INTELLIGENT INSIGHTS ON INTELLIGENCE THEORIES AND TESTS (AKA IQ’S CORNER)

AN ATTEMPT TO SHARE CONTEMPORARY RESEARCH FINDINGS, INSIGHTS, MUSINGS, AND DISCUSSIONS REGARDING THEORIES AND APPLIED MEASURES OF HUMAN INTELLIGENCE. IN OTHER WORDS, A QUANTOID LINEAR MIND TRYING TO MAKE SENSE OF THE NONLINEAR WORLD OF HUMAN COGNITIVE ABILITIES.

SATURDAY, MAY 16, 2009

BRAIN BLOGGING brain carnival #45
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POSTED BY KEVIN AT 9:12 AM 0 COMMENTS LINKS TO THIS POST

FRIDAY, MAY 15, 2009

The promise of CHC theory of intelligence

Combine the past 20 years of CHC-driven intelligence test development and research activities (click here and here) with the ongoing refinement and extension of CHC theory (McGrew, 2005; 2009) and one concludes that these are exciting times in the field of intelligence testing. But is this excitement warranted in school psychology? Has the drawing of a reasonably circumscribed “holy grail” taxonomy of cognitive abilities led us to the promised land of intelligence testing in the schools—using the results of cognitive assessments to better the education of children with special needs? Or, have we simply become more sophisticated in the range of measures and tools used to “sink shafts at more critical points” in the mind (see Lubinski, 2000) which, although important for understanding and studying human individual
differences, fails to improve diagnosis, classification, and instruction in education?

It is an interesting coincidence that McDermott, Fantuzzo, and Glutting’s (1990) now infamous and catchy admonition to psychologists who administer intelligence tests to “just say no to subtest analysis” occurred almost 20 years ago—the time when contemporary CHC intelligence theory and assessment was emerging. By 1990, McDermott and colleagues had convincingly demonstrated, largely via core profile analysis of the then current Wechsler trilogy of batteries (WPPSI, WISC-R, WAIS-R) that ipsative strength and weakness interpretation of subtest profiles was not psychometrically sound. In essence, “beyond g (full scale IQ)—don’t bother.”

I believe that optimism is appropriate regarding the educational relevance of CHC-driven test development and research. Surprisingly, cautious optimism has been voiced by prominent school psychology critics of intelligence testing. In a review of the WJ-R, Ysseldyke (1990) described the WJ-R as representing “a significant milestone in the applied measurement of intellectual abilities” (p. 274). More importantly, Ysseldyke indicated he was “excited about a number of possibilities for use of the WJ-R in empirical investigations of important issues in psychology, education, and, specifically, in special education…we may now be able to investigate the extent to which knowledge of pupil performance on the various factors is prescriptively predictive of relative success in school. That is, we may now begin to address treatment relevance.” (p. 273). Reschly (1997), in response to the first CHC-based cognitive-achievement causal modeling research report (McGrew, Flanagan, Keith & Vanderwood, 1997) which demonstrated that some specific CHC abilities are important in understanding reading and math achievement above and beyond the effect of general intelligence (g), concluded that “the arguments were fairly convincing regarding the need to reconsider the specific versus general abilities conclusions. Clearly, some specific abilities appear to have potential for improving individual diagnoses. Note, however, that it is potential that has been demonstrated” (Reschly, 1997, p. 238).

Clearly the potential and promise of improved intelligence testing, vis-à-vis CHC organized test batteries, has been recognized since 1989. But has this promise been realized during the past 20 years? Has our measurement of CHC abilities improved? Has CHC-based cognitive assessment provided a better understanding of the relations between specific cognitive abilities and school achievement? Has it improved identification and
classification? More importantly, in the current educational climate, where does CHC-grounded intelligence testing fit within the context of the emerging Response-to-Intervention (RTI) paradigm?

An attempt to answer these questions will be forthcoming in a manuscript submitted for publication (McGrew & Wendling, 2009) as well as a revision of the CHC COG-ACH Relations Research Synthesis Project available at IQs Corner (warning - current posted material is now outdated and does not reflect the final conclusions of the McGrew & Wendling (2009) review. This material is in the process of being revised and will be posted soon. Stay tuned to IQs Corner Blog or announcements via the NASP and CHC listservs.

**CHC theory: Emergence, test instruments and school-related research brief**

Contemporary Cattell-Horn-Carroll (CHC) intelligence test development, interpretation and applied research can be traced to a fortuitous meeting of Richard Woodcock, John Horn, and John “Jack” Carroll in the fall of 1985, a meeting also attended by the first author of this web-resource (McGrew, 2005). This meeting resulted in the 1989 publication of the first individually-administered, nationally standardized CHC-based intelligence battery, the Woodcock-Johnson-Revised (Woodcock, McGrew, & Mather, 1989). This landmark event, which occurred 20 years ago, provided the impetus for the major CHC-driven evolution of school-based intelligence testing practice.

Subsequent important CHC events followed during this 20 year period, and included: (a) the first set of CHC-organized joint test battery factor analysis studies (Woodcock, 1990) which planted the seeds for the concept of CHC cross-battery (CB) assessment, (b) the first attempt to use the WJ-R, via a Kaufman-like *supplemental testing* strategy (Kaufman, 1979), to implement the yet to be named and operationalized CHC CB approach to testing (McGrew, 1993), (c) the articulation of the first integrated Cattell-Horn-Carroll model and classification of the major intelligence batteries as per the CHC framework (McGrew, 1997), (d) the first description of the assumptions, foundations, and operational principles for CHC CB assessment and interpretation (Flanagan & McGrew, 1997; McGrew & Flanagan, 1998), (e) the publication of the first intelligence theory and assessment book to prominently feature CHC theory and assessment...
methods (Contemporary Intellectual Assessment: Theories, Tests, and Issues; Flanagan, Genshaft & Harrison, 1997; click here for link to 2nd edition), (f) the publication of the CHC CB assessment series (Flanagan, McGrew & Ortiz, 2000; Flanagan, Ortiz, Alfonso & Mascolo, 2006; Flanagan, Ortiz & Mascolo, 2001, 2007; McGrew & Flanagan, 1998), (g) the completion of a series of CHC-organized studies that investigated the relations between CHC cognitive abilities and reading, math, and writing achievement (what you are reading now), (h) the articulation of CHC-grounded SLD assessment and eligibility frameworks (see Flanagan & Fiorello, manuscript in preparation) and (h) the subsequent CHC-grounded revisions or interpretations of a number of comprehensive individually administered intelligence test batteries (Differential Abilities Scales—II, DAS-II; Stanford-Binet—5th Edition, SB5; Kaufman Assessment Battery for Children—2nd Edition, KABC-II). Although not overtly stated, the impact of CHC theory can be seen in the recent revisions of the venerable Wechsler trilogy (WPPSI-III; WISC-IV; WAIS-IV) as well as the presentation of CHC CB procedures for interpreting the three Wechsler batteries (Flanagan et al., 2000).

Cattell-Horn-Carroll (CHC) theory of intelligence: Brief overview with links
I was picking and poking around the intelligence web today and re-visited the London School of Individual Differences web page. I found they had a few t-shirts for sale. One is a simple "g" (general intelligence) shirt. Maybe a nice B-day or XMAS gift for your favorite IQ nut or psychometric quantoid.
Registration for the Tenth Annual Conference of the International Society for Intelligence Research (ISIR) is now open. The conference announcement can be found here. The conference is from December 17-19 in Madrid Spain. Detailed event information is also available.

IMHO, the ISIR conferences I've attended have been the best professional conferences re: intelligence research I've ever attended. I particularly like the format where all participants (because of the relatively small size of the conference, when compared to APA, AERA, NASP, etc.) hear all paper presentations together. This gives all attendies the same shared content and many opportunities to ask questions, discuss, argue, etc. between sessions and at the end of the day.
Fluid IQ (Gf), personality and emotional IQ: Guest post by Walter Howe

This is a guest post by Walter Howe, Director of Psychological Assessments Australia. This is the third time he has guest blogged (click here and here for prior posts that dealt with cognitive load theory and working memory). I would urge others to take up my standing offer to provide guest posts, especially if a reader sees a journal article of interest and doesn’t have access to the journal. I can typically secure a PDF copy of most articles and would send them privately to individuals in exchange for a guest blog post about the article. Come one----many of you are dying to read and comment on the blogosphere. I would LOVE to have a number of regular contributors.


I must confess I am a fan of the construct of emotional intelligence because it bridges the sometimes artificial divide between cognition and affect. It provides a useful framework for understanding the interaction of cognition and affect. Emotions not only influence how we think but also what we think about, which makes them even more powerful than most people would acknowledge.

Di Fabio and Palazzeschi’s study is an attempt to validate emotional intelligence as a predictor of school success (teacher rated GPA). Their sample was drawn from senior high school students (mostly girls) in Tuscany. They examined the influence of fluid intelligence (Gf) (Raven’s Advanced Progressive Matrices); personality (Eysenck Personality Questionnaire – Extraversion; Neuroticism & Psychoticism) and two measures of emotional intelligence, one trait based (BarOn Emotional Quotient Inventory - EQI) and the other ability based (Mayer Salovey Caruso Emotional Intelligence Test - MSCEIT) on school success as measured by GPA.

Their results show that emotional intelligence added incremental validity over both fluid intelligence (Gf) and personality as predictors of school success, especially ability based emotional intelligence, with the skill of managing emotions working the best.
Some studies with adults using different outcome measures, such as business success, have also shown the positive predictive power of ability based emotional intelligence, and of managing emotions.

The work of Mark Brackett at Yale also supports the contention that emotional intelligence can contribute to school academic success. Students who undertook a program he designed, achieved higher grades than those who didn’t. He is currently involved in a large, school district wide training program in the UK.

Many school psychologists are involved in whole school, evidence-based, primary prevention programs, but most of these programs have a mental health focus. Programs based on ability based emotional intelligence theory have the added advantage of also improving school grades, something all us wholeheartedly support. School psychologists might also consider a measure of ability based emotional intelligence, as part of an assessment of academic difficulties. Multi Health Systems (MHS), publishers of the MSCEIT has an adolescent version currently in development.

Technorati Tags: psychology, personality, school psychology, education, educational psychology, neuropsychology, emotional intelligence, EI, IQ, Gf, fluid intelligence, IQs Corner

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**Working memory summary brief by Avner Stern**

I recently was sent a copy of a nice brief summary re: the construct of working memory. Consider it a nice brief fact sheet. The brief was provided by Dr. Avner Stern of Behavioral Health Specialists, a provider of the Cogmed Working Memory Training program.

This is a pass-along FYI notice to my readers. It does not represent an endorsement of the Cogmed program by me.

Technorati Tags: psychology, education, educational psychology, school psychology, neuropsychology, neurotechnology, working memory, Gsm, brain fitness, IQ, intelligence, ADHD, ADD, Cogmed

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**Brain training glossary**
Nice little definitions from MIND360

http://www.mind360.com/scientificbackground/glossary

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Monday, May 11, 2009

Encephalon brain blog carnival #70

This is now available at SHARP BRAINS


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HBO series on Alzheimers

http://www.psycport.com/showArticle.cfm?xmlFile=ap%5F2009%5F05%5F09%5Fap%2Eworldstream%2Eenglish%2Ehealth%5FD982UMKG0%5Fnews%5Fap%5FOr%2Eanpa%2Exml&provider=

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Working memory post at SHARP BRAINS

Nice overview.

http://www.sharpbrains.com/blog/2009/05/10/students-may-have-working-memory-problems-why-does-it-matter/

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Sent from KMcGrew iPhone (IQMobile). (If message includes an image-double click on it to make larger-if hard to see)

Now this is a major hangover

Thanks to MIND HACKS for this unusual drinking related neurology story.

http://www.mindhacks.com/blog/2009/05/the_morning_after_th.html

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RTI and math interventions

From Education Week.

http://blogs.edweek.org/edweek/speced/2009/05/response_to_intervention_and_m.html
Can kids recover from autism

This story is all over the popular press. Not my area of expertise. Just and FYI pass along post.

http://www.child-psych.org/2009/05/more-evidence-for-autism-recovery.html

Timing and ADHD neuropsych article

Click link for abstract

http://psycnet.apa.org/index.cfm?fa=search.displayRecord&uid=2009-02621-014
Higher IQ and better health in men

From NEWSCIENTIST


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POSTED BY KEVIN AT 7:00 AM 0 COMMENTS LINKS TO THIS POST

THURSDAY, MAY 07, 2009

Brain rhythm research: Check on the Time Doc Inbox

Interested in recent brain rhythm perception research? Check out the Time Doc Inbox (5-9-09) over at IQ's Corner sister blog--the IQ Brain Clock.

Technorati Tags: psychology, educational psychology, school psychology, neuropsychology, neuroscience, intelligence, IQ, cognition, music perception, temporal processing, rhythm perception, brain rhythm, IQs Corner, IQ Brain Clock, Time Doc Inbox

POSTED BY KEVIN AT 1:27 PM 0 COMMENTS LINKS TO THIS POST
LABELS: IQ BRAIN CLOCK, IQS CORNER READING INBOX, NEUROPSYCHOLOGY, NEUROSCIENCE, RHYTHM PERCEPTION, TIME DOC INBOX

WEDNESDAY, MAY 06, 2009

IQs Corner Reading Inbox: 5-6-09

What's in IQ's Corner reading inbox for 5-6-09? Click here to find out. Articles about intelligence, g, neuroscience, vocabulary development....etc. Lots of good stuff from the journal Intelligence.

Technorati Tags: psychology, educational psychology, school psychology, neuropsychology, education, special education,
I previously made a post mentioning the recent and controversial book by John Raven - *Uses and Abuses of Intelligence*. Dr. Raven was courteous enough to send me a copy a year ago...and despite good intentions, I've not got around to reading it (so much to read...so little time). Thus, I thought it would be a good idea to post some reviews and a response to one of the reviews by Raven. This way people can make their own informed decisions.

An overview description of the book can be found here.

Independent reviews by Sutherland, Belgrev, and Hunt can also be viewed.

A response by Raven to Sutherland can be found here.

This is an FYI announcement. As noted above, I've not had time to read the book and have formed no judgment at this time.

Technorati Tags: psychology, school psychology, educational psychology, neuropsychology, intelligence, cognition, IQ, IQ test, Ravens, RPM

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ISIR web page update: International Society for Intelligence Research

I just revisited the ISIR web page and see that there have been some changes...
and additions. I would urge folks to take a peak. Probably of greatest interest is the "link" section where ISIR member web pages are being added. Mine is currently not listed, but I've sent a request to have it listed. In the meantime you can find it here.

Intelligence scholars stay current. Keep checking the ISIR web page for more-and-more information.

Technorati Tags: psychology, school psychology, educational psychology, neuropsychology, neuroscience, intelligence, cognition, IQ, IQ test, IQ score, ISIR

POSTED BY KEVIN AT 8:42 AM 0 COMMENTS LINKS TO THIS POST LABELS: INTELLIGENCE, ISIR

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Dr. Kevin McGrew is Director of the Institute for Applied Psychometrics (llc). Additional information, including potential conflicts of interest resulting from commercial test development or other consultation, can be found at the IAP web page (www.iapsych.com). Email contact for the IQ Brain Clock blog should be sent to: thetimedoc@earthlink.net. Email contact for IQ's Corner blog should be sent to: iqscorner@earthlink.net.