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AP 101

APPLIED PSYCHOMETRICS 101: THE FLYNN EFFECT SERIES

#8: A brief history of the Flynn Effect: It was NOT given birth by Atkins v Virginia (2002) SCOTUS decision

This is the third in a series of brief reports to define, explain, and summarize the scholarly consensus regarding the validity of the Flynn Effect (FE). This report presents a brief historical summary of origins of the Flynn Effect (norm obsolescence). Historical facts indicate that the concern for IQ norm obsolescence and the concept of an IQ score adjustment procedure pre-dates the U. S. Supreme Court Atkins v Virginia (2002) MR/ID death penalty decision. The series will conclude with an evaluation of the question whether a professional consensus has emerged regarding the practice of adjusting dated IQ test scores for the Flynn Effect, an issue of increasing debate in Atkins MR/ID capital punishment hearings.

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Did the Atkins v Virginia (2002) SCOTUS MR/ID death penalty decision give birth to the idea of a Flynn effect adjustment to IQ scores?

No.

Whether courts should recognize the application of a Flynn effect IQ score adjustment due to norm obsolescence is a question of recognized standards of practice and scientific evidence. From a review of the most recent studies listed in the Flynn effect summary table in the second report in this series (Applied Psychometrics 101--The Flynn Effect Series: # 7—Is the Flynn Effect a Scientifically Accepted Fact? – available at www.atkinsmrdeathpenalty.com), it is clear there is some diversity of opinion regarding the use of the Flynn effect to adjust IQ scores. Before addressing the appropriateness of the Flynn effect adjustment, and whether it should be recognized as a standard of practice, it is important to first understand the history of the Flynn effect research.

Contrary to what is often heard anecdotally regarding Atkins death penalty cases, the idea of using a Flynn effect adjustment to IQ scores was not given birth as a direct result of the United States Supreme Court's decision in Atkins v. Virginia (2002). The argument that the concept of adjusting IQ scores came about only because of the Supreme Court's decision in Atkins is an incorrect statement and specious argument and thus, should not influence the court's decision regarding the application of a Flynn effect in Atkins cases.

Early “Flynn effect” research findings (1942-1982)

As reported by Ang, Rodgers and Wanstrom, the historical roots of the Flynn effect can be traced back to articles reporting secular changes in IQ scores across time by Smith (1942) and Tuddenham (1948) in the 1940s. See S. A. Ang, J. L. Rodgers and L. Wanstrom . The Flynn Effect within subgroups in the U.S: Gender, race, income, education, and urbanization differences in NLSY-Children data, 38, Intelligence, 367-384 (2010).

Probably the first widely recognized scholarly report of this IQ score change effect was published by Richard Lynn in 1982. Reflecting Lynn's early writings, some intelligence scholars often refer to it as the Lynn-Flynn effect. See R. Lynn, IQ in Japan and the United States shows a growing disparity, 306, Nature291–292, 1982.

The first norm obsolescence adjustment procedure was suggested in 1985

Seventeen years prior to the 2002 decision in Atkins, James Flynn, in an article titled "Wechsler intelligence tests: do we really have criterion of mental retardation?", which was published in the then official journal of AAIDD (then called the American Association on Mental Deficiency; AAMD), the American Journal on Mental Deficiency, first raised the issue of a possible “adjustment” in the context of a mental retardation / intellectual disability diagnosis. See J.R. Flynn, Wechsler Intelligence Tests: Do we really have a criterion of mental retardation?, 90(3) American Journal of Mental Deficiency 236-244 (1985).

In hindsight, Flynn's 1985 article served like the “canary in the coal mine” when he first demonstrated that the “Flynn effect” may have a significant impact on the proportion of the population of individuals that would be identified as mentally retarded. At that time, Flynn proposed a form of adjusting for the softening of tests norms, although it was in a slightly different form than the current recommended Flynn effect adjustment procedure.

Flynn proposed that in order to account for the softening of tests norms (which subsequently became known as the Flynn effect) that an IQ score of 70 on a “reference” IQ test (i.e., WAIS-R) be set in as the absolute criterion for mental retardation. Then, to account for the Flynn effect, each time a new test was published there would be a lowering of the MR cutting line. Flynn’s 1985 idea was that whenever a new test was published, it would be given together with the established reference test (e.g., WAIS-R), and the average mean IQ difference between the new test and the reference test would be used to “derive a new score equivalent to the old cutting line.” Although different from what is now considered the standard Flynn effect adjustment approach (i.e., subtracting three IQ points from an individual's total IQ for every decade for which the test administered to a person was normed prior to the date of individuals testing), conceptually Dr. Flynn's 1985 proposal accomplished the same goal as the current Flynn effect adjustment procedure.

Fifteen years later, and still two years prior to the Atkins decision, Flynn again sounded the alarm regarding the implication of the Flynn effect as it related to the diagnosis and classification of mental retardation. See J.R. Flynn, The hidden history of IQ and special education - Can the problems be solved?, 6(1) Psychology Public Policy and Law 191-198 (2000).

In a pre-Atkins context, Flynn stated that:

[I]t is certain that over the past 50 years, literally millions of Americans evaded the label of mentally retarded designed for them by the test manuals. Whether this was good or bad depends on what one thinks of the label. Some will say millions avoided stigma. Others will say that millions missed out on needed assistance and classroom teachers were left unaided to cope with pupils for whom aid was needed.

Id. at 197 (emphasis added).

Others recognize norm obsolescence impact on misdiagnosis of MR/ID and other disabilities

In 2001, Truscott et al. reported research on the impact of the Flynn effect on learning disability (LD) identification, not identification of individuals with mental retardation. See S.D. Truscott & A.J. Frank, Does the Flynn effect affect IQ scores of students classified as LD?, 39(4) Journal of School Psychology 319-334 (2001). Although the authors did not offer or endorse any IQ score adjustment procedure, is important to note their conclusion that:

A critical finding of this study is that the FE probably contributes to misdiagnosis of LD. If this research is combined with previous reports that academic achievement may be unaffected by the FE (Neisser, 1998) it strongly suggests that, over the life of a test version, IQ-achievement discrepancies, the most salient LD criterion, are exaggerated. One potential result of such an exaggeration of IQ-achievement discrepancies would be that, as test norms aged, fewer students would score in the mentally retarded range (Flynn, 2000) and more students would qualify for LD based on inflated severe discrepancies.

Id. at 300 (emphasis added). Although published one year after the 2002 Atkins decision, Truscott and colleagues again reported research on the impact of the Flynn effect on the potential misdiagnosis learning disabilities (LD), and not mental retardation. See K.J. Sanborn, S.D. Truscott, L. Phelps, & J.L. McDougal, Does the Flynn Effect differ by IQ level in samples of students classified as learning disabled?, 21(2) Journal of Psychoeducational Assessment 145-159. (2003)

The authors make no reference to the 2002 Atkins decision, and concluded:

Regardless of whether IQ gains as reported by Flynn (e.g., 1999) and the current study reflect actual increases in the population’s cognitive abilities, increases in the normative performance in

IQ tests over time mean that IQ tests must be standardized frequently. Otherwise, individuals whose test performances are scored against outdated, obsolete norms will obtain inflated IQ scores. Use of such obsolete norms will interfere with the accurate diagnosis of children thought to have a learning disability by making it more likely that the child will qualify as LD and less likely that the child will score in the mentally retarded ranges.

Id. at 156 (emphasis added).

Concluding comments

It is clear that the recognition of the real world impact of norm obsolescence (the Flynn effect) on IQ scores, and more importantly, the potential for misdiagnosis of mental retardation and other conditions (e.g., learning disabilities), has been recognized and documented as early as the 1980's. It continued to be discussed prior to, and after the 2002 mental retardation related Atkins decision, by researchers and professionals who did not anticipate nor were influenced by the 2002 Atkins decision.

With a reasonable degree of scientific certainty one should conclude that the potential Flynn effect impact on incorrect diagnoses of mental retardation / intellectual disability and other IQ-based disabilities, due to overreliance on a single IQ score, predates the United States Supreme Court's decision in Atkins v. Virginia. For obvious reasons (viz., the life-or-death implications of the Atkins decision) there has been increased interest in the Flynn effect adjustment procedure post-Atkins. But the facts indicate that the recognition of the impact of norm obsolescence on IQ scores (and the idea of a norm obsolescence IQ score adjustment) was established prior to the Atkins v Virginia (2002) U. S. Supreme Court decision.

For additional information

This report, and future reports in this series, draws from publications available at the *ICDP (Intellectual Competence and Death Penalty blog – www.atkinsmrdeathpenalty.com) Atkins MR/ID Flynn Effect Archive Project.*

Author information and conflict of interest disclosure

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