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Concluding Thoughts

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The year 2010 has been a time of resolution and a time of resurgence for the Division. The year began with a resolution of continuing debates within both APA and the specialty about credentialing of school psychologists, as reflected in APA’s Model Act for State Licensure of Psychologists, adopted February 2, 2010 (http://www.apa.org/about/governance/council/policy/model-act-2010.pdf). Concurrently the Division’s EC engaged in a process of reflection and reconsideration of substantive priorities. At the 2010 Mid-Winter meeting, the EC participated in leadership training and organizational planning, facilitated by Dr. Sandra Shullman. One outcome of this process was the appointment of three Working Groups to address issues deemed critical to the future of school psychology: Globalization of School Psychology, Social Justice and Child Rights, Translation of Science to Practice and Policy. The three topics reflected the shared vision of the executive committee and a renewed commitment to promoting the well-being of children and adolescents. This vision is reflected in the mission statement adopted by the 2010 EC: Translating science to practice and policy to promote mental health and learning of children and adolescents from a transcultural and transnational perspective. Underlying this statement are several themes that guided the appointment and subsequent activities of the Working Groups:

• ‘Global’ focus to reflect the diversity of both the international community and the multicultural population of the U.S.
• Adoption of terminology to denote shared understandings and mutual learning across cultures and nations—‘transcultural’ and ‘transnational’—rather than more traditional comparative approaches (e.g., as reflected in cross-cultural or transnational research)
• Focus on the intersection of mental health and learning as the domain of school psychology
• Psychological science as basis for action at practice and policy levels
• Facilitating ‘contextualized’ understandings of mental health and learning and related actions within the key ecological contexts of schools, communities, and families
• Goal-directed research which has potential to result in school reforms to promote mental health and learning of students
• Translational research that focuses on the complexities and challenges of practice and policy within real-life settings, thus highlighting the limitations of ‘manualized’ approaches to evidence-based practice
• Recognition of the importance of collaboration/partnership with other stakeholders including other professional organizations

The Working Groups have identified and are in the early stages of instituting initiatives related to the priorities set by the EC. A summary of their efforts follow.

Globalization of School Psychology Working Group (Chair, Sissy Hatzichristou, PhD, University of Athens,
Greece). The goal of the globalization working group is to define transnational/multicultural issues in School Psychology. The first task undertaken by the group is developing a bibliographic data base on basic thematic areas of school psychology science and practice, including assessment, prevention, crisis intervention, consultation, evidence-based interventions, poverty, and transnational/multicultural school psychology. Coordinators have been identified for each topic area and are in the process of forming subgroups to identify relevant readings and create a data base that reflects work on an international scale. Subsequent steps include synthesizing and disseminating the transnational data base. The long-term intent is to develop an international network of researchers, facilitated by collaboration across organizations that represent school psychology domestically and internationally.

**Social Justice and Child Rights Working Group** (Chair, Stuart Hart, PhD, International Institute for Child Rights and Development, Centre for Global Studies, University of Victoria, British Columbia). The goal of the social justice and child rights group is to facilitate professional development of school psychologists in the promotion of social justice and child rights. The initial task is review and consider adopting the existing Child Rights for School Psychologists curriculum developed by the International School Psychology Curriculum Group, a partnership of International School Psychology Association [ISPA], Child Rights Education for Professionals [CRED-PRO], and School Psychology Program at Tulane University (see http://www.cred-pro.org/groupinternationalschoolpsychologycurriculum.) In addition, the working group plans to develop two additional modules related to promoting social justice and accountability for child rights and social justice. Subsequent steps include dissemination and piloting of the full curriculum. The long-term intent of the group is to build an international community around social justice and child rights, facilitated by collaboration across school psychology organizations.

**Translation of Science to Practice and Policy** (Co-Chairs, Sylvia Rosenfield, PhD, University of Maryland; Susan Forman, PhD, Rutgers University). The goal of the translation working group is to enhance the translation of research to practice and practice to research within the specialty of school psychology, to promote Division 16 as a resource for evidence-based practice for school psychologists, and to enhance research-based psychological practices in the context of schools. To this end the working group will engage in research to review existing literature, identify ongoing efforts by other professional groups, survey school psychologists about the challenges in implementing evidence-based practices, and examine the nature of preservice training relevant to promoting translation of research. The anticipated outcomes of this work are generation of implications for professional development and of resources for implementing research-based practice.

The common themes across these working groups are intended to guide the thinking and action of the Division’s leadership in the coming years. As I have interacted with leaders within APA and other organizations representing School Psychology, it has become clear that Division 16 has not yet realized its potential contributions to psychology or the specialty despite the opportunities to do so. Particularly within the context of APA’s initiatives to foster the ‘science’ of psychology (2010 Science Leadership Conference, *Strengthening our science: Enhancing the status of psychology as a STEM discipline*; Bray et al., 2010), to examine the ‘internationalization’ of psychology (2008 Education Leadership Conference, *Internationalizing Psychology Education*, http://www.apa.org/ed/governance/elc/2008/index.aspx), and to facilitate the application of psychological science to education and schools (Center for Psychology in the Schools and Education, CPSE, http://www.apa.org/ed/schools/index.aspx), the Division has much to offer to the field of psychology. An examination of efforts by
other major organizations that represent the specialty (e.g., ISPA, National Association of School Psychology [NASP]) reveals opportunities for collaboration around key issues related to social justice and child rights, globalization, and evidence-based practice. Included in the charge to the Division working groups was the expectation that group members identify opportunities to collaborate within APA and outside of APA with other professional organizations representing the interests of school psychology.

In the context of reforms, the term of the President of Division 16 is exceedingly brief. One can only hope to facilitate the beginnings of reform. It is the responsibility of future leaders of the Division to continue the efforts.

References
Abstract

The article provided an update to an earlier review of Sluggish Cognitive Tempo (SCT) in light of a proposed revision to the diagnosis of ADHD for the Diagnostic and Statistical Manual-5 for a new disorder of inattention without hyperactivity or impulsivity: Attention-Deficit Disorder. This proposed revision has raised the issue discussed in the earlier review of whether or not the symptoms of SCT should be included in the list of inattentive symptoms for DSM-5. The update concludes that recent evidence supports the recommendation of the prior review that every evaluation for ADHD should include an assessment for SCT symptoms. Suggestions for such an assessment were provided.

Sluggish Cognitive Tempo: an Update

In *The School Psychologist* Eme (2007) reviewed evidence for a possible new attention disorder termed *sluggish cognitive* (SCT) which was qualitatively different from the Attention Deficit Hyperactivity Disorder/Primarily Inattentive subtype (ADHD/PI) subtype of the Diagnostic and Statistical Manual of Mental Disorders IV-Text Revision (DSM-IV-TR; APA, 2000). Since the review was published, a proposed revision to the diagnosis of ADHD for the Diagnostic and Statistical Manual-5 (Shafer et al., 2010) of a new diagnosis for a new disorder with its own diagnostic code has been proposed: Attention-Deficit Disorder (ADD). This proposed new disorder, which is exclusively characterized by an impairment in attention without hyperactivity or impulsivity, attests to the renewed appreciation for the importance of inattention in the manifestation of ADHD (Adams, Milich, & Fillmore, 2010). Furthermore, it once again raises the issue first addressed in 1994 in the prior DSM revision and discussed in the 2007 review of whether or not symptoms of SCT such as drowsy and daydreams should be included in the list of inattentive symptoms for DSM-5 (Adams, Milich, & Fillmore, 2010). Thus, an update on the status of SCT symptoms is timely and warranted. The update will examine the recent research which addresses the usefulness of the inclusion of SCT symptoms in inattentive criteria. It will begin by reviewing the SCT construct.

SCT

The core SCT feature of diminished alertness as suggested by symptoms of sluggishness, drowsiness, and daydreaming was first extracted as a distinct factor in 1988 (Harrington et al., 2010). Clinically this core feature was observed in profoundly inattentive individuals whose diminished alertness was such that they were conceived of as being on a continuum with narcolepsy (Brown, 1993). These symptoms, even though they were more diagnostic of attention problems than all but one of the inattentive symptoms included in the official DSM-IV list, were not included in the final diagnostic inattentive criteria of DSM-IV in 1994 because of their poor negative predictive power (i.e., the absence of these symptoms did not predict well the absence of the inattentive subtype of ADHD). [Frick et al., 1994]. What this finding suggested, though it was not recognized at that time, was that there was a type of disordered attention,
designated SCT (Milich, Ballentine, & Lynam, 2001) that was different from the disordered attention characteristic of the ADHD-PI subtype. Subsequent research added further support to this initial finding in that many children diagnosed with ADHD/PI have additional SCT symptoms that are not currently included in the DSM-IV-TR criteria (Eme, 2007; Solanto et al., 2009). In 2009 Penny et al. constructed the first empirically supported measure of SCT in children with 3 distinct symptom domains: Slow (e.g., “is slow or delayed in completing tasks”), Sleepy (e.g., “appears tired, lethargic”) and Daydreamer (e.g., “gets lost in his or her own thoughts”). Thus, SCT is best conceived of as designating a disturbance in the attentional dimension of alertness which manifests in symptom domains of slowness, sleepiness, and daydreaming.

Clinical Utility of SCT Symptoms

Overall, since the prior review, there has been mixed support for the SCT construct as a distinct disorder. On the positive side there is solid statistical support for the validity of the SCT construct (Garner et al., 2010) and strong empirical support from neuroscience research for two different attention networks whose impairment results in two different types of attention symptoms. The inattentive symptoms of ADHD-PI are best characterized as distractibility caused by a dysfunction in the “executive attention” network (Posner & Rothbart, 2007) which results in an impairment in the ability to filter out irrelevant external stimuli (Adams, Milich, & Fillmore, 2010). This defect results in symptoms such as “The problem that dominated my life and shaped my personality was the need to avoid the piercing, rasping, blasting, disorganized chaos of incoming stimuli that I could not filter out and could not ignore” (Miller & Blum, 1996, p. 223).

The inattentive symptoms of SCT are best characterized as mind wandering in which attention drifts from thought to thought caused by a dysfunction in the ‘alerting’ attentional network (Posner & Rothbart, 2007) which results in a diminished ability to control internal stimuli (Adams, Milich, & Fillmore, 2010). This dysfunction results in symptoms such as “daydreamy, spacey, gets lost in her or his thoughts” (Penny et al., 2009) as exemplified by the following vignette:

Mary described herself as being "more spacey than others.” She said that she has trouble paying attention when people talk to her in class. “I just feel like you are talking to me, but I don’t process the information. I look attentive and I feel attentive, but my mind is just kind of blank.” Mary explained that she also has problems during conversations with friends: “A lot of times I’m wondering what was just said. I don’t know if it’s like forgetfulness or it’s just not paying attention, but like things just don’t seem to settle in very well” (Eme, 2007, p. 9).

In summary, evidence has continued to accumulate for two qualitatively different types of inattention symptoms which can be related to defects in two different attentional networks. This finding coheres well with the emerging consensus that the theory of a single common core neuropsychological dysfunction in ADHD needs to be replaced by models of heterogeneous neuropsychological dysfunctions each of which are mediated by different brain circuits (Nigg, 2010; Sonuga-Barke, 2010).

On the negative side, Harrington and Waldman (2010) conducted the first study to use a clinic-referred sample to examine the external validity of ADHD when ADHD/PI is further categorized on the basis of SCT symptom severity. Their sample comprised 228 children (166 boys, 62 girls) ranging in age from 5–18 years who were referred to clinics for attentional, behavioral, and/or learning problems and diagnosed with DSM-IV ADHD (124 combined type, 81 Inattentive type, 23 Hyperactive-Impulsive type). The Inattentive type was subdivided into high (N=37) versus low (N=44)-SCT groups. No differences were found between the groups on several external validity indicators, including demographic characteristics and various internalizing and externalizing disorders. They concluded that the study suggested that SCT symptoms have limited utility for isolating diagnostically meaningful subgroups of ADHD/PI.
“As previously discussed, there is the very important finding that SCT symptoms are more diagnostic of attention problems than all but one of the symptoms that are currently included in the official DSM list.”

**Sluggish Cognitive Tempo**

**Conclusion**

Despite the mixed findings, two considerations suggest that regardless of whether or not SCT constitutes a distinct diagnostic category, every evaluation for ADHD should include an assessment for SCT symptoms.

First, it is clear that there is a specific alerting attentional network whose impairment can result in SCT type symptoms that cause significant impairments in life functioning and that many juveniles present with such symptoms. Second, whether or not the SCT symptoms constitute a distinct diagnostic category is irrelevant to the issue of clinical utility in this respect. As previously discussed, there is the very important finding that SCT symptoms are more diagnostic of attention problems than all but one of the symptoms that are currently included in the official DSM list. Thus, given this high positive predictive power, if they are present, this is strongly indicative of an attention problem. Therefore, the following recommendations for conducting an evaluation for SCT symptoms are provided.

**Assessment of SCT Symptoms**

Three recommendations are offered for gathering information relevant to the assessment of SCT symptoms. First, the Brown ADD Scales (Brown, 2001) should be administered as they assess dimensions relevant to SCT and are empirically based. Second, the parents and teachers' should be interviewed using the only empirically supported measure of SCT in children with good reliability, content validity, and a clear 3 factor structure (Penny et al., 2009). The measure is a 14 item scale with 3 subscales termed Slow, Sleepy, and Daydreamer. Children are rated by parents and teachers on 4-points: 0 _not at all, 1 _just a little, 2 _pretty much, 3 _very much. The subscale items are:

**Slow**
- Is apathetic; shows little interest in things or activities
- Is slow or delayed in completing tasks
- Is unmotivated
- Lacks initiative to complete work
- Effort on tasks fades quickly
- Needs extra time for assignments

**Sleepy**
- Appears to be sluggish
- Seems drowsy
- Appears tired; lethargic
- Has a yawning, stretching, sleepy-eyed appearance
- Is underactive, slow moving, or lacks energy

**Daydreamer**
- Daydreams
- Gets lost in his or her own thoughts

As the proposed revision of ADHD for the DSM-V indicates, examination of the patient in the clinician's office may or may not be informative (Shafer et al., 2010).

**References**


**Sluggish Cognitive Tempo**

38, 173-184.


RESEARCH FORUM

Tourette Syndrome: Social Implications and Treatment Strategy Review

Katlyn Conville, Flagler College

Abstract

Despite the growing identification of Tourette Syndrome (TS) in the population, few conclusions have been reached among clinicians with regard to causation and effective treatment strategies. With a complex symptom profile and an inconsistent pattern of manifestation, TS is a difficult condition to treat. Though it is uncertain as to whether organic or psychosocial factors are the primary contributors to TS development and tic worsening, research indicates that social factors play a significant role. Controversy surrounding the side effects, suitability, and efficacy of medicinal treatments has led many researchers to investigate the influence of behavioral strategies on symptom suppression with results supporting the use of such approaches. The analysis of the ways in which social interaction can regulate or exacerbate tics points to the importance of social modifications in the treatment of TS. While each case is unique in terms of symptom severity and type, most with TS can benefit from behavioral therapy approaches. Only by identifying the correlates between tic expression and suppression and evaluating the risk factors and benefits of different treatment types can professionals develop appropriate management program for each particular sufferer.

Tourette Syndrome: Social Implications and Treatment Strategy Review

In the analysis of the innumerable complexities surrounding uninhibited development and acculturation of typical individuals, one can clearly observe the difficulties that emerge in the process of psychological growth and fortification. For those experiencing impediments or challenges, the attempt to adapt normally becomes nearly unmanageable. The emergence of a persistent psychological condition further complicates daily functioning, causing a slew of problems for the sufferer. The distinct features of Tourette Syndrome (TS) unveil a particularly fascinating experience in which afflicted persons struggle with neurobiological symptoms and their psychological ramifications, all whilst managing the social effects of their symptoms.

In order to address the stereotypical motor and verbal repetitions associated with the tic disorder and develop effective interventions for those with TS, it is crucial to analyze the full spectrum of the disorder and the ways in which it interferes with everyday life. Thorough research indicates that the pharmacological treatments used with TS are inconsistently effective and produce deleterious side effects, while direct methods that involve interpersonal therapy and behavior modification techniques show much promise with fewer disadvantages (Lerer, 1987; Matesevac, 1991). The social impacts of TS symptoms for the client demand the usage of effective treatment strategies that will reduce symptoms while avoiding harmful consequences. By reducing the frequency of tics through the implementation of successful symptom reducing strategies,
Tourette Syndrome: Social Implications and Treatment Strategy Review

Current conceptualization of TS holds that the condition has distinct neurological and behavioral implications, can be accurately diagnosed with relative ease, occurs across a wide spectrum of impairment severity, is environmentally influenced, and is fairly reactive to various treatment methods.

Tourette Syndrome Characteristics, Definition, and Overview

First observed and documented in late nineteenth-century France by notable neurologist Gilles de la Tourette, the eponymous disorder was discovered in a small sample of patients apparently suffering from a similar condition distinguished by unusual and involuntary vocalizations and rapid motor paroxysms and marked hyperexcitability (Piacentini & Chang, 2005). The rare detection of the clinical phenomenon throughout much of the past century has left much ambiguity surrounding the nature of the disorder, causing many clinicians to speculate about the prevalence and precise characteristics of the syndrome. Despite the obscurity of TS even in more recent years, research conducted on the neurobiological aspects of the disorder, as well as the psychological manifestations, have contributed to a collective understanding. Current conceptualization of TS holds that the condition has distinct neurological and behavioral implications, can be accurately diagnosed with relative ease, occurs across a wide spectrum of impairment severity, is environmentally influenced, and is fairly reactive to various treatment methods.

The presence of TS is often first recognized with the manifestation of tics, signs that rank among the most evident of psychiatric symptoms. Tics are described as sudden, repetitive, stereotyped vocalizations or motor movements that involve the involuntary spasm of specific muscle groups (Shapiro, 2002). Division of tic disorders in the DSM-IV TR identifies four categories including transient tic disorder, chronic motor or vocal tic disorder, Tourette disorder1, and tic disorder not otherwise specified – a diagnosis reserved for conditions that do not fit the specific criteria for the first four sub-types. Principal features of TS necessary for diagnosis as per the canonical reference source of psychological disorders in the United States include the recurring presence of both motor and vocal tics either concurrently or separately over a twelve month period, with entirely tic-free periods spanning less than three consecutive months (American Psychiatric Association, 2000). The prominence of tics in the person with TS has led to the appropriate classification of TS as the most critical subtype of tic-disorder, an indication that is supported by the severe tic manifestations associated with TS. Common tics observed with the syndrome include simple motor and vocal tics such as eye-blinking, facial twitching, head jerking, throat clearing, single sound utterances, or grunting. More complex tics are comparatively involved, coordinated, and purposeful and include motor tics such as repetitive touching, gesturing, posturing, jumping or kicking, and vocalizations of words or phrases, echolalia, palilalia, and coprolalia (repetition of others’, own, and swear words, respectively), or spontaneous changes in volume, cadence, or tone of speech (Burd, Kauffman, & Kerbeshian, 1992; Matesevac, 1991; Turtle & Robertson, 2008). With development, tics often become more complex or entirely change in nature. Although some experience the dissipation of tics by early adulthood, the pervasive and insidious disorder is lifelong and ephemeral, changing constantly in response to intrinsic and situational triggers (Prestia, 2003).

Assessment of Tic Disorders Co-morbid Conditions

More than 50 percent of children diagnosed with TS experience other psychiatric difficulties besides those related to tics, most commonly, a co-occurrence of either attention-deficit/hyperactivity disorder (ADHD) or obsessive-compulsive disorder (OCD).

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1The nomenclature variant found in the DSM-IV-TR is synonymous with the topical condition referred to here and henceforth as Tourette Syndrome (TS) throughout recent sourced literature.
is noted (Jimenez-Shahed, 2008). The neurobiological commonalities shared by these conditions often predict a compound diagnosis. As a common psychiatric disorder in its own right, affecting between 1-3% of the adult, child, and adolescent populations, OCD is particularly noted for its high incidence of comorbidity in those with TS. With 20-60% of children and adults suffering from TS also meeting the diagnostic criteria for OCD, consideration of obsessions, compulsions, and associated symptoms is an integral aspect of any combined treatment plan. Recognizing the role of sensory phenomena, or generalized and localized uncontrollable sensations (Woods, Piacentini, Himle, & Change, 2005) in the development of an urge to tic, many researchers have suggested a link between impulse-driven tics and obsessions and compulsions in obsessive-compulsive disorder (OCD). The reinforcement of both tics and compulsions through the alleviation of urges and obsessions, respectively, is yet another shared aspect of the two conditions. Given the similarities between this syndrome and other psychiatric conditions, it is unsurprising that the average patient diagnosed with TS will also meet the diagnostic criteria for two other clinical disorders (Freeman, Fast, Burd, Kerbeshian, Robertson, & Sandor, 2000). It is unclear whether some associated difficulties, including aggression, impulsivity, familial conflict, depression, and anxiety disorders (Leckman & Cohen 1999), coincide with TS or simply result from the progression of tics, but it is evident that chronic disorder sufferers experience many other troubles. Although the intellectual capabilities of TS sufferers is generally normal, developmental problems including dysgraphia, dyslexia, learning disabilities, and hindered visuomotor integration may create hurdles in school and work environments (Jimenez-Shahed, 2008). Both the symptoms of these disorders and the consequential impact on performance and behavior are known to incite low self-esteem, social isolation, discomfiture, and depression.

The Complex Profile

Many individuals are able to successfully suppress their episodic tics for a period, but the accumulating anxiety and irrepressible urge to “tic” often remains, compelling the sufferer to surrender to their compulsions. Delayed gratification of tics can cause a swell in internal tension that often accumulates and leads to a more dramatic expression of tics (Jimenez-Shahed, 2008). The role of anxiety in the severity of tics in TS potentially implies possible therapeutic strategies involving the treatment of underlying neuroses and consequential reduction of symptomatic tics. While motor and verbal tics comprise the defining constituents of the condition, there are many other implications associated with TS, extending across the gamut of human experience to include psychological functioning, speech patterns, movements and posturing, interpersonal communication, biological processes, and self-perception (Burd et al., 1992; Woods et al., 2005). In order to reduce the extensive injury caused to one’s self from both TS and preconceptions of mental illness, it is essential to acknowledge the multifaceted profile of the disease and understand the most effective treatment route for addressing psychologically injurious symptoms.

Adaptable Treatment Approach

The experience of the person with TS and a comorbid condition is piteous; indeed, those with multiple diagnoses must tolerate additional symptoms, undergo complex treatment, and endure further stigmatization. For the large percentage of children with comorbid afflictions, the struggle to function normally and interact appropriately is arduous and involved. An effective treatment strategy for TS thereby requires consideration for the other common symptomatic factors involved. The varying intensity and qualities of symptoms in the patient with TS warrants individualized treatment geared towards case-appropriate improvement of self-esteem, quality of life, and interpersonal functioning (Jimenez-Shahed, 2008). While individual therapeutic measures...
Those with TS experience marked embarrassment from and anxiety over the uncontrollability and impulsivity of their tics. Under most circumstances, isolation and self-deprecation are adopted as protective mechanisms from teasing, bullying, or general disapproval begat from misunderstanding of their disorder (Prestia, 2003).”

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may address specific aspects of one’s psychological distress, other problems are frequently ignored. Selective symptom treatment is particularly common with pharmaceutical treatments (Kenney, Kuo, & Jimenez-Shahed, 2008; Lerer, 1987; Srour, Lesperance, Richer, & Chouinard, 2008). The added stresses involved with a multifaceted problem warrant an equally compound treatment method to consistently alleviate these psychological maladies.

Behavioral Implications of Tourette Syndrome

Social Effects and Psychological Deterioration

Persons with TS tend to endure social difficulties involving peer interactions and group acceptance, problems that are often exacerbated by negative perceptions of individuals with the condition. Those with TS experience marked embarrassment from and anxiety over the uncontrollability and impulsivity of their tics. Under most circumstances, isolation and self-deprecation are adopted as protective mechanisms from teasing, bullying, or general disapproval begat from misunderstanding of their disorder (Prestia, 2003). Students exposed to such conditions are at an elevated risk for developing poor self-esteem, situational anxiety, and depression, especially given the increased stresses faced by those with tics. (Prestia, 2003; Wilson & Shrimpton, 2002). Increased anxiety experienced by persons with TS often extends into adulthood and impacts socialization and abilities. As such, trends of high unemployment rates and lower income relative to those found in Tourette sufferers relative to the general public unaffected by the disorder support the assertion that social implications of TS can have a continually negative influence on sufferers’ lives (Storch, Merlo, Lack, Milsom, Gelfken, Goodman & Murphy, 2007). The failed recognition of TS is further damaging to students with the disorder, causing extensive self-doubt and inviting disapproval from teachers and peers.

Quality of Life

The common characterization of children with TS as ill-behaved, lackadaisical or disruptive by others can cause undiagnosed children to withdraw from peers and social circles, abandon academic and co-curricular activities, and develop a self-perception centered around the internalized identity of the “problem student” (Wilson & Shrimpton, 2002). Lack of diagnosis further complicates the life of the students when their troubled relationship with instructors is compounded by teasing and social rejection due to the misunderstanding of tics. Research supports the idea that children with TS are perceived as isolated and unpopular by peers (Marcks, Berlin, Woods, & Davies, 2007), more so when the condition goes unidentified. The deficit of research conducted on the social interactions of an individual with TS as they influence self-concept and self-worth has propelled many to question the significance of the potential psychological damages of TS beyond those directly symptomatic of the condition itself (Friedrich, Morgan, & Devine, 1994). Social interaction in children, defined as the ability to mold one’s identity through information transfer, play, work accomplishments, outreach and provision of acceptance and support, and feedback (Grusec & Lytton, 1988). The role of positive peer interaction as a predictor of healthy development has been widely established (Friedrich, Morgan & Devine, 1994), as has the correlation between poor peer relations and later developmental difficulties, social isolation, and maladjustment (Parker & Asher, 1987). Among the relational disabilities found in those with TS are weak social adaptation, learning disabilities, anxiety problems, anticipatory fear of teasing, school phobias, organizational problems, aggressiveness, decreased popularity, and self-perception of mental health functioning as lower than average (Matthews & Barabas, 1985; Pitman, Green, Jenike, & Mesulam, 1987; Stefl, 1984; Stokes, Bawden, Camfield, Backman, & Dooley, 1991). Further indications that consequential difficulties stemming from the experience of TS continue into adulthood and profoundly contribute to

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difficulties dating and holding down a steady job (Marcks et al., 2007). Suggestive observations on misunderstanding of TS as a cause of social rejection has been further examined to verify the role in which negative perceptions beget social functioning for those with TS. Inspection of preventative disclosure strategies, in which one informs of and describes their condition to others, supports the idea that environmental alterations can effectively improve the quality of life for people suffering under the stigma surrounding mental illness. Studies on perception of psychological conditions, tics, and understanding of the condition as an entity removed from one’s character indicate that preventative disclosure could greatly reduce the social rejection and misattribution of symptoms as character flaws that commonly affect TS sufferers (Marcks et al., 2007).

**The Role of Environment**

The acquisition of data to support environmental restructuring strategies to allay the peer-influenced problems observed in TS sufferers holds much promise for future treatment approaches. Abundant support for the hypothesis that peer perceptions dictate social treatment of those with TS (Friedman, 1980; Himle & Woods, 2005; Truscott, Bray, Kehle, & Clarke, 2001) suggests that incorporation of such factors into treatment planning could be beneficial for those with the disorder. The application of this theory to behavioral manipulation studies lends further evidence to the claim (Leckman & Cohen, 1999). Environmental variables’ exacerbation of tics supports an environmental approach to treatment; indeed, if exogenous variables such as loneliness, stress, social situations, or exposure to tic-related discourse worsen tics (Leckman & Cohen, 1999), logic dictates that addressing these factors could counterbalance their negative impact. Incidence of reactive exacerbation of tics caused by tic-related talk (Woods, Watson, Wolf, Twohig, & Friman, 2001) strengthens the concept that behavioral interventions including reinforcement tactics and preventative disclosure are successful strategies for avoidance of symptom aggravation.

Data collected during a study on the manifestation of vocal tics in children exposed to tic-talk conditions and non-tic-talk conditions unveils the “clear relationship” between tic expression and social discussion of tics in the presence of sufferers (Woods et al., 2001). Implications of this study hold that there is an unmistakable relationship between environmental variables and tic expression, particularly in the reactivity of vocal tics to tic-related talk in peer groups. The contributions of such research suggest that utilization of environmental manipulation strategies such as preventative disclosure and reduction of exacerbating ostracism are effective TS treatment strategies.

**Implications of Tic Reduction**

While mixed success is achieved through attempts to close the gap separating those with psychiatric conditions from the unsympathetic public, the need for reduction of social stigma is still a pressing issue for those experiencing the symptoms of TS. For TS children especially, the need to correct isolating and distressful consequences is vital to healthy psychological development as well as the eventual course of the disease. With nearly 70% of children with TS experiencing difficulty interacting with peers and a further three-quarters of the TS youth undergoing persistent teasing because of their tics (Marcks et al., 2007), it is clear that clinicians’ push for attitude change strategies is well justified.

**Treatment Strategy Efficacy**

Therapeutic interventions for TS fall into two distinctive classes; those treatments designed to address tics, and those that aim to treat the symptoms of the co-occurring conditions that can further impair functioning. The co-existence of multiple symptoms renders medicinal treatment with one medication impossible, as there are no current drugs that successfully target all manifestations of the functional disturbance. When deciding upon the best course of treatment, care providers must compile a detailed record of the various features of TS in order to avoid harmful interactions between tics, treatment, and

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“The therapeutic interventions for TS fall into two distinctive classes; those treatments designed to address tics, and those that aim to treat the symptoms of the co-occurring conditions that can further impair functioning.”

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interrelated comorbidities. Treatment goals focused on the improvement of social relations, self-worth, and general functioning, in association with a plan combining therapeutic measures, can seek to alleviate symptoms but cannot entirely resolve the disorder. The primary treatment options for patients with TS are categorized as either pharmacologic or nonpharmacologic therapies. Direction of treatment is often determined by the functionality of the patient, the severity of the tics and co-occurring disorders, and the ability of the patient to cope with his or her symptoms (Himle, Chang, Woods, Bunaciu, Pearlman, Buzzella, et al., 2007; Phelps, 2008; Verdellen, Keijser, Cath, & Hoogduin, 2004).

Pharmacological therapies are primarily used when symptoms are significantly severe, damaging, or unresponsive to other treatment tactics. Treatment plans incorporating medication often work to alter chemical functioning in the brain in order to produce behavioral change. Non-drug therapies encourage identification of triggers, individual therapy, and environmental modifications, providing a comprehensive plan for the reduction in tics and associated difficulties. Alternative treatments include the use of Botulinum toxin (Botox) or deep brain stimulation.

**Pharmacological Treatment**

For most people with TS, medication is not a core requirement to the successful reduction of symptoms. Indeed, the reliance on medication is often eschewed in early treatment particularly because of the fluctuations observed in symptom severity. As such, symptoms that initially seem to warrant pharmacologic treatments may wax and wane without medical intervention. Presentation of tics is often most critical at the initiation of treatment, and physicians are unlikely to prescribe medication until a clear picture of long-term symptom variance emerges. The decision to implement medicinal treatments usually follows preceding indicators of severe social dysfunction, painful or injurious tic manifestations, or tic-related psychological impairment (Lerer, 1987; Phelps, 2008). The choice to follow any pharmacological treatment must be continually assessed and weighed against the potential risk factors and side effects associated with their use.

The usage of medication associated with TS incorporates drugs aimed specifically at tic reduction (most commonly typical or atypical neuroleptics), those designed to alleviate symptoms of ADHD (including stimulant medications), those that address symptoms of concomitant OCD (including various antidepressants), and those aimed at deterring side effects that emerge from the use of symptom-specific medications.

**TS-specific drugs.** The varying distinctions in TS cases necessitate different medical treatments for differing patient profiles; although Food and Drug Administration (FDA) approval is only extended to the neuroleptics haloperidol (Haldol) and pimozide (Orap) for the specific treatment of tics (Kenney et al., 2008), it is not uncommon to prescribe alternative or combinations of medications to treat TS symptoms. Alpha2-adrenergic receptor agonists, agents that act to constrict smooth muscles and inhibit tic manifestations, such as clonidine (Catapres) and guanfacine (Tenex) can aid in the reduction of mild symptoms, though potential drawbacks of such drugs are a threat to functional improvement.

**OCD-specific drugs.** Though the similarities between both OCD and TS manifestations render accurate diagnosis difficult, once distinguished, OCD must be treated separately from the other presenting condition. Treating obsessions and compulsions through medicinal means often involves the use of antidepressants, most commonly selective serotonin reuptake inhibitors (SSRIs) such as paroxetine (Paxil), fluoxetine (Prozac), escitalopram (Lexapro), or fluvoxamine (Luvox), selective norepinephrine reuptake inhibitors (SNRIs) such as venlafaxine (Effexor) and duloxetine (Cymbalta) or tricyclic antidepressants such as clomipramine (Jimenez-Shahed, 2008). Benzodiazepines have also shown efficacy with symptom management in OCD, as have morphine derivatives, which mimic SSRI and SNRI medications by inhibiting the reuptake of norepinephrine and serotonin (Leckman & Cohen, 1999). Along with behavioral strategies, the
aforementioned treatments have the potential to reduce symptoms of OCD. As with most drug treatments, side effects of antidepressants prescribed for tic-related OCD are common and include nausea, insomnia, anxiety, decreased sex drive, weight loss or gain, tremors, fatigue, headaches, gastrointestinal symptoms, and blurred vision, among many others (Leckman & Cohen, 1999; Lerer, 2001; Phelps, 2008). Furthermore, in the individual with tic-related OCD or Tourettic OCD (Leckman & Cohen, 1999), complications of drug interactions and exacerbation of tics, obsessions, or compulsions may occur.

**ADHD-specific drugs.** The treatment of Tourette syndrome in those with comorbid ADHD presents a particularly controversial topic due to the dangers and consequences of drug interactions between common ADHD medications with those used to treat tics. For those suffering from an attention deficit and hyperactivity, stimulant drugs such as methylphenidate (Ritalin) and mixed amphetamine salts (Adderall) work to raise extracellular concentrations of dopamine and norepinephrine and raise neurotransmission, thus providing therapeutic effects (Leckman & Cohen, 1999). Caution is advised with the prescription of stimulants for those with comorbid TS, as a much research (Himle et al., 2007; Leckman & Cohen, 1999; Lerer, 2001) indicates that stimulants often exacerbate tics and thereby intensify consequential problems with psychological functioning. The dangers associated with administering stimulants for those with tics are compounded with the low overall efficacy rate of stimulants in ADHD treatment (estimated 20% failure rate; Leckman & Cohen, 1999) to discourage stimulant usage in those with both TS and ADHD. Atomoxetine (Strattera) is an FDA approved treatment for ADHD that may be considered in a combined treatment plan, though side effects of liver damage, suicidal ideation, increased nausea, increased heart rate and weight loss all present considerable problems with the drug’s use. Additional treatments used to treat Tourette-related ADHD include alpha-2 agonists (clonidine; guanfacine) and various antidepressants, though some studies continue to warn of possible contraindication, specifically seen in the exacerbation of tics by bupropion (Wellbutrin) in those with both TS and ADHD (Leckman & Cohen, 1999).

**Pharmacological Treatment Risk Factors**

Serious risk factors associated with pharmacologic treatment of TS may deter some patients and treatment teams from integrating medicinal measures into a symptom management plan. Neuroleptic agents, including the FDA-approved haloperidol and pimozide, are prone to induce a prolonged QT interval in the heart’s electrical cycle (risk factor for ventricular tachyarrhythmia and sudden death; Leckman & Cohen, 1999), sedation, weight gain, acute dystonic reactions, and tardive dyskinesia (Kenney et al., 2008). For the majority population of TS patients with a comorbid psychological condition, a combination of drugs must be prescribed in order to address multiple symptoms or reduce the overwhelming side effects of one particular drug. It is not uncommon for children with TS to take tricyclic antidepressants along with neuroleptic drugs in order to reduce incidence of acute dystonic reactions (Srour et al., 2008), nor is it unusual for patients to combine alpha2-adrenergic receptor agonists with neuroleptic drugs to widen the scope of symptom management (Kenney et al., 2008). Alpha2-adrenergic receptor agonists are as noted for their ability to lessen tic frequency and sometimes combat concomitant symptoms of commonly present ADHD as they are for their tendency to induce sedation and hypotension. The dangers presented by possible use of multiple medications or the potential for symptom exacerbation in those with a comorbid condition such as OCD or ADHD warrant particular consideration by prescribing physicians and treatment providers. For those suffering social difficulties from the presenting problem of TS, the addition of injurious side effects and combined treatments can further hinder healthy functioning.
Behavior Therapy

The role of environmental influences in TS symptom severity supports the implementation of a behavioral treatment strategy in order to effectively alleviate tic frequency while reducing tic exacerbation, teasing, stigmatization, and associated psychological conditions such as depression, low self-esteem, and anxiety (Srour et al., 2008). The inability of pharmacological measures to adequately address these factors has led many researchers to seek out alternative therapeutic measures in the realm of behavioral therapy (Srour et al., 2008). Research results indicate that TS and its associated manifestations are controllable, at least in part, by environmental influences (Carr & Chong, 2005; Friedman, 1980; Leckman & Cohen, 2009; Marcks et al., 2007; Truscott et al., 2001).

Habit reversal training. Habit reversal training, in which patients receive instruction on increasing awareness of tics and combating urges, is among the leading behavioral treatments favored for TS treatment (Verdellen et al., 2004; Woods et al., 2003). Habit reversal technique increases recognition of urges and employs the use of competing responses through tensing of antagonist muscles to prevent the occurrence of tics (Carr & Chong, 2005). The success of Habit Reversal (HR) techniques has been widely established through recently conducted investigations. Woods and colleagues noted an immediate reduction of vocal tics upon implementation of HR techniques; work on vocal tics using a HR model resulted in an 82% reduction in vocal tics without heightened motor tics with maintenance of results continued throughout a three-month follow-up period (Woods et al., 2003). Compared with relative stagnation of symptoms in control participants, the results of the experimental group in this case indicate a high degree of efficacy for the HR treatment module.

Self-monitoring. Self-control techniques have proven to be another effective behavioral intervention for individuals with TS. The observational learning of self-monitoring allows sufferers to identify urges and common triggers and effectively reduce incidence of coprolalia with lasting results (Friedman, 1980; Truscott et al., 2001). Recognition of urges is compounded with incompatible physical responses or relaxation techniques in order to sustain the resistance of the sufferer to tics (Phelps, 2008). The integration of self-control techniques into a complex behavioral treatment program has been particularly successful with school-based problems and peer influence on children’s TS symptoms. Observational awareness of tic rate, environmental influences on tic manifestation, and effortful replacement of obscenities in verbal tics with “clean” words have all contributed to dramatic reduction of cursing in TS coprolalia (Friedman, 1980). Friedman’s case study (1980) of a child suffering from TS symptoms and resultant social difficulties showed great promise for self-monitoring techniques in tic reduction, with marked diminishing of cursing to almost non-existent levels and prolonged reduction of decreased symptoms. Educational models that teach sufferers to alter their behavior provide long-lasting results that continue to successfully control tics years after initial intervention (Friedman, 1980; Piacentini & Chang, 2005; Rosen & Wesner, 1973).

Response prevention. An additional behavioral technique that has been successfully utilized is response prevention (Phelps, 2008; Srour et al., 2008). Response prevention incorporates prolonged exposure to premonitory sensory experiences (the urges and sensations that precede tics) and effortful suppression of every tic and impulse (Verdellen et al., 2004). The concept of habituation is often applied to response prevention treatments, predicting the identification of premonitory sensations and associating these sensations with a suppression of urges (Phelps, 2008). Studies of response prevention have shown that the treatment reduces repetitive behaviors and eliminates the associated self-reported psychological distress (Wetterneck & Woods, 2006). Investigative research indicates that response prevention can reduce tic behaviors to zero after minimal treatment sessions (Wetterneck & Woods, 2006) without report of tic rebound after.
cessation of therapy (Srour et al., 2008), indicating that behavioral training may have long-term benefits and continual success.

**Differential reinforcement strategies.** The use of verbal instruction along with differential reinforcement has also shown much promise with tic-reduction and overall psychological improvement in those with TS. In order to demonstrate that tics could be at least temporarily modified by environmental events, researchers constructed a system of differential reinforcement of zero-rate behavior (DRO; Himle, Woods, & Bunaciu, 2008) that rewarded TS children with tokens upon successful suppression of tics. The resultant efficacy of tokens delivered for tic-free periods showed that tics were potentially amendable by environmental consequences (Himle, Woods, & Bunaciu, 2008).

Examination of the role of contingency reinforcement for tic suppression by Himle and colleagues (2008) compared tic frequency during conditions of no suppression (baseline), suppression instruction with non-contingent reinforcement, and suppression instruction plus DRO in order to test the theory that the contingency within the DRO was responsible for successful tic reduction. Several similar studies (Woods & Himle, 2004, Woods et al., 2005) support the conclusion found by Himle and colleagues (2008) that DRO contingencies consistently have a suppressive effect on tics. The implications of these findings are significant to the study of treatment strategies for those with TS. First, the corroboration of environmental influence over tic attenuation (Silva et al., 1995) seems to have some explanation with social reinforcement. The results of studies on tic suppression and reinforcement (Himle et al., 2008; Woods & Himle, 2004) may unveil the reasons behind the clinical phenomenon of children experiencing less tics in social settings (i.e. schools) than they do in their home environment (Himle et al., 2008). If social reinforcers, such as peer teasing in response to tics and peer acceptance in response to tic-free behaviors, influence the frequency of tic manifestation, perhaps refinement of behavioral treatments can capitalize on this concept and utilize reinforcement strategies to deliver effective TS treatment. Beyond the treatment of tics, the corresponding elimination of distress-causing peer response such as bullying, social rejection, and isolation is observed in those undergoing behavioral treatments (Himle et al., 2008). The combination of verbal instruction and reinforcement has been estimated at yielding a 76% reduction in tic frequency and marked absence of socially influenced TS symptoms (Himle et al., 2008). The use of effective symptom reduction strategies that draw upon behavioral techniques is evident in the TS sufferer’s improved quality of life and mastery of tools needed to achieve social acceptance, self-respect, and academic success (Woods & Himle, 2004).

**Combined Behavioral Treatments.** While few studies have analyzed the efficacy of one behavioral treatment over another, Verdellen and colleagues (2004) conducted a comprehensive review in order to compare the usefulness of habit reversal and response prevention for treatment of TS. Rigorous evaluation led researchers to the conclusion that both procedures were highly effective and equally successful in treating tic symptoms of TS (Verdellen et al., 2004). The individualized needs of TS sufferers has led some to propose an integrated approach drawing upon the principles of behavioral techniques in order to tailor the treatment to a particular individual’s needs. In one study of combined therapy, school-aged participants exhibiting both motor and vocal tics were introduced to a treatment utilizing both habit-reversal training and self-monitoring techniques. The habit reversal component taught participants to recognize tics and premonitory sensations and utilize competing response techniques in order to suppress tics. Once competing responses were learned and well-practiced, participants completed the habit reversal phase. They were then introduced to the self-monitoring portion of the experiment. Experimenters’ hypothesized that viewing themselves and monitoring their non-tic behavior would provide ample reinforcement for the habit reversal
techniques and integrate self-monitoring in a complementary manner. The participant viewing of videotape depicting their tic-free behavior in the classroom allowed individuals to reconstruct their self-perceptions and believe themselves capable of specific non-tic behaviors. The ramifications of this shift in self-view led students to act in accordance with this newly altered belief (Truscott et al, 2001).

Follow-up analysis conducted by Truscott and colleagues (2001) showed a 90% reduction in tic manifestation. The implications of a combined treatment method of this type are significant for TS treatment facilitators and sufferers alike. As the use of these nascent techniques continue to be evaluated, it is certain that this type of treatment can successfully reduce tics and aid with tic-induced and self-reflective psychological stressors. For children in the educational setting especially, the combination of habit reversal and self-monitoring is considered to be an agreeable intervention by students and teachers alike (Truscott et al., 2001). When those with TS gain a high degree of control over their tics, they can more easily react in social situations, pay attention to detailed materials, and reap the benefits of attentiveness, social acceptance, and improved self-worth (Wetterneck & Woods, 2004).

Discussion

Recent treatment trends for those with TS often rely on medicinal approaches (Phelps, 2008), emphasizing pharmacological methods over non-invasive therapeutic strategies. Clear reduction of tics is associated with the prescription of medication, but the correlated risks, interactions, and deficits that accompany an exclusively biological treatment module have led researchers to investigate the importance of other therapeutic options (Lerer, 1987; Wetterneck et al., 2006). Findings contradicting drug allocation necessity have further supported recent focus on alternative interventions; indeed, pharmacologic treatment is often unwarranted for symptom management despite historical reliance on such remedies. In cases where functioning is hindered by tics, pain, or extensive social struggles, medical measures should be incorporated with prudence and careful consideration of additional psychological factors.

Given the damages inflicted on the lives of those with TS, it is essential to identify effective and appropriate treatment options to alleviate symptoms and lessen the incidence consequential conflict that they incur. Before one can distinguish the best treatment method, one must first acknowledge the presence and intensity of the disorder and clarify the factors that affect symptom manifestations. As cited throughout recent research literature (Freeman et al., 2000; Himle et al., 2007, Lerer, 1987; Marcks et al., 2007; Stoke et al., 1991; Storch et al., 2007; Truscott et al., 2001) misconceptions surrounding TS often beget bias, mistreatment, and further psychological trauma for the afflicted person. In order to discourage peer perceptions that could inhibit treatment, it is necessary to first employ strategies in education and symptom demystification (Srour et al., 2008). By informing persons involved with the child about fluctuations in behavior, tic presentations, and concomitant conditions, tolerance can displace prejudice. Studies of peer evaluation of tics and self-disclosure for those with TS (Marcks et al., 2007; Stokes et al., 1991; Woods et al., 2001) further indicate that disclosure of diagnoses and emphasis of the uncontrolled nature of the disorder could be useful in the reduction of tension and resulting exacerbation of symptoms. When deciding upon a specific treatment plan for a client with TS, it is imperative to complete a full assessment of the biopsychosocial profile and determine the frequency, intensity, and characterization of all aspects of the disorder. Prioritization of problems and evaluation of concurrent disorders is essential to the design of a treatment plan best suited to the client’s needs. By addressing individual distinctions and considering corresponding psychological conflicts, treatment providers can maximize efficacy through the integration of case-appropriate aspects of behavioral, pharmacological, and surgical interventions.
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References


Symptoms of Attention-Deficit/Hyperactivity Disorder (ADHD) place a child at-risk for academic and behavioral difficulties. Approximately one-third of children with ADHD repeat a grade, drop out of school and are enrolled in special education courses; almost half experience school suspension (Barkley, 2006; Smith, Barkley & Shapiro, 2006). Due to these difficulties, school psychologists report receiving 17 referrals to assess ADHD per year (Demaray, Schaefer, & Delong, 2003), and are well-placed to work with children with ADHD (Power, Atkins, Osborne & Blum, 1994).

It is clear that the manifestation of core symptoms create functional difficulties for children with ADHD that must be identified and addressed; however, studies have revealed that children with ADHD do not always perceive or report these challenges. This has been referred to as the positive illusory bias (PIB; Hoza, Pelham, Milich, Pillow & McBride, 1993). The PIB is a phenomenon in which “children with ADHD unexpectedly provide extremely positive reports of their own competence in comparison to other criteria reflecting actual competence” (Owens, Goldfine, Evangelista, Hoza & Kaiser, 2007, p. 335). Moderately inflated self-perceptions have been reported in the general population (Taylor & Brown, 1988). Owens and colleagues (2007), however, argue that the inflated self-perceptions in children with ADHD are unique because they are larger in magnitude, are not clearly adaptive, and go against theoretical models of motivation that suggest that self-perceptions are enhanced when children experience success.

The PIB has been consistently observed in the academic and social domains, two areas with particular relevance to the school setting; therefore, it is important that school psychologists are aware of the research that has examined the PIB in children with ADHD. The goal of this review is to summarize research on the PIB, present theoretical frameworks proposed for understanding this phenomenon, consider the impact of subtype and comorbidity, and outline...
Implications for School Psychology Research and Practice.

Research Investigating the Presence of the Positive Illusory Bias

Within the PIB literature, self-perceptions are typically measured through self-reports of domain-specific competence (e.g., academic, social). This is important because a student can display the PIB in one domain, but not others. In addition, it is possible to assess one’s actual competence within specific domains (e.g., an achievement test can measure academic competence). In contrast, it is not possible to obtain an objective external criterion of global self-concept, which describes an individual’s evaluation of overall self-worth (Harter, 1999).

At least 16 studies have investigated the PIB in children with ADHD. A comprehensive review through 2007 was conducted by Owens and colleagues (2007). They found that the methods used to determine if the PIB was present had a significant impact on the findings. Three primary methods have been used for determining if the PIB exists: absolute self-perceptions, pre/post performance ratings, and discrepancy or criterion analysis (Owens et al., 2007).

The absolute self-perception method involves comparing self-ratings (global or domain specific) of children with ADHD to a control group. Several early studies investigating global self-concept found that children (Horn, Wagner, and Ialongo, 1989) and young adults (Hechtman, Weiss, & Perlman, 1980; Slomkowski, Klein, & Mannuzza, 1995) with ADHD had lower overall self-perceptions than the control group. Other researchers investigating the PIB at a domain-specific level found that children with ADHD rated their performance similarly to non-ADHD controls (Hoza et al., 1993), whereas others found that children with ADHD rated their performance as worse than controls (Ialongo, Lopez, Horn, Pascoe & Greenberg, 1994). Utilizing absolute self-perceptions to examine the presence of the PIB yields contradictory results and is limited because the accuracy of perceptions is not clear as this method does not allow for comparisons to children’s actual competence.

Pre- and post-performance ratings have been useful in further examining the PIB. This method requires children to predict or rate their performance on a task and these predictions are then compared to actual performance and/or control children. For example, Hoza, Waschbusch, Pelham, Molina, and Milich (2000) asked boys with ADHD and controls to try to convince another child (a confederate) to like them and attend a camp. The students rated their own social performance, which were compared to ratings from an observer. The ADHD group rated their performance more positively than the control group, despite being rated less socially effective. Another study examining post-task predictions in the academic domain (Hoza, Waschbusch, Owens, Pelham, & Kipp, 2001) found that boys with ADHD were less successful and effortful than the control group on a find-a-word task; however, the post-task ratings of boys with and without ADHD were comparable, indicating that the ADHD group inflated performance ratings (Hoza et al., 2001). In another study investigating the academic and social domains, boys with and without ADHD rated their performance similarly. Because boys with ADHD had lower performance, they had larger discrepancies between their self-rated and actual competence (Ohan & Johnston, 2002). The presence of the PIB has been consistently found using this method, which improves upon absolute ratings by providing information on the accuracy of a self-rating. One limitation is that academic tasks used (e.g., word finds) are not necessarily representative of those emphasized in school and do not easily generalize to typical academic tasks.

A third research method used is criterion or discrepancy analysis, which involves comparing self-reports of competence in various domains to a report from another informant or to a score on an objective measure (e.g., achievement test). This differs from pre/post comparison because the focus is on a child’s perception of their overall abilities in a specific domain rather than on a specific task. This method has been described as best practice (Owens et
Hoza and colleagues (2004) asked children with ADHD and controls to rate their competence in academic, social, athletic, physical appearance, and behavioral domains. On a parallel scale the child’s teacher, mother, and father reported their perceptions of the child’s competence. The teacher or parent rating was then subtracted from the child’s rating in each area to result in discrepancy scores. Children with ADHD had larger discrepancies than the control group between their self-reported competence and their parent/teacher rated competence, with their ratings more positive than the criterion. These findings have been replicated in several studies examining the academic, social, behavioral, athletic, and physical domains (Hoza, Pelham, Dobbs, Owens, & Pillow, 2002; Evangelista, Owens, Golden, & Pelham, 2008). To determine if these findings were unique to students with ADHD, Whitley, Heath, and Finn (2008) used discrepancy analyses to compare children with elevated ADHD symptoms to children with behavioral, emotional, and social difficulties but without elevated ADHD symptoms, and found that the ADHD group overestimated their competence compared to teacher ratings in the academic, social, and behavioral domains more than comparison children. Owens and Hoza (2003) also utilized the discrepancy methodology to examine how ADHD subtype may contribute to the PIB using both teacher reports and standardized achievement scores. Children in the primarily inattentive (IA) group had academic self-perceptions aligned with the criterion; conversely, children who displayed hyperactive/impulsive and combined symptoms (HICB) overestimated their academic competence compared to teacher reports and achievement scores.

Consistent results documenting the presence of the PIB have been gathered using the discrepancy method, suggesting that children with ADHD overestimate their competence across multiple domains. A second possible interpretation is that parents and teachers have negatively biased reports of children with ADHD (Eisenberg & Schneider, 2007; Whitley et al., 2008); however, given the consistency found across raters (Hoza et al., 2004) and the presence of the PIB when utilizing an objective criterion, such as an achievement test (Ohan & Johnston, 2002; Owens & Hoza, 2003), it is unlikely a negative bias is accounting entirely for the PIB.

Theoretical framework

There are currently four hypotheses that attempt to explain why this inflation of competence occurs, including theories of self-protection, neuropsychological deficits, cognitive immaturity, and ignorance of incompetence (Owens et al., 2007). The hypothesis that currently has the most direct support is that of self-protection, the idea that children with ADHD inflate their self-report of competence to mask feelings of inadequacy and preserve self-esteem (Diener & Milich, 1997; Owens et al., 2007). Support for this hypothesis comes from findings suggesting that children with ADHD most often overestimate their abilities in areas in which they experience the greatest deficit (Hoza et al., 2004). In addition, children with ADHD have been shown to accurately rate the competence of others (Evangelista et al., 2008). This is consistent with the self-protective hypothesis because self-protection is unnecessary when rating the competence of others. Further support comes from studies indicating that positive feedback regarding social performance increases the accuracy of social self-ratings (Diener & Milich, 1997; Ohan & Johnston, 2002). For example, children with ADHD provided more accurate ratings after receiving positive feedback regarding their social interaction with the teacher. In contrast, when given neutral feedback, self-ratings remained inflated compared to teacher ratings (Ohan & Johnston, 2002). Positive feedback in the social domain may affirm acceptance by others and decrease the need for self-protection; however, this pattern was not observed in the academic domain.

Although promising, the neuropsychological deficit hypothesis for the PIB has not been examined directly. Owens and colleagues (2007) indicate that neurologically-based deficits in the
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The cognitive immaturity hypothesis is that children with ADHD, like young children, overestimate their competence due to immature cognitive function (Owens et al., 2007). For young children, this overestimation is adaptive because it leads to persistence despite frequent failure, and as children mature, estimations of self-competence become more accurate. There is no direct support for this hypothesis for children with ADHD. Contradictions to this hypothesis include the fact that children with ADHD are able to accurately rate others’ competence (Evangelista et al., 2008), which suggests children with ADHD are able to judge competency. In addition, findings that children with ADHD do not persist with difficult tasks do not align with the observation that cognitive immaturity may enhance task persistence (Hoza et al., 2001). Longitudinal research examining the PIB would help shed light on the development of self-competence over time in children with ADHD, as well as provide information on the viability of the cognitive immaturity hypothesis.

A contradiction to this hypothesis is that although the PIB is more evident in areas of greatest deficit (Hoza et al., 2004, 2002), which suggests lack of skill, children with ADHD are able to accurately estimate the competence of others (Evangelista et al., 2008) which demonstrates that they have the skills necessary to appraise competence. This hypothesis holds that self-competence is overestimated due to lack of skills, which results in an inability to recognize deficits (Owens et al., 2007). A contradiction to this hypothesis is that although the PIB is more evident in areas of greatest deficit (Hoza et al., 2004, 2002), which suggests lack of skill, children with ADHD are able to accurately estimate the competence of others (Evangelista et al., 2008) which demonstrates that they have the skills necessary to appraise competence.

Additional research is needed to further understand the function of the PIB. A clear understanding of why the PIB is observed in children with ADHD is essential to establish a framework for future research and to determine whether the PIB is adaptive or maladaptive.

Considering Heterogeneity in ADHD Population

Research on the PIB has uncovered differences in the manifestation of the PIB depending on gender, specific symptom profiles, and comorbidity. ADHD is more prevalent among boys than girls, and only six studies on the PIB include female participants. Most studies utilizing absolute self-perceptions found no gender differences regarding the PIB (Horn et al., 1989; Evangelista et al., 2008); however, Owens and Hoza (2003) found a significant difference between genders in the behavioral domain, with girls reporting higher competence than boys. When using a discrepancy/criterion analysis, one study found no gender difference (Evangelista et al., 2008), while others found gender differences within specific domains (Hoza et al., 2004; Owens & Hoza, 2003). Hoza and colleagues (2004) found gender differences in the behavioral domain (boys overestimating more than girls), and the physical domain (girls underestimating more than boys). These findings support the presence of the PIB in both males and females and highlight the need for more research comparing genders.

Children with ADHD are at an elevated risk for comorbid depression, aggression, and learning difficulties. Several studies examining children with ADHD and comorbid depression have indicated that this group is less likely to exhibit the PIB (Hoza et al., 2002; 2004; Owens & Hoza, 2003). Children with comorbid aggression have been shown to overestimate their competence specifically in the social and behavioral domains, the areas where children engaging in aggressive behavior tend to have the greatest deficits (Hoza et al., 2004).
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2002; 2004). Research has also examined the presence of the PIB in children with low achievement and found that children with ADHD and low achievement overestimated their academic competence significantly more than typically achieving children with ADHD and a control group (Hoza et al. 2002; 2004).

These findings raise the question of whether it is ADHD or the comorbid diagnosis that contributes to the presence of the PIB. There is evidence that children with ADHD exhibit these overestimates regardless of comorbidity. Whitley and colleagues (2008) found that children with ADHD symptoms had larger overestimations of competence than children with symptoms of behavioral, social, and emotional difficulties (but not ADHD). A study comparing children displaying symptoms of ADHD and conduct problems to children with internalizing and externalizing behavior (but not ADHD) found that both groups overestimated their abilities; however, the ADHD symptoms/conduct problems group demonstrated greater inflation (Gresham, MacMillan, Bocian, Ward, & Forness, 1998). Although children with ADHD may not be the only group displaying PIB, there is evidence that it is present regardless of comorbidity.

Implications

Lack of clarity regarding the function of the PIB raises the question of whether professionals should correct or encourage positive illusions in youth with ADHD. In support of the PIB being maladaptive, children with ADHD tend to give up on academic tasks easily (Hoza et al., 2001), suggesting that the PIB does not enhance task persistence. Gresham and colleagues (2000) found that children with the PIB (not just children with ADHD) had worse social, academic, and behavioral outcomes than other children.

In addition, positive illusions have been linked to worse treatment outcomes (Hoza & Pelham, 1995), as illusions may lead a child to believe that they do not need intervention. Evidence supporting an adaptive function is limited; however, it has been suggested that the PIB in childhood may help protect college-age men with ADHD from becoming overly sensitive to rejection (Canu & Carlson, 2007). Moreover, previous research suggests that positive global self-esteem relates to enhanced outcomes (Slomkowski, et al., 1995) and that estimates of social performance were correlated with self-esteem for children with ADHD (Ohan & Johnson, 2003). These findings suggest that the presence of the PIB may positively influence a child’s feelings of self-worth.

Although more research is needed to further understand the cause and function of the PIB before clear intervention strategies can be delineated, there are broad implications for school psychologists related to the assessment and intervention of ADHD. The PIB may help children cope with rejection and failures, but a tendency for self-protection and/or a lack of awareness of deficits could potentially decrease motivation for treatment, especially psychosocial treatments which often require extensive effort by the student (Hoza & Pelham, 1995). In support of this idea, Hoza and Pelham (1995) found that a subset of students with ADHD who displayed the PIB responded worse to treatment than students who did not display positive illusions. Evaluation of the existence of a PIB may help inform how invested a student may be in treatment efforts. Consideration of a child’s perception of their own deficits may be important to inform intervention development and implementation in schools.

Findings from this body of research suggest that overestimations of competence are consistently observed in the academic and social domains, two areas of difficulty that are particularly relevant to school. School psychologists working with children with ADHD should ensure multiple sources and methods of data collection when determining functional deficits, as the literature on the PIB suggests that the children will not be accurate reporters of their competence. Although it has been long established that children with ADHD are not accurate reporters of their externalizing behavior (Barkley, Fischer, Edelbrock & Smallish, 1991), the PIB literature suggests that self-reports of academic and
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social performance are also frequently discrepant from actual competence. Also, it is suggested that when considering how self-perceptions relate to adjustment, school psychologists must look beyond the absolute score and consider how self-ratings correspond with external ratings (Gresham et al., 2000). This literature also further highlights the fact that intervening with children with ADHD should involve consideration of subtype and comorbidity. Comorbid depression and aggression may have different implications for the expression of the PIB. Knowledge of comorbid concerns may provide insight into the accuracy of self-reports.

There is a growing body of research supporting the notion that children with ADHD rate their competence more positively than seems warranted. Further understanding of the function and impact of the PIB needs to be achieved before clear-cut intervention strategies can be implemented, as there is mixed evidence regarding the adaptive or maladaptive nature of this phenomenon. There is preliminary evidence that the PIB serves a self-protective function, however, the PIB could also interfere with intervention efforts. This phenomenon is an important aspect to consider when working with youth diagnosed with ADHD.

References


Abstract
The problem of bullying has become highlighted recently by the tragic death of Phoebe Prince. While many programs have been effective in bullying prevention, successful programs have not generalized well to the United States, or from one setting to another, as successful programs generally need universal cooperation among the faculty. The present pilot program utilized a classroom based model instead of a whole school model of bullying prevention for a second grade classroom in an urban public school, with collaboration between the primary teacher and the school psychologist. Student cooperative participation was utilized to improve identification of bullying events, and as interventions which reduced individual and group to individual bullying. There was a significant reduction in the weekly frequency of bullying events which was maintained over a nine week period. Following the tragic suicide of fifteen-year-old Phoebe Prince of Massachusetts, her home state (Vaidero, 2010), and the state of New York (Madore, 2010) passed anti-bullying legislation. Presently over 80% of all states have an anti-bullying statue. The bullying of Phoebe Prince led to criminal charges against nine students who taunted and threatened her over a three month period (Eckholm & Zezima, 2010). Bullying of this nature is not a novel occurrence, and a year earlier, an eleven-year-old Massachusetts student committed suicide following sustained bullying (Cambria, 2010). At the elementary school level, these tragic events in part reflect the profound differences in belief and awareness between the students and their teachers, with more than twice the proportion children identifying bullying problems in their schools when compared to their teachers (Vaidero, 2010). There are successful anti-bullying programs, such as the Olwus Bullying Prevention Program, but these programs failed, or produced sporadic results when implemented in the United States (Vaidero, 2010). Other successful programs, such as PBIS (Shagai, 2005) and PeaceBuilders (Flanery, et al., 2003), depend upon the school community for success. Each of these programs requires the active participation of all adults participating in the school community for success. Such cooperation can be a rare occurrence. This lack of uniform school-based cooperation may reflect issues in the teaching community as nearly all teachers have been bullied by their peers, as have many principles (McDougall, 2009). Rather than develop a program relying on a ‘Top-Down’ approach requiring cooperation of the staff of a school, the present approach was a ‘Bottom-Up’ approach, beginning in a single classroom. The present program avoids many problems associated with other approaches by
relying on cooperative learning within the classroom to foster student efficacy and the students’ relationship with the classroom teacher. As a Bottoms-Up approach, implementation requires only the commitment of a teacher, the teacher’s classroom, and a consultant such as a school psychologist, thereby, changing the school climate one classroom at a time.

**Procedure**

A second grade classroom in a medium to large urban public school (of about 570 students) was experiencing moderate to serious bullying, taunting and teasing followed by student reprisals, all of which required administrative follow-up. The process of correcting the problem followed a tiered series of interventions to improve cooperative problem solving in the classroom and recess yard. In this second grade classroom, children were assigned to groups of four per “table”. Student composition for each table was heterogeneous, with each consisting of an equivalent number of behavior problem children, above average students, and students requiring additional teacher and peer support. Social cooperation within each group and inter-table competition was established (Sugai, 2005); groups were rearranged regularly so that all students had the opportunity to cooperate with one another. Initially, each table competed to be “the best table” by individual and general group cooperative behavior along with successful work completion as considered by the teacher. At the end of the day, the “best table” received a special marker which was prominently displayed on their table and these students were awarded privileges the next day, such as being office messengers, line leaders, distributors or collectors of student work and supplies. When the students were successful at regularly cooperating in every table student configuration, books were read to the students (Shore, 2009) in an interactive, guided reading format. The texts were used to introduce cognitive interpersonal problem solving strategies, targeting improving self-control skills. The goal was to provide perceived victims with skills which could reduce impulsive reactivity and enhance more successful responses to the perceived wrongs of peers. The text material was introduced weekly by the school psychologist, and reviewed throughout the week by the classroom teacher.

Following initial improvement in classroom cohesiveness (teacher observations), continued difficulty was noted and direct training in bullying prevention was implemented in three stages. The teacher introduced the topic of bullying by means of a whole class discussion held “on the rug”, where social distance is minimized by means of physical proximity. Whole class reading and discussion occurs commonly at this location so the concepts of bullying were held in a naturalistic setting. The school psychologist joined the teacher in the discussion and children shared personal experiences. A commercial anti-bullying video (e.g., “Sticks and Stones”) was played for the class, and stopped at each concept for discussion. The teacher assigned class work and homework derived from the work book accompanying the videotape. When all children evidenced written mastery of the concepts, a group project was assigned. Each group would be required to produce a poster about an aspect of bullying prevention, and either a play or puppet show depicting the material in the poster. Groups were devised by means of a modified jig saw cooperative learning strategy (Meichenbaum & Biemiller, 1999). The teacher assigned each student to one of four tasks for the groups. Each group had a “manager” responsible for supplies, keeping the group on time, assisting the designer and maintaining organization, a “designer” responsible for the design and creation of the poster, a “writer” responsible for writing the poem, play or puppet show, and a “performer” who would be the primary reader, actor, or puppeteer for the presentation. As the concept was initially introduced, all specialists met as a group to insure uniform understanding of each task. Then the groups were established with one (or more as there were an odd number of students) specialist per group. The designer led the discussion about the poster, and the writer led...
1. Tell the person what they did. (e.g., “Hey, you pushed me!”)
2. Wait for an answer – if it ends, great!
3. If the other person did not cooperate – look them in the eye and tell them, “I don’t like it when you ________ and I want it to stop!”
4. Leave
5. Wait and see
6. If it is still a problem, tell an adult.

Classroom-Based Tiered Anti-bullying Program Utilizing Group Cooperative Teaching and Peer support: A Pilot Study

This program used student cooperation to diminish the prevalence of bullying on the playgrounds during recess. This was the time and place where bullying was most likely to take place at schools in general was the area of greatest concern for this classroom as well.

This program used student cooperation to diminish the prevalence of bullying on the playgrounds during recess. This was the time and environment identified by teachers to be most problematical. The entire second grade, consisting of about 110 students, has a common recess, where all four classes join together in the play yard. In preparation for the recess anti-bullying component, a concrete script for use when encountering a bullying situation was extracted from the students’ posters and presentations by the primary teacher and school psychologist during a whole class lesson. This script was rehearsed and role played during classroom based anti-bullying lessons until it was over learned. These steps were:
1. Tell the person what they did. (e.g., “Hey, you pushed me!”)
2. Wait for an answer – if it ends, great!
3. If the other person did not cooperate – look them in the eye and tell them, “I don’t like it when you ________ and I want it to stop!”
4. Leave
5. Wait and see
6. If it is still a problem, tell an adult.

The language of bullying and the meanings of the terms used typically is understood by the students but undetected by adults. Often, bullying encounters are brief, lasting one or two sentences in duration, thereby making them even more undetectable by teachers supervising recess (Hamarus & Kaikkonen, 2008). Individual students were now able to structure potential bullying-encounters, but they would be doing so in isolation. When a bully targets a student, they rarely operate alone (Viadero, 2010). Thus, the present program utilized cooperative, student and teacher strategies in order to provide support and better identify incidents experienced by the students. This cooperation utilized 4 or 5 students to be the day’s “bully experts” during recess. This term was chosen by the children and badges were made up using art materials supplied by the art teacher. Badges were medallions of uniform size and background color, with a symbol and phrase on the front (such as a star surrounded with the words, “bully solver”) and the six steps of the script typed, uniformly (i.e., the above six step outline) on the back. Each table created one badge as a cooperative group activity and each of these badges was used daily by the selected bully experts during recess. Thus, students had ownership in creating this program, including their own badges. This badge became a status symbol for the individual expert, and a cue for possible bully victims to seek out help from these “experts”.

When assistance is requested, these “bully experts” are able to provide help by using strategy outlined on the badges to cue victims for recall and execution of the anti-bullying script in-vivo, and support by their physical presence. In the classroom, there was a uniform thermometer-like level system. Each student’s name was on their own clothespin, or “clip”. Each child’s clip moved up or down at the end of every subject period, or immediately as a punisher. In order to select the bully experts for each day, the in class behavior program was slightly amended. In the existing program “Clothes Pin Program” there is an ascending chart with the numbers 1 to 10. Each student has their name on a clothes pin. As they maintain positive behaviors individual students move up in number throughout the day. When students reach 10 or the highest for
that day, they receive special privileges such as homework passes or extra free time. The “Clothes Pin Program” was amended by adding five other clothes pins with table numbers on them. Each table, or group, acting most cooperatively was then moved up at the end of each period. The table at the highest level before recess became the group of bully experts for that day’s recess. By this process, the experts selected the students who evidenced the greatest cooperation for that day.

Immediately after the conclusion of recess, the teacher reviewed school yard problems with the class for assessment of individual student and expert assisted intervention, assessment of possible follow-up for continued training of students individually or as a whole class, and possible referral for further teacher initiated follow-up including administrative or counseling support. The teacher logged every event reported by the students, and daily tallies were aggregated for weekly reporting (q.v., fig.1, fig.2). Following the teacher’s observations, two supplemental whole class trainings were required. One frequent bullying complaint involved a group (of girls) who banded together while teasing one individual at a time. The first whole class training involved an explanation of bystander issues in bullying, and how to employ these pressures cooperatively. Specifically, should an expert notice several peers supporting the possible bully, that expert would raise their hand and classmates noticing the signal would aggregate silently behind the expert as the expert cued or coached the student requesting assistance. The second whole-class training involved the differentiation of telling (informing about bullying) from complaining and tattling. Complaining and tattling was defined as a disappointment (e.g., “he/she is not playing with me!”), or the target of an accident, or rough play (usually, “she/he pushed me!”). The results of this program were startling, in terms of student empowerment, reducing the severity of bullying, and identifying specific sources of high frequency or high intensity problems.

Results and Discussion
The effect of the anti-bullying program can be seen in figures 1 and 2. The program initially began on Wednesday, April 07, 2010 and data was collected for only two days that week. Actual frequency for the entire week was extrapolated from those two days. Each other weekly tally reflected the actual data collected by the teacher. A simple regression of the number of weekly events reported (figure 1) evidenced a significant reduction in the frequency of bullying events ($r^2=0.658, p=0.0146$) but the intensity of weekly bullying events (figure 2) was not significant ($r^2=0.227, p=0.2324$).

Additionally, there was no significant difference between the intensity of bullying on weeks April 12 to April 16, vs. June 01 to June 04, 2010 ($U_{16,6}=55.5$, $p=0.590$). The lack of significant differences in intensity appears to reflect
Classroom-Based Tiered Anti-bullying Program Utilizing Group Cooperative Teaching and Peer support: A Pilot Study

This present pilot studied a form of a Bottom-up model of bullying prevention. It was based on existing classroom behavioral support programs, existing lessons delivered in the classroom regarding bullying and existing strategies for improving student to student cooperation.

Additionally, with only three levels these data may be truncated. Secondly, uniform grade wide end of year examinations occurred for the week of May 24 to May 28, 2010 and was coincident with elevations in intensity. Inspection of the teacher’s logs indicated only a few students (two) were responsible for nearly all of the reported bullying behaviors coded as verbal or physical bullying during the test-taking week. Their behavioral change appeared unique to these students as there was only a minor elevation in frequency occurred for that examination week, and that elevation was almost exclusively due the two students’ bullying activities. These observations might suggest that the present program is effective for correcting acute bullying, nearly all factors contributing to recess yard bullying for second graders, and bullying experimentation, but these two children’s individual factors may require a longer period of exposure to the present program, or require more individualized intervention. The final analysis for the project's success was in the eyes of the participants; the students were emphatic in their response to taking charge of their recess yard, as were the teachers. This present pilot studied a form of a Bottom-up model of bullying prevention. It was based on existing classroom behavioral support programs, existing lessons delivered in the classroom regarding bullying and existing strategies for improving student to student cooperation. The main constituents of this program targeted strengthening peer based classroom behavior support, peer policing activities, utilization of anti-bullying scripts designed for victims of bullies, and utilization of bystanders to counter the power of group bullying. This pilot program appears to have promise for long-term bullying prevention in public elementary schools. Further research in employing this model seems warranted at this time.

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BOOK REVIEW

Behavioral Interventions in Schools: Evidence-Based Positive Strategies
A Book Review

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Behavioral Interventions in Schools: Evidence-Based Positive Strategies
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Identifying behavioral intervention resources and texts that provide a theoretical foundation and technique driven approach that would work for both the practicing school psychologist as well as be helpful in training the future school psychologists is often a challenge. Too often it appears that the texts and resources available were not always school specific (i.e., more general behavioral techniques and theory) or would teach techniques while failing to address the scientific theory and empirical basis behind them. This may lead to the use of some older solid books that are geared towards the practice of school psychology (Wielkiewicz, 1995) with supplement them with recent journal articles as well as readings from a number of additional sources that provide both the theory and somewhat more advanced clinical techniques (Friedberg & McClure, 2001; Goldfried & Davison, 1994). This approach may be needed in order to introduce cognitive behavioral theory and related strategies when discussing the practice of school-based interventions. With that in mind, I was quite pleased to have the opportunity to review the edited book Behavioral Interventions in Schools: Evidence-Based Positive Strategies, the sixth volume in the School Psychology Book Series which is collaboratively published by Division 16 of the American Psychological Association (APA) and APA books. This edited volume provides both a strong, empirical, fundamental text for the graduate student in school psychology as well as a valuable resource for the practicing school psychologist to assist in refining their skills in behavioral assessment, system-wide programming, and academic and behavioral interventions.

Too often edited volumes have the potential to be a nice collection of individual chapters in a related area with little overall conceptual framework to guide them. That is not the case with this volume. In the introductory section, the authors clearly outline the rationale for the book: “with a consistent body of empirical support for behavioral interventions, coupled with the need for school psychologists and other personnel to be equipped with knowledge of these interventions, this book was designed” (Akin-Little, Little, Bray, & Kehle, 2009 p. 5). They recognized the importance of having the science to guide clinical practice and the challenges faced with implementing evidence-based practice with children and adolescents.

The editors organized the text in four
major areas: Foundations for Designing School-Based Behavioral Interventions; Systematic Approaches to Prevention and Intervention; Specific Behavioral Techniques; and Customizing Behavioral Strategies for Special Populations. The structure and order of these sections is logical in nature and each section builds upon and references the prior sections when necessary. The contributors read like a “who’s who” list of recognized experts in their respective areas who can speak not just to the techniques themselves but to the theory and the research that guides and supports these approaches.

Foundations for Designing School-Based Behavioral Interventions

This section provides readers with five chapters that address many of the fundamental practices that guide the use of behavioral strategies within the school setting. The first four chapters cover in-depth, with a number of clear examples, many of the core tenets of behavioral practice: behavioral consultation, behavioral assessment, functional behavioral assessment and treatment integrity. A solid knowledge of these areas will better serve the reader as they move forward into more specific interventions later on in the volume.

The inclusion of a behavioral consultation chapter in an intervention book, along with the fact that the section on designing school-based behavioral interventions began with the behavioral consultation chapter raised some initial questions. However, upon further reflection on this section in its entirety the inclusion and location of this chapter did in fact make sense. That is, consultation (and referral for consultation) is often the first step in the process of behavioral intervention. This well-written chapter discusses the history of behavioral consultation along with a step-by-step approach towards the process and evaluation of consultation. This initial chapter served as a model for the rest of the text, as it presented the techniques along with an evaluation of the science behind them, discussed the strengths and weaknesses of the model, and the future directions of the area.

The second and third chapters address behavioral and functional behavioral assessment (FBA). These chapters define the core concepts and approaches attached to each area along with a guiding conceptual framework. Greater elaboration and discussion of selection of specific behavioral assessment tools and visual examples of both observational coding systems and an FBA may have been useful to the beginning behavioral interventionist, but it is assumed that this was due to the limited space available. The discussion of single-subject methodology in chapter two is believed to be essential to school psychologists, as it may be more practical than more methodologically rigorous designs. While this section is brief in nature, the authors do provide references to guide school-based practitioners in implementation of single-subject designs.

The third chapter provides an in-depth discussion of FBAs, their history, the legal mandates behind them, and the concerns in their use. The authors are quick to note that it is not the assessment approach for all individuals, and offer numerous examples throughout the chapter as to when and with whom it may be appropriate. The authors find a way to give a “Learning Theory 101” refresher for the reader during the course of the chapter, as they link specific learning principles (e.g., negative reinforcement) to the conduction of an FBA. This may be particularly helpful for the beginning practitioner, but is also a good review for the seasoned interventionist. The concluding section of this chapter links FBAs to intervention design and treatment planning, which is a helpful reminder that unless the FBA leads to an environmental change in reinforcing consequences, it will not lead to a change in child behavior simply because it was conducted.

Although we have an extensive body of literature demonstrating support for behavioral interventions, the best designed intervention plan is only as effective as the integrity with which it is carried out.
recognized barriers to treatment integrity that the chapter addresses is that of treatment acceptability. Too often I have found that our graduate students in school psychology have their hearts broken and get increasingly frustrated when they have put considerable effort into designing an intervention for a parent or teacher only to find that these individuals did not implement it. Typically, anecdotal reports of lack of acceptability of the parent or teachers for the intervention have been the barrier to implementation. The chapter links treatment integrity to legal mandates as well as discusses the importance of it within research to enhance the internal and external validity. What was particularly noteworthy in this chapter, and may be useful to others working within the school setting, was the strategies offered at the end of the chapter to promote treatment integrity within the schools.

I believe that the final chapter in this section is unique and essential to consider, as it relates to a possible reluctance often seen in consumers of behavioral intervention. That is, I have often experienced parents or teachers who believe that they “shouldn’t have to bribe the child for doing what they should be doing all along.” The editors recognize this anti-behavioral bias and define and address the relationship among external and intrinsic motivation, as well as provide research and engage in the debate about the impact of extrinsic reinforcers on intrinsic motivation. The “best practices” section at the end of the chapter does not really offer strategies to use reinforcement, but further provides fuel for this continued debate within the field of education.

Systematic Approaches to Prevention and Intervention

The seven chapters that make up this section are diverse in nature (i.e., Cognitive Behavioral Therapies vs. Classroom Applications of Reductive Procedures) and while they do not build upon one another as seen in the previous section, such a progression is really not essential. Each chapter stands on its own, discusses the extant literature in each area, and focuses on school based practice. The graduate student in school psychology and school-based practitioner could selectively choose a chapter to guide them in their professional practice within that specific area.

As mentioned at the beginning of this review, traditionally books for the school-based practitioner have either ignored or minimized the potential role of cognitive behavioral interventions for students within the schools. It was encouraging to see that this section begins with an summary of cognitive behavioral theories and therapies and discusses them within the context of school-based practice. This chapter tends to be more of a conceptual overview and presentation of some of the core intervention techniques that are associated with of the varied cognitive-behavioral models of therapy as they apply to children in schools. More detailed cognitively based practices for specific child and school based problems are offered in subsequent chapters.

At the same time, the second chapter in this section that reviewed evidence based academic interventions is one that also seems to be rarely seen within behavioral intervention in the school books, but nonetheless it is essential and is a welcome addition to this volume. The school psychologist who believes that academic interventions are left to the educators may be deluding themselves as our role continues to expand into this arena. Knowing what works to improve the academic performance of students across many of the core academic areas (i.e., Reading, Mathematics, Spelling, and Writing) may greatly assist them in their role as a consultant as well as in their ability to evaluate existing academic programming. The authors of this chapter do a commendable job in condensing what could have been its own edited volume into 15 pages that describe specific techniques and report on the effectiveness research in these academic areas. While this chapter does not discuss the specific role of the school psychologist with regards to these areas, the earlier chapters on consultation and treatment integrity provide the basis and the context in which the school psychologist may apply the information offered from this chapter.
“The strategies presented here, the frequent examples offered, and the integration of these approaches with the problem-solving model seen earlier in the consultation chapter will be a great asset in both the training of school psychologists and would also be considerably helpful to the school-based practitioner.”

Many of the other chapters in this section focus on behavior management and offer interventions that may be school or classroom-wide approaches that are proactive in nature or involve a group based approach. While the chapters often provide a review of the behavioral principles that are at the core of school or classroom based work, they also tend to overlap somewhat with the earlier foundational chapters. This may not be particularly problematic, as this continues to reinforce the learning of these concepts along with providing the reader with an understanding of the theoretical and empirical basis for which these concepts are based. At the same time, the reader may not read the entire volume in order and having this background in each chapter may be beneficial.

Consistent with earlier sections, these chapters provide both the legal and educational rationale and importance of the interventions presented along with a review of the research in this area. The chapter on proactive instructional strategies stood out as an excellent example of what the research has demonstrated are effective strategies to facilitate change and structure within the classroom (i.e., proximity; opportunities to respond; choice making) to enhance learning. This information will be a great asset to the school-based consultant working collaboratively with teachers to make classroom based modifications. The chapter on group-oriented contingencies provides many useful examples and addresses some of the strengths and weaknesses of different types of group-oriented programming (i.e., individual, independent, interdependent, and dependent) along with how philosophy of the educator may impact upon their use. I particularly liked the “Classroom Applications: Dos and Don’ts” (pgs. 163-167) and could see how a summary of the strategies as a hand-out for educators may be quite helpful in addressing target behaviors. The linking of reductive and positive approaches towards behavioral change is essential and reviewed well (Chapter. 11). The authors recognize this relationship and present and integrate both approaches towards reduction of disruptive behavior. While the analogy to physics and Newton’s second law of motion may take the reader back to high school science, it was an effective approach for allowing the reader to re-conceptualize and challenge some of their views as to how behavior develops and is maintained. The five strategies reviewed and discussed at the end of the chapter may be quite helpful for the school-based consultant to recall and reinforce when working with educators.

The final chapter in this section, while it may have been more appropriately placed in the first section, is nonetheless a unique and important contribution to this volume. While we may have evidence based practices and may be able to implement them with integrity that leads to behavioral change, this change has less social validity if it is not maintained and generalized. That is the focus of this chapter, and the authors do an excellent job in defining the concepts of generalization and offering clear examples when elucidation may be necessary. What may be more helpful to the reader are the procedures offered for generalization of behaviors. The strategies presented here, the frequent examples offered, and the integration of these approaches with the problem-solving model seen earlier in the consultation chapter will be a great asset in both the training of school psychologists and would also be considerably helpful to the school-based practitioner.

Specific Behavioral Techniques

With the reauthorization of the Individuals with Disabilities Education Act (IDEA, 2004), it seems that one could not find a book related to the field of school psychology or attend a conference that did not make mention of the concept of Response to Intervention (RTI) and identification of a Specific Learning Disability (SLD). As such, I read with caution and questioned the inclusion of a chapter on RTI and SLD within an edited volume that focused on behavioral interventions within the schools. The chapter gets into a discussion about the debate of RTI and discrepancy models towards identifying a SLD. If the focus moves away from this and rather focuses
“The authors integrate many previously outlined interventions (e.g., response cost; token reinforcement) as they relate specifically to these behaviors. They also provide a review of treatments that are geared more towards peer-mediated or self-mediated interventions, which may be somewhat unique and not a regular part of the school practitioners repertoire for dealing with externalizing behaviors.”

on the problem-solving approaches within the model, the measurement of behavior and instruction, and the integrity with which academic interventions are delivered the chapter may fit more logically with the rest of the edited volume. However, it is quite difficult to ignore the debate and the author’s argument for consideration of the use of RTI, and even upon re-reading the chapter for the review, it still felt somewhat out of place.

The other two chapters offered in this section focus on two general strategies for changing behavior: daily report cards and self-modeling. Daily report cards are a strategy that is often discussed in training and practice, and this chapter presents what they are, their advantages, and the research support behind it. While this approach may often be considered in the context of changing disruptive behaviors to more adaptive ones, the authors offer examples and research for both behavioral and academic systems targeted for change. The clearly described steps in the implementation of a daily report card will no doubt be helpful to the reader and may serve as a good checklist for the practitioner to follow to increase the likelihood of success. The chapter on self-modeling is also well-written and includes both a theoretical argument behind how it would work as well as the research behind it for disruptive classroom behavior, selective mutism, and in an area that was somewhat new and surprising to me: Autism. The authors provide a step-by-step procedural outline that is quite clear. Despite the reported success and somewhat quick and non-intrusive nature of the intervention, the fact that such technology may not be available to all schools and that some schools, parents, or students may not philosophically agree to this approach may be a barrier to implementation.

Customizing Behavioral Strategies for Special Populations.

The final section, and the six chapters within, focuses on customizing behavioral strategies for the specialized population that the practicing school psychologist is most likely to come into contact. The first chapter in this section was not diagnostically driven but rather fairly general in nature (i.e., working with difficult students) and the strategies offered were very practical. As other chapters have done, the authors start out with a general review of some basic behavioral principles and also discuss how practicality is defined and the importance of considering practicality in the intervention development. The authors describe varied characteristics of “difficult students” and then proceed to offer a number of research-proven antecedent based strategies that may be quite helpful when the school based practitioner is either engaging directly with the student or providing consultation to parents or educators. The use of classroom rules and positive and reductive consequences for behavior accompanied with the enclosed examples are thoroughly discussed, and strategies are offered to enhance their effectiveness and avoid pitfalls. The programs discussed and references provided to motivate the difficult student that concludes this chapter is also quite useful.

The chapters that focused on externalizing and internalizing disorders took somewhat different approaches towards their organization, structure and content. The externalizing chapter focused less on assessment, diagnosis, and comorbidity of the disorders and rather focused on the aims of the edited volume, which was to provide evidence based practices for working with students who demonstrate these behaviors in the home and school. The authors integrate many previously outlined interventions (e.g., response cost; token reinforcement) as they relate specifically to these behaviors. They also provide a review of treatments that are geared more towards peer-mediated or self-mediated interventions, which may be somewhat unique and not a regular part of the school practitioners repertoire for dealing with externalizing behaviors. The review of the research and the varied models of behavioral parent-training and home-based interventions may prove to be helpful in deciding which approach to recommend. Too often we struggle with translating these empirically proven strategies to practice within the
Behavioral Interventions in Schools: Evidence-Based Positive Strategies  A Book Review

school settings. Perhaps a discussion of this issue and strategies that the school psychologist may implement to help facilitate change would have been helpful.

Unlike the chapter on externalizing disorders, the chapter on internalizing disorders tended to focus much more on the definition, identification, and assessment of anxiety, fear, and mood problems and less on the interventions themselves. Perhaps this was done in order to educate the practitioner about problems that may go under-identified within a school setting and to assist in consultation to further inform educators about the disorders which may lead to better identification, but regardless it reads like a chapter in a psychopathology textbook. When we do get to the brief section on school-based interventions, they are limited in their depth of description and the research to support their effectiveness, at least in comparison with other chapters in this edited volume.

The next two chapters focus on areas that continue to emerge as regions of practice that school psychologists may seek and warrant further professional training in: preschool aged students and students with Autism. The chapter on preschool interventions addresses the challenges inherent in addressing these behaviors and offers a positive, preventive approach to change. These antecedent based strategies are offered with consideration of working with parents as well as in classroom based approaches. A number of straight forward practices are offered to create positive behaviors (e.g., incidental teaching) along with some simple heuristics to increase effectiveness. These practices are supported by references and examples to help clarify concepts. The authors also offer what they refer to as “high impact interventions,” which appear to be more environmentally and peer driven to promote positive behavior. This chapter was among the shortest of the chapters in terms of length and a more in-depth discussion of implementation of these strategies and methods for overcoming barriers may have been warranted.

With only one chapter dedicated to interventions for Autism, I did not think it would be possible to address all that could be considered in a behavioral intervention volume for this disorder. Apparently neither did the authors, and they wisely chose to focus on one specific target (social skills) of behavioral intervention and refer the reader to other chapters that would address the complexity of behaviors that are demonstrated in children with Autism. The chapter focuses on early intensive behavioral interventions (EIBIs), naturalistic strategies, and social skills development. They address some of the common misconceptions about applied behavior analysis (ABA), discrete trial instruction (DTI) and EIBIs, and the research behind the support of these approaches to produce social gains. The authors provide the readers with some backgrounds on naturalistic strategies (i.e., incidental teaching; pivotal response treatment) and the research that supports behavioral interventions for social skills training.

The final chapter is the briefest chapter in the volume and addresses trauma-focused cognitive-behavior therapy (TF-CBT). The brevity of this chapter is not a function of the lack of research to support the approach. In fact, the authors go a long way to describe the empirical support of the approach and many of the studies that have led to its efficacy. While many of the components of TF-CBT are described here and in other chapters in this volume, perhaps further elaboration on the unique narrative component of this treatment would have been helpful. The authors describe the only TF-CBT study conducted in the schools that was published, though they do not discuss some of the barriers and concerns about implementing this type of mental health programming in a school setting. Finally, the authors provide the reader with a weblink for a 10-hour, web-based educational course for individuals seeking to learn TF-CBT.

Summary
Overall, Behavioral Interventions in Schools: Evidence-Based Positive Strategies is a welcome addition to the behavioral interventions literature. The editors have developed a text that
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provides the necessary theoretical and empirical framework to guide students, trainers, or practitioners to deliver evidence-based practices when working with students in the schools. The offering of the foundational theory and science behind the approaches is essential for both novice and sophisticated practitioners. The editors and chapter contributors should be commended for the breadth of information provided in the text. The regular integration of current research is also important for both new and experienced school psychologists to be aware of in order to determine what the current best practices are in these areas. Overall, the book is recommended for trainers, school psychologists, and anyone looking to implement evidence-based behavioral practices in schools.

References


A problem that many students face is the price of various activities that are both critical to and enhance one’s education. Whether it is conducting research or attending conferences, the cost can prevent students from taking advantage of these opportunities. Thus, many students worry that the high cost of these activities will impede the opportunities that they have in graduate school as well as in acquiring competitive internships and jobs in the future. In order to help alleviate this concern, SASP has researched a variety of funding opportunities for students to conduct research, attend conferences, and lighten other financial “loads.”

**General Scholarships**

There are some scholarships available simply for being in a graduate school psychology program! This type of funding helps to alleviate the financial burden that many graduate students face. Scholarships can come from a variety of sources and can be granted in a variety of amounts. Check for scholarships available from your institution, government scholarships, and scholarships from various associations (e.g. NASP, APA, etc.).

Although most scholarships are general, there are some that are more particular in terms of their recipients. Specifically, there are numerous scholarships available for students from culturally and linguistically diverse backgrounds. For instance, the National Association of School Psychologists (NASP) provides funding through their Minority Scholarship Program for Graduate Training in School Psychology. This program grants at least one $5,000 award to a minority student who is currently enrolled in a graduate program for school psychology (there are often more than one award depending on the funding available each year). For more information on this specific scholarship, refers to NASP’s website: [http://www.nasponline.org/about_nasp/minority.aspx](http://www.nasponline.org/about_nasp/minority.aspx).

**Fellowships**

Fellowships are generally offered to advanced doctoral students to support dissertation research and/or extensive scientific endeavors related to the field of child and school psychology. Although several are available, a few are listed below to provide an example of the availability of funding as well as eligibility requirements.

**Elizabeth Munsterberg Koppitz Child Psychology Graduate Student Fellowship**

Sponsored by the American Psychological Foundation, the fellowship provides funding for research projects as well as scholarships for doctoral candidates focused on child psychology. To apply, students must have completed their doctoral candidacy, demonstrated commitment and competence in their area of research, and received Institutional Review Board approval if the research proposed involves the study of human participants. Applications are to be submitted online by November 15 at [http://forms.apa.org/afp/grants/](http://forms.apa.org/afp/grants/).

**Randy Gerson Memorial Grant**

This program of the American Psychological Foundation offers up to $6,000 for graduate students studying the dynamics of families, couples, and/or multi-generational processes. Preference...
is given to work that focuses on the
development of Bowen family systems
and/or the work of Dr. Randy Gerson.
Students should submit applications
online at http://forms.apa.org/apf/grants/
by February 1, 2011.

Esther Katz Rosen Graduate Student
Fellowships
Also sponsored by the American
Psychological Foundation, this fellowship
provides support to research investigating
giftedness in children and adolescents.
An award of up to $25,000 is offered for
a one-year period to a maximum of three
students. Students must be doctoral
candidates in good academic standing in
the United States or Canada. Applications
can be submitted online at http://forms.apa.org/apf/grants. The deadline for applications is March 1, 2011.

Research Grants
Throughout their graduate education,
many students run into the problem of
not having funding for a specific research
study that they would like to conduct.
Different aspects of a research project
may require money, such as materials,
transportation, or other types of support.
Although some students end up paying for
much of this out of pocket, other projects
cannot be completed without additional
funding. This can be quite frustrating
situation to be in! Fortunately, there are
research grants that can help reduce the
cost to students to complete their projects.

There are numerous federal and state
government grants that students can apply
for on their own or with a faculty member
or advisor that are specifically awarded
to fund research. There are also research
grants available from school psychology
associations specifically for students in
school psychology graduate programs. A
sample of such awards is presented below.

NASP Research Awards
NASP offers two research grants
each year to help students fund their
dissertation, thesis, or other research
projects. One grant is awarded to a
doctoral student and one to a non-
doctoral student. The recipients are also
eligible to receive $500 as a travel grant to
present their research at the annual NASP
Convention. For more information on this
funding opportunity, refer to http://www
.nasponline.org/about_nasp/gsra.aspx.

ISPA/SSSP Research Grants
For students interested in conducting
research on a topic related to international
school psychology, they can apply for
a grant from the International School
Psychology Research Initiative. This
initiative is a collaboration between
the International School Psychology
Association (ISPA) and the Society for
the Study of School Psychology (SSSP).
Research grants of up to $10,000 can be
awarded to any researchers hoping to
examine topics relevant to international
school psychology. Although this grant
is not specific to student researchers,
students may want to apply for the grant
to support a research project with a
faculty supervisor or advisor. For more
information on this funding opportunity,
refer to www.ispaweb.org/.../Final%20
ISPA=SSSP%20proposal%20.doc.

Dissertation Awards
Several dissertation awards are
granted by various divisions of APA.
Check the websites of divisions focused
on similar topics studied in your
dissertation to find out more information
on the availability of funding for your
dissertation study. Additionally, an award
for dissertation research is offered by
the Science Directorate of the APA. This
award provides between 30 and 40 grants
totaling $1000 each and additional grants
in amounts up to $5000. Awards are open
to all doctoral psychology students with a
focus on scientific research. Applications
are received between June 1 and
September 15 each year, and should be
submitted via postmail to the APA Science
Directorate. See http://www.apa.org/about/
awards/scidir-dissertre.aspx for more
information.

Travel Grants
In addition to conducting research, it
is exciting and rewarding to present your
research at a conference! However, this
is another area where students struggle
to find funding. Not many students can
pay to attend several conferences a year.
out of their own pocket. However, that does not mean that students cannot attend conferences. For instance, many colleges and universities offer funding to students who are presenting at conferences. Check to see what funding is available at the program, department, and college level at your school. You may be surprised by what you find!

There are also external sources of funding for students to attend conferences. Below are some examples of awards provided by various organizations.

**The American Psychological Association of Graduate Students (APAGS)**

**Travel Grants**

The APAGS offers $300 travel grants to students who are first authors on a paper or poster presentation at the annual APA convention. There can be up to three students per institution who receive the award. For more information on this funding opportunity, refer to [http://www.apa.org/about/awards/scidir-stutrav.aspx](http://www.apa.org/about/awards/scidir-stutrav.aspx).

**Paul E. Henkin School Psychology Travel Grant**

The American Psychological Foundation supports these travel grants, which offer student members of Division 16 one-time, $1,000 awards to attend the annual conference of the American Psychological Association. In order to apply, students must be members of Division 16 and demonstrate exemplary interest in and commitment to the field of school psychology. Students can submit their applications online by April 15, 2011 at [http://forms.apa.org/apf/grants/](http://forms.apa.org/apf/grants/).

Finding appropriate funding opportunities can be a daunting task for students. Hopefully these initial resources will help students across the country fund the various endeavors that will enhance their graduate education.

For additional information on the scholarships and awards listed above, as well as additional funding opportunities, see the following websites:

- NASP: Scholarships and Fellowships: [http://www.nasponline.org/students/scholarship.aspx](http://www.nasponline.org/students/scholarship.aspx)
People and Places

- **Dr. William (Bill) Pfohl** of the University of Western Kentucky was recognized for his service to the profession of school psychology as recipient of the NASP Lifetime Achievement Award.

- **Dr. Sandra Chafouleas** at the University of Connecticut was promoted to full professor and also became a fellow in the American Psychological Association.

- Fordham University is pleased to announce two new school psychology faculty (Fall 2010): **Dr. Yi Ding** joined our faculty as an assistant professor. She received her doctorate from the University of Iowa and taught in the school psychology program at the University of Toledo prior to coming to Fordham. **Dr. Melissa Laracuenta**, a clinical assistant professor, earned her doctorate in school-clinical psychology from Pace University.

- The University of South Carolina School Psychology Program welcomes **Dr. Mark Weist** to the faculty. Dr. Weist was previously on the faculty of the University of Maryland School of Medicine for 19 years where he helped to found and direct the Center for School Mental Health. Dr. Weist joins Drs. **Shauna Cooper**, **Scott Decker**, **Kimberly Hills**, **Scott Huebner**, **Jane Roberts**, and **Brad Smith** in the program.

- **Linda Caterino**, Ph.D., ABPP was awarded the Keith Perkins Lifetime Achievement Award by the Arizona Association of School Psychologists on 11/5/2010. This award recognizes exemplary service to students, their families, school personnel and the profession of school psychology.

- **Steven G. Little**, Ph.D., BCBA-D, continues in his position as professor of Educational (School) Psychology at Massey University in Auckland, New Zealand. He was recently named director of the program. He also recently was granted approval for a BA program in Educational (School) Psychology by the New Zealand University Programme Approval Board to begin in February 2011. The intent of this program is to better prepare students to enter graduate training in Educational (School) Psychology.

- **Angeleque Akin-Little**, Ph.D., BCBA-D continues as president of Behavioral, Educational, and Research Consultants which operates primarily on the use of applied behavior analytic/data-based decision making techniques in the schools. They have consulted and collaborated internationally, for example, with CentroABA in Lisbon, Portugal and The Institute for Applied Behavior Analysis in Oslo, Norway.
The University of Macau in China has hired Dr. Soo Uhm, a recent graduate from the University of California-Santa Barbara (now hailing from Iowa), Dr. J. Mark Davis, a previous University of Georgia clinic director, Dr. Tony Guo, a Queens University graduate, and Dr. Charles Zaroff, a clinical neuropsychologist from New York City. They also are opening a new Psychological Services Clinic and have hired Dr. Mary Poon as the new half-time Clinic Coordinator. All of these positions represent new positions and are part of the university’s growth and search for excellence in psychological research. The College will also move into a new building next week with a full floor developed for the Department of Psychology. The University of Macau. Flying Higher.

The Society of General Psychology (Division One of the American Psychological Association) is pleased to announce its 2010 award recipients. The winner of the 2010 William James Book Award is Harry C. Triandis, Professor Emeritus, University of Illinois at Urbana-Champaign, for his book, Fooling Ourselves: Self-deception in Politics, Religion, and Terrorism. The winner of the Ernest R. Hilgard Award for Career Contributions to General Psychology is Dr. Ludy T. Benjamin, Professor of Psychology at Texas A & M University. The winner of the 2010 George A. Miller Award for the outstanding journal article in general psychology across specialty areas is the article, “Fundamental dimensions of environmental risk: The impact of harsh versus unpredictable environments on the evolution and development of life history strategies”, by Bruce J. Ellis (U. of Arizona), Aurelio Jose Figueredo (U. of Arizona), Barbara H. Brumbach (U. of Arizona), and Gabriel L. Scholmer (Northern Arizona University), Human Nature, 2009, 20, 204-268.

The American Psychological Foundation and the Society for General Psychology are also pleased to announce that Wilbert J. McKeachie of The University of Michigan has been selected to deliver the 13th Arthur W. Staats Lecture for Unifying Psychology, during the 2011 APA Convention in Washington, DC.

The Duquesne University School Psychology Program is pleased to announce that it now offers a Psy.D in School Psychology approved by the Pennsylvania Department of Education. This program is offered alongside the APA accredited and NASP approved Ph.D. sequence, and the NASP approved Certificate of Advanced Graduate Study (CAGS) sequence. In other news, Jeffrey Miller, Ph.D., ABPP has been awarded the Eugene P. Beard Award for Leadership in Ethics and Tammy Hughes, Ph.D. has been awarded the Fr. Martin A. Hehir Endowed Chair for Scholarly Excellence at Duquesne University.

Please e-mail all submissions for People & Places to: schmitt2106@duq.edu
Announcements

Division 1: The Society for General Psychology
Call for Nominations 2011 Awards

The Society for General Psychology, Division One of the American Psychological Association is conducting its Year 2011 awards competition, including the William James Book Award for a recent book that serves to integrate material across psychological subfields or to provide coherence to the diverse subject matter of psychology, the Ernest R. Hilgard Award for a Career Contribution to General Psychology, the George A. Miller Award for an Outstanding Recent Article in General Psychology, and the Arthur W. Staats Lecture for Unifying Psychology, which is an American Psychological Foundation Award managed by the Society. In addition, there is an award for graduate students: The Anne Anastasi General Psychology Graduate Student Award (see below for details).

All nominations and supporting materials for each award must be received on or before February 15, 2011. With the exception of the William James Award, you are encouraged to submit your materials electronically.

There are no restrictions on nominees, and self-nominations as well as nominations by others are encouraged for these awards.

Winners will be announced at the annual convention of the American Psychological Association the year of submission. The awardees for the first four awards will be expected to give an invited address at the subsequent APA convention and also to provide a copy of the award presentation for inclusion in the newsletter of the Society (The General Psychologist). These Awardees will receive a certificate and a cash prize of $1000 to help defray travel expenses for that convention.

For the William James Book Award, nominations materials should include three copies of the book (dated post-2006 and available in print); the vitae of the author(s) and a one-page statement that explains the strengths of the submission as an integrative work and how it meets criteria established by the Society. The award criteria can be found at www.apa.org/div1/awards. Textbooks, analytic reviews, biographies, and examples of applications are generally discouraged. Nomination letters and supporting materials should be sent to Dean Keith Simonton, PhD, Department of Psychology, One Shields Avenue, University of California, Davis 95616-8686; dksimonton@ucdavis.edu.

For the Ernest R. Hilgard Award, nominations packets should include the candidate’s vitae along with a detailed statement indicating why the nominee is a worthy candidate for the award and supporting letters from others who endorse the nomination. Nomination letters and supporting materials should be sent electronically to John D. Hogan, PhD, Psychology Department, St. John’s University, 8000 Utopia Parkway, Jamaica, NY 11439 (hoganjohn@aol.com).

For the George A. Miller Award, nominations packets should include four copies of the article being considered (which can be of any length but must be in print and have a post-2006 publication date), vitae of the author(s), and a statement detailing the strength of the candidate article as an outstanding contribution to General Psychology. Nomination letters and supporting materials should be sent electronically to Nancy Felipe Russo, PhD, Department of Psychology, Box 871104, Arizona State University, Tempe, AZ 85287-1104 NANCY.RUSSO@asu.edu.

The 2012 Arthur W. Staats Lecture for Unifying Psychology is to be awarded in 2011 and given at APA’s 2012 annual convention. Nominations materials should include the candidate’s vitae along with a detailed statement indicating why the nominee is a worthy candidate for the award including evidence that the nominee would give a good lecture. They should be sent electronically to Donald Dewsbury, PhD, Department of Psychology, University of Florida, Gainesville, FL 32611 (dewsbury@ufl.edu).

The Anne Anastasi General Psychology Graduate Student Award is in its second year and some changes are being introduced. This nomination must be submitted electronically to Harold Takooshian, PhD, Psychology-916, Fordham University, New York NY 10023, takoosh@aol.com.

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Theory into Practice: Call for Proposals

The peer-reviewed journal, Theory Into Practice (published by Taylor and Francis), is accepting proposals for special issues on the following topics:

- Bullying and Cyber Bullying
- Education of Students with Gifts and Talents
- Technology for Tots (exploring the good, the bad, and the ugly of very young children using technology)

For information on TIP, see: http://www.tandf.co.uk/journals/titles/00405841.asp or contact: Anita Woolfolk Hoy, Editor, Theory Into Practice, The Ohio State University or email at Hoy.17@osu.edu
Rutgers University

Graduate School of Applied and Professional Psychology Rutgers

Rutgers University invites applications for a tenure-track appointment at the advanced or beginning assistant professor level for Fall 2011. Our APA accredited and NASP approved Psy.D. program trains students to provide school psychological services that are evidence-based, culturally sensitive, collaborative, and coordinated with other educational and organizational practices. Our program focuses on supporting the emotional and social development and learning of children and youth in educational settings, and the importance of context and systems in the delivery of psychological services.

The successful candidate will have demonstrated effective teaching along with a documented program of research in one or more of the following areas: a) systems approaches to school psychology service delivery; b) social, emotional, behavioral, or academic interventions; c) interventions with diverse populations; d) family or community interventions; e) prevention programs and services; f) behavioral health/pediatric school psychology; g) school consultation; h) use of assessment for intervention planning and progress monitoring. Review of applications begins immediately and continues until the position is filled. To apply, send letter of interest and vita to: Susan G. Forman, Chair, Dept. of Applied Psychology, Graduate School of Applied and Professional Psychology, Rutgers University, 152 Frelinghuysen Road, Piscataway NJ 08854.

University of Missouri, Columbia

The Department of Educational, School and Counseling Psychology (ESCP) in the College of Education at the University of Missouri (MU) announces a new open rank, tenure-line position in the area of School Psychology, to start Fall Semester 2011. Our preference is to hire at the associate or full level, but serious consideration will be given to established scholars at the rank of assistant professor, whose qualifications and achievements are particularly well matched to our needs. The APA-accredited school psychology training program emphasizes a scientist-practitioner model of training with a focus on prevention and public health perspectives.

The successful candidate will have an earned doctorate in School Psychology or a related field, commitment to a scientist-practitioner model of training and practice, a distinguished record of scholarly productivity commensurate with level of experience, commitment to obtaining external funding and the ability to work in multicultural settings with diverse populations. Desired qualifications include success as a principal investigator or co-investigator on a federally funded project and licensure or license-eligible in the state of Missouri. Contact: Cheryl Offutt (offuttc@missouri.edu) or my co-chair, Wendy Reinke (reinkew@missouri.edu).