

# Review of: "The Intelligence of Nations. National IQs and Correlates"

Jack Naglieri<sup>1</sup>

<sup>1</sup> George Mason University

**Potential competing interests:** No potential competing interests to declare.

## Global IQ Review

The manuscript entitled 'The Intelligence of Nations National IQs and Correlates' is fundamentally flawed on one central issue. That is, the decision to measure IQ using tests of academic achievement. The use of tests that measure acquired academic skills as a proxy for intelligence (i.e., IQ) introduces a confounding factor of opportunity to learn. The author also ignores research that is related to this issue using actual intelligence tests. For example, the research by D'Amico, Cardaci, Di Nuovo, & Naglieri, entitled "Differences in achievement not in intelligence in the north and south of Italy: Comments on Lynn" (2010a, 2010b), *Learning and Individual Differences* (2012), their findings will be summarized below:

D'Amico et al. obtained data from an intelligence test that does not include typical verbal tests; for example, it doesn't evaluate a child's vocabulary in a specific language and it does not use quantitative questions which require solving math word problems. Although the use of verbal and quantitative items is well entrenched in traditional tests for measuring IQ (Matarazzo, 1992), choosing an intelligence test based on neuropsychological abilities makes a test more appropriate for culturally and linguistically diverse populations (Fagan, 2000). Such an approach also provides a way to better understand children's abilities and disabilities (Ceci, 2000) and is a more comprehensive way to view ability (Sternberg, 1988). More specifically, they utilized the PASS theory of intelligence measured by the Cognitive Assessment System (CAS; Naglieri & Das, 1997).

The PASS theory is based on the neuropsychological work of A. R. Luria (1973, 1980, 1982) and comprises four neurocognitive abilities: Planning, Attention, Simultaneous, and Successive (PASS, Naglieri & Otero, 2011). The theory has undergone considerable evaluation. For example, studies of race and ethnicity have found only small differences between White and African-American (Naglieri, Rojahn, Matto, & Aquilino, 2005), as well as between Hispanic and White children in the US (Naglieri, Rojahn, & Matto, 2007). There are also research versions in Spanish (Naglieri, Otero, DeLauder, & Matto, 2007) and Dutch, which also show small differences across the US and the Netherlands (Van Luit, Kroesbergen, & Naglieri, 2005). These small differences suggest that ability may be more equitably assessed across race and ethnic groups with a neuropsychologically based measure of ability. Importantly, the PASS abilities measured by the CAS are highly correlated with achievement test scores ( $r=.71$ ,  $N=1,559$ ) for students aged 5–17 years (Naglieri & Rojahn, 2004).

A related study (Naglieri, Taddei, & Williams, 2013) involved Italian children and evaluated differences across regions of

that country; there were no significant differences ( $F(1, 806)=2.19, p=.11$ ) between the average CAS Italian edition Full Scale standard scores (set at a mean of 100 and standard deviation of 15) for students from the northern ( $M=100.5$ ;  $SD=13.2$ ), central ( $M=101.2$ ;  $SD=11.9$ ), and southern ( $M=103.1$ ;  $SD=11.6$ ) regions of Italy. These results suggest that a test of intelligence that measures basic neuropsychological processes and does not include academically laden verbal and quantitative tests yields small differences between the regional groups. These findings also amplify the importance of measuring intelligence directly when comparing groups and argue against using reading, math, and science test scores as “proxies for intelligence” (Lynn, 2010a).

For these reasons, I suggest this manuscript be rejected.

JAN