Response to Bigler (2007): The sky is not falling

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In a recently published article, Bigler (2007) reports his experience with the legal system as a retained expert witness. He describes how a common legal procedure, Motion to Exclude, was used to decide the admissibility of his testimony. He criticizes the published works of others, and Hom (2003) and Russell, Russell, and Hill (2005) in particular, as providing attorneys with information that can be used to construct petitions to exclude expert witnesses such as himself. Several excerpts from a Motion to Exclude his testimony were presented as well as a discussion of his rebuttal to the motion.

Before commenting on Bigler’s article, I would like to state that I was the defense-retained neuropsychologist on the case that he refers to in his article. As such, I have specific knowledge of the Motion to Exclude as well as issues relating to the case. I agree with Bigler that this is not the forum to discuss the basis for the lawsuit in the case or the specific neuropsychological findings. Rather, I would like to comment on his position regarding the use of published neuropsychological information in forensic work and his rebuttal to the motion.

In 2002, I posed the question: “Forensic Neuropsychology: are we there yet?” to an audience at the National Academy of Neuropsychology annual meeting. At the time, I was reflecting on the growing use of neuropsychology in the legal arena and how clinical neuropsychology can be helpful to the trier of fact. It was clear then, as it is now, that neuropsychology is readily being utilized in forensic applications. The Hom (2003) article referred to by Bigler is based on this presentation. The article highlights the responsibility of neuropsychologists to provide information based on scientifically validated neuropsychological principles and clinical methodology in the context of forensic application and the evidentiary standard for admissibility of scientific testimony.

As described in Hom (2003), clinical neuropsychologists are often called upon by attorneys or the court to provide valuable and relevant information to assist the trier of fact in understanding brain–behavior relationships pertinent to the specific claims of the case. It is not uncommon for neuropsychologists to be asked for an opinion regarding the nature and extent of any brain-related injury or dysfunction, as well as the possible impact of these impairments on the patient’s daily function, occupation, family life, etc.

Increasingly, the clinical neuropsychologist is asked to provide relevant information to answer the Forensic Question (Hom & Nici, 2004): that is, if there is cognitive dysfunction, is this dysfunction a result of the event under consideration? Neuropsychologists are asked not only to identify dysfunction, but also to provide conclusions regarding the likely cause of such dysfunction. The neuropsychologist is faced with the question of whether the patient’s complaints, such as memory or attention and concentration problems, are reflective of brain impairment such as those from a traumatic brain injury or anoxia or toxic exposure, etc. To answer this question, the neuropsychologist must use a technique, which can not only discern the presence of cognitive/psychological impairment but can also determine a likely cause for the impaired findings.

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The Court expects that the clinical neuropsychologist will provide information that is grounded in scientific principles. Hom (2003) stated that clinical neuropsychologists should use “a methodology that has been scientifically validated on brain-impaired individuals, and can distinguish various brain conditions from each other as well as from normal variation. Specifically, this methodology must have demonstrated validity in determining presence of brain impairment, location of the cerebral damage, nature of the brain condition, as well as differentiating various neurological disorders and other conditions that can afflict the brain. The methodology must be able to determine whether any cognitive dysfunction found is, in fact, the result of a neurological condition as opposed to non-neurological, psychological, or even factitious disorders” (p. 832). Hom (2003) showed how the Halstead–Reitan Neuropsychological Test Battery (HRB) can answer the Forensic Question. The above material is the essence of the argument presented in Hom (2003).

With the development of forensic neuropsychology, there is a growing body of literature regarding forensic issues and applications of neuropsychology available for neuropsychologists. Moreover, information has been available for many years advising attorneys how to challenge neuropsychological testimony (Faust, Ziskind, & Hiers, 1991). This literature is available to both neuropsychologists and attorneys alike. As Bigler correctly states, “In the legal arena, the attorney is given the charge of representing his or her client and their side of the case, with all the resources they can bring to bear with the purpose to prevail for their [sic] client and side of legal argument (i.e., to win). . .” (p. 48). For many sophisticated attorneys, the forensic as well as the clinical neuropsychological literature is read and used in court in their advocacy of the client. Given the increased use of neuropsychological evidence in the courts, it is not surprising to encounter attorneys who are well versed in neuropsychology.

Neuropsychology is a science that is constantly producing information about brain–behavior relationships. As the field advances, there is scientific dialogue, as ideas are tested, data are published and replicated, and avenues of research are explored. A healthy and thriving scientific field involves discussion and debate. Although any of this information, published in an open forum, can be used by attorneys in their advocacy for the client, this does not mean that such information or its use will impair the scientific enterprise. Bigler (2007) raises the ominous spectre that the courts could “restrict” aspects of neuropsychological practice and indicates that legal decisions would have “far-reaching implications” for neuropsychology. In actuality, such decisions apply only to the legal arena, and are most frequently specific to the case at hand and to the expert witness’s particular testimony. Exclusion in any individual case does not necessarily mean that the expert or the offered testimony will be excluded in all future cases, nor does it necessarily reflect on the entire field or practice of neuropsychology. Further, legal decisions do not necessarily affect the science or practice of neuropsychology. The goals and procedures of the legal profession and the goals of neuropsychology are different. Legal decisions are made for legal reasons, based on legal arguments. Hopefully, neuropsychology proceeds by the ongoing process of scientific testing and verifying hypotheses, not by argument. Through science, the field of neuropsychology will advance.

Whether we like it or not, when neuropsychological evidence enters into the legal arena, it is subject to legal scrutiny. Because of our adversarial-based legal system, it will be challenged. When scientific testimony is offered, it is often challenged under the rules of Daubert or comparable rules adopted by many states. This evidentiary standard established a criterion of relevancy for expert testimony, established the terms according to which a witness could qualify as an expert, and regulated the subjects about which an expert could testify.

The Daubert court’s reasoning regarding the admissibility of expert testimony was outlined thusly: “For purposes of determining whether expert testimony is sufficiently grounded on valid scientific principles so as to be admissible, general acceptance... is a factor to be considered; however, it is not dispositive. The focus is on the ‘methodology’ of the experts, and not the conclusions that they generate. This does not mean, however, that a conclusion will be admissible merely because some part of the methodology is scientifically valid. The entire reasoning process must be valid. A credible link must be established between the reasoning and the conclusion. Once that is accomplished, the inquiry crosses the line from one of admissibility to one of the weight the trier of fact should accord to the conclusion” (from Chapple, 1481 at 1496).

Experienced expert witnesses are well aware of the various procedures used by attorneys in the legal arena to advocate for their clients. Whether a neuropsychologist, neurosurgeon, or neurologist is giving expert testimony, the current evidentiary standard applies. These are the rules of the court, not of neuropsychology. Challenges to expert testimony offer the Court an opportunity to scrutinize the validity of the proffered evidence.

As is often the case, the foundation for a challenge is very specific to the offered testimony of the expert as it relates to the particulars of the case. The court has the right to hear the foundation by which an expert witness has formulated...
his/her opinion. Challenging the expert witness is an inherent and expected feature of our legal system. In turn, the expert witness should be well prepared to give sound testimony supporting his/her position.

In the present case, the defendant’s attorney submitted a Motion to Exclude Bigler’s neuropsychological testimony. The article under discussion (Bigler, 2007) presents some excerpted sections of the full motion (see Sections 2.1.1, 2.2, 2.3, and 2.4). Bigler states that the motion was “an attempt to exclude neuropsychological testimony based on a flexible neuropsychological assessment approach.” Although he presents the age-old argument between flexible and fixed batteries, in actuality, the Motion to Exclude was more complex and specific to the case. Dr. Bigler’s methodology came under scrutiny with regard to his conclusion that the patient’s neuropsychological deficits were related to the claimed brain injury. As highlighted by Hom (2003) and Hom and Nici (2004), this issue is the typical situation, and most neuropsychologists providing testimony will face it.

Bigler presents some of the basis for the plaintiff’s rebuttal to the motion. Review of this presented information shows it to be deficient in several respects. His responses are very general and superfluous to the issues at hand. No scientific evidence is offered supporting the flexible battery approach. Instead, he chose to attack the method of the opposing side (which had not been at issue). Although Bigler includes material from the original motion that reviews the requirements for scientific reliability, he does not provide any information on the reliability/validity of the flexible battery approach or of his approach. He argues the reliability of subjective complaints, but he does not show how such complaints are valid indicators of specific neurological disorders. He implies that the popularity of a technique is evidence for its scientific validation. Based on the information and arguments he provided, it is difficult to understand his concluding statements from the article, asserting that “flexible battery approaches do meet legal standards to form the basis of opinion for neuropsychologists involved in forensic work” (p. 50).

Although it may be instructive to learn how the legal profession handles neuropsychological testimony, the legal arena is not the venue to debate nor is it the proving ground of neuropsychological techniques, practice, or theory. However, in the present situation, the legal case highlights some very important clinical issues in the practice of neuropsychology. As clinical neuropsychologists, we are involved in determining relationships between behavior and brain. This is the foundation of our field. We are not here merely to describe behavior, but instead we are charged with the task of relating behaviors to brain and its function (or dysfunction). As such, we should choose methodologies that are scientifically validated to provide accurate understanding of this relationship. All too often, in clinical practice, brain dysfunction is assumed before neuropsychological examination of the patient has even begun, based on patient complaints and/or historical and medical evidence. This assumption often leads to the conclusion that any sign of cognitive/behavioral impairment, found on the neuropsychological examination, is in fact an indication of brain impairment. As we all know, there are multiple determinants for any particular identified behavior. Our task is to determine whether brain impairment is the major determinant for any cognitive dysfunction found.

Neuropsychology relies heavily on medical evidence. However, we should not depend solely on medical evidence to tell us whether a patient has brain impairment. In the case under discussion, Bigler states that there was documented medical evidence of brain impairment. As is often the situation in legal cases, there was some dispute over this medical evidence. Our contribution in these situations should be to provide an independent assessment of the patient’s brain. Furthermore, even in light of undisputed medical evidence of brain impairment, it is not necessarily the case that all identified behavioral deficits arise specifically from this impairment. As neuropsychologists, we clearly understand that behavior can arise from multiple determinants. Neuropsychology is not merely a field that measures deficits related to brain damage diagnosed by medical professionals; the field is not neurology’s or neuroradiology’s stepchild. Our history documents the ability of neuropsychology to identify brain-related disorders independent of these professions.

A source of controversy in the field is how this is to be accomplished. I believe that relying on such external factors, as coincidence in time, is not sufficient to draw the conclusion that a behavior results from a particular incident. Rather, our test methods should be able to give us independent information regarding whether the impaired scores are from brain dysfunction or not, and if they are, whether such dysfunction occurred recently or is long-standing, whether it involves particular areas of the brain, and whether the neuropsychological findings are representative of the condition. This has been demonstrated as possible for the HRB, despite Bigler’s dismissal of it as outdated, but it was not demonstrated in this case for the flexible battery. This was the basis for the Motion to Exclude.

The Court is interested in the nexus of the expert’s conclusions and the methodology used to reach those conclusions. Rather than viewing a Motion to Exclude as a “legal maneuver” (p. 46, Bigler, 2007) with the negative connotation of that phrase, it can be viewed as an avenue to educate the Court. The Motion to Exclude is a legal procedure to help the Court understand our methodology and to answer the specific questions of the case.
References


