

Gene-Environment Research On Education

- Asbury, K., Rimfeld, K., & Krapohl, E. (2017). Can (and should) we personalize education along genetic lines? lessons from behavioral genetics. In *Genetics, ethics and education* (pp. 63–85). Cambridge University Press.
- Belsky, D. W., Domingue, B. W., Wedow, R., Arseneault, L., Boardman, J. D., Caspi, A., . . . Harris, K. M. (2018, July). Genetic analysis of social-class mobility in five longitudinal studies. *Proceedings of the National Academy of Sciences*, *115* (31), E7275–E7284. doi: 10.1073/pnas.1801238115
- Belsky, D. W., Moffitt, T. E., Corcoran, D. L., Domingue, B., Harrington, H., Hogan, S., . . . Caspi, A. (2016, June). The genetics of success. *Psychological Science*, *27* (7), 957–972. doi: 10.1177/0956797616643070
- Conley, D., Domingue, B., Cesarini, D., Dawes, C., Rietveld, C., & Boardman, J. (2015). Is the effect of parental education on offspring biased or moderated by genotype? *Sociological Science*, *2*, 82–105. doi: 10.15195/v2.a6
- Dawes, C. T., Okbay, A., Oskarsson, S., & Rustichini, A. (2021, December). A polygenic score for educational attainment partially predicts voter turnout. *Proceedings of the National Academy of Sciences*, *118* (50), e2022715118. doi: 10.1073/pnas.2022715118
- Domingue, B. W., Belsky, D. W., Conley, D., Harris, K. M., & Boardman, J. D. (2015, July). Polygenic influence on educational attainment. *AERA Open*, *1* (3), 1–13. doi: 10.1177/2332858415599972
- Herd, P., Freese, J., Sicinski, K., Domingue, B. W., Harris, K. M., Wei, C., & Hauser, R. M. (2019, November). Genes, gender inequality, and educational attainment. *American Sociological Review*, *84* (6), 1069–1098. doi: 10.1177/0003122419886550
- Laidley, T., Vinneau, J., & Boardman, J. (2019). Individual and social genomic contributions to educational and neighborhood attainments: Geography, selection, and stratification in the united states. *Sociological Science*, *6*, 580–608. doi: 10.15195/v6.a22
- Latham, S. R. (2017). Conclusion: How might school systems use genetic data? In *Genetics, ethics and education* (pp. 383–394). Cambridge University Press.
- Lee, J. J., Wedow, R., Okbay, A., Kong, E., Maghzian, O., Zacher, M., . . . Cesarini, D. (2018, July). Gene discovery and polygenic prediction from a genome-wide association

study of educational attainment in 1.1 million individuals. *Nature Genetics*, 50 (8), 1112–1121. doi: 10.1038/s41588-018-0147-3

- Little, C. W., Barroso, C., & Hart, S. A. (2017). Precision education initiative: The possibility of personalized education. In *Genetics, ethics and education* (pp. 159–182). Cambridge University Press.
- Okbay, A., Beauchamp, J. P., Fontana, M. A., Lee, J. J., Pers, T. H., Rietveld, C. A., . . . Benjamin, D. J. (2016, May). Genome-wide association study identifies 74 loci associated with educational attainment. *Nature*, 533 (7604), 539–542. doi: 10.1038/nature17671
- Okbay, A., Wu, Y., Wang, N., Jayashankar, H., Bennett, M., Nehzati, S. M., Sidorenko, J., Kweon, H., Goldman, G., Gjorgjieva, T., Jiang, Y., Hicks, B., Tian, C., Hinds, D. A., Ahlskog, R., Magnusson, P. K., Oskarsson, S., Hayward, C., Campbell, A., . . . Young, A. I. (2022). Polygenic prediction of educational attainment within and between families from genome-wide association analyses in 3 million individuals. *Nature Genetics*, 54(4), 437–449. doi: 10.1038/s41588-022-01016-z (New entry)
- Rietveld, C. A., Medland, S. E., Derringer, J., Yang, J., Esko, T., Martin, N. W., . . . Koellinger, P. D. (2013, June). GWAS of 126,559 individuals identifies genetic variants associated with educational attainment. *Science*, 340 (6139), 1467–1471. doi: 10.1126/ science.1235488
- Trejo, S., Belsky, D., Boardman, J., Freese, J., Harris, K., Herd, P., Sicinski, K., & Domingue, B. (2018). Schools as moderators of genetic associations with life course attainments: Evidence from the WLS and ADD health. *Sociological Science*, 5, 513–540. doi: 10.15195/v5.a22 (New entry)

Gene-Environment Research On Health

- Barr, P. B., Silberg, J., Dick, D. M., & Maes, H. H. (2018). Childhood socioeconomic status and longitudinal patterns of alcohol problems: Variation across etiological pathways in genetic risk. *Social Science & Medicine*, 209, 51–58. doi: 10.1016/j.socscimed.2018.05.027 (New entry)
- Domingue, B. W., Belsky, D. W., Fletcher, J. M., Conley, D., Boardman, J. D., & Harris, K. M. (2018, January). The social genome of friends and schoolmates in the national longitudinal study of adolescent to adult health. *Proceedings of the National Academy of Sciences*, 115 (4), 702–707. doi: 10.1073/pnas.1711803115

- Hu, Y., Shmygelska, A., Tran, D., Eriksson, N., Tung, J. Y., & Hinds, D. A. (2016, February). GWAS of 89,283 individuals identifies genetic variants associated with self-reporting of being a morning person. *Nature Communications*, 7 (1). doi: 10.1038/ncomms10448
- Okbay, A., Baselmans, B. M. L., Neve, J.-E. D., Turley, P., Nivard, M. G., Fontana, M. A., . . . Cesarini, D. (2016, April). Genetic variants associated with subjective well-being, depressive symptoms, and neuroticism identified through genome-wide analyses. *Nature Genetics*, 48 (6), 624–633. doi: 10.1038/ng.3552
- Yengo, L., Sidari, M., Verweij, K. J. H., Visscher, P. M., Keller, M. C., & Zietsch, B. P. (2019, November). No evidence for social genetic effects or genetic similarity among friends beyond that due to population stratification: A reappraisal of domingue et al (2018). *Behavior Genetics*, 50 (1), 67–71. doi: 10.1007/s10519-019-09979-2

Epigenetics in Sociology

- Beckmann, K., & O'Donnell, K. (2017). Early adversity and epigenetics: Implications for early care and educational policy. In *Genetics, ethics and education* (pp. 86–106). Cambridge University Press.
- Cole, S. W. (2014, August). Human social genomics. *PLoS Genetics*, 10 (8), e1004601. doi: 10.1371/journal.pgen.1004601
- Cole, S. W., Hawkey, L. C., Arevalo, J. M., Sung, C. Y., Rose, R. M., & Cacioppo, J. T. (2007, September). Social regulation of gene expression in human leukocytes. *Genome Biology*, 8 (9). doi: 10.1186/gb-2007-8-9-r189
- Shanahan, M. J. (2014). Social genomics and the life course: Opportunities and challenges for multilevel population research. In *New directions in the sociology of aging* (pp. 255–276). National Academies Press
- Caspi, A., Hariri, A. R., Holmes, A., Uher, R., & Moffitt, T. E. (2010, May). Genetic sensitivity to the environment: The case of the serotonin transporter gene and its implications for studying complex diseases and traits. *American Journal of Psychiatry*, 167 (5), 509–527. doi: 10.1176/appi.ajp.2010.09101452

Genetics in Medical Sociology

- Boardman, J. D., & Fletcher, J. M. (2021, August). Evaluating the continued integration of genetics into medical sociology. *Journal of Health and Social Behavior*, 62 (3), 404–418. doi: 10.1177/00221465211032581
- Dingwall, R. (2016). Medical sociology and genetics. In *The blackwell encyclopedia of sociology* (pp. 1–5). John Wiley & Sons, Ltd. doi: 10.1002/9781405165518.wbeosm076.pub3
- Pescosolido, B. A., Perry, B. L., Long, J. S., Martin, J. K., John I. Nurnberger, J., & Hesselbrock, V. (2008, November). Under the influence of genetics: How transdisciplinarity leads us to rethink social pathways to illness. *American Journal of Sociology*, 114 (S1),S171–S201. doi: 10.1086/592209
- Shostak, S., & Freese, J. (2010). Gene-environment interaction and medical sociology. In *Handbook of medical sociology* (pp. 419–434). Vanderbilt University Press.
- Williams, S. J. (2006, January). Medical sociology and the biological body: where are we now and where do we go from here? *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*, 10 (1), 5–30. doi: 10.1177/1363459306058984

Methodology in Sociogenomics

- Fadista, J., Manning, A. K., Florez, J. C., & Groop, L. (2016, January). The (in)famous GWAS p-value threshold revisited and updated for low-frequency variants. *European Journal of Human Genetics*, 24 (8), 1202–1205. doi: 10.1038/ejhg.2015.269
- Hayes, B. (2013). Overview of statistical methods for genome-wide association studies (GWAS). In *Methods in molecular biology* (pp. 149–169). Humana Press. doi: 10.1007/978-1-62703-447-0_6
- Mills, M. C., Barban, N., & Tropf, F. C. (2020a). An applied guide to creating and validating polygenic scores. In *An introduction to statistical genetic data analysis* (pp. 243–274). The MIT Press.
- Mills, M. C., Barban, N., & Tropf, F. C. (2020b). Applying genome-wide association results. In *An introduction to statistical genetic data analysis* (pp. 315–338). The MIT Press.
- Mills, M. C., Barban, N., & Tropf, F. C. (2020c). Gene-environment interplay. In *An introduction to statistical genetic data analysis* (pp. 129–150). The MIT Press.
- Mills, M. C., Barban, N., & Tropf, F. C. (2020d). Genome-wide association studies. In *An introduction to statistical genetic data analysis* (pp. 77–100). The MIT Press.

- Mills, M. C., Barban, N., & Tropf, F. C. (2020e). Introduction to polygenic scores and genetic architecture. In *An introduction to statistical genetic data analysis* (pp. 101–128). The MIT Press.
- Mills, M. C., Barban, N., & Tropf, F. C. (2020f). Polygenic scores and gene-environment interaction (gxe) applications. In *An introduction to statistical genetic data analysis* (pp. 277–314). The MIT Press.
- Nicholls, H. L., John, C. R., Watson, D. S., Munroe, P. B., Barnes, M. R., & Cabrera, C. P. (2020, April). Reaching the end-game for GWAS: Machine learning approaches for the prioritization of complex disease loci. *Frontiers in Genetics, 11* . doi: 10.3389/f-gene.2020.00350
- Schmitz, L., & Conley, D. (2015, October). Modeling gene-environment interactions with quasi-natural experiments. *Journal of Personality, 85* (1), 10–21. doi: 10.1111/jopy.12227
- Trejo, S., & Domingue, B. W. (2018, October). Genetic nature or genetic nurture? Introducing social genetic parameters to quantify bias in polygenic score analyses. *Biodemography and Social Biology, 64* (3-4), 187–215. doi: 10.1080/19485565.2019.1681257
- Boardman, J. D., Daw, J., & Freese, J. (2013, October). Defining the environment in gene–environment research: Lessons from social epidemiology. *American Journal of Public Health, 103* (S1), S64–S72. doi: 10.2105/ajph.2013.301355
- Domingue, B., Trejo, S., Armstrong-Carter, E., & Tucker-Drob, E. (2020). Interactions between polygenic scores and environments: Methodological and conceptual challenges. *Sociological Science, 7* , 365–386. doi: 10.15195/v7.a19
- DiPrete, T. A., Burik, C. A., & Koellinger, P. D. (2018). Genetic instrumental variable regression: Explaining socioeconomic and health outcomes in nonexperimental data. *Proceedings of the National Academy of Sciences, 115*(22). doi: 10.1073 /p-nas.1707388115
- von Hinke, S., Davey Smith, G., Lawlor, D. A., Propper, C., & Windmeijer, F. (2016). Genetic markers as instrumental variables. *Journal of Health Economics, 45*, 131–148. doi: 10.1016/j.jhealeco.2015.10.007
- Schifano, E. D., Li, L., Christiani, D. C., & Lin, X. (2013). Genome-wide association analysis for multiple continuous secondary phenotypes. *The American Journal of Human Genetics, 92*(5), 744–759. doi: 10.1016/j.ajhg.2013.04.004

- Polderman, T. J., Benyamin, B., de Leeuw, C. A., Sullivan, P. F., van Bochoven, A., Visscher, P. M., & Posthuma, D. (2015). Meta-analysis of the heritability of human traits based on fifty years of twin studies. *Nature Genetics*, *47*(7), 702–709. <https://doi.org/10.1038/ng.3285> (New entry)

Theoretical, ethical and foundational questions

- Harden, K. P., & Koellinger, P. D. (2020, May). Using genetics for social science. *Nature Human Behaviour*, *4* (6), 567–576. doi: 10.1038/s41562-020-0862-5
- Laland, K. N., Odling-Smee, J., & Myles, S. (2010, February). How culture shaped the human genome: bringing genetics and the human sciences together. *Nature Reviews Genetics*, *11* (2), 137–148. doi: 10.1038/nrg2734
- Mills, M. C., & Tropf, F. C. (2020, July). Sociology, genetics, and the coming of age of sociogenomics. *Annual Review of Sociology*, *46* (1), 553–581. doi: 10.1146/annurev-soc-121919-054756
- Schenker, V. J., & Petrill, S. A. (2017). Ethical implications of behavioral genetics on education. In *Genetics, ethics and education* (pp. 202–220). Cambridge University Press.
- Tanksley, P. T., Motz, R. T., Kail, R. M., Barnes, J. C., & Liu, H. (2019, June). The genome-wide study of human social behavior and its application in sociology. *Frontiers in Sociology*, *4*. doi: 10.3389/fsoc.2019.00053
- Tucker-Drob, E. M., & Harden, K. P. (2017). A behavioral genetic perspective on non-cognitive factors and academic achievement. In *Genetics, ethics and education* (pp. 134–158). Cambridge University Press.
- Sasaki, J. Y., & Kwon, H. (2019). *Gene-culture interactions*. Cambridge University Press. doi: 10.1017/9781108562140
- Liu, H., & Guo, G. (2016). Opportunities and challenges of big data for the Social Sciences: The case of genomic data. *Social Science Research*, *59*, 13–22. doi: 10.1016/j.ssresearch.2016.04.016
- Cawley, J., Han, E., & Norton, E. C. (2011). The validity of genes related to neurotransmitters as instrumental variables. *Health Economics*, *20*(8), 884–888. doi: org/10.1002/hec.1744