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## Publications

### Journal Articles


1. Breit, M., Scherrer, V., Tucker-Drob, E. M., & Preckel, F. (2024). The stability of cognitive abilities: A meta-analytic review of longitudinal studies. *Psychological Bulletin*. https://doi.org/10.1037/bul0000425
2. Willems, Y. E., deSteiguer, A., Tanksley, P. T., Vinnik, L., Fraemke, D., Okbay, A., Richter, D., Wagner, G. G., Hertwig, R., Koellinger, P., Tucker-Drob, E. M., Harden, K. P., & Raffington, L. (2024). Self-control is associated with health-relevant disparities in buccal DNA-methylation measures of biological aging in older adults. *Clinical Epigenetics*, *16*(1). https://doi.org/10.1186/s13148-024-01637-7
3. Clapp Sullivan, M. L., Schwaba, T., Harden, K. P., Grotzinger, A. D., Nivard, M. G., & Tucker-Drob, E. M. (2024). Beyond the factor indeterminacy problem using genome-wide association data. *Nature Human Behaviour*. https://doi.org/10.1038/s41562-023-01789-1
4. Koellinger, P. D., Okbay, A., Kweon, H., Schweinert, A., Linnér, R. K., Goebel, J., Richte, D., Reiber, L., Zweck, B. M., Belsky, D. W., Biroli, P., Mata, R., Tucker-Drob, E. M., Harden, K. P., Wagner, G., & Hertwig, R. (2023). Cohort profile: Genetic data in the german socio-economic panel innovation sample (SOEP-g). *PLOS ONE*, *18*(11), e0294896. https://doi.org/10.1371/journal.pone.0294896
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6. Raffington, L., Schneper, L., Mallard, T., Fisher, J., Vinnik, L., Hollis-Hansen, K., Notterman, D. A., Tucker-Drob, E. M., Mitchell, C., & Harden, K. P. (2023). Salivary epigenetic measures of body mass index and social determinants of health across childhood and adolescence. *JAMA Pediatrics*, *177*(10), 1047. https://doi.org/10.1001/jamapediatrics.2023.3017
7. Kun, E., Javan, E. M., Smith, O., Gulamali, F., Fuente, J. de la, Flynn, B. I., Vajrala, K., Trutner, Z., Jayakumar, P., Tucker-Drob, E. M., Sohail, M., Singh, T., & Narasimhan, V. M. (2023). The genetic architecture and evolution of the human skeletal form. *Science*, *381*(6655). https://doi.org/10.1126/science.adf8009
8. Madole, J. W., Buchanan, C. R., Rhemtulla, M., Ritchie, S. J., Bastin, M. E., Deary, I. J., Cox, S. R., & Tucker-Drob, E. M. (2023). Strong intercorrelations among global graph-theoretic indices of structural connectivity in the human brain. *NeuroImage*, *275*, 120160. https://doi.org/10.1016/j.neuroimage.2023.120160
9. Raffington, L., Schwaba, T., Aikins, M., Richter, D., Wagner, G. G., Harden, K. P., Belsky, D. W., & Tucker-Drob, E. M. (2023). Associations of socioeconomic disparities with buccal DNA-methylation measures of biological aging. *Clinical Epigenetics*, *15*(1). https://doi.org/10.1186/s13148-023-01489-7
10. Yeung, H. W., Stolicyn, A., Buchanan, C. R., Tucker-Drob, E. M., Bastin, M. E., Luz, S., McIntosh, A. M., Whalley, H. C., Cox, S. R., & Smith, K. (2022). Predicting sex, age, general cognition and mental health with machine learning on brain structural connectomes. *Human Brain Mapping*, *44*(5), 1913–1933. https://doi.org/10.1002/hbm.26182
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12. Hatoum, A. S., Colbert, S. M. C., Johnson, E. C., Huggett, S. B., Deak, J. D., Pathak, G. A., Jennings, M. V., Paul, S. E., Karcher, N. R., Hansen, I., Baranger, D. A. A., Edwards, A., Grotzinger, A. D., Adkins, D. E., Adkins, A. E., Alanne-Kinnunen, M., Alexander, J. C., Aliev, F., Bacanu, S.-A., … Agrawal, A. (2023). Multivariate genome-wide association meta-analysis of over 1 million subjects identifies loci underlying multiple substance use disorders. *Nature Mental Health*, *1*(3), 210–223. https://doi.org/10.1038/s44220-023-00034-y
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14. Grotzinger, A. D., Fuente, J. de la, Privé, F., Nivard, M. G., & Tucker-Drob, E. M. (2023). Pervasive downward bias in estimates of liability-scale heritability in genome-wide association study meta-analysis: A simple solution. *Biological Psychiatry*, *93*(1), 29–36. https://doi.org/10.1016/j.biopsych.2022.05.029

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16. Raffington, L., Tanksley, P. T., Sabhlok, A., Vinnik, L., Mallard, T., King, L. S., Goosby, B., Harden, K. P., & Tucker-Drob, E. M. (2022). Socially stratified epigenetic profiles are associated with cognitive functioning in children and adolescents. *Psychological Science*, *34*(2), 170–185. https://doi.org/10.1177/09567976221122760

17. Patterson, M. W., Pivnick, L., Mann, F. D., Grotzinger, A. D., Monahan, K. C., Steinberg, L. D., Oosterhoff, B., Tackett, J. L., Tucker-Drob, E. M., & Harden, K. P. (2022). A mixed-methods approach to refining and measuring the construct of positive risk-taking in adolescence. *Journal of Research on Adolescence*, *33*(2), 680–700. https://doi.org/10.1111/jora.12807

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21. Domingue, B. W., Kanopka, K., Trejo, S., Rhemtulla, M., & Tucker-Drob, E. M. (2022). Ubiquitous bias and false discovery due to model misspecification in analysis of statistical interactions: The role of the outcome's distribution and metric properties. *Psychological Methods*. https://doi.org/10.1037/met0000532

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26. Howe, L. J., Nivard, M. G., Morris, T. T., Hansen, A. F., Rasheed, H., Cho, Y., Chittoor, G., Ahlskog, R., Lind, P. A., Palviainen, T., Zee, M. D. van der, Cheesman, R., Mangino, M., Wang, Y., Li, S., Klaric, L., Ratliff, S. M., Bielak, L. F., Nygaard, M., … Davies, N. M. (2022). Within-sibship genome-wide association analyses decrease bias in estimates of direct genetic effects. *Nature Genetics*, *54*(5), 581–592. https://doi.org/10.1038/s41588-022-01062-7

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44. Malanchini, M., Engelhardt, L. E., Raffington, L. A., Sabhlok, A., Grotzinger, A. D., Briley, D. A., Madole, J. W., Freis, S. M., Patterson, M. W., Harden, K. P., & Tucker-Drob, E. M. (2020). Weak and uneven associations of home, neighborhood, and school environments with stress hormone output across multiple timescales. *Molecular Psychiatry*, *26*(9), 4823–4838. https://doi.org/10.1038/s41380-020-0747-z

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46. Demange, P. A., Malanchini, M., Mallard, T. T., Biroli, P., Cox, S. R., Grotzinger, A. D., Tucker-Drob, E. M., Abdellaoui, A., Arseneault, L., Bergen, E. van, Boomsma, D. I., Caspi, A., Corcoran, D. L., Domingue, B. W., Harris, K. M., Ip, H. F., Mitchell, C., Moffitt, T. E., Poulton, R., … Nivard, M. G. (2021). Investigating the genetic architecture of noncognitive skills using GWAS-by-subtraction. *Nature Genetics*, *53*(1), 35–44. https://doi.org/10.1038/s41588-020-00754-2

## Preprints

1. deSteiguer, A. J., Raffington, L., Sabhlok, A., Tanksley, P., Tucker-Drob, E. M., & Harden, K. P. (2023). *Stability of DNA-methylation profiles of biological aging in children and adolescents*. https://doi.org/10.1101/2023.10.30.564766
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3. Zhou, J., Indik, C. E., Kuipers, T. B., Li, C., Nivard, M. G., Ryan, C. P., Tucker-Drob, E. M., Taeubert, M. J., Wang, S., Wang, T., Conley, D., Heijmans, B. T., Lumey, L., & Belsky, D. W. (2023). *Genetic analysis of selection bias in a natural experiment: Investigating in-utero famine effects on elevated body mass index in the dutch hunger winter families study*. https://doi.org/10.1101/2023.10.23.23297381
4. Willems, Y. E., deSteiguer, A., Tanksley, P. T., Vinnik, L., Främke, D., Okbay, A., Richter, D., Wagner, G. G., Hertwig, R., Koellinger, P., Tucker-Drob, E. M., Harden, K. P., & Raffington, L. (2023). *Self-control is associated with health-relevant disparities in buccal DNA-methylation measures of biological aging in older adults*. https://doi.org/10.1101/2023.08.30.23294816
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7. Malanchini, M., Allegrini, A., Nivard, M. G., Biroli, P., Rimfeld, K., Cheesman, R., Stumm, S. von, Demange, P., Bergen, E. van, Grotzinger, A., Raffington, L., Fuente, J. de la, Pingault, J.-B., Harden, K., Tucker-Drob, E., & Plomin, R. (2023). *Genetic contributions of noncognitive skills to academic development*. https://doi.org/10.21203/rs.3.rs-2775994/v1
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14. Yeung, H. W., Stolicyn, A., Buchanan, C. R., Tucker-Drob, E. M., Bastin, M. E., Luz, S., McIntosh, A. M., Whalley, H. C., Cox, S. R., & Smith, K. (2022). *Predicting sex, age, general cognition and mental health with machine learning on brain structural connectomes*. https://doi.org/10.1101/2022.03.03.22271801

15. Hatoum, A. S., Colbert, S. M. C., Johnson, E. C., Huggett, S. B., Deak, J. D., Pathak, G. A., Jennings, M. V., Paul, S. E., Karcher, N. R., Hansen, I., Baranger, D. A. A., Edwards, A., Grotzinger, A. D., Tucker-Drob, E. M., Kranzler, H., Davis, L. K., Sanchez-Roige, S., Polimanti, R., Gelernter, J., … Agrawal, A. (2022). *Multivariate genome-wide association meta-analysis of over 1 million subjects identifies loci underlying multiple substance use disorders*. https://doi.org/10.1101/2022.01.06.22268753

16. Raffington, L., Tanksley, P., Vinnik, L., Sabhlok, A., Patterson, M. W., Mallard, T., Malanchini, M., Ayorech, Z., Tucker-Drob, E. M., & Harden, K. P. (2021). *Socially stratified DNA-methylation profiles are associated with disparities in child and adolescent mental health*. https://doi.org/10.1101/2021.09.17.21263582

17. Raffington, L., Tanksley, P. T., Sabhlok, A., Vinnik, L., Mallard, T., King, L. S., Goosby, B., Harden, K. P., & Tucker-Drob, E. M. (2021). *Socially stratified epigenetic profiles are associated with cognitive functioning in children and adolescents*. https://doi.org/10.1101/2021.08.19.456979

18. Fuente, J. de la, Grotzinger, A. D., Marioni, R. E., Nivard, M. G., & Tucker-Drob, E. M. (2021). *Multivariate modeling of direct and proxy GWAS indicates substantial common variant heritability of alzheimer's disease*. https://doi.org/10.1101/2021.05.06.21256747

19. Grotzinger, A. D., Fuente, J. de la, Davies, G., Nivard, M. G., & Tucker-Drob, E. M. (2021). *Transcriptome-wide and stratified genomic structural equation modeling identify neurobiological pathways underlying general and specific cognitive functions*. https://doi.org/10.1101/2021.04.30.21256409

20. Becker, J., Burik, C. A. P., Goldman, G., Wang, N., Jayashankar, H., Bennett, M., Belsky, D. W., Linnér, R. K., Ahlskog, R., Kleinman, A., Hinds, D. A., Caspi, A., Corcoran, D. L., Moffitt, T. E., Poulton, R., Sugden, K., Williams, B. S., Harris, K. M., Steptoe, A., … Okbay, A. (2021). *Resource profile and user guide of the polygenic index repository*. https://doi.org/10.1101/2021.05.08.443158

21. Buchanan, C. R., Muñoz Maniega, S., Valdés Hernández, M. C., Ballerini, L., Barclay, G., Taylor, A. M., Russ, T. C., Tucker-Drob, E. M., Wardlaw, J. M., Deary, I. J., Bastin, M. E., & Cox, S. R. (2021). *Comparison of structural MRI brain measures between 1.5T and 3T: Data from the lothian birth cohort 1936*. https://doi.org/10.1101/2021.04.23.21256000

22. Domingue, B., Kanopka, K., Trejo, S., Rhemtulla, M., & Tucker-Drob, E. M. (2021). *Ubiquitous bias & false discovery due to model misspecification in analysis of statistical interactions: The role of the outcome's distribution and metric properties*. https://doi.org/10.31234/osf.io/932fm

23. Howe, L. J., Nivard, M. G., Morris, T. T., Hansen, A. F., Rasheed, H., Cho, Y., Chittoor, G., Lind, P. A., Palviainen, T., Zee, M. D. van der, Cheesman, R., Mangino, M., Wang, Y., Li, S., Klaric, L., Ratliff, S. M., Bielak, L. F., Nygaard, M., Reynolds, C. A., … Davies, N. M. (2021). *Within-sibship GWAS improve estimates of direct genetic effects*. https://doi.org/10.1101/2021.03.05.433935

24. Grotzinger, A. D., Fuente, J. de la, Nivard, M. G., & Tucker-Drob, E. M. (2021). *Pervasive downward bias in estimates of liability scale heritability in GWAS meta-analysis: A simple solution*. https://doi.org/10.1101/2021.09.22.21263909

### Books

### Book Chapters

## Professional Presentations

**Joint Growth-Survival Modelling Reveals Distinct Developmental Pathways to Dementia**

University of Southern California Schaeffer Center *2024*

**Theoretical and Methodological Considerations in the Study of Cognitive Aging and Dementia**

Center for Vital Longevity, UT Dallas *2023*

**Theoretical and Methodological Considerations in the Study of Cognitive Aging and Dementia**

The Deep Dementia Phenotyping (DEMON) Network *2023*

**Theoretical and Methodological Considerations in the Epidemiology of Cognitive Aging and Dementia**

National Institute on Aging Intramural Research Program *2022*

**Using Genome-Wide Data to Investigate the Joint Genetic Architecture of Psychiatric Disorders**

Grand Rounds, Department of Psychiatry, University of Michigan *2022*

**Theoretical and Methodological Considerations in the Epidemiology of Cognitive Aging and Dementia**

Center on Aging and Population Sciences and Population Research Center, University of Texas at Austin — *2022*

**Theoretical and Methodological Considerations in the Epidemiology of Cognitive Aging and Dementia**

Life Course Epidemiology course, Department of Epidemiology, Columbia University — *2021*

**Using Genome-Wide Data to Investigate the Joint Genetic Architecture of Complex Traits**

Russell Sage Foundation Summer Institute in Social-Science Genomics — *2021*

**Theoretical and Methodological Considerations in the Epidemiology of Cognitive Aging and Dementia**

Department of Epidemiology, Columbia University — *2021*

**Using Genomic SEM to Apply Social Science Models to Genetic Data**

Center For Demography Of Health And Aging, University of Wisconsin-Madison — *2021*

## Conference Abstracts

## Honors

**Gershon Paper of the Year Award for: Hatoum et al. (2023). Multivariate genome-wide association meta-analysis of over 1 million subjects identifies loci underlying multiple substance use disorders. Nature Mental Health.** — *International, US*

International Society of Psychiatric Genetics — *2023*

**Article of the Year Award for: Lövdén, M., Fratiglioni, L., Glymour, M. M., Lindenberger, U., & Tucker-Drob, E. M. (2020). Education and cognitive functioning across the lifespan. Psychological Science in the Public Interest, 21, 6-41.** — *Nordic Mensa Fund, SE*

Mensa International Ltd — *2021*

## Funding

**Pending Grant (1st percentile): Epigenetic Pathways of Socioeconomic Disparities in Physical and Cognitive Health Across the Lifespan (Co-I)** — *NICHD, R01HD114724*

Funding: $3,345,489 — *2024 - 2029*

**Large-Scale Genomic Analysis of Aging-Related Cognitive Change Prior to Dementia Onset (PI)** — *National Institute on Aging, R01AG073593 (2 years following 3 years of RF1 AG073593)*

Funding: — *2024 - 2026*

**Dissecting the Multivariate Genetic Architecture of Psychiatric Diseases** — *NIMH, R01MH120219*

Funding: $2,647,625 — *2020 - 2025*

**Dissecting the Multivariate Genetic Architecture of Psychiatric Diseases (PI)** — *NIMH, R01MH120219*

Funding: $3,279,307 — *2020 - 2025*

**Large-Scale Genomic Analysis of Aging-Related Cognitive Change Prior to Dementia Onset** — *National Institute on Aging, RF1AG073593*

Funding: $2,060,713 — *2021 - 2024*

**Environmental, Genetic, and Epigenetic Mechanisms for Hormonal Change (Co-I)** — *National Institute of Child Health and Human Development, R01HD092548*

Funding: $3,328,440 — *2019 - 2024*

**Evaluating Longitudinal Changes in the Human Structural Connectome in Relation to Cognitive Aging**
*National Institute on Aging, R01AG054628*
Funding: $2,727,824
*2017 - 2024*

**Evaluating Longitudinal Changes in the Human Structural Connectome in Relation to Cognitive Aging (Administrative Supplement) (PI)**
*National Institute of Aging, R01AG054628 02S1*
Funding: $343,141
*2018 - 2023*

**Evaluating Longitudinal Changes in the Human Structural Connectome in Relation to Cognitive Aging (PI)**
*National Institute of Aging, R01AG054628*
Funding: $2,384,680
*2017 - 2023*

**Jacobs Foundation Advanced Research Fellowship (PI)**
*Jacobs Foundation,*
Funding: $440,000
*2018 - 2021*

**Delineating genetic and environmentally-mediated influences on socioeconomic inequality in children's cortisol secretion and executive functions**
*Deutsche Forschungsgemeinschaft, 407466711*
Funding:
*2018 - 2021*

**Cortisol, Socioeconomic Status, and Genetic Influences on Cognitive Development**
*Eunice Kennedy Shriver National Institute of Child Health and Human Development, R01HD083613*
Funding: $2,970,899
*2016 - 2021*

## Service

**Psychological Bulletin**
*Washington DC, US*
Consulting Editor
*2020 - present*

**Center on Aging and Population Sciences (CAPS)**
*Austin, US*
Faculty Council
*2020 - present*

**Major Research Institutions**
*N/A, US*
External Reviewer: Tenure and Promotion
*2019 - present*

**The University of Texas at Austin**
*Austin, US*
I organize free one-time methodological workshops on special topics that are not well-covered by existing course offerings at UT
*2018 - present*

**The University of Texas at Austin**
*Austin, US*
Statistical advice for students who have previously completed my course in Structural Equation Modeling
*2009 - present*

**Mentorship for Undergraduate Research Interns**
*Austin, US*
Students regularly work with data from the Texas Twin Project for independent research projects, e.g. as part of the Departmental Honors program, the Bridging Disciplines program, the Polymathic Scholars program, or the department's Summer Undergraduate Research Experience (SURE) program for traditionally underrepresented groups.
*2009 - present*

**Ad Hoc Reviewer: Selected Journals**
*N/A, US*
Advances in Methods in Psychological Science, American Psychologist, American Sociological Review, Behavior Genetics, Biological Psychiatry, Cerebral Cortex, Child Development, Child Development Perspectives, Current Directions in Psychological Science, Demography, Developmental Psychology, Developmental Science, Journal of Child Psychology and Psychiatry, Journal of Experimental Psychology: General, Journal of Personality and Social Psychology, Molecular Psychiatry, Multivariate Behavioral Research, Nature, Nature Human Behaviour, Nature Genetics, Nature Neuroscience, Perspectives on Psychological Science, Proceedings of the National Academy of Sciences, Psychological Bulletin, Psychological Medicine, Psychological Review, Psychological Science, Psychology and Aging, Scientific Reports, Social Psychological and Personality Science, Translational Psychiatry
*2009 - present*

**National Institutes of Health**
*Bethesda, US*
Regular Member (5 year term), Neurological, Mental and Behavioral Health Study Section (NMBH)
*2023 - 2027*

**University of Texas at Austin** *Austin, US*

Search Committee for Director of the Social and Behavioral Statistics and Data Science (SBSDS) Hub *2023 - 2024*

**National Institutes of Health** *Bethesda, US*

Ad Hoc Study Section Member/Reviewer: NMBH (2022), ZRG1 PSE L 90 (2021), ZRG1 PSE-Z(02) / N(07) (2020), BGES (2019), CHHD W (2018) *2018 - 2022*

**Diversity in Cognitive Aging Search Committee** *Austin, US*

*2020 - 2021*

# Mentoring and Teaching

## Mentoring

**Camille Williams, Ph.D.**

Co-Primary Research Mentor for UT Postdoctoral Trainee with K. P. Harden *2022 - present*

**Margaret Clapp**

Primary Research Mentor for UT Graduate Student *2020 - present*

**Javier de la Fuente, Ph.D.**

Primary Research Mentor for UT Postdoctoral Fellow/Research Scientist *2019 - present*

**Aditi Sabhlok**

Secondary Research Mentor for UT Graduate Student with K. P. Harden *2017 - present*

**Ted Schwaba, Ph.D., Currently Assistant Professor at Michigan State University starting Fall 2023**

Primary Research Mentor for UT Postdoctoral Fellow/Research Scientist *2021 - 2023*

**Aditi Sabhlok**

Dissertation Committee Member *2021 - 2023*

**James Madole**

Co-Primary Research Mentor for UT Graduate Student with K. P. Harden *2017 - 2023*

**James Madole**

Dissertation Co-Chair *2021 - 2022*

**Kelseanna Hollis-Hansen, Ph.D, currently Assistant Professor, UT Southwestern School of Public Health**

Primary Research Mentor for UT Postdoctoral Fellow *2020 - 2022*

**Lucy King, Ph.D., currently Computational Social Scientist at IDEO**

Primary Research Mentor for UT Postdoctoral Fellow *2020 - 2022*

**Laurel Raffington, Ph.D., currently Group Leader at Max Planck Institute for Human Development**

Primary Research Mentor for UT Postdoctoral Fellow with K. P. Harden *2019 - 2022*

**Cherry Youn**

Primary Research Mentor for UT Graduate Student *2018 - 2022*

**Travis Mallard, currently postdoctoral fellow at MGH/Harvard**

Dissertation Committee Member *2019 - 2021*

**Andrew D. Grotzinger, currently Assistant Professor at University of Colorado Boulder**

Primary Research Mentor for UT Graduate Student *2015 - 2021*

## Teaching

**Psychology**

Instructor for Structural Equation Modelling (PSY 384T) [one semester per year, excluding sabbatical] *2009 - present*

**Psychology**

Instructor for Individual Differences (PSY 345) [one semester per year, excluding sabbatical] *2009 - present*