

Commentary

Response to Russell's (2007) and Hom's (2008) Commentary on
"A motion to exclude and the 'fixed' versus 'flexible' battery in
'forensic' neuropsychology"[☆]

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Russell (2007) and Hom (2008) both wrote commentaries critiquing the *Archives of Clinical Neuropsychology* (ACN) article I authored titled, "A motion to exclude and the 'fixed' versus 'flexible' battery in 'forensic' neuropsychology" (Bigler, 2007), to be referred to as the "Motion to Exclude" article hereafter. My rejoinder gives some general statements followed by specific comments.

The explicit purpose of the "Motion to Exclude" article was to use a public forum to inform the field of clinical neuropsychology how attorneys use neuropsychological publications (in this case ACN publications) and verbatim quotes in court-filed documents in order to argue their legal position for excluding neuropsychologists' clinical opinions. This exclusion in the case I wrote about was based solely on the use of a 'flexible' battery approach. The Hom (2003) and Russell, Russell, and Hill (2005) articles specifically support, advocate, and report that "fixed" neuropsychological batteries, as exemplified by the Halstead-Reitan Battery or HRB, are the "only" neuropsychological measures "...demonstrated to foster reliable and valid clinical judgments (Russell et al., 2005, p. 792)" and explicitly state that in the courtroom, "...the expert witness who utilizes a flexible battery cannot provide dependable evidence derived from the battery as whole (p. 792)". These two ACN articles were the centerpiece writings used in filing the motion to exclude because of their "peer-reviewed" status as if they represented some consensus or practice standard within the field of clinical neuropsychology. The opinions expressed by Russell et al. (2005) and Hom (2003) had gone unchallenged in print until the 2007 "Motion to Exclude" article was written.

Since the "Motion to Exclude" publication, a State Supreme Court decision on the 'fixed' versus 'flexible' battery legal debate has been handed down. In a completely different legal case with quite different issues, but also involving a 'fixed' versus 'flexible' motion to exclude, the NH Supreme Court ruled unanimously in favor of the 'flexible' approach to neuropsychological assessment for use in the courtroom. Prior to the State Supreme Court hearing on this case, the American Academy of Clinical Neuropsychology (AACN) had written and published an Amicus Brief (see

[☆] L. Stephen Miller, Ph.D. was the Guest Action Editor on this version of the paper.

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http://www.theaacn.org/position_papers/Baxter_v_Temple.pdf; see also Meyer et al., 2001) in support of the ‘flexible’ approach. The NH Supreme Court’s unanimous decision upholding the admissibility of a ‘flexible’ approach can be read at: <http://www.nh.gov/judiciary/superior/index.htm>. The State Supreme court decision, along with the AACN Amicus Brief, addresses many of the points raised by the Russell (2007) and Hom (2008) commentaries; however, a few additional points do need to be discussed in this rejoinder.

1. General commentary

First, the gulf between our positions, as exemplified by Russell’s (2007) statement, “The references in Bigler’s article to all of the neurological procedures developed during the last few decades are irrelevant to clinical neuropsychology (p. 789)”, captures the magnitude of the schism. How is it that a battery designed more than 50 years ago to detect “organic brain dysfunction”, continues to be immutable and the standard for the field of clinical neuropsychology as it relates to the 21st century courtroom? The quintessence of this argument is captured in Fig. 1 showing how neurodiagnostic imaging has improved from the time that Halstead (1947) and Reitan (1955a, 1955b, 1959) began to use behavioral measures to assess brain function. For *all* of the studies repeatedly cited by Reitan and Wolfson (1993), as part of the standardization and validation of the *original* HRB (including the normative data and cut-off scores still in use, as well as the ones used in this forensic case), only skull X-ray pneumoencephalography (PEG) techniques were available as shown in Fig. 1. By today’s standards, it is indisputable that the HRB was developed, standardized, and validated in an era that could only be described as rudimentary. Therefore, when Hom and Russell refer to the “. . . *extensive published research* [italics added] on the HRB” and that, “the approach in developing the HRB was to compare control subjects to patients with known cerebral damage or dysfunction, Reitan & Davison, 1974” (direct quote from Hom, 2003, p. 837), and to, “. . . known cerebral damage or dysfunction.” These phrases refer to the standard of that era (circa 1950s), not to today’s standard (see Barr, 2008). For those who use the original HRB method, it must be understood that there has been *no* re-norming, no re-standardization nor any co-norming by contemporary neurodiagnostic methods.

In the opening paragraph of his critique, Russell (2007) misattributed a quotation to me: “. . . the Halstead-Reitan battery (HRB) is, thus, the only forensic neuropsychological assessment method that can be admitted into evidence in

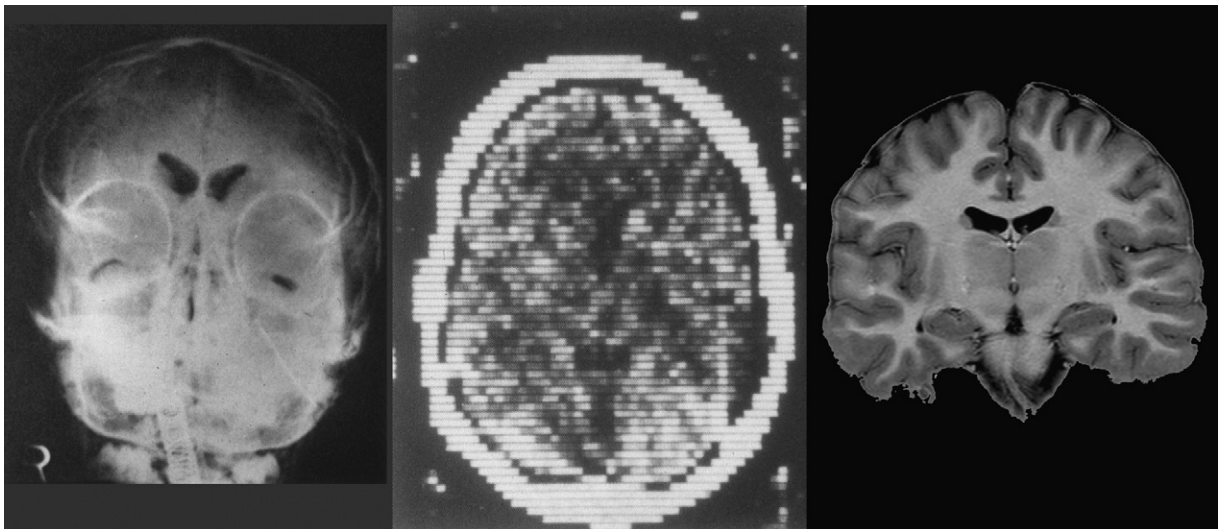


Fig. 1. (Left) Pneumoencephalography (PEG) showing a two-dimensional view silhouette of the ventricular system using skull X-ray technology. Note with air in the ventricle, the boundaries of the ventricular system can be viewed but brain parenchyma cannot. Without the air contrast an anterior–posterior skull X-ray would show only bone. (Middle) Axial computerized tomography (CT) circa 1974–1975 at the very beginning of CT technology. Note the ventricular system can be identified along with very coarse delineation of brain parenchyma (Right). Contemporary 3-Tesla coronal view of a magnetic resonance imaging (MRI) scan, which provides exquisite detail of brain anatomy. By using different MRI sequences, different types of pathologies can be identified (see Bigler, 2005, for the history of these techniques and their role in neuropsychological assessment). *Only* PEG was available as a neuroimaging modality during the HRB validation studies as outlined in Reitan and Wolfson (1993). These examples are but a few of the structural neuroimaging capabilities and do not address functional neuroimaging methods which often have even greater precision in detecting impairments in neurological function.

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