

PSYCHOLOGY IN MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES

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Our Turn to Play the Name Game

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On August 9, 2006, the Executive Committee of Division 33, meeting at the APA Convention in New Orleans, voted unanimously to change the name of our division. Over the next two months members of the committee engaged in an email discussion of exactly what our new name should be. This culminated in a recent vote by Executive Committee membership to change the name from the Division on Mental Retardation and Developmental Disabilities to the Division on Intellectual and Developmental Disabilities. Because this is a constitutional change it requires the consent of the membership. Thus, members are now being asked to vote by mail on this proposal as well as a few other less consequential changes to the constitution.

Why should we change the name of the division? The term "mental retardation" has been under attack for at least the last decade because it is viewed as stigmatizing by many individuals and groups and as demeaning by many self-advocates and people who might be described as having this condition. However, it is important to note that we are not suggesting the term itself be replaced altogether. The term "mental retardation" continues to have value as a legal and diagnostic term (Switzky & Greenspan, 2006). This is particularly true concerning issues such as the

application of the death penalty. Thus the term itself should be preserved as necessary. Nevertheless, by removing it from our name we are joining with many organizations that have already moved away from the term "mental retardation," at least in their public face.

Removing "mental retardation" from the division's name is one thing. But why replace it with "intellectual disabilities"? Consider the following:

- The term "intellectual disabilities" already has a history of use in part due to its incorporation many years ago into the name of the *International Association for the Scientific Study of Intellectual Disabilities* (IASSID). Many of our members in fact belong to IASSID.
- The World Health Organization (WHO) adopted the term "intellectual disabilities" many years ago as well. As part of its charge, the WHO web site states: "The worldwide promotion of the scientific study of intellectual disabilities and related developmental disabilities and of the conditions of persons with such disabilities and their families. (Intellectual disability is intended to include significant intellectual deficit present from birth or at an early age.)"
- The *Arc of the United States*

dropped the term "mental retardation" from its mission statement several years ago and replaced it with the wording "cognitive, intellectual, and developmental disabilities".

- The *American Association of Mental Retardation* recently voted overwhelmingly (85% in favor) to change its name after years of protracted debate on this topic. Their new name is the *American Association on Intellectual and Developmental Disabilities*. Their journals, the *American Journal on Mental Retardation* and *Mental Retardation*, will be renamed in the near future.
- Several years ago the name of the President's Committee on Mental Retardation was changed to the *President's Committee on Intellectual Disabilities*.

I could provide additional examples, but the picture seems clear. The phrase "mental retardation", at least when used

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ALL MEMBERS OF DIVISION 33: BE SURE TO VOTE ON PROPOSED CONSTITUTIONAL AMENDMENTS INCLUDING DIVISION NAME CHANGE. BALLOT (INSERT IN THIS ISSUE) MUST BE RETURNED IN SEPARATE ENVELOPE WITH SIGNATURE PRINTED ON OUTSIDE OF ENVELOPE NO LATER THAN FEBRUARY 15, 2007.

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as part of the name of organizations, publications, and the like is quickly going extinct. Probably because everyone in the room was well aware of this fact, the August 9th discussion as to whether it was time for the division to change its name lasted all of 5 minutes. Of course everyone in the room recognized that by changing the name of the division, we were neither extinguishing the term nor altering its meaning. Those complicated tasks will surely be the subject of debate for years to come (cf. Switzky and Greenspan, 2006).

In summary, the time to change the name of the division is at hand. This change will in no way alter our mission or focus. Nor will this substantively alter the debate about names for the condition of interest and what it means. What it will do is bring us up to date in name at least with the larger field and context in which our organization exists. This was the reason for the approval of this name change by the Executive Committee. I urge you to ratify our action by voting in favor of this constitutional change.

Reference

Switzky, H. & Greenspan, S. (Eds.) (2006). *What is mental retardation?* Washington DC: American Association on Mental Retardation.

Proposed Amendments to the Division 33 Constitution

RATIONALE

August 9th, 2006 at the annual business meeting at the APA Convention in New Orleans, it was decided to make the following three changes to the Division 33 Constitution:

1. to add a second Student Representative to the Executive Council and to have them serve two-year terms that overlap one year. Article II, Section 5 and Article III, Section 1 have been revised accordingly;
2. to rename the Edgar Doll Awards Committee to the Awards Committee and to charge it with selecting the Doll Award recipient (annually) and the Jacobson Award recipient (bi-annually). Article IV, Section 9 has been revised accordingly; and
3. to change the name of the Division from *Mental Retardation and Developmental Disabilities* to *Intellectual and Developmental Disabilities* is proposed (see Steve Warren's column on Pg. 1 that outlines the rationale for the proposed name change).

Deletions are denoted by double strikethrough (~~double strikethrough~~) and additions by bolding and underlining (**bolding and underlining**). The proposed new name wording has been changed throughout the Constitution.

The proposed amendments are hereby submitted to the membership by publication as per Article VII, Section 1 to be decided "...by a majority vote of the members responding to a mail ballot which shall close not less than one month after the mailing or publication of the proposed amendment."

Only those sections of the constitution where a change is proposed are included below. The full Division 33

Constitution can be accessed at: <http://www.apa.org/divisions/div33/news.html>

IMPORTANT: FOR YOUR VOTE TO BE COUNTED:

**Indicate your votes on the tear-out card in this issue. Place card in an envelope and be certain to print your name on the outside of the envelope and mail envelope
NO LATER THAN FEBRUARY 15, 2007.**

CONSTITUTION

Division on ~~Intellectual Mental Retardation and Developmental Disabilities~~
(Division 33)

American Psychological Association

Article I - Name and Purpose

SEC. 1 The name of this organization shall be Division on ~~Intellectual Mental Retardation and Developmental Disabilities~~ of the American Psychological Association (hereinafter to be referred to as the Division and the APA respectively) **formerly known as Division on Mental Retardation and Developmental Disabilities.**

SEC. 2 The purpose for this Division shall be the advancement of psychology as based on scientific inquiry and the maintenance of high professional standards of practice **in the field of intellectual mental retardation and developmental** disabilities as a means of furthering knowledge and promoting human welfare.

ARTICLE II - Membership

SEC. 2 To qualify for the status of Member an individual shall be a Member or Fellow of the APA who has an interest in the scientific or professional aspects of work with persons with ~~intellectual mental retardation~~ and developmental

disabilities. A Member or Life Member shall be entitled to all the rights and privileges of the Division.

SEC. 3 To qualify for the status of Associate an individual shall be an Associate of the APA who has an interest in the scientific or professional aspects of ~~intellectual mental retardation~~ and developmental disabilities. An Associate shall be entitled to all rights and privileges of the Division, except that an Associate shall not be entitled to hold the positions of Division President, President-Elect, President-Elect-Designate or Division Representative to the APA. The total number of Associates to the Division shall not exceed 40% of the Division membership.

SEC. 4 To qualify for the status of Affiliate an individual must: 1) have at least a Bachelor's degree in human services or a health related field and, 2) an interest in and commitment to the fields of ~~intellectual mental retardation~~ and developmental disabilities. Affiliates are not members of APA, and affiliation with Division 33 does not confer affiliation with National APA, or with any other Division of APA. Affiliates receive the Division Newsletter and may participate in Division business affairs, except that they may not vote in elections and may not hold office.

SEC. 5 To qualify for the status of Student an individual must be a matriculated student in good standing who is a student member of APA. A faculty signature attesting that a student is matriculated and in training in psychology or a related field is required for acceptance as a student member. Students have all of the benefits of Division membership except they may not vote in elections and may not hold office. **Each year** a student member who is also an American Psychological Association of Graduate Students



(APAGS) member shall be appointed by the Executive Council as Student Representative for a ~~one~~ **two**-year term. ~~The Student Representatives will be a voting members~~ of the Executive Council.

SEC. 6 Election to membership shall be accomplished as follows:

- A. Application shall be made to the Membership chairperson of the Division, who may devise a special form for this purpose. The application shall indicate Associate, Member or Fellow status in good standing in the APA and active employment with or an interest in intellectual mental-retardation and developmental disability.

SEC. 9 The minimum standards for initial nomination to APA Fellowship through Division 33 shall be:

- A. Nomination to the Division's Committee on Fellows by at least three (3) Fellows of APA, one of whom must be a Fellow of the Division. ~~on Mental-Retardation and Developmental Disabilities:~~

Article IV – Committees


SEC. 1 The Standing Committees of the Division shall be Nominations and Elections, Membership, Program, Publications, Fellows, Finance, Constitution, ~~Edgar A. Doll Memorial Awards~~, Professional Standards, Quality of Care, Legislation and Public Affairs, and Ethics. The Chairpersons of Standing Committees and the Editor of the Newsletter shall serve for a term of three years and may be reappointed for one additional term.

SEC. 9 The ~~Edgar A. Doll Awards~~ Committee shall be composed of a Chairperson and two additional members appointed by the President, such members to be selected from Past-Presidents in order of election. If the list of Past-Presidents is exhausted, selections shall be from other elected officers who have not served previously in this capacity. The Committee is charged with selecting the Doll Award recipient (annually) and the Jacobson Award recipient (bi-annually). The Doll Award is intended to be the Division's highest recognition of outstanding scientific contributions to the field of intellectual and developmental disabilities. In acknowledgement of John Jacobson's commitment

to critical thinking, the Jacobson Award recognizes meritorious contributions to the field of intellectual and developmental disabilities in an area directly related to behavioral psychology, evidence-based practice, dual diagnosis or public policy.

SEC. 10 The Professional Standards Committee shall be composed of a Chairperson and additional members deemed necessary appointed by the President with consent of the Executive Council. The committee shall pursue all matters related to preparation and certification of qualified professionals in the field of intellectual Mental-Retardation/ and developmental disabilities.

SEC. 11 The Committee on Quality of Care shall consist of a Chairperson appointed by the President with consent of the Executive Council, and additional members as deemed necessary appointed by the Chairperson. The function of the Committee shall be to provide leadership in matters pertaining to person abuse and to further the interests of the public as affected by the activities of persons in caretaking, guardianship, or trusteeship roles of responsibility for ~~mentally-retarded persons with intellectual and developmentally disabled persons-~~ disabilities.

SEC. 12 The Committee on Legislation and Public Affairs shall consist of a Chairperson appointed by the President with consent of the Executive Council, with two additional members appointed by the Chairperson. The Committee shall pursue matters relating to legislation and public affairs in order to provide information and suggest action to preserve services for persons with intellectual and developmental disabilities MR/DD. The committee shall have an annual budget for the conduct of its duties. 

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Message From The President:

Johannes Rojahn, George Mason University



A cordial *Servus* to all Division members from the new president. ("Servus" is an Austrian greeting using a Latin word, which means servant. As in "I am your servant". Don't take that all too literally, please!)

Well, the 2006 APA convention has come and gone without any incidents. The concerns and apprehensions that have troubled many of us by meeting in a city in the aftermath of an epochal natural catastrophe turned out to be needless. In fact, many of us had a great time! That does not mean, of course that New Orleans as a city and community has fully recovered yet (it has not, as we all know), but the "crescent citizens" were gracious and grateful hosts who made us feel safe and appreciated for having stuck to our commitment.

It has been a great pleasure for me to begin my term as the President of Division 33 during our meeting in New Orleans this summer. The painless transition from the cushy president-elect status into the hot seat was greatly facilitated by the kind support from so many wonderful people, especially Bruce Baker, our past president and Sara Sparrow, our past-past president. But there are many others I ought to mention as well, but space does not permit that. Let me just say that it has been an unanticipated surprise that having become actively involved in the Division has brought me many new personal and professional contacts and friendships. However, prompt fading has started!

I believe I speak for the majority of those hearty souls who attended that the program was a great success indeed. We had an impressive contingent of national and international presenters, with six distinguished Invited Speakers (Steve Schroeder, Elizabeth Dykens, Mark Durand, Marsha Seltzer, Johnny L. Matson, and Celine Saulnier) and a wonderful Doll Award ceremony with a great presentation of the latest Doll Award winner, Dr. Ann Streissguth. A thank you to all of them!

Speaking of attendance, the first figure shows the total number of folks who attended APA during the past six years (mean = 12,155.8, $SD = 2,166.6$, min = 8757, max = 14633), and the number of attendees who indicated Div. 33 as their primary division on their convention registration form¹ (mean = 63.3, $SD = 10.7$, min = 44, max = 77). This indicates that the Division attendance seems to be reflective of the APA in general ($r = .74$).

This information can be better ap-

APA Conference Attendance

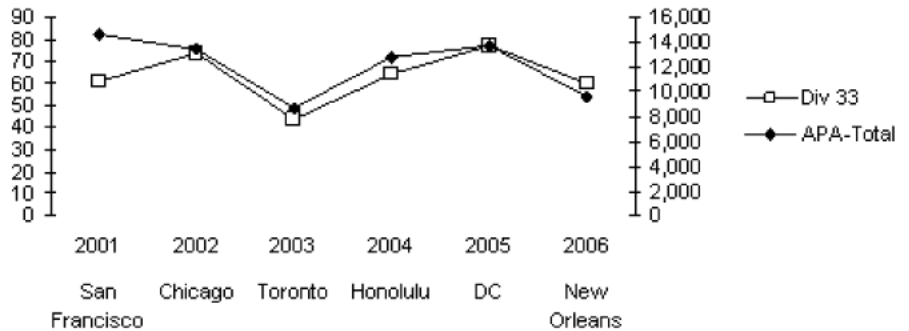


Figure 1

APA Membership Trends

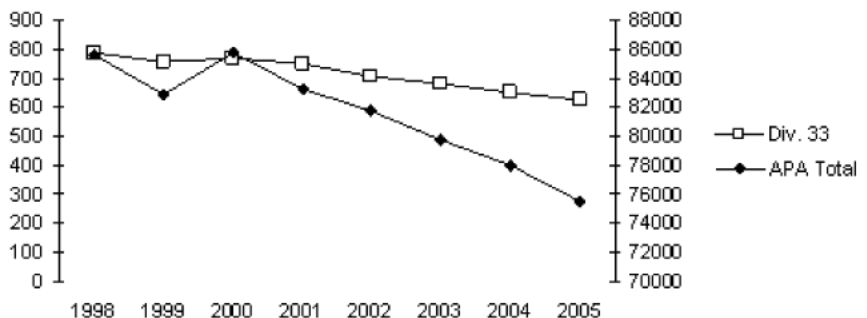


Figure 2

preciated in consideration of the APA membership trend in Division 33 (mean = 761, $SD = 55.2$, min = 626, max = 786), and in APA in general (mean = 81,579, $SD = 34404.6$, min = 75,444, max = 85,781) (see second figure).

APA membership has been declining and so has our division membership. The good news is that the trend in our Division seems less dramatic than the overall APA trend. The bad news is we are gradually losing members! So, please let's make an effort to visit San Francisco in 2007 and let's also make every effort to recruit new members for Div. 33 to reverse that trend! We all hope that our very attractive new brochure will assist us in recruiting of new members.

On a related worrisome topic, the Division had no new fellows this year! Please send the names of prospective members to the chair of the Fellows committee, Wayne Silverman (SilvermanW@kennedykrieger.org). If you would like to see a list of Div. 33 fellows, please send me an email (jrojahn@gmu.edu).

At least four exciting and important initiatives are in the works: (1) *Name change*: all members are called to vote on a new name for our division (see Steve Warren's excellent Newsletter column that outlines the rationale for considering a new name); (2) ongoing work by the *Ad Hoc Committee on Mental Retardation and the Death Penalty* (Greg Olley [chair], Caroline Everington, Stephen Greenspan, Gary Siperstein, and Harvey Switzky); (3) establishment of an *Ad Hoc Committee: Evidence-Based Treatment and Mental Retardation*. (Ann Kaiser [Chair], Laura Lee McIntyre, Jim Mulick); and (4) Jim Mulick proposed to begin work on a new edition of the *1996 Manual on Mental Retardation and Professional Practice*. Washington, D.C.: American Psychological Association.

Bob Hodapp, our treasurer, reported that Division 33 continues to be in good financial health. Since the largest expense item continues to be the newsletter, I better stop right here lest I bankrupt our budget.

¹It is important to note, however, that only 38% of conference attendees indicate their primary division when they register.

Division 33
Edgar A. Doll Address
 Presented at the Annual
 Meeting of the American
 Psychological Association
 August, 2006

The Importance of Adaptive Behavior Assessments for Understanding Fetal Alcohol Spectrum Disorders (FASD)

Ann Streissguth
 University of Washington

In the fall of 1972, Drs. David W. Smith and Kenneth Lyons Jones asked me to conduct developmental assessments on a few children they thought had a new syndrome. All mothers had been chronic alcoholics at the time of their pregnancies. The 8 children ranged in age from 3 months to 4 1/2 years. The stunning characteristic of these children was that although unrelated and born of three different ethnic groups, they all had a similar pattern of cranial facial, limb, and cardiovascular defects associated with prenatal-onset growth deficiency (Figure 1, Figure 2).

None of the children were performing in the normal range on the Bayley Scales in terms of mental and motor development. Fine motor dysfunction, including tremulousness, weak grasp, and/or poor eye/hand coordination, was present in 5 of the 6 children given motor tests. Five of the children were observed or reported to engage in some type of repetitive self-stimulating behavior such as head rolling, head banging, or rocking.

I also administered the Vineland Social Maturity Scale to parents of 3 of the 4 children who were over the age of 2 years and had a parent available. To my great interest, the Vineland Social Maturity Score was lower than each child's IQ or MDI. This work was soon published in *Lancet* (Jones, Smith, Ulleland, and Streissguth 1973), followed soon after by 3 more such patients, for a total of 11 and the naming of the Fetal Alcohol Syndrome (FAS) (Jones and Smith, 1973).



Figure 1. Children diagnosed with FAS: the girl at 3 years 9 months and the boy at 2 years 6 months. Note the short palpebral fissures (width of the eye slits) in both patients and the strabismus and asymmetric ptosis (drooping eye lid) in the girl (from Jones et al, 1973)

This work has been primarily supported by the NIAAA (R37-AA 01455-01-32), the Centers for Disease Control, the Indian Health Service, the University of Washington Alcohol and Drug Abuse Institute, with supplemental funding from other agencies.

I thank my patients and their parents, who taught me about FASD, and my colleagues at the University of Washington Fetal Alcohol and Drug Unit over these past 32 years.

Ann Streissguth, Professor Emeritus, Department of Psychiatry & Behavioral Sciences, Fetal Alcohol & Drug Unit, University of Washington, School of Medicine, Seattle, WA. <http://depts.washington.edu/fadu/<astreiss@u.washington.edu>>



Figure 2. Diagram of FAS facial characteristics in the young child (from Streissguth & Little,

A necropsy performed on one of these patients who died at 5 days, revealed a brain with extensive developmental anomalies involving aberrant migration of neuronal and glial cells, an incompletely developed cerebral cortex, and agenesis of the corpus callosum (Figure 3). This second publication also noted that a Rumanian scientist, St. Sandor, had earlier demonstrated ethanol-induced dysmorphogenesis in chick and rat embryos. In the developing chick, deformed brain vesicles and spinal cord, abnormal development of somites, and retardation of general growth were noted. (We now know that the brain is the organ most likely to be damaged by prenatal alcohol, and may be affected even in the absence

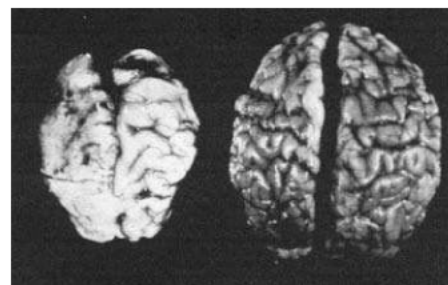


Figure 3. Comparison of the brain of a normal newborn with the brain of an infant with FAS who died 5 days after birth (photograph courtesy of S. Clarren, M.D.). Note the small size of the brain from the infant with FAS and that the gyral pattern is obscured by a leptomeningeal neuroglial heterotopia (from Streissguth et al 1980)

of the facial features, growth deficiency, and other birth defects.)

Ten years later we wanted to re-examine these original 11 children (Streissguth, Clarren, & Jones 1985) (Figure 4). One was lost to follow-up, two were dead, and the remaining eight continued to be growth deficient and dysmorphic. Four were severely handicapped intellectually (IQ 20, 40, 48, 57) and needed complete supervision outside the home. Four of the survivors had borderline intelligence (IQ 80, 81, 86 and 76), showing some improvement in IQ scores across the 10-year period. Three mothers of the most severely affected children were dead of alcohol-related problems by this 10-year follow-up. Sadly, those children with the greatest potential often were not recognized by their schools as having special needs. Unfortunately, we did not administer the Vineland at that follow-up. The children with borderline IQ scores found school unrewarding and stressful; school failure and dropout occurred in early adolescence (Streissguth 1989).

During the next few years, we carried out an extensive study of 61 adolescents and adults who had previously been diagnosed with either FAS or Fetal Alcohol Effects (FAE), the latter category referring to those without the full classic facial features (Streissguth, Aase, Clarren, Randels, LaDue & Smith, 1991). The 31 patients for whom an appropriate VABS informant was available had an average chronological age of 17 years;



Figure 4. Boy diagnosed with FAS at birth (Jones and Smith, 1973) and photographed as a neonate and at 8 months, 4 1/2 years (Streissguth et al 1980) and 9 years (Streissguth et al 1984). He has been growth deficient and microcephalic throughout his life.



on the VABS-R they averaged around 7 years. Their Daily Living Skills averaged 9 years although 2 were age appropriate. They functioned most poorly on Socialization Skills (averaging around 6 years). None were age appropriate in terms of Socialization or Communication Skills. The VABS revealed the following items as characteristic of these patients with FAS and FAE: failure to consider consequences of action, lack of appropriate initiative, unresponsiveness to subtle social cues, and lack of reciprocal friendships. None of the patients on whom a VABS was obtained were technically retarded according to IQ scores.

On the Maladaptive Behaviors Inventory of the VABS, 62% of the patients had a "significant" level of maladaptive behaviors and 38% had an 'intermediate' level. Although coming from a wide variety of backgrounds, not one patient had a Maladaptive Behavior Score in the 'insignificant' range. The most frequent types of maladaptive behaviors noted were: poor concentration and attention, dependency, stubbornness or sullenness,



Figure 5. Boy in Figure 4 as an adult, photographed with the author.

social withdrawal, teasing or bullying, crying or laughing too easily, impulsivity, and periods of high anxiety. In addition, many of the patients were noted to lie, cheat, or steal, to show a lack of consideration, and to exhibit excessive unhappiness. None were receiving help with mental health problems at the time of the examination.

We concluded when this paper was published in JAMA (Streissguth et al., 1991) that "Fetal alcohol Syndrome is not just a childhood disorder: there is a predictable long-term progression of the disorder into adulthood, in which maladaptive behaviors present the greatest challenge to management," (Figure 5).

During the next few years we recruited more diagnosed patients for a total of 415 across the age span, in an effort to further understand their "secondary disabilities" (defined as disabilities that they were not born with, Streissguth, Barr, Kogan, and Bookstein 1996). It is the VABS that most clearly reveals their developmental deficits. (Figure 6) On av-

erage, the Adaptive Behavior Composite (ABC) was 2 Standard Deviations (SDs) below their IQ level for these patients with FAS and FAE. We concluded in this report that "IQ minus the VABS Adaptive

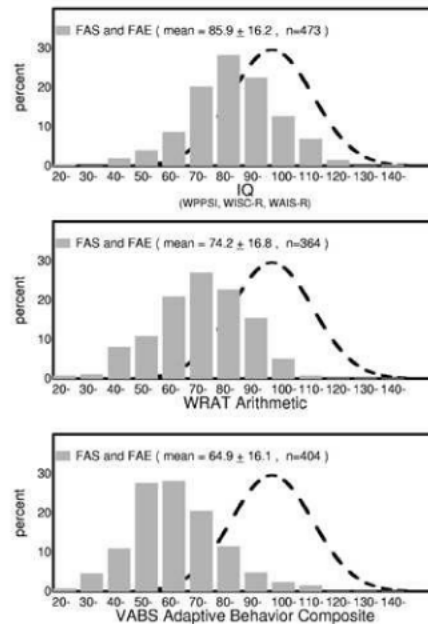


Figure 6. VABS Adaptive Behavior Composite for FAS and FAE combined (mean 64.9 \pm 16.1, n = 404) compared to the normative. (Sampson et al., 2000).

Behavior Score" may hold promise for identifying a subgroup of patients with FAS/FAE for whom job skills and basic living skills might be especially fruitful" (and necessary, we might now add). See also Streissguth, Bookstein, Barr, Sampson, O'Malley, & Young, 2004.

Recently we asked which of the usual standardized tests administered by psychologists, had the greatest number of our patients falling 2 SDs below the published norms. The VABS ABC won this marathon, with 71% of our patients with FAS or FAE falling over two SDs below the normal sample mean; VABS Socialization Domain came in 2nd, capturing 64% (Barr, Streissguth & Bookstein 2002).

In concluding, it is clear that for patients with FASD, the VABS revealed deficits in adaptive functioning that were more profound than the deficits observed in either IQ or Achievement Tests. We are pleased to report that in 2005, the Washington State Administrative Code for Developmental Disabilities qualification was modified to include the following criteria: "A score of more than 2 SDs below the mean on a VABS or SIB-R current within the past three years." I say, "Hooray" for the VABS and a special toast to Edgar A. Doll.

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The Assessment of Adaptive Behavior in Adult Forensic Cases: Part 2. The Importance of Adaptive Behavior

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In this continuing series of articles, the members of Division 33's *Ad Hoc* Committee on Mental Retardation and the Death Penalty will review controversial issues related to the role of psychologists in capital cases involving a diagnosis of mental retardation or intellectual disability. Earlier articles in this series (Greenspan, 2006; Olley, Greenspan, & Switzky, 2006) have described many of these issues, and the article in the last issue (Olley, 2006) began a discussion of the assessment of adaptive behavior.

The purpose of this series is to work toward a consensus among psychologists regarding such matters as appropriate assessment methods, ethical standards, and professional roles. Many of the controversial issues can be resolved by consensus, but many problems can only be resolved through a systematic program of research. This Committee is working toward achieving consensus in those areas in which consensus is possible and is working toward a long-term research agenda to resolve other issues. In order to assess the extent of consensus, members of Division 33 and others with experience in forensic psychology will receive a survey asking their opinion on many of the topics highlighted in this publication.

In part 1 of this topic (Olley, 2006), I described several questions in the assessment of adaptive behavior that have generated considerable disagreement in court cases related to mental retardation and the death penalty. These cases are often referred to as *Atkins* hearings from the Supreme Court's 2002 decision in *Atkins v. Virginia*. In the *Atkins* case, the United States Supreme Court ordered the federal courts and the states that have a death penalty to establish procedures to comply with the order that prohibits people with mental retardation from receiving the death penalty. As the states have moved to comply with this order, they have established a wide variety of definitions and procedures to diagnose mental retardation (See the Web site of the Death Penalty Information Center for information on individual states. www.deathpenaltyinfo.org/article.php?scid=28&did=176#Atkins). Psychologists who are called upon to testify as expert witnesses in such hearings must be familiar with the established procedures in the jurisdiction in which they testify. However, psychologists must also rely on the

established diagnostic procedures and ethics of our profession. Unfortunately, there is great disagreement about the integration of these standards.

Most states have adopted some definition of mental retardation that includes the customary three elements: significantly low intelligence, significantly impaired adaptive behavior, and origin during childhood. For appeals of death sentences, an *Atkins* hearing to determine mental retardation is typically heard by a single judge. A judge or a jury may hear pre-trial determinations of mental retardation, and a jury typically hears determinations that are part of the sentencing phase. In any of these circumstances, the attorneys for the prosecution and the defense are likely to engage one or more expert psychologists (and often other experts) to present findings and draw conclusions regarding mental retardation. Unfortunately, there is sometimes little agreement among the experts about fundamental matters of assessment and even about the very nature of mental retardation.

The goal of Division 33's Committee is to establish standards for psychologists that will reduce these conflicts and lead to agreement about the most valid and ethical approaches to determining mental retardation in *Atkins* cases. One might reasonably expect that valuable lessons could be learned from the case heard by the Supreme Court – that of Daryl Atkins. But Mr. Atkins's case has taken some odd turns, and the lessons from his case are still being digested. After the U.S. Supreme Court's 2002 decision, Mr. Atkins's case went back to the York County Circuit Court where he had originally been convicted of capital murder, and experts for the state and for the defense testified before a new jury regarding the diagnosis of mental retardation. In August 2005, the jury concluded that Mr. Atkins did not have mental retardation and that his death sentence should stand. The verdict was appealed to the Virginia Supreme Court (*Atkins v. Commonwealth*, 2006), which overturned the jury decision and granted Mr. Atkins a new mental retardation hearing.

The Virginia Supreme Court ruled that the Circuit Court had erred in two ways. First, the Court ruled that the prosecution biased the jury by revealing that another jury had already sentenced Atkins to death. In addition, the Virginia Supreme Court found that the prosecution used testimony from an expert witness

who was not properly qualified to diagnose mental retardation and who had administered the Wechsler Adult Intelligence Scale, 3rd Edition (WAIS-III) to Atkins despite the fact that he had just taken the same test 2 days before.

Although the twists and turns of Mr. Atkins's case may be unique to Virginia, the Virginia Supreme Court's decision did establish at least two relevant points. It ruled, first, that there are some standards for proper use of intelligence tests and, second, that expert witnesses who evaluate a defendant and express a diagnostic opinion in court should meet some minimal qualifications based on their experience and training in mental retardation.

Virginia and other states set standards that individuals must meet in order to testify as forensic psychologists. Unfortunately, few psychologists have extensive training in both forensic psychology and the diagnosis of mental retardation. As states move toward clearer standards for experts, the members of Division 33 may be in an excellent position to work with their state bars, judges, or other law organizations regarding standards for the diagnosis of mental retardation. Members may also assist in identifying psychologists who can bring expertise in mental retardation to the court. The national network of University Centers for Excellence in Developmental Disabilities (www.aucd.org) is an excellent resource for this purpose.

Importance of Adaptive Behavior

The past 100 years have produced countless scholarly publications on the nature and measurement of intelligence. In *Atkins* hearings, many debates rage regarding the proper measurement of intelligence and interpretation of test scores (See for instance, Greenspan, 2006). Yet, at its heart, the diagnosis of mental retardation is not primarily about test scores; it is about whether the individual has been able to function adequately in age-appropriate roles throughout life. In other words, the essence of a valid diagnosis is adaptive behavior.

If IQ scores were a perfect predictor of adaptive behavior, our task would be much easier. In fact, the adaptive behavior of people with low IQ scores varies widely. Edgerton (2001) reviewed the literature on the community functioning of people previously diagnosed with mental retardation.



These studies showed great variability among individuals. Some people made very satisfactory adult adjustments. In fact, Edgerton (2001) referred to them as "model citizens." Others, however, continued to require assistance from others for basic functioning, and some engaged in criminal acts. Despite this large variability, two common themes emerged. First, almost none of the individuals studied were receiving services related to their disability. They were not known by local service agencies. This first theme may be partially explained by the second theme. These individuals actively avoided being identified as people with intellectual disabilities. Their strong desire to avoid the stigma of the label mental retardation is congruent with Edgerton's findings in his classic book, *The Cloak of Competence* (1967). Given this large variability in adaptive behavior of people with low IQs, it is essential to examine adaptive behavior thoroughly in *Atkins* hearings.

Of course, one of the problems in assessing adaptive behavior is that there is no one definitive test score to determine deficits or strengths. The assessment of adaptive behavior is not as tidy as the assessment of intelligence. The accepted tests of adaptive behavior rely on the reports of family members or others who know the individual well, and a single score on a rating scale, such as the Scales of Independent Behavior-Revised (Bruininks, Woodcock, Weatherman & Hill, 1996), is not considered a conclusive finding. (The Virginia Supreme Court's recent decision regarding Daryl Atkins [*Atkins v. Commonwealth*, 2006] acknowledged the value of standardized measures of adaptive behavior but left the decisions about their use to the expert witnesses.) The process of assessing adaptive behavior is a matter of drawing information from many sources, all of which are imperfect. When a conclusion is based on many imperfect sources, and that conclusion is stated in court, the expert witness can expect many critical questions in cross-examination. Thus, it is important to examine each of these sources of information regarding adaptive behavior and identify the strengths and weaknesses of each.

In the next issue, I will conclude this three-part series with a review of the commonly used sources of information about adaptive behavior and a further discussion of controversial issues in *Atkins* hearings. The identification of areas of agreement and disagreement is an important first step in establishing useful standards for psychologists who contribute to these life and death decisions.

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Functional Assessment: Applications of Methodologies in Applied Settings¹

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Abstract

The development of experimental functional analysis and more recently functional analysis checklists have become common for evaluating antecedent events and the consequences of problematic behaviors. Children and developmentally disabled persons across the life span with challenging behaviors have been the primary focus of this research. The primary purpose of this paper is to review the developments in this rapidly expanding research literature, particularly as it involves the application of the functional assessment paradigm in applied settings where resources and time are scarce. Strengths and weaknesses of various methods and current status along with future directions are discussed.

Functional assessment has been in sporadic use since the early stages of the behavior analysis movement. Risley, for example, describes a study by Wolfe et al., (1964) in which he identified the maintaining variables for aggression as exhibited by a child with intellectual disability. These efforts and those of others were somewhat informal. This approach was in line with early efforts in skill building and suppression of aberrant behavior which largely relied on consequenceing the maladaptive response. Only recently has a broader initiative on social, adaptive and communication skill building technologies been developed. Researchers and clinicians are now looking to develop more comprehensive treatment models. This latter theoretical approach largely provided the impetus for functional assessment, along with concerns about the over reliance on pharmacology, particularly antipsychotic drugs, in the treatment of challenging behaviors.

A watershed moment was the development of a systematic method of

establishing the maintaining variables of challenging behaviors of persons with intellectual disabilities (ID). Perhaps the most influential of these early studies was a paper by Iwata and associates which laid out a technology now popularly known as an Experimental Functional Analysis (EFA). Several key elements were present in an assessment of this type, which followed the operant paradigm established by Skinner and later by Wolfe, Hall, Risley, Azrin and others primarily in their publications in the *Journal of Applied Behavior Analysis*.

Experimental Functional Analysis (EFA)

Some common characteristics of the EFA are the direct observation of behavior in a room set up for the assessment and presentation of analogue conditions that test one possible maintaining variable at a time. Conditions usually include giving attention for the challenging behavior, a tangible, typically food or a toy, allowing the participant to escape from the task or activity presented to him/her or allowing the person to be alone with no demands. Each "condition" is presented in 5-10 minute

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blocks and may be repeated. As such, a single case experimental design is created. Typically published studies involve self-injury or aggression of young children. The typical number of persons studied is 1-4.

It is accurate to conclude at this time that the EFA is the most popular method in the research literature. The bulk of the studies on functional assessment have followed this model. However, despite the value and promise of the EFA, it has limitations which may make it difficult to implement on a large scale in non-university settings.

A typical EFA requires several hours to set up and execute. Usually, at least two masters level psychologists, an assessment room, and tangible reinforcers would be needed. These parameters dramatically stretch the very limited resources typically available to professionals in schools, group homes, developmental centers or outpatient clinics. Additionally, some investigators have described this as a direct method of assessment versus other methods being characterized as indirect. In reality, people who usually do not interact with the child are presenting contrived contingencies in an alien environment. Thus, while the method is direct, it is also analogue versus naturalistic. It is analogous in this sense to the social skill role play scene assessments first introduced in the 1960's and 1970's. Additionally, some older and "higher functioning" individuals are likely to "figure out" the paradigm. Finally, the introduction of variables that may induce aggression or self-injury may have ethical implications. This factor is particularly salient for older children or adults whose physically dangerous behavior may be difficult to block and which may continue after the assessment session has been terminated. Thus, while the EFA has much to recommend it, as the functional assessment technology evolves, it may be necessary to have several methods available to conduct assessments of maintaining variables.

Functional Assessment Checklists (FAC)

There have been several methods developed to conduct functional assessments. In addition to the EFA, there is the scatterplot (Touchette, MacDonald, & Langer, 1985), the functional assessment interview (O'Neill, Horner, Albin, Sprague, Storey, & Newton, 1997), and Antecedent-Behavior-Consequence real time data cards. All of these methods have promise but await investigation. One area that has been empirically studied to some degree is the Functional Assessment Checklist (FAC). The first scale of this type was the Motivation Assessment Scale (MAS) (Carr & Durand, 1991; Durand & Crimmins, 1988). It has not been studied extensively but deserves the honor of the first attempt

to employ this particular technology.

The Questions About Behavioral Function (QABF) (Matson & Vollmer, 1995), however has received a good deal of empirical attention. The scale derives the functions it measures from the EFA literature, and its format from the MAS. The scale has 25 items; 5 each for attention, escape, nonsocial, physical and tangible functions. The scale is rated from 1 (never) to 4 (often). It can be completed in about 10-15 minutes and requires minimal training to administer or score.

The QABF has several strengths and weaknesses. The important point is that it complements the EFA technology. Its strengths are the EFA's weaknesses and vice versa. The QABF is fast, cheap, does not require special assessment space or items, is easy to score and does not result in the inducement of challenging behaviors. Additionally, the only validity study using a group outcome format employed the QABF. Participants were 180 adults with intellectual disabilities (ID) who displayed self-injury, aggression or stereotypes. Sixty people evinced each of the three behaviors. Half of the individuals with each target behavior (N=30) were treated with a standard intervention of interrupt the challenging behavior, block it, and redirect the person to a socially acceptable task. The other 30 people for each of the 3 maladaptive behaviors had a treatment plan based on targeting the maintaining variable. For example, teaching appropriate communication for a social function or environmental enrichment and social skills training for a nonsocial function. Treatment was for 6 months. Treatments based on the QABF information resulted in significantly greater improvements than the standard intervention (Matson, Bamberg, Cherry, & Paclawskyj, 1999).

Conversely, the QABF relies exclusively on an informant, who may or may not provide accurate information. The scale does not allow for clinician modifications of the assessment paradigm, and items may be too general in some instances to identify a function. Finally, the assessor does not see the participant evince the challenging behavior. This factor is significant since a trained observer may notice aspects of a maintaining variable that others do not. Having noted these factors, it may be that these two approaches could complement each other. The addition of real time methods such as the scatterplot and functional assessment interview might further enhance the effectiveness of identifying maintaining variables.

Some recent research has found overlaps in functions that can be agreed upon using an EFA or QABF (Hall, in press; Paclawskyj, Matson, Rush, Smalls & Vollmer, 2001). Recent research has also

established that frequency, topography, and number of functions maintaining a targeted challenging behavior affect the accuracy of the assessment (Matson & Boisjoli, in press); Matson & Wilkins, 2006). For example, high rate behaviors versus low rate behaviors were more likely to have a maintaining variable reliably identified. Furthermore, the greater the number of variables, the lower the reliability. Additionally, order counts. The function that is most commonly identified was more accurately identified than the second function and so on. No more than 4 functions could be reliably targeted.

Using functional Assessment to Decrease Drug Use

A particularly salient issue for functional assessment is as a means of reducing psychotropic drug use overall, and to ensure that when medications are prescribed they are for the reasons for which the medication was developed. Since the publication by Lipman (1970) researchers and clinicians have been concerned about the overmedication of persons with ID. He reported rates in institutional settings of 50%, rates which have not decreased appreciably over the last 35 years for institutional or group home settings (Rinck, 1998; Nottelstad & Linaker, 2003; Singh, Matson, Cooper, Dixon & Sturmey, 2005). These rates far exceed rates of psychopathology likely to respond to pharmacological interactions and suggest the need for data based methods to better establish what behaviors warrant psychoactive medications as treatment.

In practice, it was observed that many Axis I diagnoses were being tagged on to case formulations "after" drug regimes were introduced. Treatments typically included an antipsychotic drug, often embellished by several other medications in other drug classes (e.g. SSRIs, anti-anxiety drugs, mood stabilizers) in a potent drug cocktail. Furthermore, many of these DSM diagnoses were not tied to drug treatment literature that described treatment efficacy. Impulse control disorder was one of the common "formulations".

In 1995 the DASH II, the first scale to provide DSM-IV diagnoses in persons with severe or profound ID was developed (Matson, 1995). At the same time the QABF was introduced (Matson & Vollmer, 1995). Psychotropic drug rates at the two largest developmental centers at the time were close to 60%. Within two years, we had decreased psychotropic drug use to 14-17%, a level they have remained at for almost a decade. How did we do that?

The primary mechanism was to first operationalize what "target behaviors" were the drugs being prescribed to effect. Typically, these unwanted "symptoms" were aggression, property destruction or self-injury. It was argued that these



behaviors were in fact behavioral equivalents for depression, schizophrenia, bipolar disorder and other severe forms of psychopathology. By administering the DASH II and QABF we were able to determine that in some instances, these disruptive behaviors did correlate with other observed symptoms of psychopathology, with no clearly identifiable environmentally maintained variable. However, in much greater numbers, we found persons with no quantifiable psychopathology, but clearly identifiable maintaining variables such as escape or tangible. If a person had no identifiable psychopathology but was trying to get a hamburger, treatment should not be Risperidone or one of its relatives. Rather, teaching appropriate social and communicative response in conjunction with getting the hamburger proved to be more salient and effective interventions for those cases. Given the very serious side effects that can result from medications, less restrictive treatment alternatives should be the first line of intervention. Medication can be tried where indicated, based on a reliably identified form of psychopathology that has research data suggesting it may respond to pharmacology.

Summary

The area of functional assessment is likely to continue as a central role in learning based interventions for some time to come. These methods have been effective to a considerable degree and fit the idea of a broad based intervention strategy that emphasizes skill building versus behavior suppression only. Research on communication, social and adaptive skills in the last few decades have resulted in a range of effective intervention strategies that can be plugged in once a maintaining variable is identified. Functional assessment's time has come. It is doubtful that it would have been nearly as effective 30 years ago when far fewer skill building intervention strategies were available as replacement "maintaining variables".

Most likely the EFA approach will continue to receive the greatest amount of research attention for the foreseeable future. However, "one size" does not fit all and other methods, particularly those which use many fewer resources, are likely to be much more popular than the EFA in most applied settings. The momentum that expertise, time and limited resources produce will make checklists, scatterplots, brief staff interviews and real time data collection methods more accepted and popular in the years to come. Finally, initial efforts suggest the need to more carefully study factors such as rate, topography and intensity of behavior as well as single versus multiple functions for challenging behaviors. This latter variable is likely to be particularly salient with older persons

who evince more intractable challenging behaviors. Finally, functional assessment in combination with other diagnostic methods can be a powerful means of decreasing restrictive procedures, particularly drugs. Much has been accomplished but much is yet to be done.

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PSYCHOLOGY IN MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES

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Editorial Policy

Psychology in Mental Retardation and Developmental Disabilities is an official publication of Division 33 of the American Psychological Association. It is devoted to keeping members informed about the activities of Division 33 and to news and comment concerning all aspects of service, research, dissemination, and teaching in psychology and mental retardation. Brief articles about policy issues in psychology and mental retardation, as well as descriptions of service programs and preliminary research summaries are invited. We are especially interested in articles inviting the reaction and comment of colleagues in future issues. Comments and letters will be published as space allows.

Manuscripts of between 500-1000 words must conform to APA style and should be submitted by email attachment in Word format. Articles, comments, and announcements should be sent to Samuel J. Thios, Ph.D., Editor, *Psychology in Mental Retardation and Developmental Disabilities*, Department of Psychology, Denison University, Granville, OH 43023. Books, films, videotapes, and other material also may be submitted for possible review to the Editor.

Unless stated otherwise, opinions expressed are those of the author and do not necessarily represent official positions of Division 33.

Deadlines are September 15, Fall, March 1, Spring, June 1, Summer.

Letter to the Editor:

Modification of Individual's IQ Scores is Not Accepted Professional Practice

I am writing in response to the article by Dr. Stephen Greenspan that appeared in the Spring 2006 edition of the Division 33 newsletter (*Psychology in Mental Retardation and Developmental Disabilities*, Vol. 31, number 3). The article discussed adjusting individual IQ scores based on the "Flynn effect" primarily in regards to diagnosing mental retardation in capital litigation cases. It was noted that the phenomenon has received much attention post-*Atkins* and is typically used to adjust scores downwards. I have been involved in over a dozen capital cases where mental retardation was an issue, serving as an expert witness providing consultation, evaluation and testimony; I have worked both for the State and for the defense and I am well aware of the battleground in the legal arena related to the interpretation of IQ scores.

The "Flynn effect," an average rise in population performance on IQ measures, has been noted to have taken place over many decades and across cultures in industrialized nations (e.g. Flynn, 1984; Flynn, 1987; Sundet, Barlaug & Torjussen, 2004; Teasdale & Owen, 2000). The rate of rise has been found to vary across different tests (e.g. Flynn, 2006), subtests within tests (e.g. Sundet, Barlaug & Torjussen, 2004; Teasdale and Owen, 2000), ability level (e.g. Sundet, Barlaug & Torjussen, 2004; Teasdale and Owen, 2000), time (e.g. Sundet, Barlaug & Torjussen, 2004; Teasdale and Owen 2006), and countries (Flynn, 1987). Furthermore, it has long been recognized that it is unlikely that the rise would continue unabated; that it is likely to peak at some point. I have critically reviewed the literature regarding the "Flynn effect" and I do not believe that it is an appropriate basis upon which to modify individual scores. The reasons for my conclusions are outlined below.

First, recent research in Denmark (Teasdale & Owen, 2006) and Norway (Sundet, Barlaug & Torjussen, 2004) provides strong evidence that the phenomenon peaked in those two countries in the mid 1990's and has begun to reverse. These findings were based on updated longitudinal data sets that Dr. Flynn has described as representing "strong data" (Flynn, 1987) for assessing long-term IQ trends. Whether the effect has reached a peak or begun to decline in the U.S. on at least some types of tests is an open question. It has been demonstrated that performance on IQ tests and achievement tests are closely correlated and there has been a clear

decline in performance over the past twenty years by American students on some achievement tests and a failure to keep pace with other industrialized countries on others (Williams and Ceci, 1997).

Secondly, in the U.S. the rate of increase has been studied by using comparisons of test scores for individuals taking two different tests close in time to each other. The gains are not studied by comparing performance on the same test at different times, but rather by comparing performance on two different tests at the same time, including tests from different publishers. Hence these studies, which were actually designed and undertaken as a validity check to look at inter-test correlation between new test versions and established tests, contain a confound in that the tests themselves differ along a variety of domains.

The importance in this confound should not be underestimated. Wicherts, et al. (2004) explored changes in performance over time on numerous cognitive measures across several populations and consistently found that changes in performance levels differed across subtests. They found strong consensus that overall changes in performance between populations at different time periods were not due solely to changes in testing cohorts. In other words, there was not a steady, consistent rise over time across different types of measures, but rather notable differences in the degree of performance change depending on the nature of the particular cognitive task assessed. Three of the four highest rates of gain found in Flynn's 2006 article involved comparisons of tests from different publishers (i.e. Stanford-Binet editions versus Wechsler editions).

Thirdly, comparing different tests with each other then using scoring differences between the tests to establish a rate of rise in scores over time results in rates that fall across a notable range. The sixteen test-test comparisons provided in Flynn (2006) involved various combinations of comparisons between adult Wechsler, child Wechsler and Stanford-Binet tests. Only four comparisons result in yearly average rates of increase within plus or minus twenty percent of .3 points per year. In Dr. Flynn's 1984 study he provides eighteen similar Wechsler/Stanford-Binet comparisons with earlier versions of these tests. Only ten fall within plus or minus twenty percent of .3 points per year. The range becomes even greater when looking

at data across tests and countries such as in Flynn's 1987 paper in which only five of the twenty-nine rates reported fall within plus or minus twenty percent of .3 points per year. This figure that is cited with such precision is actually an average of wide-ranging estimates; it seems highly suspect to utilize it as a specific correction to an individual's scores.

Lastly, it is important to note that the empirical literature has identified many factors that affect IQ scores which are not utilized to make individual score adjustments. For example, there is robust research of large differences in performance on IQ tests across ethnic groups likely in concert with socioeconomic status. For example, African Americans, on average, demonstrate a 10 to 15 point IQ difference compared to their Caucasian counterparts (e.g. Neisser, U., et al., 1995; Flynn, 1984; Williams and Ceci, 1997). African American students have long been at notably elevated risk of being identified as mentally retarded as compared to Caucasian students (Donovan & Cross, 2002). There is substantial debate on the reasons behind these ethnic group performance differences on measures of cognitive functioning, with environmental factors likely playing a large role. However, a clinician does not "correct" the IQ scores of African Americans by adding ten to fifteen points to their obtained scores. Similarly, persons from urban areas tend to score two to four points higher than those from rural areas, but again, clinicians do not "correct" for this by either adding to the scores of rural examinees or subtracting from the scores of urban examinees.

In sum, the "Flynn effect correction" lacks the empirical precision for altering individual IQ scores. Furthermore, it would be inappropriate to select particular effects to "correct" for while ignoring other more robust findings or larger magnitude effects in an effort to meet a particular social or legal agenda. In addition to looking at the scientific or clinical appropriateness of making score adjustments based on the "Flynn effect," it is important to also look at the professional and legal acceptance of the effect.

One question that is often put forth in court is whether modifying individual scores based on the "Flynn effect" is accepted professional practice. It does not appear to be. I have been in direct contact with representatives from PsychCorp/Harcourt Assessments, Inc. regarding their recommendation about such scoring modifications. The officially stated position



of PsychCorp/Harcourt Assessment, Inc. is that "Harcourt Assessment, Inc. stands behind the quality of the WAIS-III and accuracy of the IQ scores." (Personal communication Barbra-Ann Frazier, June, 2006). In additional communication the publisher states, "The Flynn effect has been in the literature for some years. We do not recommend a 'correction' because different studies find different results, and the effect occurs for all measures of cognitive ability. It is the primary reason that we re-norm tests periodically (so our norm-based scores reflect the contemporary population)." (Personal communication, Barbra-Ann Frazier, July, 2006).

Further evidence that modifying scoring or interpretation based on the Flynn Effect does not represent standard clinical practice can be found in the Amicus Brief filed by the American Psychological Association, American Psychiatric Association and American Academy of Psychiatry and the Law with the Supreme Court on behalf of Daryl Atkins in that seminal case. The amici speak extensively of the strong validity and reliability of the instruments used to measure intellectual functioning. There is no indication of a need or appropriateness to making any adjustment to the interpretation of the scores based on the "Flynn effect" or any other factors, other than noting the range of confidence associated with the standard error of measurement (APA Brief, LEXIS 2000 U.S. Briefs 8727).

The lack of support for scoring adjustments from the test publisher and the failure of the APA to mention such adjustments in the Amicus Brief are consonant with my clinical experience. In the course of my professional career I have had the opportunity to review over ten thousand psychological reports and I have never seen a single case where an individual score has been adjusted based on the "Flynn effect" outside of psychological reports submitted on behalf of the defense in post-*Atkins* capital cases where mental retardation was the central issue.

Legal precedents related to application of the "Flynn effect" is a final area of importance to discuss. Flynn, 2006, indicates that submissions by experts supporting the relevance of the "Flynn effect" have been "welcomed by the courts" and he cites numerous examples. While it is true that experts have submitted declarations and provided testimony in numerous court cases related to the matter, close review of the cases that he cites reflects a range of responses on behalf of the courts regarding the usefulness or relevance of the effect.

In the *Vidal* case in California,¹ application of a scoring modification based


on the "Flynn effect" was accepted, but the Superior Court's decision was vacated by the California Supreme Court,² and thus this case cannot be cited as approving or supporting application of the "Flynn effect." In *McLaughlin v. Polk*,³ the federal district judge applied the "Flynn effect" when ordering an evidentiary hearing in which the petitioner was later judged to be mentally retarded.⁴ Some courts have ruled that lower courts should consider the persuasiveness of the "Flynn effect" on a case-by-case basis, but do not approve or command application of it, e.g. *State v. Burke*,⁵ and *Walker v. True*.⁶ In *Walton v. Johnson*,⁷ the Fourth Circuit Court of Appeals specifically stated that it made "no determination as to the validity of . . . [the "Flynn effect" and other arguments]; [it held] merely that Walton [was] entitled to be heard on them."⁸ Some courts have heard evidence on the "Flynn effect" but have taken the position that the controlling state law has a bright line cut-off and therefore it does not apply, e.g. *Black v. Tennessee*,⁹ and *Bowling v. Kentucky*.¹⁰ Other courts appear to have ignored any mention of the "Flynn effect" in the majority opinion despite its having been an aspect of the arguments in the case, e.g. *State v. Murphy*,¹¹ and in *Hicks*.¹²

Flynn, 2006, cites one additional case, *Myers v. State*,¹³ but that case has to do with the removal of county commissioners from their positions, not mental retardation. There is another Oklahoma case, *Myers v. State*,¹⁴ which does deal with the issue of mental retardation but there is no mention of the "Flynn effect" in the decision.

In summary, the "Flynn effect" has received a great deal of attention in the post-*Atkins* era as a means for adjusting obtained IQ scores downwards. However, examination of the literature related to the phenomenon reveals that it lacks the

empirical precision to be applied to individual scores. Furthermore, it is not accepted professional practice to adjust or modify individual scores based on the "Flynn effect" or any other phenomenon. If there are factors that lead the psychologist to believe that the scores do not represent an accurate or reliable measure of the individual's functioning, such issues are delineated in the discussion and interpretation of the scores; the scores themselves are not changed. Modification of individual scores is not accepted professional practice, for good reason, and should not be introduced into the court as such.

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¹*People v. Superior Court (Vidal)*, 129 Cal. App. 4th 434 (2005).

²*People v. Superior Court (Vidal)*, 32 Cal. Rptr. 3d 4, 116 P.3d 478 (2005).

³____ (E.D. N.C. ____) (unpublished order).

⁴*McLaughlin v. Polk*, ____ (E.D. N.C. 2005) (unpublished).

⁵2005 Ohio 7020 (2005).

⁶399 F.3d 315 (4th Cir. 2005). An evidentiary hearing was held on remand to the district court, at which the Flynn effect was argued in concert with the SEM and the practice effect: the latter two factors were determined to be speculative but the "Flynn effect" was not specifically addressed. *Walker v. True*, No. 03-0764 (Memorandum Opinion, 30 August 2006). 7407 F.3d 285 (4th Cir. 2005).

⁸*Id.* at 297.

⁹2005 Tenn. Crim. App. LEXIS 1129 (2005).

¹⁰163 S.E.3d 367 (2005).

¹¹2005 Ohio 423 (2005).

¹²375 F.3d 1237 (11th Cir. 2004).

¹³278 P. 1106 (Okla. 1929).

¹⁴133 P.3d 312 (Okla. 2006).



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