

Joel Talcott

Biography

Dr. Talcott is an experimental psychologist specialising in research on developmental disabilities such as developmental dyslexia. After receiving his PhD from the University of California, Santa Cruz in 1996, he worked in the University Laboratory of Physiology in Oxford for 6 years on investigations of the neurophysiological basis of motor and sensory deficits in dyslexia. He is currently a senior lecturer in Psychology at Aston University and also holds a part-time Professorship in Motor Control at Sør-Trøndelag University College. His current research takes a neurodevelopmental approach to disability, incorporating multi-methods approaches to their manifestations and causes.



Abstract

The diagnosis of developmental disability in children is becoming an increasingly common phenomenon that places a significant burden on resources in education and mental health world-wide. Many of the most common developmental disabilities, such as dyslexia, attention-deficit hyperactivity disorder (ADHD) and developmental coordination disorder (DCD) significantly overlap in their diagnostic features. For example, each of these disabilities have been associated with atypical profiles on particular sensorimotor skills such as in posture stability. In my laboratory we have investigated the sensitivity of such tests to identify particular disability phenotypes and their ability to discriminate between them. We have found that in samples of children diagnosed with developmentally impaired literacy skills (ie, dyslexia), measures of postural stability are generally strong predictors of group membership. However, these differences are more closely linked with the high co-morbidity between ADHD, dyslexia and DCD in the population, rather than any specific relationship with impaired reading, the core diagnostic feature of dyslexia.. Furthermore, the presence of postural stability deficits in this population is more strongly linked to measures of hyperactivity, than to attention. These results confirm that disability phenotypes are often complex and further motivate using increasing caution when attempting to tease apart the potential causal mechanisms. They also imply that some treatment regimes for developmental disabilities are targeting associated symptoms rather than potential causes of disability.