

Dr. Kevin McGrew Bioⁱ
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Dr. Kevin McGrew is the Director and owner of the Institute for Applied Psychometrics (IAP_{LLC}) and an Adjunct Research Professor at the Institute for Community Integration at the University of Minnesota. He received his BA in Psychology (1974) and MS in School Psychology (1975) from Moorhead State University, Moorhead, MN. He received his doctorate in Educational Psychology (Special Education, with emphasis on research methods and applied psychometrics) at the University of Minnesota in 1989.

McGrew has 12 years of experience as a practicing school psychologist in the states of Iowa and Minnesota (1975 to 1989). He subsequently was a Professor in Applied Psychology (teaching educational psychology courses) at St. Cloud State University, St. Cloud, MN (1990 to 2000). He served as the Research Director for the Woodcock-Muñoz Foundation (WMF) from 2005 to 2014. He also served as Associate Director for Measurement Learning Consultations (MLC) from 2008 to 2014.

McGrew recently served as an intelligence and individual differences theory and testing external consultant to two major international test development and research projects. He served in this capacity (2014-2017) to the Dharma Bermakna Foundation and Universitas Gadjah Mada (UGM) for the Indonesian AJT Cognitive Assessment Development Project. The CHC-theory based AJT intelligence test is the first ever individually administered intelligence test developed and normed in Indonesia. He also served as an external consultant to Ayrton Senna Institute (Instituto Ayrton Senna, Sao Paulo, Brazil; 2016-2017) for a large group assessment project—Twenty-first century cognitive SKILLS: Measures of reasoning, knowledge, and creativity in large-scale assessment systems. Since 2020 he has also served as an External Research Consultant to the Instituto Ayrton Senna-eduLab21 for a project focused on developing a model of motivated self-regulated learning in the context of ASI's SENNA social-emotional skills project (August 2020 to current). Since 2009 McGrew has served as a consultant, via declarations or expert witness testimony, to the courts regarding the measurement of intelligence and psychometric issues relevant to intellectual assessment in *Atkins* (*Atkins v Virginia*, 2001) death penalty cases (capital punishment cases involving individuals with intellectual disabilities).

McGrew has served as a measurement consultant to several psychological test publishers, including Riverside Publishing, the Psychology Corporation (now Pearson Assessments), and CTB/McGraw-Hill. He has also served as a measurement and research consultant or advisory board member for a number of national research studies and organizations including the U. S. Department of Education—Office of Special Education Programs (OSEP), National Center on Educational Outcomes (NCEO) for students with disabilities, Stanford Research Institute (SRI), American Institutes for Research (AIR), National Accessible Reading Assessment Project (NARAP), National Academy of Science (NAS), National Academy on Education (NAE), National Center on Student Progress Monitoring, national Special Education Elementary Longitudinal Study (SEELS), National Longitudinal Transition Study-2 (NLTS2), NCES Early Childhood Longitudinal Study (ECLS), and the American Association

for Intellectual and Developmental Disabilities (AAIDD) Death Penalty Task Force and Advisory Committee for the Intellectual Disability: Definition, Diagnosis, Classification, and Systems of Support, 12th Edition. He has also served as an external consultant to Interactive Metronome, a private neurotechnology company.

His research interests include: (a) theories and measurement of human intelligence, personal competence and adaptive behavior, (b) the application of psychological and educational measurement principles and techniques (applied psychometrics) to the development and interpretation of psychological and educational assessment instruments, (c) the Cattell-Horn-Carroll (CHC) Theory of Cognitive Abilities, (d) narrowing the theory-practice gap in educational and psychological assessment, (e) the influence of non-cognitive (conative; motivation and self-regulated learning) characteristics on learning and human performance, (f) psychological assessment practices in the identification and classification of individuals with intellectual and learning disabilities and other exceptionalities, and (g) the application of emerging neurotechnologies to learning and cognitive performance.

The practical application of psychometric methods to educational and psychological problems, together with a strong interest in knowledge dissemination and the education of both psychologists and non-psychologists regarding psychological measurement, is an interest of McGrew. He has authored or coauthored over 90 professional journal articles and book chapters, four professional books on intelligence test interpretation, seven norm-referenced intelligence, achievement, or special purpose psychological test batteries, and over 40 technical (grant) and special publications and reports. He is a frequently requested speaker and has conducted numerous state, national and international presentations, or workshops. In addition, McGrew has served on the editorial board or as an ad hoc reviewer of manuscripts for journals in psychology and developmental disabilities, including *Intelligence*, *Journal of Psychoeducational Assessment*, *Psychology in the Schools*, *School Psychology Review*, *School Psychology Quarterly*, *Baltic Journal of Psychology*, *Learning and Individual Differences*, and the *American Journal on Intellectual and Development Disabilities*.

McGrew has extensive experience in the development and psychometric analysis of nationally standardized norm referenced psychological and educational assessment instruments. He was the primary measurement consultant (and first author of the technical manual) for the *Woodcock-Johnson Psychoeducational Battery* (WJ-R, 1991) and served in the same capacity as coauthor of the *Woodcock-McGrew-Werder Mini-Battery of Achievement* (MBA, 1993), *Sharpe-McNear-McGrew Braille Assessment Inventory* (BAI, 1996), *Woodcock-Johnson Battery—III* (WJ III, 2001), *Woodcock-Johnson Diagnostic Supplement* (WJ III DS, 2003), *Batería III Woodcock-Muñoz* (BAT III, 2005), *Woodcock-Johnson III Normative Update* (WJ III NU, 2007), *Woodcock-Johnson III—Australian Adaptation* (2008), and the *Woodcock-Johnson IV* (WJ IV, 2014). He was the psychometric and statistical consultant for the development of the *Children’s Psychological Processes Scale*. He directed, analyzed, and reported reliability and validity statistics for all the above listed batteries as per the AERA/APA/NCME Joint Standards for Educational and Psychological Testing).

For the past decade McGrew’s research, scholarship and consultation work has focused primarily in the following areas.

- CHC intelligence theory and measurement. He continues to be active in CHC intelligence theory and measurement research. He, together with Dr. Joel Schneider, have become the unofficial “gatekeepers” of the Cattell-Horn-Carroll (CHC) theory of intelligence (Schneider & McGrew, 2018; Schneider & McGrew, 2019). He has also completed research regarding the relations between CHC abilities and school achievement (Cormier et al., 2016; Cormier et al., 2017; Nilekesia et al., 2016).
- Linguistic and cultural demands on intelligence tests. Together with Drs’ Damien Cormier and Okan Bulut he has investigated the relations between cultural and linguistic demands and intelligence test scores (Cormier et al., 2011; Cormier et al., 2014; Cormier et al., 2022).
- The Cognitive-Affective-Motivation Model of Learning (CAMML). Based on research and writing he initiated during his role as a PI with the U of Minnesota National Central on Educational Outcomes

(NCEO; circa 2002-2010), he has developed the *Model of Achievement Competence Motivation* (MACM) and the *Cognitive-Affective-Motivation Model of Learning* (CAMML; McGrew, 2022). These models build on the shoulders of many giants in psychology, particularly Dr. Richard Snow's notion of cognitive-conative aptitude trait complexes.

- The intellectual prong for diagnosing intellectual disabilities. McGrew has provided both informal pro bono and formal consultation (i.e., formal written declarations and or in-court expert witness testimony) to psychologists, lawyers, the courts, and professional organizations (AAIDD, APA) regarding intelligence testing and applied psychometric issues related to the first prong of a possible intellectual disability (ID) diagnosis, particularly in the context of high-stakes ID *Atkins* death penalty cases. To date these informal and formal activities have involved approximately 50 *Atkins* ID death penalty cases. These activities also resulted in separate chapters on intellectual functioning (McGrew, 2015a) and the Flynn effect (aka., norm obsolescence; McGrew, 2015b) in the AAIDD publication *The Death penalty and intellectual disability* (Polloway, 2015) as well as a chapter regarding theories and measurement of intelligence in the *American Psychological Association handbook of intellectual and developmental disabilities* (Floyd et al., 2021). He provided input to AAIDD as a member of the AAIDD Advisory Committee for Intellectual Disability: Definition, Diagnosis, Classification, and Systems of Support, 12th Edition (AAIDD, 2021). Post AAIDD manual publication, McGrew (2021) published a critique of the intellectual prong of the AAIDD ID manual. He also advised the American Psychological Association on the preparation of an *Amici Curiae* (with other mental health organizations) for the 2014 *Atkins*-related precedent setting US SCOTUS *Hall v Florida* decision. He, together with Dr. Tom Oakland, organized and wrote an *Amici* brief (“Concerned Experts in Intellectual Disability”) in support of A. A. Ortiz’s 2015 US SCOTUS *Atkins* petition.
- The WJ V revision. Since the publication of the WJ IV in 2014, McGrew has been working on new ideas, models, innovations, and data analytic methods for the future WJ V, including a digital adaptation.
- Psychometric network analysis. McGrew most recent interest and activities focus on the application of newer structural dimensionality analysis methods (i.e., psychometric network analysis; PNA) to intelligence test data, with the overriding goal to better understand the causal mechanisms and emerging contemporary theoretical models of intelligence (e.g., Process Overlap Theory; Dynamic Mutualism; Wired intelligence) and to harness the benefit of PNA methods (compared to factor analysis methods) for identifying potential central targets for cognitive interventions. An additional goal of this work is to improve intelligence test structural research by reducing the frequent conflation of theoretical *g* and psychometric or statistical *g*, a critical problem contributing to the “theory crises in psychology” (Borsboom, 2022; Fried, 2020) and a frequent problem plaguing much of school psychology’s IQ test factor analysis research (McGrew et al., 2022; in preparation).

ⁱ All reference citations in this bio, as well as copies of many of the cited publications, can found in Dr. McGrew’s CV available at his web portal—www.themindhub.com)