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Forensic Issues in Head Trauma: Neuropsychological Perspectives of Social Security Disability and Worker's Compensation

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Specific concerns have arisen over the past few years in the application of the rapidly developing field of clinical neuropsychology to the legal setting. Due to the intrinsic nature of head trauma, a significant and increasing number of these types of cases eventually have legal implications.

General Approach to Forensic Cases

Regardless of whether the case involves Social Security or Worker's Compensation, a general approach is advisable. Throughout this chapter, several themes will be emphasized. All are provided as a mean to decrease ambiguity and provide the courts with the best possible neuropsychological data so a proper administrative and/or legal decision may be reached:

1. Understand the referral and the questions that are to be answered.
2. Understand the rules, regulations and laws of the type of case involved (e.g., Social Security).
3. Rely on objective information.
4. Avoid inferences, always provide conclusions that closely parallel the data.
5. Be as comprehensive as feasible.
6. Scrutinize your evaluation, otherwise another professional will do so (much to your dismay).
7. Do not take adversarial positions.
8. Neuropsychological data is not absolute.
9. Clarify confounds, focus on premorbid function.
10. Remain ethical, as the courtroom with its high pay and excitement can lead one astray from correct professionalism.

The Importance of Objective Data

The issue of measurable deficits is critical in a neuropsychological evaluation due to difficulties in assessing the validity of "psychological"

symptoms and, in turn, of subjective symptoms such as those noted with post-concussive syndrome. However, the question of validity according to Larsen (1970) is associated to the issue of malingering. Specifically, "the issue comes down to the presence of responsible conscious volition on the part of the point to invent, protract, misinterpret, or exaggerate his complaint." Considering the subjectivity of most head injury symptoms, it should come as no surprise to note that malingering is perceived to be such a critical issue. As much as feasible, neuropsychological symptoms should be differentiated from faking.

Objective data is based on scientifically derived knowledge. A neuropsychologist must obviously know the appropriate literature both on head injury and on vocational issues. For example, the information contained in this book by Mapou, Long, and McCue is indispensable to those dealing with forensic issues in head injury. In addition, knowledge about how to apply such data to the court room is also critical (e.g., Taylor & Elliott, 1989; Gilandas & Touyz, 1983).

Questioning the Validity of Forensic Neuropsychological Information

There is little question that a considerable amount of money as well as personal outcomes hinge on the outcome of head injury cases. Thus, the importance and validity of neuropsychological testimony assumes a critical role often more so than medical testimony because of the functional aspects of neuropsychology data.

However, acceptance of neuropsychological data has not been automatic, even from the perspective of other psychologists. Recently, Faust and colleagues (e.g., Faust, Guilmette, Hart, Arkes, Fishburne, & Davey, 1988) published a study examining the judgement accuracy of clinical neuropsychologists. Results indicated that "virtually no systematic relations were obtained among a series of training and experience variables and accuracy across a series of diagnostic judgments" (Faust, et al., p. 159). The authors further state that it is acceptable to conclude that "about one in three normal individuals are misdiagnosed as abnormal" (Faust, et al., p. 160). The conclusion questions the usefulness of neuropsychological judgment by "experts."

In a more recent review of the literature, Wedding and Faust (in press) addressed the question of clinical judgement and statistical factorial prediction in clinical neuropsychology. They conclude that clinical neuropsychological judgement is open to serious question due to judgment errors. The authors indicate that one or more of the following issues may contribute to judgments

errors; hindsight bias, confirmatory bias, over-reliance on salient data, underutilization of base rates, and failure to analyze co-variation.

Overall, these studies reflect the "mood" of the courtroom. Specifically, the validity of neuropsychological data is open to question. The question of validity may be phrased less eloquently in the courtroom. Indeed, the question is simply posed of how can a non-physician testify about issues involving the physical status of body. After all, understanding physical dysfunction is not in the domain of training for psychologists. Of course, Faust has re-phrased the question of validity in a more scholarly manner. But the question of validity remains critically unanswered and poses serious threat to the admissibility of neuropsychological data for the legal system.

Avoiding Inherent Difficulties of Forensic Cases

While not providing specific suggestions as to how to combine these two extremes, Wedding and Faust (in press) do suggest that certain corrective procedures should be taken into account to avoid problems in the court room. The authors suggest the following: know the literature on human judgment, do not depend on insight alone, avoid premature abandonment of useful decision rules, regress extreme estimates, limit focus on the esoteric, avoid over-reliance on highly inter-correlated measures, start with most valid information, consider alternative hypotheses, consider disconfirmatory information, think Bayesian, collect appropriate norms, and obtain feedback.

An alternative to these specific recommendations is to consider the data presented by the clinical neuropsychologist as open to question. Not only will the data be scrutinized but it will be done in such a manner as to place the burden of proof not on the court, or on the attorney, but on the neuropsychologist. A common error, besides the ones outlined by Faust and Wedding, is to equate clinical and forensic cases in terms of procedures and outcomes. Realizing that the evaluation will be attacked, the neuropsychologist's approach should be to anticipate every possible question and concern by completing the best possible evaluation feasible. Even if such an approach is used possible complications could arise. If they do, consider them as constructive criticism to be incorporated in future professional activity. In short, the forensic evaluation is similar to submission of a manuscript for editorial review. Close scrutiny by colleagues and other professionals will occur before the data is accepted as useful.

General Assessment Issues

More preparation and effort is typically involved for the forensic evaluation than in standard clinical evaluation. Moreover, head injury cases have specific issues that distinguish them from other forensic cases. Thus, care must be taken to be aware of both psychological and neuropsychological issues and how they interact.

Referral

Clients may be referred from one or more sources. Theoretically supporting the position of the client, an evaluation may be requested by an attorney or legal representative of the client. The referral question is typically associated with the question of deficits. In contrast, referrals from insurance companies or their representatives, often rehabilitation nurses or agencies, focus on strengths. An interest in potential confounding factors is rarely encouraged by this type of referral. While these referrals may be initiated by the primary treating or consultative physician, they are generated by the insurance carrier because of question of the validity of the patient's behavior. The physician or other health care professional who is generally interested in the welfare of the client tends to be a less adversarial referral.

Regardless of the referral source, the task of the clinical neuropsychologist should always remain the same. Specifically, the role should be to provide as accurate, scientific data about the patient's neurobehavioral function as allowable within the constraints of the knowledge available at the time of the evaluation. To participate in an adversarial role not only negatively affects the welfare of the client but of the discipline as well. Adversarial positions are unethical.

Another issue is that of available information. It is not unusual for an evaluation to be accompanied by little or no prior data. Since neuropsychologists rarely are the first health professional to evaluate a client, prior records are usually available from other sources and should be obtained. These records are critical to the full appreciation of the complexity of the client's functioning. Of particular importance are work histories and related premorbid data. This information can often be obtained from job descriptions, annual evaluations, and co-worker interviews. School transcripts are also a wealth of information. Additional data can be obtained from the Armed Services as well as school or university records. Grades and standardized scores serve as an excellent picture of premorbid functioning.

A final issue involves third parties. These could include defense attorneys, insurance companies, and other health care professionals. Again,

these relationships should be clarified from the beginning. Clear channels of communication, with emphasis on written communication, are essential to avoid conflicts and misunderstanding. Additionally, specific roles for all parties must be clarified. To obtain objectivity, the neuropsychologist should consider themselves as consultants in these cases delegating primary care (including psychological) duties to other health care professionals. If therapy is required another psychologist (not involved with the case) should assume this duty.

Professional Issues

Most referral sources, and almost all patients, have a misunderstanding of many of aspects of a neuropsychological evaluation. These include discussing the case with referral sources, obtaining and reviewing premorbid records, testing and scoring time, dictation, discussion with attorneys and referral sources, depositions, affidavits, and/or court appearances. All of these issues must be understood by the neuropsychologist and should be clarified to all parties involved in the evaluation.

A critical issue is that of reimbursement. Forensic cases can have a significant impact on the financial status of both the individual and the employer so much so that this financial concern carries over into the evaluation process. In order to minimize this potential ethical complication, it is advisable to provide initial cost estimates with potential reasons for later changes. Related to reimbursement is the mode of payment. To ensure the likelihood of minimal complications, a contract similar to that noted in Table 1 may be useful. It is of the utmost importance for all concerned that the cost as well as the method of payment and/or reimbursement be clearly stated and potential conflicts resolved prior to initiating the evaluation. A _____ may also be secured before initiation of the evaluation.

Table 1

Authorization for Release of Medical Information and for Payment of Medical Expenses.

I hereby authorize Antonio E. Puente, Ph.D. to release to my attorney(s) _____ any and all information which he may request concerning examination of and treatment given to _____ in connection with injuries sustained as the result of an occurrence on or about the _____ day of _____, 19____.

I also further authorize and direct my attorney(s) to pay Antonio E. Puente, Ph.D., to satisfy his total bill for all professional and testimonial services rendered to me.

I also understand that if favorable legal settlement does not occur, I remain personally liable for payment of the total bill for professional and testimonial services rendered to me

I hereby waive the defense of the statute of limitations and agree that the time for filing any claim by the psychologist for professional services shall not commence until the date of final disposition of my claim for damages for injuries.

Signature _____ Date _____
Accepted and Agreed by _____, Attorney

Evaluation

Educating the patient is an often ignored preliminary step in any evaluation, especially in a head injury case where malingering as well as lack of knowledge makes the gathering of useful data a difficult task. Thus, the patient and possibly the family should be provided with a brief introduction to the field of clinical neuropsychology. Specific emphasis should be placed on the evaluation questions and procedures as well as their relationship to the legal questions.

Record keeping should be considered prior to initiating the evaluation. Records can be subpoenaed by the courts, especially if taken to the stand during testimony. While some forensic experts suggest that records should not be reviewed by others, the possibility does exist for all of the records to be reviewed. Thus, careful record keeping is required. While many neuropsychologists consider the use of a technician acceptable (e.g., Seretny, et al., 1986), it is important to record and qualify who performed each portion of the evaluation since this will be questioned during testimony.

By far the greatest error in forensic cases is the tendency to make incorrect inferences based on the obtained information. The legal system encourages the simplification of matters but simplification poses problems of ethics and clinical validity. It is preferable to report data and arrive at tentative conclusions than face the wrath of a knowledgeable attorney, or worse, a competent neuropsychologist (hired by the opposing counsel) to review and critique your report.

Court-Related Issues

The key to court appearance is preparation. The first person to prepare for a court or court-related appearance (e.g., deposition) is the neuropsychologist. Careful analyses of histories, clinical, and psychometric data and its presentation precedes another review of this inferences and conclusions. Behavioral rehearsal of potential questions from the attorney should help in clarifying rather than confusing the issues. The client should also not be overlooked. They should be advised of potential procedures and

Some attorneys prefer a signed written statement rather than a court appearance in an effort to clarify questions about the evaluations. Legal representatives may prefer to draft the statement or affidavit themselves. If so, caution should be taken not to oversimplify complex issues.

A deposition is a comprehensive interview conducted by both sets of attorneys in the presence of a court reporter. This may be preliminary to later testimony. As with any form of data presentation, extreme care should be taken not to incorrectly present the issues or the intended inferences or conclusions.

While some neuropsychologists prefer not to appear in court, the likelihood of such an appearance in a head injury case is relatively high. This is especially true in mild head injuries where individuals may have no detectable neurological or neuroradiological deficits. When the opportunity for presenting neuropsychological data arises, the neuropsychologist's task is to educate the court, whether it be a judge, a commissioner, or a jury.

The educational process is four fold. First, educate regarding to your qualifications, especially as they pertain to work-related injuries as well as to neuropsychological disorders. Secondly, provide information about the field of clinical neuropsychology. It is imperative that both strengths and limitations of neuropsychological data be addressed. Anatomical issues should be avoided while behavioral or functional variables should be emphasized. Next, a thorough understanding of the accident, client, and the residuals should be considered. Treatment and rehabilitative potential and approaches should also be presented.

Social Security Disability

Social Security Disability serves as an excellent introduction to forensic neuropsychology for several reasons. First, specific guidelines and test procedures are published, thus providing specific direction for assessments. In addition, this type of case is not seen as adversarial. Finally, the emotional and financial risks are not as intense as personal injury or worker's compensation. Mastery of Social Security Disability cases should serve as a strong foundation for other forensic cases.

Referral

There are two primary, albeit opposing, sources of referral. The Social Security Administration (SSA) may request a consultative psychological

examination. This can occur only if the psychologist's credentials has been approved by the SSA and s/he is listed as a service provider for state office of the SSA. Alternatively, attorneys or legal representatives of a claimant may request neuropsychological services. As a rule, if the SSA requests the evaluation, few records are furnished and a standard intellectual examination is all that is required. Most of these requests occur early in the disability application process. In contrast, attorneys often request neuropsychological consultation after initial rejection for disability has occurred. Most often these referrals require more comprehensive tests and comprehensive records are usually available. Regardless, one of the most difficult cases for SSA evaluation is closed head injury where the post-concussive syndrome or mild head injury cases are considered as faking or malingering.

Evaluation

The evaluation for SSA cases is dictated by two major issues. First, specific guidelines or listings for impairment have been published and must be met for an individual to be considered disabled. Second, specific tests have been approved by the SSA for meeting these guidelines.

To meet a listing, an applicant must: 1) directly meet or fit a listing, 2) have a combination of impairments, 3) have limited medical improvements related to employment or 4) not be able to perform a previous or related work.

There are nine separate listings for categorizing mental impairments (Social Security Administration, 1986). These are organic mental disorders, schizophrenia, paranoid or other psychotic disorders, affective disorders, mental retardation and autism, anxiety related disorders, somatoform disorders, personality, and substance addiction disorders. The most applicable of these for neuropsychologists is the organic mental disorder listing. Table 2 provides the definition or listing of organic mental disorder encompassing two separate categories, termed Part A and B. Part A contains many of the basic symptoms of "organicity" (e.g., memory impairment), while Part B, Activities of Daily Living, addresses the effects of these symptoms on functional abilities. Both Parts A and B must be met in order to qualify under a listing.

Table 2

Organic Mental Disorders Listings.

Organic Mental Disorders: Psychological or behavioral abnormalities associated with a dysfunction of the brain. History and physical examination or laboratory tests demonstrate the presence of a specific organic factor judged to be etiologically related to the abnormal mental state and loss of previously acquired functional abilities.

The required level of severity for these disorders is met when the requirements in both A and B are satisfied.

- A. Demonstration of loss of specific cognitive abilities or affective changes and the medically documented persistence of a least one of the following:
1. Disorientation to time and place; or
 2. Memory impairment, either short-term (inability to learn new information), intermediate, or long-term (inability to remember information that was known sometime in the past); or
 3. Perceptual or thinking disturbances (e.g., hallucinations delusions); or
 4. Change in personality; or
 5. Disturbance in mood; or
 6. Emotional lability (e.g., explosive temper outburst, sudden crying, etc.) and impairment in impulse control; or
 7. Loss of measured intellectual ability of at least 15 IQ points from premorbid levels or overall impairment index clearly within the severely impaired range on neuropsychological testing, e. g., the Luria Nebraska, Halstead-Reitan, etc.; AND
- B. Resulting in at least two of the following:
1. Marked restriction of activities of daily living, or
 2. Marked difficulties in maintaining social functioning, or
 3. Deficiencies of concentration, persistence or pace resulting in frequent failure to complete tasks in a timely manner (in work settings or elsewhere); or
 4. Repeated episodes of deterioration or decompensation on work or worklike settings which cause the individual to withdraw from this situation or to experience exacerbation of signs and symptoms (which may include deterioration of adaptive behaviors).

Note. From Disability evaluation under Social Security: A handbook for physicians. Social Security Administration, 1986, Washington, DC: Author.

Tests and testing procedures are outlined for the evaluation of mental impairments. In their "Final Report" of August, 1985, SSA stated, "Broad-based neuropsychological assessments using for example, the Halstead-Reitan or the Luria-Nebraska batteries may be useful in determining brain function deficiencies, particularly in cases involving subtle findings such as may be seen in traumatic brain injuries (pp. 36057)." These supplement the WAIS, MMPI, Rorschach, and TAT. However, on May 29, 1986, SSA revised the original list of acceptable psychological tests to include the following 11 tests; Boston Diagnostic Aphasia Examination, McCarthy Scale of Children's Abilities, the Stanford-Binet Intelligence Scale (3rd ed.), Wechsler Intelligence Scale for Children-Revised, Weschler Adult Intelligence Scale-Revised, the Peabody Picture Vocabulary Test-Revised, the Luria-Nebraska Neuropsychological Battery, the Millon Behavioral Health Inventory and Adolescent Personality Survey as well as the Clinical Multiaxial Inventory, and the Kaufman

is "a better technique because it provides a low cost, portable, relatively brief alternative to the Halstead-Reitan Neuropsychological Battery; (pp. 19417).

Table 3 provides specific suggestions as to how the North Carolina Disabilities Determination Section suggests a report be written. The style may not be as much of an issue as the content. Since psychologists may be reviewing these reports, careful presentation of psychometric data is important. More critical, however, is the issue of addressing activities of daily living, especially Part B of the listing. Findings from the evaluation must be equated to functional residual capacity. Not to address ADL will jeopardize the potential impact of the neuropsychological assessment. A final issue with regards to the report involves whether to state if a claimant has met a listing. Unless requested by the referral sources, this type of analyses may be best left to the court.

Court-related Issues

Social Security cases rarely involve court testimony. Typically the report is sufficient. If questions arise they will usually be from the claimant's legal representative and, usually, an affidavit or disposition may answer any questions present. If court appearance is required the process is administrative rather than adjudicative. An Administrative Law Judge (ALJ) acts more as a fact-finder than an arbitrator and the purpose of an appearance by the neuropsychologist would be to provide clarification of report data, present new information, or possibly to interview the client for the ALJ. There are no juries and the court room usually contains an ALJ, the legal representative, and a court reporter.

Worker's Compensation

If a worker is completely disabled, s/he may qualify to receive Social Security Benefits. If the worker is injured on the job (whether completely or partially disabled), then s/he is eligible for worker's compensation benefits. Unlike Social Security, worker's compensation may provide support relative to the amount of functional residual or dysfunction. Thus, one may receive a percentage rating reflecting cumulative impairment. Due to the increased financial implications, such cases are more aggressively challenged by both insurance carriers and attorneys which results in greater burden on the neuropsychologist to provide exhaustive, accurate, and relevant information.

Table 3

A. History

1. Source and estimate of reliability.
2. Description of complaints including when they prevented work if appropriate.
3. Family, social environmental and occupational history
4. Past medical history (hospitalizations, therapy, drugs and dosage, etc.)

B. Clinical Interview

We need enough descriptive detail from your clinical interview on the following items to allow us to independently confirm your conclusions.

1. Description of appearance to include physical, dress, grooming, posture, attitude and behavior. Note how the patient came to the examination (alone or accompanied, distance and mode of travel.)
2. Detailed description of daily activities (a typical day). Note if applicant is dependent on others and in what areas he/she requires assistance.
3. Note ability to follow simple directions.
4. Cooperation with examiner -- note ability to understand the spoken word.
5. Emotional reaction: depressed, elated, anxious, angry, suspicious, friendly, fearful, flat, blunted, inappropriate or appropriate, etc. Include facies, posture, involuntary movements, tears or other observations which lead to your conclusions.
6. Describe speech as to relevancy, coherence, pressure, retardation, neologisms, etc.
7. Describe ability to read, write and perform simple calculations.
8. Judgment: Ability or inability to avoid physical danger such as cars, fire, etc.

C. Test Results and Protocols

1. Standardized intelligence test results: Report Performance and Verbal subtest scores in addition to the Full Scale I.Q. score on the Wechsler Intelligence scales (WAIS, WISC, WISC-R, and WPPSI). Both the verbal and performance measures are necessary in conjunction with the Wechsler scales.
2. In instances where administration of certain subtests or subscales may not be feasible because of the applicant's condition or circumstances, an explanation for this limitation is required.

D. Summary

1. The claimant's problems should be integrated into the test results and the effect on his ability to carry out work-related out work-related activities such as:
 - a. Understand, retain and follow instructions
 - b. Sustain attention to perform simple repetitive tasks.
 - c. Ability to relate to others including fellow workers and supervisor.
 - d. Tolerate the stress and pressures associated wit day to day work activity.
2. Statement of capability to manage funds is necessary.
3. Comment on any physical or mental impairment that may have affected I.Q. scores and estimate the extent the scores were changed if possible.

We do not require a statement as to whether the patient is or is not disabled because the determination of disability is an administrative decision which also involves consideration of age, education and vocational history.

This report must be reviewed and signed by the psychologist who actually performed the examination.

Referral

As with Social Security, referrals may be generated from the two opposing sides. An insurance carrier may request the evaluation, often through a rehabilitation agency or nurse. The focus as indicated earlier in this chapter, will be on strengths as well as on malingering. In contrast, attorneys (often retained after an undesirable settlement offer) are more interested in deficits. Another potential referral is the treating physician. Whether the physician realizes the potential for a work-related head injury case to result in legal issues or otherwise, the original consult may be perceived as a standard clinical referral. In many respects these referrals represent less adversarial, possibly even more balanced, approaches to the head injury symptoms. Another issue of importance and potential complication is that of reimbursement, especially if the worker is not involved with an insurance program. It may be useful to obtain clearance from appropriate reimbursement agencies or insurance carriers in order to avoid this problem.

Evaluation

Prior to any comprehensive evaluation, thorough premorbid data must be obtained. Specific records should be obtained from schools, trade or vocational training centers, and/or universities in order to formulate potential premorbid intellectual abilities. Special emphases should be placed on standardized tests and their potential equivalence to the current evaluation. Of greater concern in compensation cases is vocational history. Comprehensive histories with job descriptions and annual evaluations are a must. In addition, interviews with supervisors or co-workers may be of value. Of related importance is the concern for premorbid family and social function which may be accomplished with interviews of family and friends.

As with any evaluation, the initial step should be to complete a comprehensive clinical interview. Additionally, serial evaluations may help in addressing issues of validity. Similarities should be developed and discrepancies should be noted. Effort should be made to develop a comprehensive clinical understanding of the patient.

Industrial commissions do not have a preference (as the Social Administration) for specific tests, or for flexible or standardized batteries. The worker's ability to return to work is in question and should direct fact finding. Tailoring the evaluation both to the complaints or the residual effects of the alleged trauma as well as to the work tasks described in the job

description will help clarify the necessary vocational question. Related work potential may be similarly considered by using appropriate tests. While this approach implies the merits of a flexible or non-standardized approach, Industrial Commissioners and Boards appear to prefer known batteries and norm referenced tests and results.

Care should be taken with the use of a technician. While considered acceptable and common neuropsychological practice, attorneys will question the credibility of test results not directly obtained by the neuropsychologist. Related confounding variables including fatigue, time and day(s) of testing, and medications, take on a more important role in determining the residual neuropsychological capacity of the worker than in many cases.

By far, the greatest error in worker's compensation cases is the tendency to make incorrect inferences. While this approach is often encouraged by the legal system in order to simplify matters, it poses grave clear problems of ethical and clinical validity. It is preferable to report data and limit the conclusions.

Another issue is that of incongruent findings. These may include findings of prior neuropsychological evaluation and medical examinations or tests. Incongruent findings need to be considered and addressed rather than ignored or belittled. Further effort and analysis should reveal potential correlations between data sets.

A report for worker's compensation should differ from a standard clinical report. Beyond the usual, special emphasis should be placed on premorbid functioning and work tasks. Additionally, emphasis should be placed on both residual symptoms as well as abilities, especially as they pertain to work related activities. If feasible, directly address the potential limitations of performing the previous employment as well as the likelihood of vocational rehabilitation. As a consequence of the additional and detailed information, such reports may be considerably longer than standard reports.

A major aspect of the report, indeed that segment that clearly differentiates this report from other neuropsychological reports, is a rating. This is a percentage of impairment based on published guidelines by the American Medical Association (1986). As can be seen from Table 4, there are several variables that must be taken into account such as intellectual ability. Each variable is assigned a rating from 1-5. Then a composite rating is arrived presumably using an average rating of all these variables. In addition, prognosis and rehabilitation potential is taken into account. Note that this rating system is derived from the second edition of the AMA guidelines. The

third edition does not provide guidelines for a rating, instead the multi-axial system of the DSM-III-R is presented (AMA, 1989). This poses serious problems for the head injury case since the DSM-III-R system is woefully inadequate with regards to organic brain syndrome.

Several factors are worth noting relative to head injury. First, while it may be seen more appropriate to use the system provided for neurological disorders, it would be inappropriate since the behavior addressed in head injury cases fit better with the mental impairments category. Next, while some of the variables may superficially "fit" (e.g., perception) they are best suited to address functional disorders. Definitions of these variables should be carefully considered. Third, prognosis and rehabilitation potential (often ignored in compensation cases) have special significance with symptoms associated with head injury. Severity of the accident, age, education and a host of other psychobiological variables (see Puente and McCaffrey, in press) play a role in the rating provided. For example, a 26 year old graduate student with a

Table 4

American Medical Association Guidelines for the Evaluation of Psychiatric Impairment.

Class and Percentage of Impairment					
	1 0% to 5%	2 10% to 20%	3 25% to 50%	4 55% to 75%	5 over 75%
Mental Status					
Intelligence	Normal or better	Mildly Retarded	Moderately Mildly	Moderately Severely	Severely Retarded
Thinking	No Deficit	Slight Deficit	Moderate Deficit	Moderately Severe Deficit	Severe Deficit
Perception	No Deficit	Slight Deficit	Moderate Deficit	Moderately Severe Deficit	Severe Deficit
Judgment	No Deficit	Slight Deficit	Moderate Deficit	Moderately Severe Deficit	Severe Deficit
Affect	Normal	Slight Problem	Moderate Problem	Moderately Severe	Severe Problem
Behavior	Normal	Slight Problem	Moderate Problem	Moderately Severe	Severe Problem

Activities of Daily Living

Ability	Self-Sufficient	Needs Minor Help	Needs Regular Help	Needs Major Help	Quite Helpless
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Rehabilitation or Treatment Potential

Potential	Excellent	Good	Good for Partial Restoration	Condition Static	Condition Will Worsen
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closed head injury being evaluated 3 months post trauma would have a significantly different prognosis than a 66 year old migrant worker with little formal education, open skull injury, being evaluated 18 months post trauma. In other words the rating must be placed in the client's psychosocial and biopsychological context.

Court-related Issues

As with every forensic case, preparation is a key factor. Behavioral rehearsal of anticipated questions and situations should help decrease situationally driven emotion, increase the driven emotion and increase the presentation of important data.

While affidavits can be used in worker's compensation, depositions are preferred by attorneys. Often these depositions are preliminary, or fact finding, to the actual court appearance. As with the court appearance, it should not be unusual to find one side attempting to present the client premorbidly as a highly functioning worker while the other side suggesting that, premorbidly, the worker was marginally functioning.

As with Social Security cases, there are no juries in compensation cases even though the court is a more formal proceeding. The two opposing legal representatives present to a commissioner of the case through the use of witnesses, reports, etc. (similar to a criminal or civil court case). The commissioner reviews the evidence at a later date and renders a decision. This decision may be appealed to the full commission, later to the state Court of Appeals, and if necessary the state Supreme Court. As in all forensic cases, the role of the neuropsychologist is to educate the court about clinical neuropsychology, their qualifications, the client, and potential relation of current functional status to premorbid functional status from a neuropsychological perspective.

In some cases it may become difficult, if not impossible, to present neuropsychological data. Probably the best known example of this is the *Horne vs Goodson* case in the state of North Carolina. In 1980, a 2,000 lb log fell from several feet in the air striking Edward Horne in the fronto-parietal area of his cranium. The force drove the man several inches into the ground, broke all of his teeth and fractured several of his vertebrae. Eventually, a cursory neurosurgical evaluation found him "perfectly well" and encouraged him to return to work (with a verbal prescription of taking BC headache powder, PRN). With significant vocational, personal, and social behavioral changes present, he was eventually referred to the author for a neuropsychological evaluation. A comprehensive evaluation found him to be impaired and suggested he stop driving logging trucks. The case was heard by a single Commissioner and the case was rejected because neuropsychological data was not medical and therefore not admissible nor creditable. An appeal to the full commission resulted in the same response. Before submitting the case to the North Carolina Court of Appeals, an amicus brief was submitted on behalf of Mr. Horne by the North Carolina Psychological Association and the American Psychological Association (available from the Office of Professional Practice, APA). Based on the comprehensive amicus outlining the history and usefulness of both clinical neuropsychology and the materials presented for evidence, the Court of Appeals reversed the decision. In October of 1989, the original commissioner "re-tried" the case and despite taking the original and subsequent evaluations into account, came to the same conclusion. While this decision is again being appealed, case law has been made allowing for the presentation of neuropsychological data in the courtroom. It is important to note that the author avoided localization issues and simplified statements about causation. Behavioral data derived from exhaustive neuropsychological tests were the foundation for the reversal of this case.

Summary

Head injury cases result in litigation. Since many of the cases involve workers, disability and compensation issues are of critical concern. This chapter presented information as to how neuropsychological data may help those in administrative positions make the best judgment about a client's post-trauma functional residual capacity. In this chapter, general forensic guidelines were initially presented followed by suggestions on how to apply them in Social Security and Worker's Compensation cases. In all situations several principles emerge. Individuals with head injuries are often perceived as psychiatric cases because of their behavioral presentation. Malingering and faking are often provided as explanations by non-trained health personnel for

the unusual behavior of individuals with head injury. Further, to many of those involved with Social Security and Worker's Compensation, neuropsychology is not well understood.

Thus, the purpose of the neuropsychologists is to educate by providing accurate and useful information about the client's residual capacity from a neuropsychological perspective. Emphasis should be placed on understanding premorbid functioning as well as work related tasks. Care should be taken not to make unwarranted inferences and sweeping generalizations. Above all, the neuropsychological practitioner should emphasize the scientific context of clinical neuropsychology. To do otherwise well endanger the client's welfare, the validity of neuropsychological evaluation, the career of the neuropsychologist, and the current vitality of the field.

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TABLE 1
American Medical Association Guidelines for the Evaluation
of Psychiatric Impairment

Class and Percentage of Impairment

	1	2	3	4	5
<u>Mental Status</u>					
Intelligence	Normal or better	Mildly Retarded	Moderately Mildly	Moderately Severe	Severely Retarded
Thinking	No Deficit	Slight Deficit	Moderate Deficit	Moderately Severe Deficit	Severe Deficit
Perception	No Deficit	Slight Deficit	Moderate Deficit	Moderately Severe Deficit	Severe Deficit
Judgement	No Deficit	Slight Deficit	Moderate Deficit	Moderately Severe Deficit	Severe Deficit
Affect	Normal	Slight Problem	Moderate Problem	Moderately Severe	Severe Problem
Behavior	Normal	Slight Problem	Moderate Problem	Moderately Severe Problem	Severe Problem
<u>Activities of Daily Living</u>					
Ability	Self-Sufficient	Needs Minor Help	Need Regular Help	Needs Major Help	Quite Helpless
<u>Rehabilitation or Treatment Potential</u>					
Potential	Excellent	Good	Good for Partial Restoration	Condition Static	Condition will Worsen

Table 4

American Medical Association Guidelines for the Evaluation of Psychiatric Impairment.

		Class and Percentage of Impairment				
		1	2	3	4	5
		0% to 5%	10% to 20%	25% to 50%	55% to 75%	over 75%
<u>Mental Status</u>						
Intelligence		Normal	Mildly	Moderately	Moderately	Severely
		or better	Retarded	Mildly	Severely	Retarded
Thinking		No Deficit	Slight	Moderate	Moderately	Severe
			Deficit	Deficit	Severe	Deficit
Perception		No Deficit	Slight	Moderate	Moderately	Severe
			Deficit	Deficit	Severe	Deficit
					Deficit	Deficit

(table continues)

Judgment	No Deficit	Slight	Moderate	Moderately	Severe
		Deficit	Deficit	Severe	Deficit
Affect	Normal	Slight	Moderate	Moderately	Severe
		Problem	Problem	Severe	Problem
Behavior	Normal	Slight	Moderate	Moderately	Severe
		Problem	Problem	Severe	Problem
				Problem	

Activities of Daily Living

Ability	Self-	Needs	Needs	Needs	Quite
	Sufficient	Minor Help	Regular Help	Major Help	Helpless

Rehabilitation or Treatment Potential

Potential	Excellent	Good	Good for	Condition	Condition
			Partial	Static	Will Worsen
			Restoration		