# Elliot M. Tucker-Drob

▼ tuckerdrob@utexas.edu

## **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
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- 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
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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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- 25. Youn, C., Grotzinger, A. D., Lill, C. M., Bertram, L., Schmiedek, F., Lövdén, M., Lindenberger, U., Nivard, M., Harden, K. P., & Tucker-Drob, E. M. (2022). Genetic associations with learning over 100 days of practice. *Npj Science of Learning*, 7(1). https://doi.org/10.1038/s41539-022-00121-2
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- 29. Durkee, P. K., Lukaszewski, A. W., Rueden, C. R. von, Gurven, M. D., Buss, D. M., & Tucker-Drob, E. M. (2022). Niche diversity predicts personality structure across 115 nations. *Psychological Science*, *33*(2), 285–298. https://doi.org/10.1177/09567976211031571

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46. Bosma, M. J., Cox, S. R., Ziermans, T., Buchanan, C. R., Shen, X., Tucker-Drob, E. M., Adams, M. J., Whalley, H. C., & Lawrie, S. M. (2021). White matter, cognition and psychotic-like experiences in UK biobank. *Psychological Medicine*, 53(6), 2370–2379. https://doi.org/10.1017/s0033291721004244

#### **PREPRINTS**

- 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
- 2. Mallard, T. T., Tubbs, J. D., Jennings, M., Zhang, Y., Gustavson, D. E., Grotzinger, A. D., Westwater, M. L., Williams, C. M., Fortgang, R. G., Elson, S. L., Fontanillas, P., Davis, L. K., Raznahan, A., Tucker-Drob, E. M., Choi, K. W., Ge, T., Smoller, J. W., Palmer, A. A., & Sanchez-Roige, S. (2023). *The pleiotropic architecture of human impulsivity across biological scales*. https://doi.org/10.1101/2023.11.28.23299133
- 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. Adams, M. J., Thorp, J. G., Jermy, B. S., Kwong, A. S. F., Kõiv, K., Grotzinger, A. D., Nivard, M. G., Marshall, S., Milaneschi, Y., Baune, B. T., Müller-Myhsok, B., Penninx, B. W., Boomsma, D. I., Levinson, D. F., Breen, G., Pistis, G., Grabe, H. J., Tiemeier, H., Berger, K., ... Derks, E. M. (2023). Genetic structure of major depression symptoms across clinical and community cohorts. https://doi.org/10.1101/2023.07.05. 23292214
- 5. Schwaba, T., Mallard, T. T., Maihofer, A. X., Rhemtulla, M., Lee, P. H., Smoller, J. W., Davis, L. K., Nivard, M. G., Grotzinger, A. D., & Tucker-Drob, E. M. (2023). Comparison of the multivariate genetic architecture of eight major psychiatric disorders across sex. https://doi.org/10.1101/2023.05.25.23290545
- 6. Malanchini, M., Allegrini, A. G., Nivard, M. G., Biroli, P., Rimfeld, K., Cheesman, R., Stumm, S. von, Demange, P. A., Bergen, E. van, Grotzinger, A. D., Raffington, L., Fuente, J. D. Ia, Pingault, J.-B., Harden, K. P., Tucker-Drob, E. M., & Plomin, R. (2023). *Genetic contributions of noncognitive skills to academic development*. https://doi.org/10.1101/2023.04.03.535380
- Moodie, J. E., Harris, S. E., Harris, M. A., Buchanan, C. R., Davies, G., Taylor, A., Redmond, P., Liewald, D., C Valdés Hernández, M. del, Shenkin, S., Russ, T. C., Maniega, S. M., Luciano, M., Corley, J., Stolicyn, A., Shen, X., Steele, D., Waiter, G., Sandu-Giuraniuc, A., ... Cox, S. R. (2023). General and specific patterns of cortical gene expression as spatial correlates of complex cognitive functioning. https://doi.org/10.1101/2023.03.16.532915
- 8. 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
- 9. 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
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- 11. 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
- 12. 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

| Theoretical and Methodological Considerations in the Study of Cognitive Aging and Dementia   |  |
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| 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   |
|  | 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   | 2021   |
| 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  | NICHD, R01HD114724   |
| Physical and Cognitive Health Across the Lifespan (Co-I) FUNDING: \$3,345,489  | 2024 - 2029  |
| Large-Scale Genomic Analysis of Aging-Related Cognitive Change Prior to Dementia Onset (PI)  | National Institute on Aging,<br>R01AG073593 (2 years following 3<br>years of RF1 AG073593) |
|  |  |

2024 - 2026

FUNDING:

Dissecting the Multivariate Genetic Architecture of Psychiatric Diseases NIMH, R01MH120219 FUNDING: \$2.647.625 2020 - 2025 National Institute on Aging, Large-Scale Genomic Analysis of Aging-Related Cognitive Change Prior to Dementia Onset RF1AG073593 FUNDING: \$2,060,713 2021 - 2024 National Institute of Child Health Environmental, Genetic, and Epigenetic Mechanisms for Hormonal Change (Co-I) and Human Development, R01HD092548 FUNDING: \$3,328,440 2019 - 2024 **Evaluating Longitudinal Changes in the Human Structural Connectome in Relation to** National Institute on Aging, **Cognitive Aging** R01AG054628 FUNDING: \$2,727,824 2017 - 2024 Jacobs Foundation Advanced Research Fellowship (PI) Jacobs Foundation, FUNDING: \$440,000 2018 - 2021 **Delineating genetic and environmentally-mediated influences on socioeconomic inequality** Deutsche Forschungsgemeinschaft, in children's cortisol secretion and executive functions 407466711 **FUNDING:** 2018 - 2021 Eunice Kennedy Shriver National Cortisol, Socioeconomic Status, and Genetic Influences on Cognitive Development 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

ORGANIZE FREE ONE-TIME METHODOLOGICAL WORKSHOPS ON SPECIAL TOPICS THAT ARE NOT WELL-COVERED BY EXISTING COURSE

OFFERINGS AT UT

The University of Texas at Austin

STATISTICAL ADVICE FOR STUDENTS WHO HAVE PREVIOUSLY COMPLETED MY COURSE IN STRUCTURAL EQUATION MODELING

Mentorship for Undergraduate Research Interns

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.

Ad Hoc Reviewer: Selected Journals

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

N/A, US

2009 - present

2018 - present

Austin, US

Austin, US

2009 - present

2009 - present

| National Institutes of Health  | Bethesda, US   |
|--|----------------|
| REGULAR MEMBER (5 YEAR TERM), NEUROLOGICAL, MENTAL AND BEHAVIORAL HEALTH STUDY SECTION (NMBH)                                      | 2023 - 2027    |
| Annual Reviews   | Palo Alto, US  |
| Editorial Comittee (standing member)   | 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   | 2021 2022      |
| 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  | 2015 202       |
| Primary Research Mentor for UT Graduate Student  | 2015 - 2021    |

## 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