The Solomon Effect in Learning Disabilities Diagnosis: Can We Learn from History?

Stefan C. Dombrowski  
*Rider University*

Randy W. Kamphaus, Melissa Barry, Amber Brueggeman, Sarah Cavanagh, Katie Devine, Linda Hekimoglu, and Sarah Vess  
*University of Georgia*

The Individuals with Disabilities Act (Individuals with Disabilities Education Improvement Act; IDEIA, 2004) has been reauthorized, and new parameters for defining learning disabilities (LD) have been established that provide more flexibility for corresponding state and local regulations. The field now has a unique opportunity to shape the practice of LD diagnosis and should consider important conceptual, theoretical, empirical, economic, legal, and practical issues related to LD diagnosis. This article highlights five key recommendations for the diagnostic definition of learning disabilities: (1) the definition needs to be unambiguous; (2) it must be universally accepted across professions, researchers, and governmental entities; (3) it must incorporate clearly defined subtypes of learning disabilities; (4) it must be empirically supported; and (5) it must point to valid, reliable, and cost-effective procedures for the identification of children with and without learning disabilities. Consideration of these points may help the field to avoid repeating past mistakes and returning to the folly of poor LD diagnostic practice.

The Individuals with Disabilities Education Act (Individuals with Disabilities Education Improvement Act; IDEIA, 2004) has been reauthorized, and revised parameters concerning learning disabilities (LD) diagnosis have been established. One of the more dramatic, yet defensible, changes to IDEIA legislation was to eliminate reliance on the Intelligence (IQ)–Achievement discrepancy model as the basis for LD diagnostic decisionmaking. LD diagnosis may now be predicated upon a comprehensive evaluation in which "a variety of assessment tools and

Address correspondence to Stefan C. Dombrowski, Rider University, 2083 Lawrenceville Road, Lawrenceville, NJ 08648; E-mail: sdombrowski@rider.edu.
strategies" are used "to gather relevant functional, developmental, and academic information" [Section 614 (b)(6); IDEIA, 2004]. The federal IDEIA language also includes reference to the use of response to scientific, research-based instruction: "In determining whether a child has a specific learning disability, a local education agency may use a process that determines if the child responds to scientific, research-based intervention . . . " [Section 614 (b)(6); IDEIA, 2004]. Using the federal regulations as a backdrop, various state departments of education and legislative bodies will be faced with the task of reformulating their particular LD diagnostic regulations. In turn, this will shape the LD classification approach that will ultimately be adopted by states and school districts for years to come.

The federal regulations are fairly open-ended, allowing state legislatures flexibility in establishing corresponding LD diagnostic parameters. The field, therefore, has a critical opportunity to pause and reflect upon the accumulated research and practical realities related to LD diagnosis so as to avoid repeating past mistakes. Stanovich (1986) used a biblical reference (i.e., the "Matthew Effect") to make the case against the use of IQ tests and therefore the IQ-Achievement discrepancy model for reading disability diagnostic decisionmaking. Following this metaphorical precedent, and in light of the newly revised IDEIA LD diagnostic language, it seems appropriate to allude to what we shall call the "Solomon Effect."

The Solomon Effect refers to a pithy maxim from the Old Testament chapter of Proverbs attributed to King Solomon. The Solomon Effect encourages us to learn from history so that we avoid repeating it. In a poignant, and perhaps crude, metaphor, Proverbs 26:11 cautions us to be circumspect about revisiting a past practice that has been documented as ineffective: "Just as a dog returns to its vomit, so does the fool return to

1. The Matthew Effect is a biblical reference to the notion of the rich getting richer and the poor getting poorer. Stanovich (1986) explained this metaphor in the context of good and poor readers. He explained that students who are strong readers will expand their fund of general information, increase their vocabularies, and improve their verbal comprehension. In turn, this will lead to increased IQ test scores. Stanovich described the opposite effect in children who struggle with reading. Over time, poor reading skills will result in depressed IQ test scores, resulting in the reduced likelihood that the child will experience a discrepancy and therefore an LD classification.

2. The Solomon Effect is to be distinguished from Solomon's Choice. Solomon's Choice is a literary allusion that refers to the way in which King Solomon arrived at a decision regarding whether a child belonged to one of two women. When both women approached him claiming to be the child's mother, King Solomon could not distinguish who indeed was the biological mother. Thus, he declared that he would just cut the child in half. When one of the women viscerally protested and stated that the other woman could have the child, Solomon discerned that the child belonged to the woman in whom strong emotions were evoked and who agreed to spare the life of the child by allowing it to go with the other woman.
his folly.” Let us not return to the folly of poor LD diagnostic practice. Instead, let us learn from history to ensure that the definitional, practical, taxonomic, and measurement problems of the past are not repeated.

These aspects of learning disability diagnosis must be faced squarely to develop diagnostic approaches that are universally acceptable (Shepard, 1989). Within this article, we present an overview of some of the myriad issues confronting the field. In particular, we recommend that the field attend to five key issues when establishing a diagnostic definition of learning disabilities: (1) The definition needs to be unambiguous; (2) it must be universally accepted across professions, researchers, and governmental entities; (3) it must incorporate clearly defined subtypes of learning disabilities; (4) it must be empirically supported; and (5) it must point to valid, reliable, and cost-effective procedures for the identification of children with and without learning disabilities. The field must attend to these issues to avoid the hasty adoption of an LD diagnostic approach that may be en vogue today, but deemed ineffective tomorrow following subsequent research.

THE DEMISE OF THE DISCREPANCY: A HISTORICAL PERSPECTIVE

Throughout the past century, researchers have investigated children’s difficulty with learning to read and write, despite no discernable sign of cognitive or sensory disability (Hinshelwood, 1917; Orton, 1925). Today, these children would likely be diagnosed with LD. The early labels ascribed to these children were medically oriented (e.g., brain injured, perceptually impaired, dyslexic, and neurologically impaired) and consistent with the clinical venues in which they were being served. As educational settings became increasingly responsible for children with learning difficulties, Samuel Kirk, a professor of special education, introduced the term “learning disabilities” in an effort to move the field away from a medically oriented conceptualization:

A learning disability refers to a retardation, disorder, or delayed development in one or more of the processes of speech, language, reading, writing, arithmetic, or other school subjects resulting from a psychological handicap caused by a possible cerebral dysfunction and/or emotional or behavioral disturbances. It is not the result of mental retardation, sensory deprivation, or cultural and instructional factors (Kirk, 1962, p. 263).

Kirk’s definition had a significant influence on subsequent generations of LD definitions, including two that are widely used today to diagnose

Kirk’s initial definition was still medically oriented. Thus, to move away from a medically oriented LD definition that was less educationally relevant, the field adopted the discrepancy model as a primary defining characteristic. Barbara Bateman (1965), one of Kirk’s students, was the first to provide an LD definition that contained reference to a discrepancy between ability and achievement. This definition was thought to have greater educational relevance since it was less neurologically based and more parsimonious. Rutter and Yule (1975) and Yule (1973) wrote the first articles that provided an empirical basis for the IQ–achievement discrepancy, and their research influenced the field’s conceptualization of LD. However, numerous studies have challenged Rutter and Yule’s conclusion that an IQ–achievement discrepancy model can be validly used for LD diagnosis (Aaron, 1997; van der Wissel & Zegers, 1985).

Although the discrepancy model was adopted in order to resolve problems with LD diagnosis, the effect was to exchange one definitional problem for another (Aaron, 1997; Dombrowski, Kamphaus, & Reynolds, 2004; Lyon, 1996; Siegel, 1999). The discrepancy model has made the LD definition just as educationally problematic as prior medically oriented definitions. After more than four decades of use and accumulated research evidence against the use of the discrepancy model, the field is poised to discard it for purposes of LD diagnosis, but the LD field still needs to resolve how it will define and diagnose LD.

**THE “DEFINING PROBLEM”**

Although there have been great gains in research and service for children with learning disabilities, there are many unresolved issues in definition, assessment, diagnosis, and treatment. In order to solve some of these issues, it will be imperative to achieve consensus in the field regarding an operational definition of an LD. The convening of expert panels, such as the ten-organization LD Roundtable (U.S. Office of Special Education, NJCLD, 2002), has made some progress in this regard but questions remain to be investigated. Another approach to reaching consensus is to examine the empirical research on types or subtypes of LD as
a guide to defining the core features of the disorder and its various clinical presentations.

For example, subtyping research of the last several decades suggests that there are not seven distinct types of LD as defined in the 1977 regulations (i.e., oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematics calculation, and mathematics reasoning) (Kamphaus, 2001; Lyon, Fletcher, & Barnes, 2003). Instead, Lyon et al. (2003) identified four broad subgroups of LDs: reading disorders, mathematics disorders, reading–mathematics disorder, and disorders of written expression. Reading disorders were further subcategorized into disorders of word recognition, comprehension, and fluency subtypes.

Alternatively, Siegel (1999) proposed two subtypes of LD by concluding:

Over the past 30 years, it has become clear that there are two major clusters of learning difficulties. The most commonly known is reading disability, sometimes called dyslexia. There is no difference in meaning between the terms dyslexia and reading disability. An equally prevalent but less commonly known disability is arithmetic (mathematics) disability, sometimes called nonverbal learning disability, developmental output failure, writing–arithmetic disability, or visual–spatial disability. Although there are some similarities between the two major clusters, they are dissimilar enough to be considered distinct entities. Some individuals have difficulties only with writing and/or spelling. As these written language problems usually occur in the context of problems with reading and/or arithmetic and mathematics problems, the existence of a separate written language disability has not been clearly established nor is there a clear definition of it, especially in the adult population. (p. 306).

Overall, recent subtyping research is most consistent with the DSM tripartite definition of reading, mathematics, and writing disabilities, suggesting that parsimony should be favored in the diagnostic process by focusing more on the assessment of this smaller number of broad academic areas.

The subtyping research is valuable for addressing at least one crucial part of the LD definitional challenge, the core “symptoms” or “constructs” constituting the disorder. Other issues remain including the level of impairment necessary to be considered LD, the chronicity of problems, and the various “rule outs” (e.g., lack of adequate instruction). Science has shown potential for clarifying some aspects of the defi-
nition of LD and more science should be supported and funded to flesh out the remaining components of the definition.

**IMPORTANCE OF CLASSIFICATION: WHY PERSEVERE?**

Continuous controversy regarding the definition and diagnosis of learning problems has led individuals and organizations to argue for a new classification approach that alleviates ambiguity among different professions, creates more valid procedures for diagnosis, and facilitates accurate research (Adelman & Taylor, 1986; Dombrowski et al., 2004). Therefore, it is imperative that the field understand the inherent purpose of classification.

Classification is a fundamental, innate process in all scientific fields because it guides our search for information or truth (Wiggins & Schwartz, 1994). Methods of classification create a common nomenclature that enhances communication and leads to better understanding of scientific phenomena (Blashfield & Draguns, 1976). Systems of classification structure the phenomena in a given field, yet are subject to change over time with scientific advancement (Keogh, 1983). Professional disciplines that have service responsibilities, such as school psychology and special education, may emphasize the importance of classification for service delivery, but overlook other important theoretical and empirical considerations (Adelman, 1992; Keogh, 1983). This potential oversight is problematic because the development of scientific theories would be difficult without a classification system that provides the language to describe phenomena in a given field.

The nomenclature undergirding the classification of LD should ideally be shared among psychologists, psychiatrists, teachers, administrators, researchers, and any other professionals who work with LD populations. Problems arise because no singular definition of LD satisfies the requirements of these diverse disciplines (Adelman & Taylor, 1986). Consequently, researchers from different backgrounds apply classification models that they have learned from their respective fields (Blashfield, 1993; Tucker, Stevens, & Ysseldyke, 1983). For instance, some professionals think that the LD definition should be tied to biological causes, such as neurological dysfunction, while others think that the definition should remain broad so that children with learning disabilities that are not as well understood still have their educational needs met (Adelman & Taylor, 1986). Ultimately, accurate classification of the construct is necessary to move the LD field forward (Stanovich, 2005). As Shepard stated in her classic 1989 work, “In a research context, a conscientious effort to make a valid categorization is essential, if knowledge is to be advanced” (p. 547).
The mental retardation (MR) field suffered the same problem about 150 years ago when the disorder was not adequately differentiated from individuals with psychotic disorders who were thought to be possessed by demons. The treatment of choice was to imprison and essentially abuse the individual with torture-like "treatments" in order to exorcise the demons (Kamphaus, 2001). It was in this context that the French physicians Itard and Seguin worked to develop a definition of MR and measurement tools, the forerunners of modern intelligence tests, to demonstrate that MR was a separate condition warranting more humane and "educational" treatments. In the case of MR, progress in definition and measurement was crucial for moving the field forward, much in the same way that improved diagnostic standards for attention-deficit/hyperactivity disorder moved forward the research and treatment of that disorder in the last two decades.

The LD field has stood at this crossroads for some time now (Stanovich, 2005) and has not moved forward with new ways of classifying the disorder. As has been the case with other disorders of childhood, a classification breakthrough portends much faster scientific progress toward the goals of better prevention and intervention for children with LD. Classification is a central, not peripheral, issue. Any new approach to LD classification must be evaluated within the context of the extant LD diagnostic literature base to avoid being construed as pseudoscientific (Stanovich, 2005).

**PREVALENCE AND ECONOMIC ISSUES**

Recent estimates are that 2.9 million students receive services for a specific LD in the U.S., which accounts for approximately 6.0% of total public school enrollment (National Center for Education Statistics, Statistics of Public Elementary and Secondary School Systems, 2003; U.S. Department of Education, Office of Special Education and Rehabilitative Services, 2003). Between 1991–1992 and 2001–2002, there has been a 28.5% increase in the number of children being served through the Individuals with Disabilities Education Act (IDEA) for specific learning disabilities, and these children account for 50% of all children being served in special education (U.S. Department of Education, Office of Special Education and Rehabilitative Services, 2003). However, the number of students served varies greatly by state and ethnicity. Some ethnicities, including American Indian/Alaska Native and Hispanic students, are overrepresented (U.S. Department of Education, Office of Special Education Programs, Data Analysis Systems, 2002).

The prevalence of LD also varies by country. A multinational study involving data from 21 countries revealed wide discrepancies in the prev-
alcence of LD (Organisation for Economic Co-operation and Development, 2004). This study found that Finland (9.56%) had the highest percentage of children identified as having LD relative to all other countries, including the U.S. (7.01%). Conversely, Luxembourg (0.53%) had the lowest percentage. In this study, significant effort was undertaken to increase cross-national agreement on the definitions of learning disability categories; however, individual countries had varied definitions, which hampered cross-national comparisons. Regardless of national LD prevalence rate, there has been a consistent increase in the identification of LD (Lyon, 1996; Terman, Larner, Stevenson, & Behrman, 1996). This increase has also occurred at the local, state, and national level within the U.S. (Lyon, 1996).

There are numerous proposed explanations for the increasing prevalence of LD diagnosis. These include financial incentives to increase diagnosis to qualify further for funding, social and political pressures to apply the less stigmatizing diagnosis of LD to children who may evidence mental retardation, increasing numbers of specialists who diagnose and treat children with LD, and inadequate preparation of teachers to effectively handle individual differences in learning abilities within the general education classroom (Lyon, 1996; Hocutt, 1996). Additional explanations include more accurate epidemiological research; increased recognition of LD in girls; increased societal awareness of the characteristics of LD; and increased understanding of the potential negative consequences that mild difficulties can have on future learning (Lyon, 1996).

The attempt to determine the true prevalence of LD is hindered by additional problems. A major point of contention has been the lack of a unified, operational definition of LD that has led to misinterpretation and misidentification of LD in the U.S. (Dombrowski et al., 2004). Ostensibly a national diagnostic algorithm, the LD discrepancy model has been inconsistently applied and is often ineffective (Aaron, 1997; Dombrowski et al., 2004; Shepard, 1983; Overton, Fielding, & Simonsson, 2004). For example, Bocian, Beebe, McMillan, and Gresham (1999) found that only 39% of students deemed eligible actually met criteria for a significant discrepancy between intelligence and achievement, and the decisions for eligibility were inconsistent. Instead, the eligibility decisions were based on observations and children’s educational need for assistance. The over-identification of children of specific ethnic groups, such as Hispanic children, is another area of concern. Clinicians often ignore the exclusionary clause in the definition of LD, which prohibits categorizing a student as LD if the apparent difficulties are due to cultural or economic disadvantage (Fletcher & Navarrete, 2003). In fact, one survey of professionals revealed that fewer than 50% of school psychologists reg-
ularly considered the exclusionary clause in their diagnosis, and 37% indicated that they usually ignored or tried to get around the clause (Harris, Gray, Davis, Zaremba, & Argulewicz, 1997). Finally, greater availability and specificity of services for children with disabilities is associated with lower prevalence and more specific diagnosis of LD, suggesting that misdiagnosis may serve the purpose of providing some kind of service to children in need (Shepard, 1983). These inconsistent and idiosyncratic approaches to diagnosis, along with the varying definitions of LD, impede the field’s ability to determine true LD prevalence rates.

The true prevalence of learning disabilities has significant implications not only for the validity of the diagnosis of LD, but also for the ability to serve children with educational needs. Special education is costly. Expenditures for students with specific learning disabilities amounted to $10,558 per pupil in 1999–2000, which was 1.6 times the expenditure for a regular education student (Chambers, Shkolnik, & Perez, 2003). Currently, special education is funded through federal, state, and local governments, with the bulk of responsibility falling on state, and to a lesser degree, local authorities (Parrish & Chambers, 1996; Terman et al., 1996). This funding paradigm is problematic. While the diagnosis of special education disabilities is permitted by federal law to be uncapped, the federal cost to underwrite services for children with disabilities is capped. Consequently, local school districts bear the burden of a significant percentage of the cost of special education. Therefore, the present way in which special education is financed places an undue burden on local school systems.

Furthermore, the cost of assessment to establish student eligibility for special education raises concerns. The cost of assessment, estimated at $800 to $8,000 per child (U.S. Department of Education, President’s Commission on Excellence in Special Education, 2005), consumes a large percentage of the funding for special education. Because it is often unrelated to treatment, further testing is still required for intervention planning (Fletcher & Navarrete, 2003; Lyon, 1996; Reschly, 1996). If assessment practices were more efficient, a greater percentage of the funding could be used for interventions. The over-referral for special education assessment poses additional cost burdens (Reschly, 1996). If a more efficient special education assessment process were established, using an appropriate pre-referral process, then fewer students would ultimately be referred for assessment.

Therefore, the heightened demand for LD services and high cost of those services raise questions regarding diagnosis, the process of determining eligibility, and the effectiveness of treatments. Most students who are determined to be eligible will continue to receive services until
they exit school, such that costs will continue to rise if more students are admitted into than exited from LD services (Terman et al., 1996).

**AN OVERLOOKED LEGAL CONSIDERATION**

It is important to consider the legal implications of any diagnostic approach for LD. In addition to the IDEIA, the Americans with Disabilities Act (ADA; United States Department of Justice, 1996) has the capacity to shape LD diagnosis. Some of its fundamental tenets must be considered. The ADA has already begun to exert its influence on the field of learning disabilities at the collegiate level, and its language is broad enough also to apply to children enrolled in primary and secondary public schools (Siegel, 1999). The ADA applies to anyone, either documented or regarded as, having a physical or mental impairment that substantially limits one or more major life activities. Based on this definition, it can be argued that the ADA provides protection for those diagnosed with LD.

Increasingly, both public and private institutions providing instruction or examination services are being held accountable for any perceived discrimination toward individuals with a documented LD. ADA cases such as *Guckenberger v. Boston University* demonstrate that the legal confusion surrounding learning disabilities must be a concern when establishing new diagnostic criteria (Siegel, 1999; Wolinsky & Whelan, 1999). In the Guckenberger case, the plaintiffs, Guckenberger et al., and the defendant, Boston University, disagreed about who can be appropriately diagnosed with an LD (Siegel, 1999). This case highlighted the existence of ambiguous LD diagnostic guidelines and provided for the possibility that the judicial system, through the lens of ADA, will determine the diagnostic standard at the collegiate level. As a consequence, this opens the possibility that the rule of ADA law could extend to primary and secondary public school settings and affect diagnostic practice if a poorly defined LD diagnostic definition persists.

The ADA, like the IDEIA, offers a number of protections. First, it prevents discrimination against a person with a disability who wishes to participate in a service, program, or activity. The ADA also requires the provision of programs and services in an integrated setting, unless separate or different measures are necessary to ensure equal opportunity. Third, the ADA eliminates unnecessary eligibility standards or rules that deny individuals with disabilities an equal opportunity to enjoy their services, programs, or activities unless these standards are clearly necessary. Finally, the ADA requires reasonable modifications in policies, practices, and procedures that deny equal access to individuals with disabilities, unless a fundamental alteration in the program would result. The “reasonable modifications” include the controversial accom-
modations that receive much attention in the LD literature, such as access to textbooks on tape, extended time for exams, help of a notetaker, and oral examinations.

It is necessary to clearly define LD so that the field rather than the courts will determine how the construct should be defined and diagnosed. Further, a clear definition will serve to curb costly future litigation expenses that arise when a definition and diagnostic standard is unclear and open to interpretation from multiple perspectives.

**PSYCHOLOGICAL MISMEASUREMENT AND ETHICAL STANDARDS**

Measurement and ethical standards must be considered prior to adopting a new LD diagnostic model. An important responsibility of a practitioner is to determine the validity and reliability of any assessment method based on the Standards for Educational and Psychological Testing (1999) developed jointly by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME) (AERA, APA, & NCME, 1999). Certain standards pertain specifically to learning disabilities and responsible test use. For example, Standards 4.19 and 4.20 recommend caution when interpretation involves using one or more cut scores and requires that empirical evidence of the cut score’s validity be provided. Standard 13.7 recommends that multiple sources of information be considered when making a placement decision that will have a major impact on the student.

Responsible test use, however, is more sophisticated than implied by the self-evident position of the aforementioned standards. Samuel Messick (1989), whose ideas have subsequently been incorporated into the present standards, argued that test use and interpretation should rely not only on its evidential basis and construct validity, but also must include a focus on its consequential basis. For instance, what are the social consequences of test use and are they detrimental to a particular group? Has the examiner adequately separated value judgments from empirical evidence when making the diagnosis of LD? In fact, the most recent test standards have adopted the concept of consequential validity with advice to investigate the source of any such unintended consequences (AERA et al., 1999). This is very important when the consequence of such a decision may be to deny a child of obviously needed services while another “less needy” child may receive those services.

Research on LD has shown that many diagnoses of the disorder do not meet current accepted standards for the diagnosis (Shepard, Smith, & Vojir, 1983) thus making it quite possible for services to be allocated in-
accurately, an obviously problematic “consequence” of the LD diagnostic process. For example, the classic large-scale study by Shepard et al. (1983), found that many children classified as LD using the Colorado special education dataset did not meet any acceptable definition of LD, discrepancy model, or otherwise. Of greater concern was the finding that obvious rule outs such as hearing impairment were also not attended to in the classification process. Of interest to psychologists was the finding that most school district personnel opted to use tests of lesser reliability and validity when given the option. Clearly, clinicians and researchers must take into account the consequential validity of the outcomes when establishing a new diagnostic methodology.

CONCLUSION

Prior to adopting an LD diagnostic model, the issues discussed in this article should be considered in order to ensure greater longevity for any new diagnostic method. Moreover, the LD diagnostic approach that is ultimately adopted should be revisited every 7 to 10 years. LD diagnosis represents greater than 50% of all special education diagnoses (U.S. Department of Education, Office of Educational Research and Assessment, 1996), so the establishment of an appropriate, uniform, and objectively defined diagnostic algorithm is critically important. Without an objectively defined LD diagnostic algorithm, LD diagnosis may continue to be idiosyncratic and haphazard. As a result, school districts may face potential increases in due process hearings and litigation. Of greater importance, leaving the approach to LD diagnosis open-ended (as is presently codified in IDEIA, 2004) might have grave consequences for children. School districts and various state departments of education are strongly encouraged to consider the following five points when establishing a diagnostic definition of learning disabilities: (1) the definition needs to be unambiguous; (2) it must be universally accepted across professions, researchers, and governmental entities; (3) it must incorporate clearly defined subtypes of learning disabilities; (4) it must be empirically supported; and (5) it must point to valid, reliable, and cost-effective procedures for the identification of children with and without learning disabilities. While more research is always desirable, there is ample evidence of numerous missteps and blind alleys taken by the LD field in the past, and there is no need to revisit them a la the “Solomon Effect” as we move forward.
References


Action Editor:

Stefan C. Dombrowski, Ph.D., is an Associate Professor and coordinator of the School Psychology program at Rider University in Lawrenceville, NJ. His research interests focus on the impact of perinatal factors on later educational and behavioral outcomes. He also conducts research on assessment-related issues as they relate to the developmental well-being of children. Dr. Dombrowski lives in Cherry Hill, NJ with his wife and son.

Randy W. Kamphaus, Ph.D., is a Distinguished Research Professor and Head of the Department of Educational Psychology and Instructional Technology at the University of Georgia. A focus on issues related to clinical assessment has led Dr. Kamphaus to pursue research in classification methods, differential diagnosis, test development and learning disability assessment. He has served as a principal investigator on federally funded research projects dealing with early intervention and prevention of behavior problems, classification methods, and aggression reduction. He is a Fellow of the APA and Past-President of the Division of School Psychology for APA. Dr. Kamphaus has authored or co-authored 12 books, 4 psychological tests, and more than 70 scientific
journal articles and chapters. The Ph.D. School Psychology Program at the University of Georgia is accredited by the APA.

Melissa Barry, Amber Brueggeman, Sarah Cavanagh, Linda Hekimoglu, and Sarah Vess are pursuing their Ph.D. in school psychology at the University of Georgia. Katie Devine is pursuing her Ph.D. in clinical psychology at the University of Georgia. The Ph.D. School Psychology Program at the University of Georgia is accredited by the APA.