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FEATURE ARTICLE

Thoughts about intelligence and its measurement

Information about intelligence constructs from test scores are only as sound as the measurement instruments from which they are obtained.

By [Matthew R. Reynolds](#)

Working in the schools as a school psychologist, it was impossible to ignore the fact that some students learned with ease while others learned with difficulty. The variation in learning within a school and within a classroom was striking. Even more striking was the variation in learning within families, notably among siblings. Children raised in the same home (sometimes with different biological parents), living in the same neighborhood, going to the same schools, having had the same teachers, also learned differently and at different rates. Variation within schools, classrooms, and families seemed noticeably larger than variation between schools, classrooms, and families. I use these greatly simplified observations to make the point that it was when I worked in the schools as a school psychologist that I truly realized the incredible importance of psychological individual difference variables. Not trusting or understanding my own observations, I became interested in studying one of these important individual difference variables: intelligence. In this brief article I offer a few thoughts about intelligence and its measurement, along with three observations from my own research.

Every so often you hear a proclamation from a study or a researcher about the downfall of intelligence — as either a construct or of its measurement — in favor of the new flavor of the week. It makes for exciting news. But it is difficult to think of a psychological construct that has more explanatory power in free society than intelligence. Intelligence is not going away. It is being studied at a more furious pace than ever and studied in every scientific discipline that investigates things that breathe. Similarly, it is difficult to think of a psychological or educational measurement tool that has a more critical role in modern society. Thousands of intelligence tests are administered each day to individuals across the lifespan. Scores from those tests, for example, inform decisions about clinical diagnoses, employment, entitlements to special programs, and even life and death (i.e., death penalty cases). They also inform critical research, for example, about the effects of disease processes and treatments on cognitive functioning.

Because intelligence is a latent construct, it can only be measured indirectly via scores from intelligence tests. Thus, information about intelligence constructs gleaned from test scores are only as sound as the measurement instruments from which they are obtained. Much of my research has been about trying to understand the constructs measured by intelligence tests. Here are three important things I think that I have learned and would like to learn more about.

Different intelligence tests measure the same constructs. The development of a classification system, namely Cattell-Horn-Carroll theory (CHC theory), that describes human intelligence as a higher-order system with a general factor of intelligence (i.e., *g*

factor), a number of broad cognitive abilities — e.g., Fluid Reasoning, Comprehension-Knowledge, Visual-Processing — and numerous narrow abilities has resulted in vast improvements in intelligence measurement and research. Use of CHC theory, for example, has led to the finding that different intelligence tests, for the most part, measure many of the same constructs. So even if the specific content of subtests administered on intelligence tests differs greatly, the subtests can be predicted to be associated with a similar construct as long as they contain certain properties (e.g., manipulation of visual stimuli to solve a problem). CHC theory needs to be constantly scrutinized and improved upon, but I think it might be one of the monumental achievements in psychology.

Fluid reasoning and the g factor are the same. Jan-Eric Gustafsson has been mostly responsible for demonstrating that a factor derived from a few tests of novel reasoning (i.e., a fluid reasoning factor) correlates either almost perfectly or perfectly with a factor derived from a large number of heterogeneous sample of tests (i.e., *g* factor). This near perfect or perfect correlation between fluid reasoning and the *g* factor has been something that I have consistently observed in my research. I think this finding is one of the most important in intelligence research because it raises several important questions: Are the two constructs identical? If they cannot be distinguished statistically, which one is redundant? If *g* measurement is the purpose of an assessment, then should *g* measurement with IQs from traditional intelligence tests be abandoned in favor of *g* measurement with fluid reasoning measures? After all, aggregating scores from a few different fluid reasoning tests results in an index that is much easier to define and describe than aggregating scores from a number of heterogeneous tests that results in an overall IQ. (Anyone who has tried to describe what an IQ is based on an aggregation of a hodgepodge of numerous scores across different types of tests should sympathize.) These questions are a few of many. I do not have the answers to them, but for the sake of construct validity, this important finding of the statistical equivalence of a fluid reasoning factor and a *g* factor needs more attention.

Does intelligence become more differentiated as IQs increase? Spearman noticed that correlations among test scores were relatively stronger for students who were on the low end of the general ability distribution. The finding was essentially ignored until Doug Detterman and Mark Daniel found similar results in a 1989 study. I have tried to take a model-based approach to understanding this observation by investigating whether the stronger correlations at the lower ability levels are due to the *g* factor or more specific factors. My research findings suggest that they are due to the *g* factor, thus intelligence is more differentiated at higher general ability levels.

What is interesting about these findings is that they seem to mimic the real world. Take for instance characteristics of students on a college campus where students are essentially selected based on general ability (e.g., ACT, GRE, or SAT scores). The *g* factor (or general ability level) is still important, but if you were to visit a physics department, you might notice those who are relatively more talented in visual-spatial ability than verbal ability, compared to a humanities department where you might notice those who are relatively more talented in verbal ability than in visual-spatial ability.

Although many of these folks may have similarly high general ability, they also may be more likely to display within-person patterns of other abilities that are in line with their area of study or job outcomes. The work by David Lubinski and Camilla Benbow certainly has highlighted that it is not only general ability, but the pattern of more specific abilities that is important for many life outcomes in those who are exceptionally gifted. Could it be that this pattern is essentially being captured in test scores? More research on the topic is needed to make that leap, but the prospect is intriguing.

Whether or not the finding of more differentiated intelligence at higher ability levels is a real phenomenon, from a measurement standpoint the patterns of correlations suggests that the relation between test scores and the g factor depend on ability level. The relation becomes weaker as IQ increases. If that is the case, then more specific abilities may become more important or obvious in the test scores of more able people. There has long been a debate about whether only the global IQ or the IQ as well as patterns among the index scores (e.g., Verbal, Visual-Spatial, Non-verbal Reasoning) should be taken into account when interpreting IQ tests. Interpretation may depend on ability level. Perhaps the profiles of broad abilities become relatively more important as the general level of ability increases.

Those are only a few things that have fascinated me in the study of intelligence. I would be remiss if I did not mention a few of the many people who have challenged my thinking in this area, including the magnificent graduate students at the University of Kansas who I've worked with and taught, and the incredible researchers and colleagues who I've been able to collaborate with and be mentored by, including Randy Floyd, Alan Kaufman, and Chris Niileksela. I am infinitely indebted to my mentor, Tim Keith. I do not have nearly enough space to discuss how much I've learned from him, so I will just end with a simple, yet sincere: Thank you, Tim.

IN THIS ISSUE

The positive illusory bias and ADHD symptoms: A new measurement approach

Combined methodologies are recommended as a viable alternative to difference scores when researching the presence of positive illusory bias in adolescents with ADHD.

By [Sarah Fefer, MA](#)

This study investigated perceptions of academic and social competence among high school students with a range of inattentive and hyperactive/impulsive symptoms. Symptoms of attention-deficit/hyperactivity disorder (ADHD) impact significant numbers of school-age children, and students with elevated symptoms are at risk for negative academic and social outcomes (Bussing, Mason, Bell, Porter, & Garvan, 2010).

Despite the documented impairments experienced by individuals with ADHD symptoms, literature suggests that, on average, children with ADHD display self-perceptions that are overly positive compared to external indicators of competence (e.g., teacher ratings or test scores). This phenomenon is referred to as the positive illusory bias (PIB; Owens, Goldfine, Evangelista, Hoza, & Kaiser, 2007). The presence of the PIB among children with ADHD is generally well-accepted, and recent research suggests that the PIB persists into adolescence (e.g., McQuade, Hoza, Waschbusch, Murray-Close & Owens, 2011).

Research on the PIB has relied on difference scores (i.e., an indicator of competence is subtracted from student self-ratings); however, difference scores suffer from numerous methodological limitations (Edwards, 2001). The primary concerns with difference scores or discrepancy analyses include: (a) low reliability, (b) increased Type II error rates (Edwards, 2001; Owens et al., 2007), and (c) ambiguity interpreting results because ratings are combined into one score. Each of these concerns contributes to difficulty drawing meaningful conclusions from analyses using difference scores (Edwards, 2001). The most comprehensive review on the PIB to date (Owens et al., 2007) suggests that the standardized discrepancy score method is the best option for investigating the PIB; however, these authors note that “future studies should investigate other analyses that may best evaluate the accuracy of self-perceptions while minimizing methodological limitations” (p. 341). Among these is polynomial regression, which has the potential to advance research on the PIB. A combination of polynomial regression and response surface methods has been recommended as a viable alternative to difference scores (Edwards, 2001; Shanock, Baran, Gentry, Pattison, & Heggstad, 2010). Polynomial regression is used to determine how much each component measure (i.e., self and teacher ratings), and their interaction terms, contribute to the variance of the outcome (Edwards, 2001). Response surface analyses use three-dimensional graphs to explore how the direction and degree of agreement and disagreement between self and teacher ratings relate to symptoms (Shanock et al., 2010). These methods overcome the limitations of difference scores outlined above.

The current study contributes to research on the PIB by being the first to (a) investigate the PIB in relation to both general and specific ADHD symptoms, (b) use polynomial regression/response surface methods to address the limitations of difference scores by investigating separate and joint effects of self and teacher ratings, and (c) focus exclusively on the PIB in high school students within important domains of adolescent functioning.

Method

A diverse group of high school students ($N=395$) and their teachers were the participants. Students and teachers rated academic and social competence using the student and teacher versions of the Self-Perception Profile for Adolescents (SPPA; Harter, 1988). The Vanderbilt ADHD Diagnostic Teacher Rating Scale (VADTRS; Wolraich, Feurer, Hannah, Baumgaertel, & Pinnock, 1998) was used to measure the presence and severity of inattentive (IA) and hyperactive/impulsive (HI) symptoms displayed by student participants. Traditional difference score analyses using MANOVA were used to facilitate the comparability of the results to past research. These results were then compared to results obtained from polynomial regression/response surface methods.

Results

Discrepancy score analyses (i.e., MANOVA with groups of students divided based on teacher ratings subtracted from student ratings) showed that symptoms of ADHD were highest among students who displayed a PIB (i.e., overestimated their competence), compared to those with lower or accurate self-perceptions. Results of polynomial regression and response surface analyses in the academic domain indicated that ADHD symptoms (overall ADHD, HI, and IA) were highest among students who agreed with their teacher about low academic competence *and* among students who displayed a PIB (i.e., had self-ratings that were higher than teacher ratings). In the social domain, ADHD symptoms were highest among students who overestimated their competence compared to teachers (i.e., PIB). Response surface analyses in the social domain suggest that symptoms increased more sharply as the degree of the discrepancy between self and teacher ratings increased. IA symptoms were shown to have the strongest relationship with competence ratings compared to overall ADHD or HI symptoms across both domains of competence. Results suggest that the relationship between the PIB and ADHD symptoms is strongest in the social domain within this high school sample. Results in the academic domain show that some students with ADHD symptoms display a PIB while others accurately rate their impaired academic competence compared to their teachers. This new analysis approach provided information beyond what could be gathered from discrepancy analyses, and allows for a more detailed understanding of the complex relationship between student/teacher competence ratings and ADHD symptoms.

Implications for Research and Practice

While the findings of the polynomial regression and response surface methods represent advancement over discrepancy score analyses, many questions remain as to why some students with ADHD acknowledge their impairments, while others demonstrate a PIB. Exploring agreement and disagreement in competence ratings between students and teachers using this more advanced method has the potential to inform the practice of school psychologists and other professionals working with youth with ADHD symptoms.

Unfortunately, literature offers little guidance regarding the specific actions that should be taken for students with ADHD symptoms who either agree with their teachers about their low competence, or provide inflated ratings of competence compared to teachers. Future research investigating whether the PIB is adaptive or maladaptive, as well as the specific characteristics associated with overestimation or agreement in competence ratings, is needed to inform future intervention efforts. We do not currently have information to suggest whether it would be more appropriate to intervene to decrease or maintain the PIB. We do have evidence that the PIB may decrease the effectiveness of behavioral interventions (Mikami, Calhoun, & Abikoff, 2010). Children who do not believe that they are experiencing difficulty in a given domain may not fully engage in the behavioral interventions that may be necessary to see improvements within their areas of impairment.

Although it is well-documented that students with ADHD may not accurately report externalizing behavior (Barkley, Fischer, Smallish, & Fletcher, 2002), the PIB suggests that some students with ADHD may also provide inaccurate reports of their abilities in multiple domains, while others are likely to provide accurate reports. This may be particularly relevant for an adolescent population given that self-report is used more commonly in evaluations with adolescents compared to young children. An important area for future research is to investigate if a student's tendency to overestimate competence is impacted by the measurement method used (e.g., interviews, open-ended questionnaires, or more traditional rating scales). This would allow school psychologists to choose the best method for gathering self-report information from adolescents with ADHD symptoms. More research on the agreement and disagreement in competence ratings, and what factors contribute to accurate versus inflated self-reports, could provide insight into how school psychologists can best support students with ADHD.

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IN THIS ISSUE

Underscoring usability in the development of behavioral assessment and intervention tools

The research-practice gap is lower for school-based behavioral assessment.

By [Amy Briesch](#)

Over the past half century, researchers in school psychology have contributed to the scientific understanding of how to improve the academic and behavioral functioning of children and adolescents; however, the existence of a research-to-practice gap continues to be an ongoing challenge for the field. Although the failure of practitioners to adopt evidence-based practices has been posed as one explanation for this divide, researchers have also been cited for (a) evaluating interventions under conditions that are unrealistic or improbable in typical school settings or (b) failing to supply implementation guidelines in a manner that is amenable to practical everyday clinical use (Riley-Tillman, Chafouleas, Eckert, & Kelleher, 2005). As such, the goal of my research program has been to develop and evaluate behavioral assessment and intervention technologies that are not only effective but usable (i.e., acceptable, feasible, compatible) in applied school settings. My research program encompasses three primary areas; however, I view this theme of usability as the common thread that links each project to the next.

My initial area of research interest involving school-based behavioral assessment emerged during graduate school at the University of Connecticut. The evidence is clear that a proactive approach involving early identification and treatment of socio-emotional and behavioral problems is needed before problems become resistant to intervention. One key problem, however, is that the success of such a model is largely dependent on the availability of measurement tools to facilitate early identification of at-risk students (i.e., screening) and to measure their subsequent progress. As such, research is needed in order to develop and validate behavioral assessment tools with applicability to emerging problem-solving models. Over the past decade I have explored the psychometric evidence of a range of tools including Direct Behavior Rating and systematic direct observation in order to provide practitioners with guidelines for applied use. In addition to further developing this line of research primarily related to progress monitoring, I look forward to undertaking a broader investigation of tools and procedures to facilitate behavioral screening in schools in the years to come. Schools are an ideal location for identifying and supporting students with mental, emotional, and behavioral problems given that the majority of youth in the United States attend public schools; however, responses by school systems and communities have been mixed. In some cases, reluctance may be due to logistical constraints such as the time and resources needed to conduct screening, whereas others may be opposed on more philosophical grounds. In order to ensure that prevention services reach those students most at-risk, attention must be paid toward the development of screening assessments that not only accurately identify students but are also considered feasible and acceptable to consumers in order to promote sustained usage.

I also have a great interest in the usability of interventions intended to improve student behavioral functioning, and the role of student involvement in intervention design and implementation in particular. The underlying concern that has driven many of my research questions in this area is why a prescriptive approach, which is seldom recommended for adults, is routinely chosen over a collaborative approach when students are involved. I am greatly interested in the use of self-management interventions, which aim to shift the responsibility for behavior management from teachers to students by teaching students to self-monitor, evaluate, and reinforce their own behavior. Although a substantial evidence base exists in support of these interventions, large gaps exist in the literature. For one, many of these studies have been carried out under highly controlled conditions that are not likely to be replicated in typical classrooms (e.g., rating behavior as frequently as every minute). In addition, we do not yet have a clear understanding of the critical components of these interventions, including the role that students should play in intervention design and implementation. Whereas all self-management studies have taught students to observe and record their own behavior, very few have empowered students to set goals for their own behavior or to use data to monitor their progress toward these goals. Within this research line, my aim is to begin to fill in these gaps in order to provide more explicit implementation guidelines for school psychology practitioners.

A final focus of my research agenda has been on the exploration of those factors that may help to explain the divide between research and practice. As Fixsen and colleagues (2005) noted in their synthesis of the literature on implementation science, “the challenges and complexities of implementation far outweigh the efforts of developing the practices and programs themselves” (p. vi.). I therefore see the influence of my research as being potentially limited by our gaps in the knowledge of variables that either prevent or promote sustained usage. Contemporary beliefs suggest that whether something is likely to be adopted into routine practice is dependent on the complex interplay among a number of different factors involving the individual implementer, the intervention components, and the environment in which the intervention is to be utilized. My colleagues and I developed the Usage Rating Profile (URP; Briesch, Chafouleas, Neugebauer, & Riley-Tillman, 2013) in order to assess these factors (i.e., Acceptability, Understanding, Feasibility, Family–School Collaboration, Systems Climate, and Systems Support), and look forward to investigating the generalizability of these factors across varied intervention and assessment contexts.

Although academia is often seen as a very solitary pursuit, I am fortunate to have had much support in helping to get my career off to an exciting start. I certainly would not have tread down the path that I am on if it were not for Sandy Chafouleas, who was not only a motivating and inspiring advisor, but who has become an important colleague and friend. I am also very thankful to have such incredible colleagues and students at Northeastern. I have received tremendous support, both professionally and personally, from the school psychology faculty (Jessica Hoffman, Lou Kruger, Chieh Li, Karin Lifter, Manny Mason, and Rob Volpe) and am fortunate to be able to work in such a caring community. I am also indebted to the students in both the master's and doctoral

programs at Northeastern who have brought their energy and talents to so many research projects. I could not have accomplished half of the work that I have in the past five years if it were not for their help with intervention implementation, data collection, manuscript writing, and conference presentations. I am so thankful to have had such tremendous supporters and look forward to continued collaborations in the years to come.

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AWARDS

2014 Div. 16 Awards

Meet this year's Div. 16 award winners.

Lightner Witmer Award

Winner: Amy M. Briesch, PhD

Amy Briesch, PhD's outstanding research program focuses on the identification and evaluation of behavioral assessment tools within a multi-tiered model, the role of student involvement in behavioral intervention design and implementation and understanding factors that impede the translation of science to practice. The major goal of her research program has been to develop and evaluate behavioral assessment and intervention technologies that are effective and usable in applied school settings. The quality of her work has been recognized by prestigious organizations, institutions, and funding sources, as well as published in top-tier journals.

Briesch earned a PhD in educational psychology with an emphasis in school psychology at the University of Connecticut. She is currently a faculty member at Northeastern University in the Department of Counseling and Applied Educational Psychology.

Honorable Mention: Matthew Reynolds, PhD

Matthew Reynolds, PhD, is a productive scholar in the area of individual differences. Much of his research focuses on understanding the nature and effects of intelligence with children and adolescents, answering substantive and interesting research questions while demonstrating and advancing state-of-the art research methodology. He is one of the leading experts on the phenomenon known as Spearman's law of diminishing returns.

Reynolds earned a PhD in educational psychology specializing in school psychology and quantitative methods at the University of Texas-Austin. He is currently a faculty member at the University of Kansas where he is also the director of training in school psychology.

The 2014 Lightner Witmer Award Committee members were Wendy Reinke (chair), Shannon Suldo, Lisa Sanetti, Joel Meyers and Craig Albers.

Outstanding Dissertation Award

Winner: Sarah A. Fefer, PhD

Sarah Fefer, PhD's dissertation, entitled "The Positive Illusory Bias and ADHD Symptoms: A New Measurement Approach," examined the presence of the positive illusory bias in young adolescents. Using the improved methodology of polynomial regression and response surface analysis, Fefer studied the relation between self and

teacher ratings of academic and social competence, and ADHD symptoms among a diverse sample of students and their teachers. This original investigation examined the positive illusory bias in relation to general and specific ADHD symptoms, allows for a better understanding of the relations between student and teacher competency ratings and ADHD symptoms. In addition, Fefer's work extends the literature on the positive illusory bias by examining it in a school-based sample of adolescents. Fefer completed her PhD at the University of South Florida with her advisor, Julia Ogg, PhD.

The 2014 Outstanding Dissertation Award Committee members are Julie Herbstrith (chair), Sara Bolt Witmer, Crystal Hill-Chapman, Steve Kilgus, Jamie Zibulsky.

Senior Scientist Award

Robert C. Pianta, PhD

Robert C. Pianta, PhD, exemplary scholar and leader, is honored for an illustrious career that has significantly affected the fields of school psychology, education, psychology and early childhood education and development. Pianta's work on teacher-student relationships revolutionized the study of quality within instructional contexts and has highlighted the importance of these relationships on learning in preschool and early elementary settings, and, more recently, for secondary youth. His highly researched, psychometrically sophisticated, practically meaningful classroom observational system is used systematically across many national Head Start programs and by virtually all leading researchers in the field of early education. Under his leadership, *the Journal of School Psychology* broadened its scope and reach and introduced to the field highly relevant issues related to topics such as early childhood development and education, classroom quality and teacher influences. Pianta's awards are numerous. He was recognized as a distinguished alumnus from the Psychology in the Schools Training Program at the University of Minnesota in 2007 and is one of the 100 most distinguished alumni of Minnesota's College of Education and Human Development, a college that has graduated a phenomenal number of highly successful and productive scholars and researchers. He is among the most highly cited researchers in psychology and one of the most influential scholars in education policy. He has mentored hundreds of graduate students, postdoctoral fellows and research scientists, many of whom have gone on to become significant research contributors in their own right. His leadership, scholarship and mentorship continue as he currently serves as dean of the Curry School of Education at the University of Virginia.

The 2014 Senior Scientist Award Committee members were Timothy Keith (chair), Melissa Bray, Bruce Bracken, Randy Floyd and Sandra Chafouleas.

Jack Bardon Distinguished Service Award

Karen Stoiber, PhD

Since receiving her PhD in 1988, Karen Stoiber has made continuing and substantial contributions to research, practice, training, and identity in school psychology. She exemplifies the spirit of the Jack Bardon Award with regard to both her leadership in the development of innovative school psychological services and sustained contributions to major professional organizations. Stoiber's extensive work in conceptualizing and exploring evidence-based interventions has provided significant guidance for both research and practice in schools and school psychology, as well as the professional preparation of school psychologists. Her continuing collaborative work on translating research into practice in school psychology will strengthen the foundations of our profession at all levels. In addition, Stoiber has communicated and advanced the goals and influence of the Division of School Psychology through her extraordinary service and leadership on numerous committees and elected positions. These include president of Div. 16, vice president for Social and Ethical Responsibility and Ethnic Minority Affairs for Div. 16, secretary for the Society for the Study of School Psychology, co-chair of Div. 16 Work Group on Translation of Research to Practice, co-chair of Div. 16 Task Force on Empirically-Supported Interventions and chair (later co-chair) of Div. 16 Task Force on Women in School Psychology. She has served as a member of the Committee on Graduate Education in School Psychology, the School Psychology Futures Planning Committee, the School Psychology Round Table, Div. 16 Task Force on Learner-Centered Principles and Div. 16 Program Committee. Stoiber's conscientious dedication and exemplary service to school psychology makes her a most deserving recipient of this award.

AWARDS

The unique and essential contributions of school psychology to American public education: Some reflections on the importance of what we do

The acceptance speech from the 2014 Div. 16 Senior Scientist Award winner.

By [Robert C. Pianta, PhD](#)

I am honored to be the recipient of the Div. 16 Senior Scientist Award and deeply grateful to those colleagues who considered my work worthy of this recognition. And I am delighted to have the opportunity to offer a few reflections on the profession and my time in it.

In terms of being a unique resource to the education of children and youth, there may not be any more important professional in a school than a school psychologist. It has to be one of the most important jobs in education. What other educational professional combines deep and contemporary knowledge about human development; knowledge and skill in assessment of individual differences across all domains of development; knowledge of the technical properties of tests and their implications for interpretation; knowledge and skill in delivering effective interventions for students across the grade span and span of problems; and working with parents and the host of other professionals that enter a school building every day? It's a pretty long list of pretty important attributes, and I am sure I left some out.

If current trends hold, the importance and value of a school psychologist's knowledge and expertise is only going to grow. Just think about the needs for expertise around assessment. In an era of accountability, who is best suited to understand the technical properties and implications of the myriad of tests, high and low stakes, given to students each day? Who has the background to understand whether what looks like a shift in scores is really just random variation? Who could best make decisions about whether one test can suffice for the three, or four, or five tests that keep piling on? Or consider the tremendous need for approaches to everyday classroom management and instructional improvement that foster teachers' skill and student success. And when pressures and stresses on families that keep increasing the number of vulnerable children combine with economics and politics that conspire to eradicate mental health services for children and youth, consider the needs for a professional that can manage mental health crises or can interpret the latest science on adolescent development in ways that teachers can apply in their classrooms so students stay in school.

I think sometimes that our profession as well as the broader public does not realize that school psychologists carry into schools such a broad and deep expertise in the application of contemporary knowledge about behavioral and psychological development. Our profession serves as a conduit to a knowledge base that has real consequences for students' experiences. And we should not underestimate the extent to

which school settings, education professionals, and students are starved for this expertise. Instead, in our professional identity and marketing we too often reduce the importance of the profession to a technical matter – expertise in conducting assessments or applying some intervention. Having the discipline, as a profession and as individual practitioners, to resist falling into the trap of being a technician in a larger workflow is essential to our value to educators and students. This is very challenging. Many forces align to push school psychologists into a technical role – they are not principals; they are often assigned to many schools to perform a couple functions (mostly testing); and they have too little contact with students or teachers. And, let's face it, being the person to deliver the test scores can sometimes confer a sense of authority and expertise that is rewarding personally and elevates one's professional status among peers. Be that as it may, the needs for psychological services in schools are only going to increase, and having a broad view of those services and the expertise to deliver them will be essential to the lives of many students and the careers of many educators who work with them.

I think I wanted to be a school psychologist before I knew the profession existed. My curiosity about human behavior and the sources of individual differences launched from volunteer experiences I had in high school in a regional residential program for children with intellectual and behavioral disorders. In college, special education seemed the best way to combine my intellectual and career interests with a value for public service. But I often reflect on how career choices are constrained by the knowledge available at the time; in my case, I was really interested in neurological bases of behavior, but neuroscience was in its infancy as a discipline and didn't seem viable as a career pathway. As a middle school special education teacher I could not have been more fortunate to land in a school system in which special education was a non-categorical service — we identified middle schoolers with varying needs and we served them together according to the amount of time they needed support. This was an incredibly functional approach — diagnoses were not prescriptive and had little to do with services; eligibility focused only on students' performance in the classroom — how far behind they might be and our best judgment about the time and intensity of support they needed to get ahead. We did use tests to inform instruction, but by and large the approach was to do our very best to teach well, largely relying on task analysis to make complicated tasks simpler, and build up component skills. I also learned a lot about the importance of relationships between teachers and students – both for me as a teacher and for my students. As a special education teacher, it sure felt that I was applying psychology at almost every moment of my day, and I was really excited to learn there was a profession that actually focused on this connection between psychology and education.

I was incredibly fortunate to get my doctoral training in school psychology at the University of Minnesota. To have the opportunity to work with and learn from world-class scholars in psychology, school psychology, and child development was truly a luxury that I appreciate to this day. And I strongly believe the model I was exposed to is the right one — blurring the disciplinary boundaries between human development, psychology, education, and applied practice in schools creates a sweet spot for the kind

of learning that (I think) produces the very knowledge and skill base that is so valuable for schools today and provides a hedge against the pressures to be a technician. And, given the explosion of knowledge in child and adolescent development; what we now know about trajectories of change in various domains of learning and performance; about the specific ways contexts shape performance and growth; and about how to construct and deliver large-scale, school-based, approaches to promotion and prevention; it seems to me that school psychology is only poised for being more influential if training programs continue to draw on this deep and expanding knowledge base. If school psychology were a stock, I'd buy.

I am tremendously fortunate to work with a team of really smart people who also embrace the connections among various scientific, disciplinary, and professional practice traditions to focus on connecting psychology to education. The work is inherently interdisciplinary and, to be useful it has to not only link across knowledge domains, it also has to meaningfully relate to the everyday work of educators. The work of this team is behind my receiving the Div. 16 Senior Scientist Award and they deserve as much or more credit for the work than I do. For early career scholars entering or new into the field as a researcher (and the academic administrators and leaders who will review their performance), I think it's essential that we build and support ways for young scholars to be part of research teams. The big and thorny problems of at the intersection of education and psychology – improving teachers' skills in engaging kids in stimulating and meaningful learning, creating schools that structure and support the behavioral competencies of all students, implementing decision-making structures that allocate precious resources to effective services — are all jobs for teams. It's critical that the academic field of school psychology nurture and reward scholarship that emanates from such teams while at the same time fosters and advances the sophistication of the individuals who contribute to these groups. The model of a “go it alone” young investigator working with a small group of schools or classrooms, may not be the best investment for the professional knowledge base, for those young scholars, or for the students and educators we serve.

These days I spend a good deal of my time working on various ways to measure and improve the value of teachers' interactions and relationships with students. Although much of my work is focused on young children and their teachers in early education settings and I am often identified as working in the field of early childhood education I view myself as a school psychologist first and foremost. Every facet of my research involves the application of psychology in all its forms – measurement and psychometrics, theories of human development and behavior change -- in school settings. Identifying this as the work of school psychology has also helped it expand in some interesting ways. This broader focus creates interests with collaborators in adolescent development to extend our models of assessment and professional development into middle and high schools, where they have shown tremendous promise. And it enables linkages between our work on teacher-child interactions with the growing body of literature on biological processes in human development, demonstrating that relationship-focused interventions reduce biological sequelae of stress. Situating this work at the nexus of the science of human development,

psychological science, and education science and practice has enabled our team to develop a very integrative perspective that draws from relevant knowledge bases to respond to emergent questions and problems. I know I have probably repeated myself several times in this piece, but this integrative capacity — integrating knowledge bases, disciplinary content, science and practice — is at the core of school psychology as a discipline. This is an exciting time for school psychology; my hope is that the field asserts its strengths even more, resists pressures to narrow its mission or focus only on the technical, and that it provides the kind of leadership — scientifically and in practice — that will benefit so many students and educators.

AWARDS

Getting back from the world

The acceptance speech from the 2014 Jack B. Bardon Distinguished Service Award winner.

By [Karen Callan Stoiber](#)

Life holds a wealth of opportunities along with some memorable delights. Being awarded the Jack B. Bardon Distinguished Service Award is a most *notable* delight. I am very grateful for being the 2014 recipient of the Bardon award and give thanks for the many opportunities to serve. I also want to extend appreciation to all my Div. 16 colleagues with whom I've had the pleasure to get to know, and in particular to the selection committee and to those who wrote letters of support. As I look at the list of past awardees, I'm in awe of being part of such an extraordinary group. Many other giving, caring, and serving Div. 16 members come to mind as more worthy recipients, and I am humbled to have been selected.

As the adage goes, "we only take from the world what we give back to it." I must admit to being rather greedy in having taken back so much! School Psychology is a great field to land a career in "taking," as it provides innumerable occasions to give back. Perhaps like most others in School Psychology, I chose this profession on a path to find purpose in my life. Although the concept of being "self-empowered" was not part of my vocabulary when I entered it, I was thrilled to have "found myself" in pushing my career forward. What I also had not realized at that time were the myriad of getting back experiences my career in School Psychology would bestow. I could not have conceived how the "giving" part of professional life would grant so much "getting back" in my personal life.

These getting back from the world moments began early in my career with the work I did with adolescent mothers and their young children. In particular I found doing parent-child dyadic therapy and groups with adolescent mothers to be satisfying, enlightening, and it turned out, also therapeutic. As I too was a mother of young children at the time when I engaged in this work, I came to understand the similarities as well as the differences we experienced in our lives. One clear difference, and one for which I was grateful, was having a supportive spouse who equally shared parenting responsibilities. It allowed me to focus on my career *and* on my children-- Luke, Leah, Zak, and Andy (who too aspire to serve others, which of course brings me great pleasure). My adolescent mothers also helped me stay ever present in realizing how being a parent constitutes a most important role, and one that requires nurturing. My own role as a mother was further nurtured in helping adolescent mothers counter misguided beliefs with acceptance.

We all face unexpected paths at some point in our lives, and it seemed that many of these young mothers had been pushed much too early into entering the unexpected. In many cases, they had expected birthing a child would fill the gaps they felt in their lives.

They typically hadn't considered adolescent motherhood would create other gaps, such as gaps in their education, their income, their independence, and in their sleep! The unexpected aspects of academia that I faced, such as not having a “ground-breaking” study lead to expected publishable results, were much easier to accept. These young mothers taught me how my struggles paled in comparison to the ones they faced, and in doing so, lightened my task of blending academia and motherhood.

That same sense of purpose and of getting back continues in collaborating with educators and school-based practitioners. The majority of these school personnel work in urban schools, and many of their students are low-income and low-performers. Much of this work has focused on promoting teachers' use of improved instructional methods, or what we refer to as best- or evidence-based practices. Here we work together in an effort to translate research-based strategies into practices that are both usable and feasible for school-based practitioners to implement. We may focus on how to apply concepts such as phonemic awareness or self-regulation with the intent that they are taught explicitly yet fit seamlessly into their daily instruction.

Despite many compelling demands on their lives as urban educators, I'm continually impressed by their openness to alter instructional approaches so as to improve their students' capabilities. These changes may involve minor tweaking as they uncover ways to be more responsive to their students or may require major shifts in practices as they attempt to assure all students will experience a positive and inviting school climate throughout their day. I have seen on the front line what courage it takes for these educators to “forgive and accept” the most challenging of students (and often to forgive and accept an outside researcher in their classroom!) and to remain dedicated professionals under increasing pressures of accountability. In this regard, I draw on their resilience as they serve as an inspiration to me whenever I feel a bit overwhelmed keeping on top of the multi-tasks of university life. It helps me “stay present in the moment while at the same time letting go” in the flow of life tasks. And when I can't attain “flow” in my work, to at least stay calm and “go with the flow.”

Being able to help develop a new generation of school psychologists and researchers who aspire to be change agents provides another “getting back” experience. Just as I was drawn to school psychology in seeking purpose, this vision holds for the students with whom I've come to know. These students are pulled to School Psychology by a compelling image of making a difference. The vision may stem from their desire to develop the capability to figure out the reasons for students' social or academic concerns, to consult and intervene effectively, or to confront critical systems-level constraints in education. Through teaching or supervising them I see how their goals lead to untold benefits for the children and families they serve. I feel privileged to mentor them. They are committed to issues of social justice; to being the voice for youth with health, mental health and learning challenges; and to addressing educational and psychological inequities. In the conversations we share, I am constantly reminded how we are all on this path of honing our own unique skills in serving others. Just as so many giving school psychologists, including great and kind leaders such as Jack B. Bardon, these students are passionate about developing themselves and their

capabilities to serve. I like to think that in some small way I have given to empowering them as they strive to expand and grow.

All these opportunities to “give” truly bring a sense of purpose. Few professions allow one to give to others just by doing one's job. It also makes for a very happy life. In this regard, I can't completely agree with Ralph Waldo Emerson's belief that “The purpose of life is not to be happy. It is to be useful, to be honorable, to be compassionate, to have it make some difference that you have lived and lived well.” Rather, pursuing a sense of purpose has expanded my happiness by expanding opportunities to be useful and to be compassionate. School psychology provides so many awards in giving and in attaining happiness, some small and some big, with the Jack B. Bardon award clearly being an immense one. I am most grateful to School Psychology, to my colleagues, to my students, and to my family, for all of the opportunities to serve, and for expanding my happiness!

AWARDS

2014 student award winners and convention-related news

Meet this year's Div. 16 student award winners and learn about convention happenings.

Student Award Winners

Incoming Student Winners (\$500)

Lana Mahgoub, is an incoming PhD student at University of Wisconsin-Madison. Mahgoub received a bachelor's degree from Grinnell College. She is a Posse Scholar and a National Science Foundation Psychology Research Experience Scholar. She is interested in further researching how children process languages and multicultural issues in education, particularly in regards to English language learners in schools. As a doctoral student, she hopes to conduct research projects that can help shed light on ways to enhance the linguistic and academic development of bilingual children.

Alondra Delabra, has completed her first year at University of Oregon. She has a bachelor's from Northwestern University in journalism and a master's degree in prevention science and practice from the Harvard Graduate School of Education. Her research activities have included the implementation of schoolwide positive behavior supports and interventions for alternative and high-risk settings, as well as research that examines the policies school districts have in place to address equity and disproportionality in student discipline practices.

Advanced Student Winner (\$1,000)

Gigi Chuang is a doctoral student at the University of Missouri-Columbia (Mizzou) with Wendy Reinke as her major professor. Fall 2014 will be her fifth year at Mizzou, as well as her fifth year in the United States. Prior to coming to Mizzou to pursue her doctoral degree in school psychology, Chuang earned a bachelor's degree in special education, a master's in educational psychology and was a teacher and a behavioral specialist for six years in Taiwan. She also is honored to be a Fulbright recipient. Currently, Chuang is working on her dissertation, which examines the effects of an evidence-based intervention on students with aggression via enhancing teachers' classroom management. In addition, she is a part-time clinician providing psychological evaluations for diverse populations at the Assessment and Consultation Clinic affiliated with the university.

Other Convention-Related News

Congratulations to those elected to initial fellow status: Chryse Hatzichristou, Keith Herman, and Tammy Hughes. Randy G. Floyd and Amanda Beth Nickerson, previously elected to fellow status, are now also fellows of Div. 16.

Congratulations to the Div. 16 Early Career Committee, which was recognized by APA's Committee on Early Career Psychologists (ECPs) as the [runner-up for the best ECP engagement](#). The divisions that participated were judged on excellence in the utilization of ECP members and leaders, the array of ECP activities, leadership development, and mentoring, ECP resources, having interesting upcoming plans for ECP engagement and having specific first steps for ECPs who want to get involved. (The winner is Div. 49: Society of Group Psychology and Group Psychotherapy.)

