Genetic Etiologies of Comorbidity and Stability for Reading Difficulties and ADHD: A Replication Study.

Wadsworth SJ, DeFries JC, Willcutt EG, Pennington BF, Olson RK.


Abstract

Because of recent concerns about the replication of published results in the behavioral and biomedical sciences (Ioannidis, PLoS Medicine, Vol. 2, 2005, p. e124; Open Science Collaboration, Science, Vol. 349, 2015, p. 943; Pashler & Wagenmakers, Perspectives on Psychological Science, Vol. 7, 2012, pp. 528-530), we have conducted a replication of our recently published analyses of longitudinal reading performance and attention deficit-hyperactivity disorder data from twin pairs selected for reading difficulties (Wadsworth et al., Twin Research and Human Genetics, Vol. 18, 2015, pp. 755-761). Results obtained from univariate and bivariate (DeFries & Fulker, Behavior Genetics, Vol. 15, 1985, pp. 467-473; Acta Geneticae Medicae et Gemellologiae: Twin Research, Vol. 37, 1988, pp. 205-216) analyses of data from a subset of twin pairs tested in the International Longitudinal Twin Study of Early Reading Development at post-4th grade, and its continuation into high school at post-9th grade, were compared to those from our previous report. Similar measures of reading performance, the same measures of inattention and hyperactivity/impulsivity, and similar selection criteria were used in the two studies. In general, the patterns of results obtained from these two independent studies were highly similar. Thus, these results clearly illustrate the principle that findings from studies in quantitative behavioral genetics often replicate.