. https://doi.org/10.1080/00273171.2016. 1251299
- Hamilton, J. D. (1994). Time series analysis. Princeton University Press.
- Harvey, A. C. (1990). Forecasting, structural time series models and the Kalman filter. Cambridge University Press. https://doi.org/10.1017/cbo9781107049994
- Hatemi-J, A. (2003). A new method to choose optimal lag order in stable and unstable VAR models.

 Applied Economics Letters, 10(3), 135–137. https://doi.org/10.1080/1350485022000041050

- Hatemi-J, A. (2004). Multivariate tests for autocorrelation in the stable and unstable VAR models.

 Economic Modelling, 21(4), 661–683. https://doi.org/10.1016/j.econmod.2003.09.005
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. Communication Monographs, 76(4), 408–420. https://doi.org/10.1080/03637750903310360
- Hayes, A. F. (2022). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach (3rd ed.). Guilford Publications.
- Hayes, A. F., & Cai, L. (2007). Using heteroskedasticity-consistent standard error estimators in OLS regression: An introduction and software implementation. Behavior Research Methods, 39(4), 709–722. https://doi.org/10.3758/bf03192961
- Hayes, A. F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis. *Psychological Science*, 24(10), 1918–1927. https://doi.org/10.1177/0956797613480187
- Hecht, M., & Voelkle, M. C. (2019). Continuous-time modeling in prevention research: An illustration. International Journal of Behavioral Development, 45(1), 19–27. https://doi.org/10.1177/0165025419885026
- Hecht, M., & Zitzmann, S. (2020a). A computationally more efficient Bayesian approach for estimating continuous-time models. Structural Equation Modeling: A Multidisciplinary Journal, 27(6), 829–840. https://doi.org/10.1080/10705511.2020.1719107
- Hecht, M., & Zitzmann, S. (2020b). Sample size recommendations for continuous-time models: Compensating shorter time series with larger numbers of persons and vice versa. Structural Equation Modeling: A Multidisciplinary Journal, 28(2), 229–236. https://doi.org/10.1080/ 10705511.2020.1779069
- Hecht, M., & Zitzmann, S. (2021). Exploring the unfolding of dynamic effects with continuoustime models: Recommendations concerning statistical power to detect peak cross-lagged effects. Structural Equation Modeling: A Multidisciplinary Journal, 28(6), 894–902. https://doi.org/10.1080/10705511.2021.1914627
- Hektner, J., Schmidt, J., & Csikszentmihalyi, M. (2007). Experience sampling method: Measuring the quality of everyday life. SAGE Publications, Inc. https://doi.org/10.4135/9781412984201

- Herring, T. E., Zamboanga, B. L., Olthuis, J. V., Pesigan, I. J. A., Martin, J. L., McAfee, N. W., & Martens, M. P. (2016). Utility of the Athlete Drinking Scale for assessing drinking motives among high school athletes. Addictive Behaviors, 60, 18–23. https://doi.org/10.1016/j.addbeh.2016.03.026
- Hesterberg, T. C. (2014). What teachers should know about the bootstrap: Resampling in the undergraduate statistics curriculum. https://arxiv.org/abs/1411.5279
- Hesterberg, T. C. (2015). What teachers should know about the bootstrap: Resampling in the undergraduate statistics curriculum. *The American Statistician*, 69(4), 371–386. https://doi.org/10.1080/00031305.2015.1089789
- Higgins, J. P. T., & Thompson, S. G. (2002). Quantifying heterogeneity in a meta-analysis. Statistics in Medicine, 21(11), 1539–1558. https://doi.org/10.1002/sim.1186
- Hingson, R., Zha, W., & Smyth, D. (2017). Magnitude and trends in heavy episodic drinking, alcohol-impaired driving, and alcohol-related mortality and overdose hospitalizations among emerging adults of college ages 18–24 in the United States, 1998–2014. *Journal of Studies on Alcohol and Drugs*, 78(4), 540–548. https://doi.org/10.15288/jsad.2017.78.540
- Hinkley, D. V. (1977). Jackknifing in unbalanced situations. Technometrics, 19(3), 285-292. https://doi.org/10.1080/00401706.1977.10489550
- Holmes, S. (2003a). Bootstrapping phylogenetic trees: Theory and methods. *Statistical Science*, 18(2). https://doi.org/10.1214/ss/1063994979
- Holmes, S. (2003b). Bradley Efron: A conversation with good friends. Statistical Science, 18(2). https://doi.org/10.1214/ss/1063994981
- Horn, S. D., Horn, R. A., & Duncan, D. B. (1975). Estimating heteroscedastic variances in linear models. Journal of the American Statistical Association, 70(350), 380–385. https://doi. org/10.1080/01621459.1975.10479877
- Horowitz, J. L. (2003). The bootstrap in econometrics. Statistical Science, 18(2). https://doi.org/ 10.1214/ss/1063994976

- Hunter, M. D. (2017). State space modeling in an open source, modular, structural equation modeling environment. Structural Equation Modeling: A Multidisciplinary Journal, 25(2), 307–324. https://doi.org/10.1080/10705511.2017.1369354
- Iacus, S. M. (2008). Simulation and inference for stochastic differential equations. Springer New York. https://doi.org/10.1007/978-0-387-75839-8
- James, L. R., & Brett, J. M. (1984). Mediators, moderators, and tests for mediation. *Journal of Applied Psychology*, 69(2), 307–321. https://doi.org/10.1037/0021-9010.69.2.307
- Jensen, M. P., & Turk, D. C. (2014). Contributions of psychology to the understanding and treatment of people with chronic pain: Why it matters to ALL psychologists. American Psychologist, 69(2), 105–118. https://doi.org/10.1037/a0035641
- Johnson, P. O., & Fay, L. C. (1950). The Johnson-Neyman technique, its theory and application.

 Psychometrika, 15(4), 349–367. https://doi.org/10.1007/bf02288864
- Johnson, P. O., & Neyman, J. (1936). Tests of certain linear hypotheses and their application to some educational problems. *Statistical Research Memoirs*, 1, 57–93.
- Jones, J. A., & Waller, N. G. (2013a). Computing confidence intervals for standardized regression coefficients. *Psychological Methods*, 18(4), 435–453. https://doi.org/10.1037/a0033269
- Jones, J. A., & Waller, N. G. (2013b). The normal-theory and asymptotic distribution-free (ADF) covariance matrix of standardized regression coefficients: Theoretical extensions and finite sample behavior (tech. rep.). University of Minnesota-Twin Cities. Retrieved July 22, 2022, from http://users.cla.umn.edu/~nwaller/downloads/techreports/TR052913.pdf
- Jones, J. A., & Waller, N. G. (2015). The normal-theory and asymptotic distribution-free (ADF) covariance matrix of standardized regression coefficients: Theoretical extensions and finite sample behavior. *Psychometrika*, 80(2), 365–378. https://doi.org/10.1007/s11336-013-9380-v
- Jorgensen, T. D., Pornprasertmanit, S., Schoemann, A. M., & Rosseel, Y. (2022). semTools: Useful tools for structural equation modeling. https://CRAN.R-project.org/package=semTools
- Judd, C. M., & Kenny, D. A. (1981). Process analysis. Evaluation Review, 5(5), 602–619. https://doi.org/10.1177/0193841x8100500502

- Kalman, R. E. (1960). A new approach to linear filtering and prediction problems. *Journal of Basic Engineering*, 82(1), 35–45. https://doi.org/10.1115/1.3662552
- Kaplan, H. B., Martin, S. S., & Robbins, C. (1984). Pathways to adolescent drug use: Self-derogation, peer influence, weakening of social controls, and early substance use. *Journal of Health and Social Behavior*, 25(3), 270. https://doi.org/10.2307/2136425
- Kauermann, G., & Carroll, R. J. (2001). A note on the efficiency of sandwich covariance matrix estimation. *Journal of the American Statistical Association*, 96(456), 1387–1396. https://doi.org/10.1198/016214501753382309
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, G. Lindzey, & S. T. Fiske (Eds.), The handbook of social psychology (4th ed., pp. 233–265). McGraw Hill.
- Kenny, D. A., Korchmaros, J. D., & Bolger, N. (2003). Lower level mediation in multilevel models.

 *Psychological Methods, 8(2), 115–128. https://doi.org/10.1037/1082-989x.8.2.115
- Kenny, D. A., & Zautra, A. (1995). The trait-state-error model for multiwave data. Journal of Consulting and Clinical Psychology, 63(1), 52–59. https://doi.org/10.1037/0022-006x.63. 1.52
- Kim, C.-J., & Nelson, C. R. (1999). State-space models with regime switching: Classical and Gibbssampling approaches with applications. The MIT Press. https://doi.org/10.7551/mitpress/ 6444.001.0001
- Kisbu-Sakarya, Y., MacKinnon, D. P., & Miočević, M. (2014). The distribution of the product explains normal theory mediation confidence interval estimation. *Multivariate Behavioral Research*, 49(3), 261–268. https://doi.org/10.1080/00273171.2014.903162
- Koob, G. F., & Le Moal, M. (2008). Addiction and the brain antireward system. *Annual Review of Psychology*, 59(1), 29–53. https://doi.org/10.1146/annurev.psych.59.103006.093548
- Koopman, J., Howe, M., & Hollenbeck, J. R. (2014). Pulling the Sobel test up by its bootstraps. In More statistical and methodological myths and urban legends: Doctrine, verity and fable in organizational and social sciences (pp. 224–243). Routledge/Taylor & Francis Group. https://doi.org/10.4324/9780203775851

- Koopman, J., Howe, M., Hollenbeck, J. R., & Sin, H.-P. (2015). Small sample mediation testing: Misplaced confidence in bootstrapped confidence intervals. *Journal of Applied Psychology*, 100(1), 194–202. https://doi.org/10.1037/a0036635
- Kossakowski, J. J., Groot, P. C., Haslbeck, J. M. B., Borsboom, D., & Wichers, M. (2017). Data from 'Critical slowing down as a personalized early warning signal for depression'. *Journal* of Open Psychology Data, 5. https://doi.org/10.5334/jopd.29
- Krull, J. L., & MacKinnon, D. P. (2001). Multilevel modeling of individual and group level mediated effects. Multivariate Behavioral Research, 36(2), 249–277. https://doi.org/10.1207/s15327906mbr3602_06
- Kuiper, R. M., & Ryan, O. (2018). Drawing conclusions from cross-lagged relationships: Re-considering the role of the time-interval. Structural Equation Modeling: A Multidisciplinary Journal, 25(5), 809–823. https://doi.org/10.1080/10705511.2018.1431046
- Kuppens, P. (2015). It's about time: A special section on affect dynamics. *Emotion Review*, 7(4), 297-300. https://doi.org/10.1177/1754073915590947
- Kurtzer, G. M., cclerget, Bauer, M., Kaneshiro, I., Trudgian, D., & Godlove, D. (2021). hpcng/singularity: Singularity 3.7.3. https://doi.org/10.5281/ZENODO.1310023
- Kurtzer, G. M., Sochat, V., & Bauer, M. W. (2017). Singularity: Scientific containers for mobility of compute (A. Gursoy, Ed.). PLOS ONE, 12(5), e0177459. https://doi.org/10.1371/journal. pone.0177459
- Kwan, J. L. Y., & Chan, W. (2011). Comparing standardized coefficients in structural equation modeling: A model reparameterization approach. Behavior Research Methods, 43(3), 730– 745. https://doi.org/10.3758/s13428-011-0088-6
- Kwan, J. L. Y., & Chan, W. (2014). Comparing squared multiple correlation coefficients using structural equation modeling. Structural Equation Modeling: A Multidisciplinary Journal, 21(2), 225–238. https://doi.org/10.1080/10705511.2014.882673
- Lahiri, P. (2003). On the impact of bootstrap in survey sampling and small-area estimation. Statistical Science, 18(2). https://doi.org/10.1214/ss/1063994975

- Leffingwell, T. R., Cooney, N. J., Murphy, J. G., Luczak, S., Rosen, G., Dougherty, D. M., & Barnett, N. P. (2012). Continuous objective monitoring of alcohol use: Twenty-first century measurement using transdermal sensors. *Alcoholism: Clinical and Experimental Research*, 37(1), 16–22. https://doi.org/10.1111/j.1530-0277.2012.01869.x
- Lele, S. R. (2003). Impact of bootstrap on the estimating functions. Statistical Science, 18(2). https://doi.org/10.1214/ss/1063994973
- Li, K. H., Raghunathan, T. E., & Rubin, D. B. (1991). Large-sample significance levels from multiply imputed data using moment-based statistics and an F reference distribution. Journal of the American Statistical Association, 86 (416), 1065-1073. https://doi.org/10.1080/01621459. 1991.10475152
- Li, Y., Oravecz, Z., Zhou, S., Bodovski, Y., Barnett, I. J., Chi, G., Zhou, Y., Friedman, N. P., Vrieze, S. I., & Chow, S.-M. (2022). Bayesian forecasting with a regime-switching zero-inflated multilevel poisson regression model: An application to adolescent alcohol use with spatial covariates. *Psychometrika*, 87(2), 376–402. https://doi.org/10.1007/s11336-021-09831-9
- Li, Y., Wood, J., Ji, L., Chow, S.-M., & Oravecz, Z. (2021). Fitting multilevel vector autoregressive models in Stan, JAGS, and Mplus. *Structural Equation Modeling: A Multidisciplinary Journal*, 29(3), 452–475. https://doi.org/10.1080/10705511.2021.1911657
- Little, R. J. A., & Rubin, D. B. (2019). *Statistical analysis with missing data* (3rd ed.). Wiley. https://doi.org/10.1002/9781119482260
- Long, J. S., & Ervin, L. H. (2000). Using heteroscedasticity consistent standard errors in the linear regression model. The American Statistician, 54(3), 217–224. https://doi.org/10.1080/ 00031305.2000.10474549
- Loossens, T., Mestdagh, M., Dejonckheere, E., Kuppens, P., Tuerlinckx, F., & Verdonck, S. (2020).
 The Affective Ising Model: A computational account of human affect dynamics (J. Grilli, Ed.). PLOS Computational Biology, 16(5), e1007860. https://doi.org/10.1371/journal.pcbi.1007860

- Loossens, T., Tuerlinckx, F., & Verdonck, S. (2021). A comparison of continuous and discrete time modeling of affective processes in terms of predictive accuracy. *Scientific Reports*, 11(1). https://doi.org/10.1038/s41598-021-85320-4
- Lüdtke, O., Marsh, H. W., Robitzsch, A., Trautwein, U., Asparouhov, T., & Muthén, B. (2008).
 The multilevel latent covariate model: A new, more reliable approach to group-level effects in contextual studies. *Psychological Methods*, 13(3), 203–229. https://doi.org/10.1037/a0012869
- Lütkepohl, H. (2005). New introduction to multiple time series analysis. Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-540-27752-1
- MacKinnon, D. P. (1994). Analysis of mediating variables in prevention and intervention research.
 NIDA research monograph, 139, 127–153.
- MacKinnon, D. P. (2008). *Introduction to statistical mediation analysis*. Erlbaum Psych Press. https://doi.org/10.4324/9780203809556
- Mackinnon, D. P., & Dwyer, J. H. (1993). Estimating mediated effects in prevention studies. *Evaluation Review*, 17(2), 144–158. https://doi.org/10.1177/0193841x9301700202
- MacKinnon, D. P., Fritz, M. S., Williams, J., & Lockwood, C. M. (2007). Distribution of the product confidence limits for the indirect effect: Program PRODCLIN. *Behavior Research Methods*, 39(3), 384–389. https://doi.org/10.3758/bf03193007
- MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science*, 1(4), 173–181. https://doi.org/10.1023/a: 1026595011371
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83–104. https://doi.org/10.1037/1082-989x.7.1.83
- MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the indirect effect:

 Distribution of the product and resampling methods. *Multivariate Behavioral Research*,

 39(1), 99–128. https://doi.org/10.1207/s15327906mbr3901_4

- MacKinnon, J. G., & White, H. (1985). Some heteroskedasticity-consistent covariance matrix estimators with improved finite sample properties. *Journal of Econometrics*, 29(3), 305–325. https://doi.org/10.1016/0304-4076(85)90158-7
- Manthey, J., Hassan, S. A., Carr, S., Kilian, C., Kuitunen-Paul, S., & Rehm, J. (2021). What are the economic costs to society attributable to alcohol use? a systematic review and modelling study. *PharmacoEconomics*, 39(7), 809–822. https://doi.org/10.1007/s40273-021-01031-8
- Maxwell, S. E., & Cole, D. A. (2007). Bias in cross-sectional analyses of longitudinal mediation.

 Psychological Methods, 12(1), 23–44. https://doi.org/10.1037/1082-989x.12.1.23
- Maxwell, S. E., Cole, D. A., & Mitchell, M. A. (2011). Bias in cross-sectional analyses of longitudinal mediation: Partial and complete mediation under an autoregressive model. *Multivariate Behavioral Research*, 46(5), 816–841. https://doi.org/10.1080/00273171.2011.606716
- McArdle, J. J., & McDonald, R. P. (1984). Some algebraic properties of the Reticular Action Model for moment structures. *British Journal of Mathematical and Statistical Psychology*, 37(2), 234–251. https://doi.org/10.1111/j.2044-8317.1984.tb00802.x
- McArdle, J. J. (2009). Latent variable modeling of differences and changes with longitudinal data. Annual Review of Psychology, 60(1), 577–605. https://doi.org/10.1146/annurev.psych.60. 110707.163612
- McKendrick, G., & Graziane, N. M. (2020). Drug-induced conditioned place preference and its practical use in substance use disorder research. Frontiers in Behavioral Neuroscience, 14. https://doi.org/10.3389/fnbeh.2020.582147
- McNeish, D., & Hamaker, E. L. (2020). A primer on two-level dynamic structural equation models for intensive longitudinal data in Mplus. *Psychological Methods*, 25(5), 610–635. https://doi.org/10.1037/met0000250
- McNeish, D., & MacKinnon, D. P. (2022). Intensive longitudinal mediation in Mplus. *Psychological Methods*. https://doi.org/10.1037/met0000536
- Mehl, M. R., Conner, T. S., & Csikszentmihalyi, M. (2011). Handbook of research methods for studying daily life. Guilford Publications.

- Mehta, P. D., & Neale, M. C. (2005). People are variables too: Multilevel structural equations modeling. Psychological Methods, 10(3), 259–284. https://doi.org/10.1037/1082-989x.10. 3.259
- Merkel, D. (2014). Docker: Lightweight Linux containers for consistent development and deployment. Linux Journal, 2014 (239), 2. https://www.linuxjournal.com/content/docker-lightweight-linux-containers-consistent-development-and-deployment
- Micceri, T. (1989). The unicorn, the normal curve, and other improbable creatures. *Psychological Bulletin*, 105(1), 156–166. https://doi.org/10.1037/0033-2909.105.1.156
- Millsap, R. E. (2011). Statistical approaches to measurement invariance. Routledge. https://doi. org/10.4324/9780203821961
- Miocevic, M., Gonzalez, O., Valente, M. J., & MacKinnon, D. P. (2017). A tutorial in Bayesian potential outcomes mediation analysis. Structural Equation Modeling: A Multidisciplinary Journal, 25(1), 121–136. https://doi.org/10.1080/10705511.2017.1342541
- Molenaar, P. C. M. (2017). Equivalent dynamic models. *Multivariate Behavioral Research*, 52(2), 242–258. https://doi.org/10.1080/00273171.2016.1277681
- Molenaar, P. C., & Campbell, C. G. (2009). The new person-specific paradigm in psychology.

 *Current Directions in Psychological Science, 18(2), 112–117. https://doi.org/10.1111/j.

 1467-8721.2009.01619.x
- Moneta, A., Chlaß, N., Entner, D., & Hoyer, P. (2011). Causal search in structural vector autoregressive models. *Journal of Machine Learning Research Proceedings Track*, 12, 95–114.
- Mulder, J. D. (2022). Power analysis for the random intercept cross-lagged panel model using the powRICLPM R-package. Structural Equation Modeling: A Multidisciplinary Journal, 30(4), 645-658. https://doi.org/10.1080/10705511.2022.2122467
- Mulder, J. D., & Hamaker, E. L. (2020). Three extensions of the random intercept cross-lagged panel model. Structural Equation Modeling: A Multidisciplinary Journal, 28(4), 638–648. https://doi.org/10.1080/10705511.2020.1784738
- Muthén, B. O., & Asparouhov, T. (2022). Latent transition analysis with random intercepts (RI-LTA). Psychological Methods, 27(1), 1–16. https://doi.org/10.1037/met0000370

- Muthén, B. O., & Curran, P. J. (1997). General longitudinal modeling of individual differences in experimental designs: A latent variable framework for analysis and power estimation. *Psychological Methods*, 2(4), 371–402. https://doi.org/10.1037/1082-989x.2.4.371
- Muthén, L. K., & Muthén, B. O. (2017). Mplus user's guide. Eighth edition. Los Angeles, CA, Muthén & Muthén.
- National Research Council. (1982). An assessment of research-doctorate programs in the United States: Social and behavioral sciences. National Academies Press. https://doi.org/10.17226/9781
- Neale, M. C., Hunter, M. D., Pritikin, J. N., Zahery, M., Brick, T. R., Kirkpatrick, R. M., Estabrook, R., Bates, T. C., Maes, H. H., & Boker, S. M. (2015). OpenMx 2.0: Extended structural equation and statistical modeling. *Psychometrika*, 81(2), 535–549. https://doi.org/10.1007/s11336-014-9435-8
- Nel, D. (1985). A matrix derivation of the asymptotic covariance matrix of sample correlation coefficients. Linear Algebra and its Applications, 67, 137–145. https://doi.org/10.1016/ 0024-3795(85)90191-0
- Nesselroade, J. R., & Cable, D. G. (1974). Sometimes, it's okay to factor difference scores" the separation of state and trait anxiety. *Multivariate Behavioral Research*, 9(3), 273–284. https://doi.org/10.1207/s15327906mbr0903_3
- Newey, W. K., & West, K. D. (1987). A simple, positive semi-definite, heteroskedasticity and autocorrelation consistent covariance matrix. *Econometrica*, 55(3), 703. https://doi.org/ 10.2307/1913610
- Norman, T., Peacock, A., Ferguson, S. G., Kuntsche, E., & Bruno, R. (2020). Combining transdermal and breath alcohol assessments, real-time drink logs and retrospective self-reports to measure alcohol consumption and intoxication across a multi-day music festival. *Drug and Alcohol Review*, 40(7), 1112–1121. https://doi.org/10.1111/dar.13215
- Nüst, D., Eddelbuettel, D., Bennett, D., Cannoodt, R., Clark, D., Daróczi, G., Edmondson, M., Fay, C., Hughes, E., Kjeldgaard, L., Lopp, S., Marwick, B., Nolis, H., Nolis, J., Ooi, H., Ram, K., Ross, N., Shepherd, L., Sólymos, P., ... Xiao, N. (2020). The Rockerverse: Packages

- and applications for containerisation with R. The R Journal, 12(1), 437. https://doi.org/10.32614/rj-2020-007
- Oehlert, G. W. (1992). A note on the delta method. The American Statistician, 46(1), 27–29. https://doi.org/10.1080/00031305.1992.10475842
- O'Laughlin, K. D., Martin, M. J., & Ferrer, E. (2018). Cross-sectional analysis of longitudinal mediation processes. *Multivariate Behavioral Research*, 53(3), 375–402. https://doi.org/10.1080/00273171.2018.1454822
- Ollendick, T. H., & Prinz, R. J. (Eds.). (1996). Advances in clinical child psychology: Volume 18. Springer US. https://doi.org/10.1007/978-1-4613-0323-7
- Oravecz, Z., Tuerlinckx, F., & Vandekerckhove, J. (2011). A hierarchical latent stochastic differential equation model for affective dynamics. *Psychological Methods*, 16(4), 468–490. https://doi.org/10.1037/a0024375
- Oravecz, Z., Wood, J., & Ram, N. (2018). On fitting a continuous-time stochastic process model in the Bayesian framework. In *Continuous time modeling in the behavioral and related sciences* (pp. 55–78). Springer International Publishing. https://doi.org/10.1007/978-3-319-77219-6-3
- O'Rourke, H. P., & MacKinnon, D. P. (2018). Reasons for testing mediation in the absence of an intervention effect: A research imperative in prevention and intervention research. *Journal of Studies on Alcohol and Drugs*, 79(2), 171–181. https://doi.org/10.15288/jsad.2018.79.
- O'Rourke, H. P., & MacKinnon, D. P. (2019). The importance of mediation analysis in substanceuse prevention. In *Advances in prevention science* (pp. 233–246). Springer International Publishing. https://doi.org/10.1007/978-3-030-00627-3_15
- Orth, U., Clark, D. A., Donnellan, M. B., & Robins, R. W. (2021). Testing prospective effects in longitudinal research: Comparing seven competing cross-lagged models. *Journal of Personality* and Social Psychology, 120(4), 1013–1034. https://doi.org/10.1037/pspp0000358

- Osborne, R. T., & Suddick, D. E. (1972). A longitudinal investigation of the intellectual differentiation hypothesis. *The Journal of Genetic Psychology*, 121(1), 83–89. https://doi.org/10.1080/00221325.1972.10533131
- Ou, L., Hunter, M. D., & Chow, S.-M. (2019). What's for dynr: A package for linear and nonlinear dynamic modeling in R. The R Journal, 11(1), 91. https://doi.org/10.32614/rj-2019-012
- Oud, J. H., van den Bercken, J. H., & Essers, R. J. (1990). Longitudinal factor score estimation using the Kalman filter. Applied Psychological Measurement, 14(4), 395–418. https://doi. org/10.1177/014662169001400406
- Oud, J. H. L., & Delsing, M. J. M. H. (2010). Continuous time modeling of panel data by means of SEM. In K. van Montfort, J. H. L. Oud, & A. Satorra (Eds.), Longitudinal research with latent variables (pp. 201–244). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-11760-2-7
- Oud, J. H. L., & Jansen, R. A. R. G. (2000). Continuous time state space modeling of panel data by means of SEM. *Psychometrika*, 65(2), 199–215. https://doi.org/10.1007/bf02294374
- Park, J. J., Chow, S.-M., Epskamp, S., & Molenaar, P. C. M. (2024). Subgrouping with chain graphical VAR models. Multivariate Behavioral Research, 59(3), 543–565. https://doi.org/ 10.1080/00273171.2023.2289058
- Park, J. J., Fisher, Z., Chow, S.-M., & Molenaar, P. C. M. (2023). On subgrouping continuous processes in discrete time. *Multivariate Behavioral Research*, 58(1), 154–155. https://doi.org/10.1080/00273171.2022.2160957
- Park, J. J., Fisher, Z. F., Chow, S.-M., & Molenaar, P. C. M. (2023). Evaluating discrete time methods for subgrouping continuous processes. *Multivariate Behavioral Research*, 1–13. https://doi.org/10.1080/00273171.2023.2235685
- Pastor, D. A., & Lazowski, R. A. (2017). On the multilevel nature of meta-analysis: A tutorial, comparison of software programs, and discussion of analytic choices. *Multivariate Behavioral Research*, 53(1), 74–89. https://doi.org/10.1080/00273171.2017.1365684
- Patrick, M., Miech, R., Johnston, L., & O, P. (2023). Monitoring the Future Panel Study annual report: National data on substance use among adults ages 19 to 60, 1976-2022. Ann Arbor,

- MI, Institute for Social Research, The University of Michigan. https://doi.org/10.7826/isrum.06.585140.002.07.0002.2023
- Patrick, M. E., & Maggs, J. L. (2007). Short-term changes in plans to drink and importance of positive and negative alcohol consequences. *Journal of Adolescence*, 31(3), 307–321. https://doi.org/10.1016/j.adolescence.2007.06.002
- Patrick, M. E., & Maggs, J. L. (2009). Profiles of motivations for alcohol use and sexual behavior among first-year university students. *Journal of Adolescence*, 33(5), 755–765. https://doi.org/10.1016/j.adolescence.2009.10.003
- Pawitan, Y. (2013). In all likelihood: Statistical modelling and inference using likelihood. Oxford University Press.
- Pesigan, I. J. A. (2022). Confidence intervals for standardized coefficients: Applied to regression coefficients in primary studies and indirect effects in meta-analytic structural equation modeling [Doctoral dissertation, University of Macau].
- Pesigan, I. J. A., & Cheung, S. F. (2020). SEM-based methods to form confidence intervals for indirect effect: Still applicable given nonnormality, under certain conditions. Frontiers in Psychology, 11. https://doi.org/10.3389/fpsyg.2020.571928
- Pesigan, I. J. A., & Cheung, S. F. (2023). Monte Carlo confidence intervals for the indirect effect with missing data. *Behavior Research Methods*, 56(3), 1678–1696. https://doi.org/10.3758/s13428-023-02114-4
- Pesigan, I. J. A., Luyckx, K., & Alampay, L. P. (2014). Brief report: Identity processes in Filipino late adolescents and young adults: Parental influences and mental health outcomes. *Journal of Adolescence*, 37(5), 599–604. https://doi.org/10.1016/j.adolescence.2014.04.012
- Pesigan, I. J. A., Sun, R. W., & Cheung, S. F. (2023). betaDelta and betaSandwich: Confidence intervals for standardized regression coefficients in R. Multivariate Behavioral Research, 58(6), 1183–1186. https://doi.org/10.1080/00273171.2023.2201277
- Peugh, J. L., & Enders, C. K. (2004). Missing data in educational research: A review of reporting practices and suggestions for improvement. Review of Educational Research, 74(4), 525– 556. https://doi.org/10.3102/00346543074004525

- Piasecki, T. M. (2019). Assessment of alcohol use in the natural environment. *Alcoholism: Clinical and Experimental Research*, 43(4), 564–577. https://doi.org/10.1111/acer.13975
- Politis, D. N. (2003). The impact of bootstrap methods on time series analysis. *Statistical Science*, 18(2). https://doi.org/10.1214/ss/1063994977
- Preacher, K. J., Curran, P. J., & Bauer, D. J. (2006). Computational tools for probing interactions in multiple linear regression, multilevel modeling, and latent curve analysis. *Journal of Educational and Behavioral Statistics*, 31(4), 437–448. https://doi.org/10.3102/10769986031004437
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717–731. https://doi.org/10.3758/bf03206553
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. https://doi.org/10.3758/brm.40.3.879
- Preacher, K. J., & Kelley, K. (2011). Effect size measures for mediation models: Quantitative strategies for communicating indirect effects. *Psychological Methods*, 16(2), 93–115. https://doi.org/10.1037/a0022658
- Preacher, K. J., & Selig, J. P. (2012). Advantages of Monte Carlo confidence intervals for indirect effects. Communication Methods and Measures, 6(2), 77–98. https://doi.org/10.1080/19312458.2012.679848
- R Core Team. (2021). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/
- R Core Team. (2022). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/
- R Core Team. (2023). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/
- R Core Team. (2024). R: A language and environment for statistical computing. R Foundation for Statistical Computing. Vienna, Austria. https://www.R-project.org/

- Raghunathan, T. E., Lepkowski, J. M., van Hoewyk, J., & Solenberger, P. (2001). A multivariate technique for multiply imputing missing values using a sequence of regression models.

 Survey Methodology, 27(1), 85–95.
- Rasmussen, J. L. (1987). Estimating correlation coefficients: Bootstrap and parametric approaches. Psychological Bulletin, 101(1), 136–139. https://doi.org/10.1037/0033-2909.101.1.136
- Ray, L. A., Du, H., Grodin, E., Bujarski, S., Meredith, L., Ho, D., Nieto, S., & Wassum, K. (2020).
 Capturing habitualness of drinking and smoking behavior in humans. *Drug and Alcohol Dependence*, 207, 107738. https://doi.org/10.1016/j.drugalcdep.2019.107738
- Raykov, T., & Marcoulides, G. A. (2004). Using the delta method for approximate interval estimation of parameter functions in SEM. Structural Equation Modeling: A Multidisciplinary Journal, 11(4), 621–637. https://doi.org/10.1207/s15328007sem1104_7
- Reichardt, C. S. (2011). Commentary: Are three waves of data sufficient for assessing mediation?

 Multivariate Behavioral Research, 46(5), 842–851. https://doi.org/10.1080/00273171.2011.

 606740
- Rhemtulla, M., van Bork, R., & Borsboom, D. (2020). Worse than measurement error: Consequences of inappropriate latent variable measurement models. *Psychological Methods*, 25(1), 30–45. https://doi.org/10.1037/met0000220
- Richards, V. L., Barnett, N. P., Cook, R. L., Leeman, R. F., Souza, T., Case, S., Prins, C., Cook, C., & Wang, Y. (2022). Correspondence between alcohol use measured by a wrist-worn alcohol biosensor and self-report via ecological momentary assessment over a 2-week period. Alcohol: Clinical and Experimental Research, 47(2), 308–318. https://doi.org/10.1111/acer.14995
- Richards, V. L., Glenn, S. D., Turrisi, R. J., Mallett, K. A., Ackerman, S., & Russell, M. A. (2024).

 Transdermal alcohol concentration features predict alcohol-induced blackouts in college students. *Alcohol, Clinical and Experimental Research*, 48(5), 880–888. https://doi.org/10.1111/acer.15290
- Richards, V. L., Turrisi, R. J., & Russell, M. A. (2024). Subjective intoxication predicts alcoholrelated consequences at equivalent alcohol concentrations in young adults using ecological

- momentary assessment and alcohol sensors. *Psychology of Addictive Behaviors*, 38(3), 334–346. https://doi.org/10.1037/adb0000993
- Roache, J. D., Karns-Wright, T. E., Goros, M., Hill-Kapturczak, N., Mathias, C. W., & Dougherty, D. M. (2019). Processing transdermal alcohol concentration (TAC) data to detect low-level drinking. Alcohol, 81, 101–110. https://doi.org/10.1016/j.alcohol.2018.08.014
- Robey, R. R., & Barcikowski, R. S. (1992). Type I error and the number of iterations in Monte Carlo studies of robustness. *British Journal of Mathematical and Statistical Psychology*, 45(2), 283–288. https://doi.org/10.1111/j.2044-8317.1992.tb00993.x
- Robinson, M. E., & Riley, J. I. L. (1999). The role of emotion in pain. In R. J. Gatchel & D. C. Turk (Eds.), Psychosocial factors in pain: Critical perspectives (pp. 74–88). The Guilford Press.
- Rogosa, D. R. (1979). Causal models in longitudinal research: Rationale, formulation, and interpretation. In J. R. Nesselroade & P. B. Baltes (Eds.), Longitudinal methodology in the study of behavior and development. Academic Press.
- Rogosa, D. R. (1980). A critique of cross-lagged correlation. *Psychological Bulletin*, 88(2), 245–258. https://doi.org/10.1037/0033-2909.88.2.245
- Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2). https://doi.org/10.18637/jss.v048.i02
- Rousselet, G. A., Pernet, C. R., & Wilcox, R. R. (2021). The percentile bootstrap: A primer with step-by-step instructions in R. Advances in Methods and Practices in Psychological Science, 4(1), 1–10. https://doi.org/10.1177/2515245920911881
- Rubin, D. B. (1976). Inference and missing data. Biometrika, 63(3), 581-592. https://doi.org/10. 1093/biomet/63.3.581
- Rubin, D. B. (1987). Multiple imputation for nonresponse in surveys. John Wiley & Sons, Inc. https://doi.org/10.1002/9780470316696
- Russell, M. A., Linden-Carmichael, A. N., Lanza, S. T., Fair, E. V., Sher, K. J., & Piasecki, T. M. (2020). Affect relative to day-level drinking initiation: Analyzing ecological momentary

- assessment data with multilevel spline modeling. Psychology of Addictive Behaviors, 34(3), 434–446. https://doi.org/10.1037/adb0000550
- Russell, M. A., Richards, V. L., Turrisi, R. J., Exten, C. L., Pesigan, I. J. A., & Rodriguez, G. C. (2024). Profiles of alcohol intoxication and their associated risks in young adults' natural settings: A multilevel latent profile analysis applied to daily transdermal alcohol concentration data. Psychology of Addictive Behaviors. https://doi.org/10.1037/adb0001022
- Russell, M. A., Smyth, J. M., Turrisi, R., & Rodriguez, G. C. (2023). Baseline protective behavioral strategy use predicts more moderate transdermal alcohol concentration dynamics and fewer negative consequences of drinking in young adults' natural settings. *Psychology of Addictive Behaviors*, 38(3), 347–359. https://doi.org/10.1037/adb00000941
- Russell, M. A., Turrisi, R. J., & Smyth, J. M. (2022). Transdermal sensor features correlate with ecological momentary assessment drinking reports and predict alcohol-related consequences in young adults' natural settings. *Alcoholism: Clinical and Experimental Research*, 46(1), 100–113. https://doi.org/10.1111/acer.14739
- Ryan, O., & Hamaker, E. L. (2021). Time to intervene: A continuous-time approach to network analysis and centrality. *Psychometrika*, 87(1), 214–252. https://doi.org/10.1007/s11336-021-09767-0
- Ryan, O., Kuiper, R. M., & Hamaker, E. L. (2018). A continuous-time approach to intensive longitudinal data: What, why, and how? In Continuous time modeling in the behavioral and related sciences (pp. 27–54). Springer International Publishing. https://doi.org/10.1007/978-3-319-77219-6-2
- Sacks, J. J., Gonzales, K. R., Bouchery, E. E., Tomedi, L. E., & Brewer, R. D. (2015). 2010 national and state costs of excessive alcohol consumption. American Journal of Preventive Medicine, 49(5), e73–e79. https://doi.org/10.1016/j.amepre.2015.05.031
- Sakai, J. T., Mikulich-Gilbertson, S. K., Long, R. J., & Crowley, T. J. (2006). Validity of transdermal alcohol monitoring: Fixed and self-regulated dosing. *Alcoholism: Clinical and Experimental Research*, 30(1), 26–33. https://doi.org/10.1111/j.1530-0277.2006.00004.x

- SAMHSA. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20-07-01-001, NSDUH Series H-55). Rockville, MD, Center for Behavioral Health Statistics; Quality, Substance Abuse; Mental Health Services Administration. https://www.samhsa.gov/data/
- SAMHSA. (2023). Key substance use and mental health indicators in the United States: Results from the 2022 National Survey on Drug Use and Health (HHS Publication No. PEP23-07-01-006, NSDUH Series H-58). Rockville, MD, Center for Behavioral Health Statistics; Quality, Substance Abuse; Mental Health Services Administration. https://www.samhsa.gov/data/report/2022-nsduh-annual-national-report
- Saunders, J. B., Aasland, O. G., Babor, T. F., de la Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption-II. *Addiction*, 88(6), 791–804. https://doi.org/10.1111/j.1360-0443.1993.tb02093.x
- Savalei, V., & Rosseel, Y. (2021). Computational options for standard errors and test statistics with incomplete normal and nonnormal data in SEM. Structural Equation Modeling: A Multidisciplinary Journal, 29(2), 163–181. https://doi.org/10.1080/10705511.2021.1877548
- Schafer, J. L. (1997). Analysis of incomplete multivariate data. Chapman; Hall/CRC. https://doi.org/10.1201/9780367803025
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods*, 7(2), 147–177. https://doi.org/10.1037/1082-989x.7.2.147
- Schenker, N. (1987). Better bootstrap confidence intervals: Comment. Journal of the American Statistical Association, 82(397), 192. https://doi.org/10.2307/2289150
- Schermerhorn, A. C., Chow, S.-M., & Cummings, E. M. (2010). Developmental family processes and interparental conflict: Patterns of microlevel influences. *Developmental Psychology*, 46(4), 869–885. https://doi.org/10.1037/a0019662
- Schouten, R. M., Lugtig, P., & Vink, G. (2018). Generating missing values for simulation purposes:

 A multivariate amputation procedure. *Journal of Statistical Computation and Simulation*,
 88(15), 2909–2930. https://doi.org/10.1080/00949655.2018.1491577

- Schulenberg, J. E., O'Malley, P. M., Bachman, J. G., Wadsworth, K. N., & Johnston, L. D. (1996). Getting drunk and growing up: Trajectories of frequent binge drinking during the transition to young adulthood. *Journal of Studies on Alcohol*, 57(3), 289–304. https://doi.org/10.15288/jsa.1996.57.289
- Schulenberg, J. E., Patrick, M. E., Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Miech, R. A. (2021). Monitoring the Future national survey results on drug use, 1975-2020: Volume II, college students and adults ages 19–60. Ann Arbor, MI, Institute for Social Research, The University of Michigan.
- Schultzberg, M., & Muthén, B. (2017). Number of subjects and time points needed for multilevel time-series analysis: A simulation study of dynamic structural equation modeling. Structural Equation Modeling: A Multidisciplinary Journal, 25(4), 495–515. https://doi.org/10.1080/10705511.2017.1392862
- Schuurman, N. K., Ferrer, E., de Boer-Sonnenschein, M., & Hamaker, E. L. (2016). How to compare cross-lagged associations in a multilevel autoregressive model. *Psychological Methods*, 21(2), 206–221. https://doi.org/10.1037/met0000062
- Schuurman, N. K., & Hamaker, E. L. (2019). Measurement error and person-specific reliability in multilevel autoregressive modeling. *Psychological Methods*, 24(1), 70–91. https://doi.org/10.1037/met0000188
- Schuurman, N. K., Houtveen, J. H., & Hamaker, E. L. (2015). Incorporating measurement error in n = 1 psychological autoregressive modeling. Frontiers in Psychology, 6. https://doi.org/ 10.3389/fpsyg.2015.01038
- Selig, J. P., & Preacher, K. J. (2009). Mediation models for longitudinal data in developmental research. Research in Human Development, 6(2-3), 144–164. https://doi.org/10.1080/ 15427600902911247
- Serlin, R. C. (2000). Testing for robustness in Monte Carlo studies. *Psychological Methods*, 5(2), 230–240. https://doi.org/10.1037/1082-989x.5.2.230
- Serlin, R. C., & Lapsley, D. K. (1985). Rationality in psychological research: The good-enough principle. *American Psychologist*, 40(1), 73–83. https://doi.org/10.1037/0003-066x.40.1.73

- Shao, J. (2003). Impact of the bootstrap on sample surveys. Statistical Science, 18(2). https://doi.org/10.1214/ss/1063994974
- Shapiro, A., & Browne, M. (1990). On the treatment of correlation structures as covariance structures. Linear Algebra and its Applications, 127, 567–587. https://doi.org/10.1016/0024-3795(90)90362-g
- Shaygan, M., & Karami, Z. (2020). Chronic pain in adolescents: Predicting role of emotional intelligence, self-esteem and parenting style. *International Journal of Community Based Nursing & Midwifery*, 8. https://doi.org/10.30476/ijcbnm.2020.83153.1129
- Shiffman, S. (2009). Ecological momentary assessment (EMA) in studies of substance use. *Psychological Assessment*, 21(4), 486–497. https://doi.org/10.1037/a0017074
- Shiffman, S., Stone, A. A., & Hufford, M. R. (2008). Ecological momentary assessment. *Annual Review of Clinical Psychology*, 4(1), 1–32. https://doi.org/10.1146/annurev.clinpsy.3. 022806.091415
- Shrout, P. E. (2011). Commentary: Mediation analysis, causal process, and cross-sectional data.

 *Multivariate Behavioral Research, 46(5), 852–860. https://doi.org/10.1080/00273171.2011.

 606718
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422–445. https://doi.org/10.1037/1082-989x.7.4.422
- Shumway, R. H., & Stoffer, D. S. (2017). Time series analysis and its applications: With R examples.

 Springer International Publishing. https://doi.org/10.1007/978-3-319-52452-8
- Simons, J. S., Wills, T. A., Emery, N. N., & Marks, R. M. (2015). Quantifying alcohol consumption: Self-report, transdermal assessment, and prediction of dependence symptoms. *Addictive Behaviors*, 50, 205–212. https://doi.org/10.1016/j.addbeh.2015.06.042
- Singer, H. (2012). SEM modeling with singular moment matrices part II: ML-estimation of sampled stochastic differential equations. The Journal of Mathematical Sociology, 36(1), 22–43. https://doi.org/10.1080/0022250x.2010.532259

- Sjoerds, Z., de Wit, S., van den Brink, W., Robbins, T., Beekman, A. T. F., Penninx, B. W., & Veltman, D. J. (2013). Behavioral and neuroimaging evidence for overreliance on habit learning in alcohol-dependent patients. *Translational Psychiatry*, 3(12), e337–e337. https://doi.org/10.1038/tp.2013.107
- Smith, K. E., & Juarascio, A. (2019). From ecological momentary assessment (EMA) to ecological momentary intervention (EMI): Past and future directions for ambulatory assessment and interventions in eating disorders. Current Psychiatry Reports, 21(7). https://doi.org/10. 1007/s11920-019-1046-8
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. Sociological Methodology, 13, 290. https://doi.org/10.2307/270723
- Sobel, M. E. (1986). Some new results on indirect effects and their standard errors in covariance structure models. *Sociological Methodology*, 16, 159. https://doi.org/10.2307/270922
- Sobel, M. E. (1987). Direct and indirect effects in linear structural equation models. Sociological Methods & Research, 16(1), 155–176. https://doi.org/10.1177/0049124187016001006
- Soltis, P. S., & Soltis, D. E. (2003). Applying the bootstrap in phylogeny reconstruction. *Statistical Science*, 18(2). https://doi.org/10.1214/ss/1063994980
- Staudenmayer, J., & Buonaccorsi, J. P. (2005). Measurement error in linear autoregressive models.

 *Journal of the American Statistical Association, 100 (471), 841–852. https://doi.org/10.1198/016214504000001871
- Stoffer, D. S., & Wall, K. D. (1991). Bootstrapping state-space models: Gaussian maximum likelihood estimation and the Kalman filter. *Journal of the American Statistical Association*, 86(416), 1024–1033. https://doi.org/10.1080/01621459.1991.10475148
- Swift, R. (2000). Transdermal alcohol measurement for estimation of blood alcohol concentration.

 Alcoholism: Clinical and Experimental Research, 24(4), 422–423. https://doi.org/10.1111/j.1530-0277.2000.tb02006.x
- Taylor, A. B., & MacKinnon, D. P. (2012). Four applications of permutation methods to testing a single-mediator model. *Behavior Research Methods*, 44(3), 806–844. https://doi.org/10.3758/s13428-011-0181-x

- Taylor, A. B., MacKinnon, D. P., & Tein, J.-Y. (2007). Tests of the three-path mediated effect. Organizational Research Methods, 11(2), 241–269. https://doi.org/10.1177/1094428107300344
- Tibshirani, R. (1996). Regression shrinkage and selection via the lasso. *Journal of the Royal Statistical Society Series B: Statistical Methodology*, 58(1), 267–288. https://doi.org/10.1111/j. 2517-6161.1996.tb02080.x
- Tibshirani, R. (2011). Regression shrinkage and selection via the lasso: A retrospective. *Journal* of the Royal Statistical Society Series B: Statistical Methodology, 73(3), 273–282. https://doi.org/10.1111/j.1467-9868.2011.00771.x
- Tofighi, D., & Kelley, K. (2019). Indirect effects in sequential mediation models: Evaluating methods for hypothesis testing and confidence interval formation. *Multivariate Behavioral Research*, 55(2), 188–210. https://doi.org/10.1080/00273171.2019.1618545
- Tofighi, D., & Kelley, K. (2020). Improved inference in mediation analysis: Introducing the model-based constrained optimization procedure. *Psychological Methods*, 25, 496–515. https://doi.org/10.1037/met0000259
- Tofighi, D., & MacKinnon, D. P. (2015). Monte Carlo confidence intervals for complex functions of indirect effects. Structural Equation Modeling: A Multidisciplinary Journal, 23(2), 194–205. https://doi.org/10.1080/10705511.2015.1057284
- Turk, D. C., & Monarch, E. S. (2018). Biopsychosocial perspective on chronic pain. In D. C. Turk & R. J. Gatchel (Eds.), Psychological approaches to pain management: A practitioner's handbook (3rd ed.). The Guilford Press.
- Uhlenbeck, G. E., & Ornstein, L. S. (1930). On the theory of the brownian motion. *Physical Review*, 36(5), 823–841. https://doi.org/10.1103/physrev.36.823
- Usami, S. (2020). On the differences between general cross-lagged panel model and random-intercept cross-lagged panel model: Interpretation of cross-lagged parameters and model choice. Structural Equation Modeling: A Multidisciplinary Journal, 28(3), 331–344. https://doi.org/10.1080/10705511.2020.1821690

- Usami, S. (2022). Within-person variability score-based causal inference: A two-step estimation for joint effects of time-varying treatments. *Psychometrika*, 88(4), 1466–1494. https://doi.org/ 10.1007/s11336-022-09879-1
- Usami, S., Murayama, K., & Hamaker, E. L. (2019). A unified framework of longitudinal models to examine reciprocal relations. *Psychological Methods*, 24(5), 637–657. https://doi.org/10.1037/met0000210
- van Buuren, S. (2018). Flexible imputation of missing data (2nd ed.). Chapman; Hall/CRC. https://doi.org/10.1201/9780429492259
- van Buuren, S., Brand, J. P. L., Groothuis-Oudshoorn, C. G. M., & Rubin, D. B. (2006). Fully conditional specification in multivariate imputation. *Journal of Statistical Computation and Simulation*, 76(12), 1049–1064. https://doi.org/10.1080/10629360600810434
- van Buuren, S., & Groothuis-Oudshoorn, K. (2011). mice: Multivariate imputation by chained equations in R. *Journal of Statistical Software*, 45(3). https://doi.org/10.18637/jss.v045.i03
- van Egmond, K., Wright, C. J. C., Livingston, M., & Kuntsche, E. (2020). Wearable transdermal alcohol monitors: A systematic review of detection validity, and relationship between transdermal and breath alcohol concentration and influencing factors. *Alcoholism: Clinical and Experimental Research*, 44(10), 1918–1932. https://doi.org/10.1111/acer.14432
- van Montfort, K., Oud, J. H. L., & Satorra, A. (Eds.). (2010). Longitudinal research with latent variables. Springer.
- van Montfort, K., Oud, J. H. L., & Voelkle, M. C. (Eds.). (2018). Continuous time modeling in the behavioral and related sciences. Springer International Publishing. https://doi.org/10. 1007/978-3-319-77219-6
- Vanhasbroeck, N., Ariens, S., Tuerlinckx, F., & Loossens, T. (2021). Computational models for affect dynamics. In *Affect dynamics* (pp. 213–260). Springer International Publishing. https://doi.org/10.1007/978-3-030-82965-0_10
- Venables, W. N., & Ripley, B. D. (2002). Modern applied statistics with S. Springer New York. https://doi.org/10.1007/978-0-387-21706-2

- Venzon, D. J., & Moolgavkar, S. H. (1988). A method for computing profile-likelihood-based confidence intervals. Applied Statistics, 37(1), 87. https://doi.org/10.2307/2347496
- Ver Hoef, J. M. (2012). Who invented the delta method? The American Statistician, 66(2), 124–127. https://doi.org/10.1080/00031305.2012.687494
- Voelkle, M. C., & Oud, J. H. L. (2012). Continuous time modelling with individually varying time intervals for oscillating and non-oscillating processes. *British Journal of Mathematical and Statistical Psychology*, 66(1), 103–126. https://doi.org/10.1111/j.2044-8317.2012.02043.x
- Voelkle, M. C., Oud, J. H. L., Davidov, E., & Schmidt, P. (2012). An SEM approach to continuous time modeling of panel data: Relating authoritarianism and anomia. *Psychological Methods*, 17(2), 176–192. https://doi.org/10.1037/a0027543
- Von Korff, M., & Simon, G. (1996). The relationship between pain and depression. *British Journal of Psychiatry*, 168(S30), 101–108. https://doi.org/10.1192/s0007125000298474
- Vuorre, M., & Bolger, N. (2017). Within-subject mediation analysis for experimental data in cognitive psychology and neuroscience. *Behavior Research Methods*, 50(5), 2125–2143. https://doi.org/10.3758/s13428-017-0980-9
- Waller, N. G. (2022). fungible: Psychometric functions from the Waller Lab. The R Foundation. https://CRAN.R-project.org/package=fungible
- Wang, L., & Zhang, Q. (2020). Investigating the impact of the time interval selection on autoregressive mediation modeling: Result interpretations, effect reporting, and temporal designs. Psychological Methods, 25(3), 271–291. https://doi.org/10.1037/met0000235
- Wechsler, H., Dowdall, G. W., Davenport, A., & Rimm, E. B. (1995). A gender-specific measure of binge drinking among college students. *American Journal of Public Health*, 85(7), 982–985. https://doi.org/10.2105/ajph.85.7.982
- White, H. (1980). A heteroskedasticity-consistent covariance matrix estimator and a direct test for heteroskedasticity. *Econometrica*, 48(4), 817–838. https://doi.org/10.2307/1912934
- Wichers, M., Groot, P. C., Psychosystems, ESM Group, & EWS Group. (2016). Critical slowing down as a personalized early warning signal for depression. Psychotherapy and Psychosomatics, 85(2), 114–116. https://doi.org/10.1159/000441458

- Wills, T. A., & Filer, M. (1996). Stress-coping model of adolescent substance use. In Advances in clinical child psychology (pp. 91–132). Springer US. https://doi.org/10.1007/978-1-4613-0323-7_3
- Wright, S. (1918). On the nature of size factors. Genetics, 3(4), 367–374. https://doi.org/10.1093/genetics/3.4.367
- Wright, S. (1920). The relative importance of heredity and environment in determining the piebald pattern of guinea-pigs. *Proceedings of the National Academy of Sciences of the United States of America*, 6(6), 320–332. http://www.jstor.org/stable/84353
- Wright, S. (1934). The method of path coefficients. The Annals of Mathematical Statistics, 5(3), 161–215. https://doi.org/10.1214/aoms/1177732676
- Wu, W., & Jia, F. (2013). A new procedure to test mediation with missing data through nonparametric bootstrapping and multiple imputation. *Multivariate Behavioral Research*, 48(5), 663–691. https://doi.org/10.1080/00273171.2013.816235
- Yu, S., Wu, A. M. S., & Pesigan, I. J. A. (2015). Cognitive and psychosocial health risk factors of social networking addiction. *International Journal of Mental Health and Addiction*, 14(4), 550–564. https://doi.org/10.1007/s11469-015-9612-8
- Yu, S. M., Pesigan, I. J. A., Zhang, M. X., & Wu, A. M. S. (2019). Psychometric validation of the Internet Gaming Disorder-20 Test among Chinese middle school and university students. Journal of Behavioral Addictions, 8(2), 295–305. https://doi.org/10.1556/2006.8.2019.18
- Yuan, K.-H., & Bentler, P. M. (2000). Three likelihood-based methods for mean and covariance structure analysis with nonnormal missing data. Sociological Methodology, 30(1), 165–200. https://doi.org/10.1111/0081-1750.00078
- Yuan, K.-H., & Chan, W. (2011). Biases and standard errors of standardized regression coefficients.

 Psychometrika, 76(4), 670–690. https://doi.org/10.1007/s11336-011-9224-6
- Yuan, Y., & MacKinnon, D. P. (2009). Bayesian mediation analysis. Psychological Methods, 14(4), 301–322. https://doi.org/10.1037/a0016972

- Yzerbyt, V., Muller, D., Batailler, C., & Judd, C. M. (2018). New recommendations for testing indirect effects in mediational models: The need to report and test component paths. *Journal of Personality and Social Psychology*, 115(6), 929–943. https://doi.org/10.1037/pspa0000132
- Zamboanga, B. L., Iwamoto, D. K., Pesigan, I. J. A., & Tomaso, C. C. (2015). A "player's" game? masculinity and drinking games participation among White and Asian American male college freshmen. Psychology of Men & Masculinity, 16(4), 468–473. https://doi.org/10.1037/a0039101
- Zamboanga, B. L., Pesigan, I. J. A., Tomaso, C. C., Schwartz, S. J., Ham, L. S., Bersamin, M., Kim, S. Y., Cano, M. A., Castillo, L. G., Forthun, L. F., Whitbourne, S. K., & Hurley, E. A. (2015). Frequency of drinking games participation and alcohol-related problems in a multiethnic sample of college students: Do gender and ethnicity matter? Addictive Behaviors, 41, 112–116. https://doi.org/10.1016/j.addbeh.2014.10.002
- Zeileis, A. (2004). Econometric computing with HC and HAC covariance matrix estimators. *Journal of Statistical Software*, 11(10). https://doi.org/10.18637/jss.v011.i10
- Zeileis, A. (2006). Object-oriented computation of sandwich estimators. *Journal of Statistical Software*, 16(9). https://doi.org/10.18637/jss.v016.i09
- Zeileis, A., Köll, S., & Graham, N. (2020). Various versatile variances: An object-oriented implementation of clustered covariances in R. Journal of Statistical Software, 95(1). https://doi.org/10.18637/jss.v095.i01
- Zhang, M. X., Ku, L., Wu, A. M. S., Yu, S. M., & Pesigan, I. J. A. (2019). Effects of social and outcome expectancies on hazardous drinking among Chinese university students: The mediating role of drinking motivations. Substance Use & Misuse, 55(1), 156–166. https://doi.org/10.1080/10826084.2019.1658784
- Zhang, M. X., Pesigan, I. J. A., Kahler, C. W., Yip, M. C., Yu, S., & Wu, A. M. (2019). Psychometric properties of a chinese version of the brief young adult alcohol consequences questionnaire (b-yaacq). Addictive Behaviors, 90, 389–394. https://doi.org/10.1016/j.addbeh.2018.11.045
- Zhang, Z., & Wang, L. (2012). Methods for mediation analysis with missing data. Psychometrika, 78(1), 154-184. https://doi.org/10.1007/s11336-012-9301-5

- Zhang, Z., Wang, L., & Tong, X. (2015). Mediation analysis with missing data through multiple imputation and bootstrap. In *Quantitative psychology research* (pp. 341–355). Springer International Publishing. https://doi.org/10.1007/978-3-319-19977-1_24
- Zyphur, M. J., Allison, P. D., Tay, L., Voelkle, M. C., Preacher, K. J., Zhang, Z., Hamaker, E. L., Shamsollahi, A., Pierides, D. C., Koval, P., & Diener, E. (2019). From data to causes I: Building a general cross-lagged panel model (GCLM). Organizational Research Methods, 23(4), 651–687. https://doi.org/10.1177/1094428119847278
- Zyphur, M. J., Voelkle, M. C., Tay, L., Allison, P. D., Preacher, K. J., Zhang, Z., Hamaker, E. L., Shamsollahi, A., Pierides, D. C., Koval, P., & Diener, E. (2019). From data to causes II: Comparing approaches to panel data analysis. Organizational Research Methods, 23(4), 688–716. https://doi.org/10.1177/1094428119847280