AMERICAN PSYCHOLOGICAL ASSOCIATION

Division of Clinical Neuropsychology

Newsletter 40

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President's Message

Dear Members of Division 40,

On this, the occasion of my first message to the membership of Division 40, I originally had the idea that I would like to review the major issues (science, training, reimbursement, underserved populations) confronting us as a Division, and as psychologists, and to say wise and uplifting things about all of them. I cannot easily do that now. My perception of the situation (albeit from the vantage point of a government employee in the Washington, D.C. area) is that we are at war, and that all of our creative energy should be channeled into the fight. But with the enemy so impalpable, it is difficult to know exactly what we can do. These are some of my thoughts on the matter.

(I can recall, that after Pearl Harbor on December 7, 1941, I had the feeling that life as we had known it would now cease, and that we were entering into an unknown and frightening world and time. But life did resume, and we went back to school and collected scrap metal and bought war bonds.)

Specifically, where can our specialized and valuable skills be applied to greatest advantage in the current world situation?

One answer is in volunteering our services as psychologists/ neuropsychologists to local disaster relief organizations: You have already received the letter from Tony Puente, Deborah Koltai-Attix, and me, which provides specific suggestions in that regard. As there were so few survivors of the attacks on the World Trade Center and the Pentagon, our role may not lie in assessing the effects of brain injuries, but rather in assessing the central nervous system effects (if any) of the noxious environments around the disaster sites. We may be able to learn some valuable lessons from the Russians in this regard. After Chernobyl, the "liquidators," those who helped to clean up and contain the nuclear calamity, suffered the consequences of exhaustion, exposure to radiation and to other noxious agents. Some special techniques were developed, comprising antidepressants, rest, and psychotherapy, to treat the PTSD-like symptoms of the liquidators. In Russia, they numbered in the hundreds of thousands. At this point, fortunately, we are nowhere near the level of that massive calamity.

Possibly, therefore, we might be able to participate in post-trauma recovery efforts, and thus fulfill the practitioner portion of our scientist-practitioner obligation to society. But what about the scientist portion? I have been interested in the neuropsychology of violence and

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The URL address is:
http://www.lib.lsu.edu/special/findaid/apa/print.html

From The Editor

The current issue of the Newsletter comes at a difficult time for all in America and many parts of the world. I hope that our members/readership and their loved ones are well and safe in these very troubled times. With this issue, I take over the reins as Editor of *Newsletter40* from Dr. John DeLuca, with whom I have had a rewarding and enjoyable collaboration as Associate Editor for the past six years. Thank you, John, for providing me with the opportunity to serve our Division and for a great working relationship. Thanks, too, to the Executive Committee of Division 40 for their confidence in me and my ability to maintain the high caliber of our newsletter. I will do my best not to let you down.

The current issue also brings some changes. Unlike past years where issues had a clinical article (*Clinical Corner*) and a research article (*Science Scene*), among others, this year we are trying a new format. This entire issue is devoted to current research and opinion in our field. We are fortunate to have outstanding articles from well respected members of our division, including Drs. Joe Ricker, Eileen Martin, Mark Bondi, M. Frank Greiffenstein, and Lloyd Cripe. Of course we also have our usual columns, including a message from our new Division President, Dr. Alan Mirsky, EC Committee and division business meeting minutes from APA, and announcements.

It is my pleasure to also announce the appointment of our new Associate Editor of *Newsletter40,* Dr. Nancy Chiaravalloti of Kessler Medical Research Rehabilitation and Education Corporation (KMRREC). I am extremely fortunate to work with this young, talented and energetic neuropsychologist as my associate editor. (Some of you may know Nancy as *Nancy Donofrio*). We will all be hearing a great deal from Nancy, I am sure, in coming years.

I hope you, our readers, enjoy this edition of Newsletter40. Please contact me with submissions, suggestions, comments, or whatever. Thank you all so much for your support and encouragement; it means a lot.

Sincerely,

Joel E. Morgan, Ph.D.,
Editor, *Newsletter40*

Clinical Implications for Functional Neuroimaging in Traumatic Brain Injury

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Note: Portions of this article were presented on August 25, 2001, as part of the author's Division 40 2001 Early Career Award talk.

Functional neuroimaging techniques such as single photon emission computed tomography (SPECT) and positron emission tomography (PET) have been used for several years to investigate various cerebral correlates of neurologic illness and injury. Typically, such approaches to functional imaging have provided "resting" images that give clinicians and researchers static representations of certain physiological properties of a brain while it is at rest. Although some patterns have been established that can be applied clinically in some populations (e.g., in the differential diagnosis of vascular dementia vs. dementia of the Alzheimer type), most of the patterns are non-specific and do not allow one to make reliable inferences about the relationship between brain status and performance on neuropsychological tests. Some studies have correlated neuropsychological test results with the findings acquired during neuroimaging, but significant discrepancies in time between the testing and imaging preclude valid inferences. In many types of neurologic illness and injury, recovery can occur over longer periods of time, and can be a dynamic process. Thus, conclusions that are drawn about the functional implications inferred from an imaging session that is separated in time by weeks or months from the neuropsychological testing are speculative at best.

Traditional functional neuroimaging studies that have related structure to function (e.g., single photon emission tomography: SPECT, and positron emission tomography: PET) have required the use of intravenously administered radioactive materials. Such radioisotopes become distributed throughout the body, and various brain-scanning techniques are employed to detect where these compounds being utilized within the brain. These techniques result in brain-mapping depictions of correlates related to blood flow or metabolism in the brain. The majority of SPECT and PET studies in individuals with brain injury indicate decreased brain metabolism or decreased blood flow, with disproportionately decreased resting activity in the frontal lobes.

Compared to the large number of studies of neuropsychological test findings and head trauma in general, only a few studies have actually correlated functional neuroimaging findings with performance on neuropsychological testing following well-characterized traumatic brain injuries. Even in the few studies that have done so, neuropsychological test batteries were often compared with functional imaging results at very discrepant points in time (i.e., neuropsychological testing and imaging occurred weeks or months apart). Although this approach may allow for minimal correlation inferences to be made in the most general terms, such a design does not allow for reliable or valid research conclusions to be made about the relationship between cognition and brain physiology in TBI, and it certainly precludes meaningful clinical inferences in individual cases.

In recent years, there has been increased application of a different class of functional brain activation techniques that allow investigators to more accurately characterize physiological changes (primarily change in cerebral blood flow) that are temporally associated with specified cognitive or motor activities. A type of PET imaging that uses a radioisotope known as oxygen-15 [O-15] permits investigators to examine changes in regional cerebral blood flow when an individual is performing a task during scanning. This particular type of PET imaging, however, is very expensive, requires a large investment of equipment and

expertise, and is not, in fact, available even in most PET centers. In addition, PET uses a radioactively labeled compound, so frequent scanning may not be advisable. PET scanning is also avoided during pregnancy.

Because of this limited availability, but more importantly because of developments in MRI-based procedures, there has been much interest among clinicians and researchers in the potential use of functional magnetic resonance imaging (fMRI) in TBI populations. Functional MRI takes advantage of the differential magnetic properties between deoxygenated and oxygenated blood. Functional MRI utilizes a powerful magnetic field and radiofrequency pulse sequences, but it does not employ any ionizing radiation. Thus it is far more repeatable and appears to be more methodologically appropriate in studying the effects of rehabilitation than radioisotope-based methods such as PET or SPECT. In addition, fMRI has already been used to develop various protocols and procedures for studying cognitive functions in healthy individuals that may become compromised following brain injury (e.g., working memory, problem solving, and attention).

Although fMRI is still relatively "new" in reference to application with clinical populations such as TBI, it has several potential future applications in medical rehabilitation. FMRI is already being used in some settings in the assessment of epilepsy and brain tumors. To date, however, there have been very few controlled studies that have used fMRI or activated (i.e., O-15) PET with individuals who have sustained head trauma.

In the first fMRI study in the TBI population, McAllister et al (1999) examined task-dependent changes in brain activity during a working memory task (N-Back paradigm). These investigators found that individuals who had experienced mild head trauma within the month prior to fMRI scanning demonstrated increased bifrontal and biparietal blood flow when compared to healthy individuals. This was in contrast to the overtly normal level of performance on the task exhibited by the mild head trauma group (and, of course, the healthy control group). This finding might be taken to mean that individuals who have sustained mild head trauma may, at least early in their recovery, need to either use greater mental effort, or recruit more brain resources, to perform at a normal level during a cognitive task. This study is very intriguing, but it does not provide information about long-term effects of injury on brain-behavior status.

More recently, our lab has published fMRI data from an investigation of working memory in individuals who sustained severe TBI and who were several years post-injury (Christodoulou, DeLuca, Ricker, et al., 2001). In brief, we found increased cerebral blood flow among individuals with severe TBI during cognitive task performance, again suggesting the possible need for increased mental effort or increased brain resources following brain injury. In addition, we noted that while healthy individuals utilized predominantly their left cerebral hemisphere to perform the task (a modification of the PASAT), individuals with TBI made predominant use of their right hemisphere. Why this occurred is not clear, but it could be related to a hypothesized injury-related "functional disconnection" within the brain (possibly due to diffuse axonal injury), or perhaps it represents the effect of functional brain reorganization after injury.

We have also used PET to examine episodic memory after TBI. In a recent study (Ricker et al., 2001 *b*), we used a verbal list-learning task in conjunction with O-15 PET in a group of individuals with severe TBI, and a group of age- and education-matched control participants. We demonstrated that verbal list recall was associated with generally more posterior cerebral activity among individuals with TBI, suggesting a more passive, serial approach to recall. On a dichotomous, forced-choice recognition paradigm, however, we observed that even though the individuals with TBI demonstrated intact behavioral performance on the task, they also demonstrated higher levels of bifrontal blood flow when compared to the healthy control group.

The findings from the PET and fMRI literature are also clearly in line with other research indicating a major role for the frontal lobes in learning and memory functions. Although many learning and memory components have historically been thought of as primarily temporal lobe or hippocampal

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Neuropsychological and Neuroimaging Changes in Preclinical Alzheimer's Disease

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There is an emerging need to improve our ability to accurately characterize Alzheimer's disease (AD) very early in its course, due to a growing number of treatment options. A variety of neuroprotective agents designed to delay the disease's progression are either currently available or on the horizon (e.g., cholinesterase inhibitors, amyloid vaccine, NSAIDs, estrogen replacements, anti-oxidants, etc.), and an improved understanding of the brain mechanisms associated with the earliest cognitive changes in at-risk groups will advance our ability to target those who stand to benefit most from early pharmacologic interventions. Neuroprotective therapies will be most effective if applied at the earliest possible phase of AD before significant neuronal damage occurs. Preliminary work with cholinesterase inhibitors, for example, suggests that early treatment may maximize its therapeutic benefits (Giacobini, 2000).

Consequently, a growing research literature has begun to detail the cognitive and brain changes that occur during a "preclinical" phase of AD. Neuropsychological studies have reported evidence of declines on measures of learning, memory, and executive functions that precede the manifestations of overt dementia (Albert et al., 2001; Bondi et al., 1994, 1995, 1999; Chen et al., 2001; Collie & Maruff, 2000; Reed et al., 1994; Small et al., 1998; Smith et al., 1998). Neuroimaging research has also demonstrated medial temporal lobe (MTL) volume reductions (Jack et al., 1998, 1999; Juottonen et al., 1998; Killiany et al., 2000; Lehtovirta et al., 1996; Plassman et al., 1997) and cerebral blood flow or metabolic changes (Johnson et al., 1998; Lehtovirta et al., 1998; Reiman et al., 1996; Small et al., 1995) that may also identify a preclinical phase of AD. This brief review will highlight the neuropsychological and neuroimaging changes that occur in the preclinical phase of AD.

Cognition in Preclinical Alzheimer's Disease

Our search for preclinical markers of AD is predicated on current conceptualizations of the disease which suggest that the neurodegenerative changes begin well before the clinical features of AD become apparent (Kawas & Katzman, 1999). Within this view, the atrophy, neuron loss, and senile plaque and neurofibrillary tangle formations that characterize AD gradually accumulate and lead to cognitive dysfunction. As the underlying neuropathologic processes accrue and spread, the insidious cognitive dysfunction eventually becomes apparent and disruptive to daily functioning. It is only at this point that the clinical diagnosis of AD is made with reasonable certainty. However, according to this framework, the cognitive signs and brain changes are present prior to the clinical diagnosis (i.e., in a "preclinical" stage) and should be evident through the use of sensitive measures.

Indeed, a growing body of evidence demonstrates that cognitive declines are observed several years or more prior to clinical diagnosis (Albert et al., 2001; Bondi et al., 1994, 1995, 1999; Elias et al., 2000; Fuld et al., 1990; Grober & Kawas, 1997; Howieson et al., 1997; Jacobs et al., 1995; Katzman et al., 1989; La Rue & Jarvik, 1980, 1987; La Rue et al., 1992; Linn et al., 1995; Masur et al., 1990, 1994; Petersen et al., 1995; Snowdon et al., 1996; Zonderman et al., 1995), and the majority of studies indicate that measures of learning and memory are particularly effected. This latter finding is not surprising given that failure of anterograde memory is usually the most prominent neuropsychological feature during the early stages of AD, and numerous studies have shown that measures of the ability to learn new information and retain it

over time are quite sensitive in differentiating early AD from normal aging (e.g., Bayles & Kaszniak, 1987; Delis et al., 1991; Eslinger et al., 1985; Kaszniak et al., 1986; Petersen et al., 1994; Storandt et al., 1984; Welsh et al., 1991). The early appearance of memory deficits in AD is consistent with evidence suggesting that neuropathologic changes in the hippocampus and other related MTL structures known to be important for anterograde memory (e.g., entorhinal cortex, parahippocampal gyrus) are the first and most severe to occur in the disease (Braak & Braak, 1991; Gómez-Isla et al., 1996; Hyman et al., 1984; Price & Morris, 1999).

A number of investigators have further examined the presence of potential cognitive decrements during a preclinical phase of AD by comparing the performance of nondemented older adults who have an increased risk for developing the disease to that of individuals who do not have the risk factor. This approach assumes that a greater number of individuals with the risk factor are more likely to be in the preclinical phase of the disease than those who do not have the risk factor and, therefore, would be expected to manifest poorer performance. While early studies using this approach involved individuals at risk for AD because of a positive family history for progressive dementia (Bondi et al., 1994; Hom et al., 1994; La Rue et al., 1992; Smalley et al., 1992), more recent studies have focused on the apolipoprotein E gene (ApoE ε4 genotype).

With the identification of this common genetic susceptibility factor for AD (Corder et al., 1993, 1994; Saunders et al., 1993), many recent studies have examined the cognitive performances of older adults without dementia who possess the ApoE ε4 allele and have found mild episodic memory decrements (Bondi et al., 1995, 1999; Henderson et al., 1995; Hyman et al., 1996; Reed et al., 1994). Other studies have examined the possibility that ApoE genotype is useful for predicting the development of AD in individuals with mild cognitive impairment (MCI; Petersen et al., 1995, 1996; Smith et al., 1998).

It could be argued that one should pharmacologically treat all MCI patients and, thus, obviate the need for detailed neuropsychological, neuroimaging, or genetic assessments. However, as stated by Petersen et al. (1995), only roughly 15% of MCI individuals have been shown to convert to AD per year. Thus, 85% or more likely will not convert to AD, and prescribing a drug to greater than half of all individuals who are not indicated to receive it does not appear cost-effective, especially for expensive and potent drugs like Aricept. Furthermore, the ability to identify at-risk individuals perhaps more mild in severity than those of MCI patients (i.e., preclinical AD), yet who will have a greater chance of developing AD (as determined perhaps by the combined neuropsychological, magnetic resonance morphometric, and genetic assessments), will ultimately provide greater specificity for the use of pharmacologic interventions. Also, one of the most important aspects of future research will be in its focus on the oldest-old (age 85 and above) as the highest risk group for conversion to AD, and for which we have the least well understood and most poorly characterized knowledge of the earliest features of AD.

Following the discovery of the ε4 allele of the apolipoprotein E (ApoE) gene as a genetic risk factor for AD, our research efforts at the Alzheimer's Disease Research Center at the University of California San Diego indicate that subtle decline in episodic memory is one of the most important preclinical cognitive markers, and we have shown that these changes are not a consequence of normal aging, nor simply a normal phenotypic expression of the ApoE ε4 allele. We (Bondi et al., 1995, 1999) compared the neuropsychological performance of nondemented older adults with at least one ε4 allele to that of those without an ε4 allele. Results showed that the genetically at-risk group performed worse on a number of learning and memory measures from the California Verbal Learning Test (Delis et al., 1987), but not on other cognitive measures of language, "executive" functions, attention, constructional ability, or psychomotor speed. In addition, a three-year follow-up revealed that dementia subsequently developed in significantly more genetically at-risk subjects. This indicates that the group differences noted between ApoE ε4 and non-ε4 groups on episodic memory reflected the inclusion of

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Limitations of Records Reviews

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I recently encountered a case of a well educated 51 year old woman with a 27 year history of psychiatric problems (affective disorder) requiring several hospitalizations and ongoing psychiatric medical treatment. She was followed over this long span of time by a very well qualified psychiatrist that has exceptional diagnostic and treatment skills. She has not been employed in her computer analyst position since her last acute episode a couple of years ago. Her psychiatrist's professional opinion was that she was not capable of gainful employment because of her mental disorder and deteriorated adaptive state. She had a disability insurance policy that provided benefits if she had a physical or mental illness that would not allow her to function in her professional niche. Her case records were reviewed independently by a consulting psychiatrist for the insurance company. He concluded from a records review alone that she was in fact capable of employment and there was "no objective evidence" that she had a mental disorder that would interfere with her ability to work. In essence, the psychiatrist, with only two hours of records review and no direct contact time with the patient, was pitted against a psychiatrist that not only had the records, but also 27 years of experience managing the patient's case. The insurance company was cutting off the patient's benefits because of the record review. How could this happen? This case got me thinking seriously about medical records and their limitations.

Thirty years ago, when I first started clinical work, medical records were mainly used as a private vehicle of communication between health care professionals and as an aid to the clinician's memory. They were mainly a memory aid and communication tool to help those directly involved with a patient give the best treatment. They were considered confidential. They were not considered to be publically paraded legal documents etched in stone to be obsessively scrutinized and relied upon by third parties to decide whether or not the disorder existed or that the right treatments had been given or to hang the doctor.

In the mid-seventies this all started to change. Hospitals and medical centers started to review in-house records for "quality assurance." It was thought that a review of records would allow a group of appointed peers to monitor whether or not necessary and effective diagnoses and treatments were occurring as an aid to improving efficiency and quality of care. It wasn't long before clinicians started keeping records to appease potential reviewers and avert litigators, rather than for the basic memory jogging and inter-professional communication that they were intended. Eventually, persons other than peers were reviewing the records and third-party payers got into the act. We gradually emerged into the current climate of managed-care, where records are assumed to be some type of magic eye revealing what is really going on with the patient and guide administrators in determining what is essential and nonessential.

Record reviews eventually operated on the belief that records somehow equal what is actually happening between a patient and the doctor and can reveal whether or not good diagnosis and treatment occurred. This is a shaky and unsafe assumption. A good record keeper can be a poor clinician and a good clinician can be a poor record keeper. Records do not necessarily equal what really transpires in the real world setting. Words on paper can give a false illusion that something has really happened whether it did or not.

At present, insurance companies and litigators rely heavily upon medical records review in forming opinions and judgments about the realities of a patient's physical and mental problems. Some reviewers, as the one previously mentioned, rely exclusively upon the details found in records believing that they can

adequately understand a complicated case with only a records review. They render opinions in writing, hearings or courts relying solely upon these reviews.

This practice is seriously flawed. Psychologists know better than to rely solely upon records reviews. While the review of records is a useful part of a clinical evaluation, it is only a part of the evaluation process and it is an unvalidated part. A complete evaluation uses a multi-method assessment approach that includes: a review of relevant records, direct observations of the patient, a clinical interview, relevant collateral interviews of significant others, direct examination of the patient using the appropriate procedures for the profession involved, analysis and integration of all the information using statistics and clinical experience, an integration of all of the information, and a written report of the findings. To rely upon only one part of this process, records review, in forming opinions about the case is extremely limited and is not good clinical science (Meyer, Finn, Eyde, Kay, Moreland, Dies, Eisman, Kubiszyn,& Reed (2001).

In the real clinical world, doctors rarely have the plethora of records garnered and combed in medical-legal and insurance cases. Frankly, they are not usually needed to conduct competent clinical evaluations. Depending upon the case, some records are more relevant than others. What the doctor needs most to conduct an evaluation is all of the information from the other aspects of the clinical evaluation rather than just having a lot of paper and ink. A direct examination of the patient is far more important than pawing through all the jots and tittles of the recorded subjective opinions of others.

Regardless of the volume, records have inherent significant limitations that need to be understood in order to use them effectively and not be mislead. The limitations include: limited sampling, varied report writing styles, indirect methods; narrow focus; subjective biased interpretations; and lack of validation.

1. **Based upon limited sampling:** Written reports are at best only brief subjective snapshots of the patient. They only involve information based upon a sampling of the persons condition in brief moments of time. Even test data (medical or psychological) is the result of sampling and may not accurately portray the entire pattern and process of a disorder, but tests have proven reliability and validity. The sampling used for record writing is also limited by whatever the examiner decides to focus, or not focus, upon. This means that just because something is not recorded, doesn't mean it didn't, doesn't or couldn't exist. Just because the examiner didn't focus upon a matter and chose to only focus upon another issue, doesn't exclude the existence of other important realities that didn't get recorded.

2. **Different report writing styles:** Individual professional persons have different report writing styles that are the result of their own particular psychological makeup and style. Some persons are very obsessive and detailed. They like to write and are prone to write longer detailed accounts of whatever they are reporting. Other persons tend to be more conceptual and brief in their descriptions. They tend to summarize whatever they have observed. Some write in long-hand, others dictate and get it typed up in neat formats. Others just scribble summary thoughts. The more obsessive writer is not necessarily the more accurate observer or the better clinician. The more obsessive verbal mind, is often more internally focused paying less attention to the external world than they pay to their own thinking and words. Although they may write more and be more focused upon details, they may not be seeing the complete external picture. They are the persons who see the trees but miss the forest. The conceptualizing person is often more externally focused and tends to integrate and summarize experience. They often understand in a more complete manner the external reality, but may not be able to easily put it into words. They may not like to write. Their reports may be short and brief. In fact, they may not write notes or reports. These two different reporting and writing styles can easily mislead the reviewer into believing that one report is better than another when in fact they are being effected more by the writing style than the depth or accuracy of the reporter. In essence, the brief reporter may have a better understanding of the case than the obsessive reporter even though the record isn't as thick or as elegantly penned.

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An Analysis of Premorbid MMPI Profiles in 28 Late Postconcussion Claimants

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Abstract

The premorbid MMPI/MMPI-2 profiles of 28 late postconcussion complainants became available for analysis. All premorbid profiles were abnormal, in excess of large psychiatric sample base rates. Validity scale patterns indicated limited coping skills and negativism. The clinical scale patterns were dominated by high-point codes containing scales 1, 2, and 3. The "conversion" 13/31 code was the modal profile and particularly common in the females. The results indicated perceptions of poor health predating injuries in LPCS claimants. Postmorbidly, they show poor insight into being "unhappy somatizers". The main conclusion is that somatization defenses are a risk factor for poor postinjury adjustment, making these litigants predisposed to incorporate brain damage diagnoses into their self-images.

The middle-aged woman sits in my office, speaking intensely about her chronic problems. It has been 3 years since a head injury where she was briefly "dazed", yet she still feels unable to work. She flawlessly delivers a litany of multi-system complaints including cognitive, conative, somatic and emotional problems. I am struck by her unshakeable conviction; she just knows she has permanent brain damage. My tentative inquiry into alternative explanations is met with cold stares. She is most emphatic that her personality has changed. She portrayed herself as confident, energetic, determined, and aggressive before her injury. Now, she is pessimistic, often fatigued, burdened by ordinary tasks, and easily defeated by the smallest setbacks.

This patient is really a composite of many people I have evaluated. This composite should be familiar to any neuropsychologist who sees late postconcussion syndrome claimants (LPCS). The purpose of this distilled anecdote is to illustrate a common diagnostic dilemma with such patients: Diagnosis of personality change based on retrospective judgments. Typically, the clinician is forced to rely on the patient's own characterization of premorbid traits. However, this practice conditions the diagnosis of personality change on the claimant's memory, insight, and honesty. Unfortunately, distortion in self-report is common for many reasons. First, self-deception is a common feature in many kinds of patients, irrespective of legal status (Rogers, 1988). Second, compensation seeking is strongly associated with biased self-report (Greiffenstein, Baker and Johnson-Green, 2001; Lees-Haley, Williams, Zasler et al., 1997). LCPS is rarely seen without some form of compensation seeking. Third, people in general are poor judges of their own past emotional states, a consistent finding in the retrospective judgment literature (Brewin, Andrews and Gotlib, 1993; Ptacek, Smith Espe et al., 1994).

A sounder scientific approach is to collect trait evidence from premorbid records. This should reduce bias in self-report, at least the kind of bias shaped by secondary gain. Of course, personality tests are not routinely given premorbidly. In my practice, I have been collecting premorbid school, work, military, and medical records as part of what I term the Postconcussion Premorbid Clues Project. The project is theory-driven by a tripartite model of LPCS (Greiffenstein, 2000) and its purpose is to systematically evaluate risk factors for poor post-injury adjustment. To this end, I have steadily accrued pre-injury MMPI profiles. These profiles became available during legal discovery in litigation. The purpose of this paper is to report a descriptive analysis of 28 premorbid MMPI profiles in LPCS claimants. Premorbid MMPI profiles are

certainly rare, but they may still provide scientific leads about whether personality-based factors enable persistent postconcussive complaining.

Method

Participants

The sample consisted of 28 late postconcussion syndrome (LPCS) claimants whose premorbid records contained MMPI or MMPI-2 profiles. All participants were pursuing compensation through Workers Compensation, first party or third party lawsuits. LPCS was defined as persistent complaints more than one year following uncomplicated neck strain or mild concussion. Each participant endorsed at least four complaints with at least one complaint from each of four symptom categories: Pseudoneurologic (e.g., dizziness), somatic (e.g., headaches), cognitive (e.g., memory loss) and emotional (e.g., dysphoria, worry). The average symptom duration was 2.4 years with a range of 1-5 years. Data from 23 of participants was used in an earlier paper (Greiffenstein and Baker, 2001). Data from the remaining five were collected after submission of that paper.

Procedure

Basic demographic data collected during the interview included age, education, work status and marital status. Unmarried was defined as widowed, divorced, separated or never married. The 28 premorbid MMPI and MMPI-2 profiles were scored and plotted. Raw scores from 11 MMPI (Form-R and Group Forms) were converted to uniform T-scores based on MMPI-2 standardization group. After the tests were scored, K-corrected, screened for validity (F < 100-T) and profiled, descriptive statistics were computed for the three validity scales and 10 standard scales. The next step was determination of code-types frequencies. Because the old MMPI did not have Content Scales, the third step entailed compiling profiles into groupings of related symptom content,. The groupings were somatoform symptoms (any code-type containing 1 or 3), schizotypal (any code containing 8), distress (containing 2 or 7), and conduct (any code with 4). Population base rate data was obtained from Caldwell (1997).

Results

Demographics

There were 17 females (60.1%) and 11 males (39.1%) included in the study. The mean male age was 43.8 (SD = 10) and the mean female age was 41.0 (SD = 9.5, MDN = 43). Only 17.9% of the total sample was married, 82.1% were unmarried at the time of their accidents. This deviates substantially from the general population, where 32.1% are unmarried in the 30-59 year old group (Fields and Caspar, 2001). Among females, 88.3% (N = 15) were unmarried and among the males, 72.7% (N = 8) were unmarried. Unemployment was seen in 71% more then one year after their minor injuries. The modal premorbid profile was an unmarried middle-aged female. Fifteen (53%) of the MMPIs were administered in medical settings (inpatient or outpatient) with question of psychogenic contributions to physical complaining. Ten (35%) were obtained in outpatient mental health settings with a variety of referral questions. Two were obtained from men during adjudication of criminal charges, and one profile was of unknown context.

MMPI-2 Scale Patterns

Table 1 contains the means, standard deviations and percent abnormal findings for the 3 validity and 10 standard scales. The last column shows the odds ratio of abnormal sample elevations versus the population base rate. Assuming a uniform T-score distribution with 65-T equivalent to a z-score of 1.5, a population base rate of 6.7% abnormal elevations was chosen. Inspection of the validity scale data in Table 1 shows the average pattern dominated by an elevated F scale, with L and K around 50-T. Actuarial tabulation indicated that almost half the sample showed this validity scale "carat" formation signaling acute distress and negative self-presentation. This indicates admission of significant personal problems and lack of self-confidence in solving those problems. This has been described as the most frequently encountered validity pattern among clinical referrals (Greene, 2000). Inspection of the standard scale data reveals a number of salient findings. First, 7 out of 8 mean elevations on the clinical scales (exclusion of 5 and 0) were above 65-T. Only the group mean for scale 9 was slightly

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Cognitive Neuropsychological Aspects of HIV-AIDS

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Overview

It is well established that HIV-1 has an affinity for the central nervous system (CNS), and many persons living with HIV/AIDS develop some type of cognitive deficit during their lifetime. These defects range in severity from poor performance on neuropsychological (NP) tasks with few or no consequences for daily function to a clearly defined syndrome of dementia. Neurocognitive impairment has significant predictive implications for morbidity, mortality and daily function. For example, HIV+ men and women with neurocognitive deficits are significantly less likely to be employed compared with unimpaired HIV+ persons and are also at increased risk for impaired driving. Further, the presence of cognitive impairment carries an independent risk of death.

Our understanding of HIV's effects on CNS function and its neurobehavioral correlates has shown tremendous progress in the fifteen years since publication of the seminal articles documenting impaired clinical NP test performance in persons across the spectrum of HIV infection (Grant et al., 1987) and describing a characteristic dementia syndrome developed by some AIDS patients with advanced disease (Navia et al., 1986).

Many aspects of HIV disease and its care changed dramatically following the introduction of highly active antiretroviral therapies (HAART; combinations of three or four antiretroviral medications that include at least one protease inhibitor). Patients with HIV disease receiving HAART are living longer and developing fewer severe neurologic complications. Consequently, while neuropsychological concerns and questions remain of considerable significance in the management and treatment planning for persons with HIV disease, the focus of study and assessment have been redefined. Questions for neuropsychological study have expanded from a more diagnostic focus to include a greater emphasis on vocational significance, adherence with complex medication regimens, and ability to return to work. It is critical to note, though, that many patients have limited or no access to HAART or develop resistance to differing regimens. Consequently, the questions posed for NP assessments earlier in the epidemic remain of significant clinical relevance.

Both clinical and experimental neuropsychological studies have contributed to advances in our understanding of HIV-associated cognitive dysfunction. In this article we will not review the clinical neuropsychological literature in detail but refer the interested reader to an excellent review by McArthur and Grant (1998). Rather, we will focus specifically on studies that have formulated and tested hypotheses regarding neurocognitive function in HIV disease using models developed in the cognitive neuropsychological literature. It would be inaccurate to pit clinical and cognitive neuropsychological studies against each other since these methods complement each other. Cognitive neuropsychological studies have contributed to our thinking about clinical issues as well as provided unique insights into mechanisms of HIV-associated cognitive dysfunction.

In this review we will provide an overview of several areas of cognitive neuropsychological research on HIV/AIDS by our group and others. In the interest of clarity, we have minimized the complex methodological details of many of these experimental procedures. The interested reader is referred to an upcoming review (Hardy & Hinkin, in press) that will describe many of these studies in greater detail. Our goal is to provide the readers of this newsletter with a greater understanding of the utility and relevance of these methods in our understanding of the neurocognitive consequences of HIV disease.

HIV and Dementia – A Brief Review

HIV generally enters the CNS during the asymptomatic period of infection. Neuropathology is present in 80-90% of HIV-infected brains post-mortem, regardless of the patient's lifetime neurologic history. Although the distribution of neuropathology due to direct or indirect effects of primary HIV infection is not limited to distinct brain regions, neuropathology is preferentially distributed with primary involvement of the cerebral white matter and subcortical nuclei, including basal ganglia (particularly caudate and globus pallidus) and thalamus. Cortical neuron loss is most evident in frontal regions although cortical atrophy is typically less severe than subcortical damage. Evidence from structural and functional neuroimaging studies points to a functional association between the integrity of frontal-subcortical pathways and neurocognitive status in HIV-1 infection. Early PET studies of patients with HIV-associated dementia (HAD, previously termed the AIDS dementia complex) demonstrated focal defects in basal ganglia metabolism during early dementia, which eventually progressed to more severe and global metabolic defects. Most recently, functional magnetic resonance imaging has shown evidence of hyperactivation in prefrontal cortex (Chang et al., 2001)

Clinical features of HAD include prominent mental, motor and verbal slowing; neurologic symptoms and signs, including bilateral leg weakness, tremor, ataxia and clumsiness; and personality change, most typically increased apathy. These features reflect the underlying prefrontal-subcortical distribution of neuropathology. There has been little disagreement about typically prominent clinical NP features of patients with HAD; these include slowed mentation, motor behavior, and speech; prominent defects in spontaneous recall on memory testing, and impaired performance of tasks requiring divided or complex attention with relatively preserved language and other higher cortical functions. At a minimum, assessment protocols for HIV patients traditionally include speeded psychomotor tasks such as the Trail Making or Digit Symbol; speeded measures of letter and category fluency; measures of new learning such as the CVLT or the RVLT; fine motor tasks, such as the Grooved Pegboard; attention-demanding measures such as the PASAT; and various measures of executive function, including the Stroop and the Wisconsin Card Sort.

Questions raised from early clinical NP studies contributed to the introduction of cognitive NP approaches to HIV. For example, impairment on clinical NP tests was relatively uncommon among persons with early disease and there was disagreement in the field whether clinical measures were of sufficient sensitivity to detect possible mild cognitive changes associated with early disease. Further, defects on clinical NP test performance of many HIV-infected patients, particularly those with low levels of education or a history of drug or alcohol abuse, were difficult to interpret, since many such persons perform these tasks poorly regardless of their serostatus. Further, clinical NP tasks are generally multifactorial, and the nature of the cognitive impairment underlying poor performance was difficult to specify. These concerns informed the development of studies that employed measures of specific mental operations employed in information processing and cognitive neuropsychology. In particular, early studies employing chronometric/reaction time-based methods were designed initially to detect mild neurocognitive defects. These methods were advantageous in that they were less susceptible to effects of education, were often more reliable, required less administration time, and provided some discrimination between the effects of HIV and other causes of impairment (i.e. drug abuse). Moreover,

investigators were able to draw on established literature on performance of patients with similar types of dementia, primarily Parkinson disease, in hypothesis formulation and testing.

Reaction time-based (RT) studies. Studies using computerized measures of simple and choice reaction time tasks demonstrated that these methods were indeed sensitive to mild slowing of motor and mental function in HIV+ persons without advanced disease. Methodology for these studies was straightforward. The simple RT tasks required the patient to press a button or key as quickly as possible following a "go" signal, exerting minimal demands on cognitive processing. It was assumed that *reaction time* (i.e., time between signal and keypress) obtained under these conditions reflected problems primarily with motor speed. Choice RT tasks, however, included a cognitive component (e.g., instructions to press the button when a green signal appeared but do nothing when a red signal appeared) that required additional mental activity. It was assumed that choice RT tasks measured both mental and motor slowing. The discrepancy between simple and choice RTs is termed *decision-making speed*, and is considered an index of mental slowing with the effects of motor slowing minimized. Such measures could be administered readily to a wide variety of patients with different levels of education and premorbid function, since the task instructions and response requirements were straightforward. Studies showed that deficits in decision-making speed, choice RT, and sometimes simple RT tasks as well, were common among HIV patients and could be detected in patients without dementia. Further, these tasks are sensitive to the effects of antiretroviral therapy and are now employed routinely in clinical trials of antiretroviral or neuroprotective agents to detect cognitive improvement and monitor potential side effects on mentation.

These initial studies were not without controversy, primarily with regard to issues of external validity and clinical significance. Critics raised concerns that the tasks detected minor changes in mental speed that had little or no relevance to patients' levels of daily function outside the laboratory setting. In contrast, some groups expressed concern that these data indicated that HIV+ persons should be routinely subjected to restrictions on driving, aviation, and other activities critically dependent on precise response timing. There is general consensus at present that such restrictions are unjustified in the vast majority of cases and that such judgments could only be made on a case by case basis and only with corroborating data from a more extensive NP examination.

Studies of components of attention. Later RT-based studies were used to characterize more specifically some of the HIV-associated changes in cognition. This work indicated that particular types of attentional processing appear to be compromised by HIV. In general, patients generally performed normally on simple tasks with minimal demands on attentional resources or tasks that could be performed "automatically" without conscious mental activity. For example, patients could perform normally when asked to shift and re-engage attention in different parts of the visual field. However, when administered tasks with greater demands on attentional capacity, such as dual tasks requiring the subject to perform and monitor two tasks simultaneously, patients with HIV showed performance decrements over and above those expected in normal matched controls.

Studies of attention and HIV showed converging evidence of a specific problem with tasks that required primarily controlled processing. "Controlled processing" refers to a type of selective attention that is effortful, under conscious control, and subject to capacity limitations, in contrast with "automatic" processing, which is relatively impervious to conscious control, reflexive, and not subject to capacity limitations. A wide range of cognitive tasks can be conceptualized according to the extent that the task engages controlled processing.

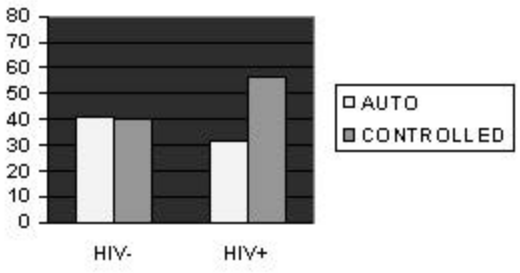
Such deficits were evident across a variety of cognitive tasks. For example, studies using a voice-activated RT version of the well-known Stroop task demonstrated that HIV+ subjects showed specific decrements in performance when required to suppress a dominant but incorrect response (e.g., when asked to name the color of the word "RED" presented in a blue display). These defects in

"controlled" processing were also sensitive to antiretroviral therapy and provided information that could be employed in developing management strategies of HIV-related cognitive problems.

In addition, patients with significant comorbid conditions, such as a history of injection drug use, could perform reliably on RT-based studies with fairly complex instructions. For example, HIV+ and matched HIV- drug abusers were able to analyze successfully hierarchical visual stimuli (AKA the global-local task), a measure that required subjects to divide their attention between two levels of stimulus structure under testing conditions that differentially stressed controlled and automatic processing. Drug abusers completed this task at an acceptable error rate and did not show floor effects. The results supported the prediction that HIV+ subjects would be impaired differentially under stimulus conditions with maximal demands on controlled processing. Notably, this finding provided evidence that HIV-infected drug abusers should not be excluded routinely from studies of cognition, thus permitting the study of a broader patient population including both men and women of differing ethnicities and a broader educational background.

Working Memory

Working or "representational" memory refers to



a mental "workspace" involving temporary information processing, not unlike computer RAM. Working memory can be considered a building block for many other more complex cognitive functions and is responsible for maintaining mental information online for short-term processing. For example, working memory processing is engaged when looking up a telephone number, keeping track of the information, then discarding it once the call has been completed. Working memory systems are characterized by limited processing resources, temporary information manipulation and storage, and reliance on memory representations of information. Working memory systems can be stressed by different means, including introducing a time delay between information input and subject response; increasing the amount of information to be maintained on line; and/or increasing the complexity of the manipulation subjects must perform using stimulus representations. In the telephone example, working memory resources could be stressed additionally by looking up an anagram telephone number (e.g., 1-800-HIV CARE), which would require additional online processing before the call could be completed.

HIV+ patients perform poorly compared to HIV- controls on a variety of measures that stress working memory for spatial, object or verbal information. In fact, defects in working memory processing are among the most consistent findings in the HIV literature. For example, patients show defects when asked to keep track of a spatial array over a time delay prior to selecting a target item in the array; when asked to perform mental manipulation of verbal sequences read aloud that vary in length and complexity; and while solving problems after maintaining critical information over a time delay. More specifically, patients given a variant of the Tower of London task solved fewer problems correctly when required to remember the correct response over a time delay prior to presentation of the test apparatus. However, subjects performed well when a picture of the correct solution was displayed throughout the test administration, thus decreasing the need to rely on memory representations for successful performance. Similarly, patients had problems performing the Letter Number Sequencing task included on the WAIS III, but performed adequately when asked to recite the letter number spans passively with no mental manipulation. Collectively, these studies indicated that patients could be expected to have difficulty with any type of task stressing working memory systems, without regard to the modality of information to be processed. Thus, reliance on verbal strategies to recall spatial information, for example, would be of limited benefit. Notably, working memory

problems can be demonstrated in both asymptomatic patients and in those with more advanced disease, suggesting that these defects should be targeted in evaluations of patients with mildly symptomatic or asymptomatic disease. Finally, working memory paradigms are commonly employed in functional brain imaging studies and have recently been used to map patterns of cerebral blood flow in persons with HIV/AIDS (Chang et al, 2001).

Implicit Memory

A small group of studies have shown that HIV+ patients appear particularly susceptible to problems with implicit learning on tasks requiring them to learn a new cognitive or motor skill in the absence of overt verbal or spatial cues. Implicit or nondeclarative memory is mediated by neural systems that include the neostriatum rather than the hippocampal-mesial temporal system. HIV+ persons have shown defects in tasks of motor learning such as the Pursuit Rotor; and A. Martin and colleagues (1993) reported that this deficit was associated with increased CSF levels of quinolinic acid, an endogenous neurotoxin implicated in the pathogenesis of neuro-AIDS.

Defects in implicit memory are not limited to motor tasks. Our group has obtained preliminary evidence of HIV-related problems in cognitive procedural learning by testing HIV+ patients and controls with the "weather task," a measure of probability learning developed by Knowlton and Squire. We found that 39% of a group of HIV+ drug users failed to improve their performance above chance levels after 150 learning trials, compared to 12% of HIV- drug users ($p < .05$). Defects in this learning type have implications for the ability to learn both new cognitive and new motor skills and may assume particular significance as more HIV+ persons return to work. These findings might conceivably contribute to varying degrees of responsiveness to substance abuse treatment and other rehabilitation procedures.

Decision-Making

Bechara, Damasio and their colleagues (2000) developed a model that emphasizes the critical importance of emotional memories in the process of decision-making, which they define as selecting a current behavior that leads to an overall positive future outcome. The model proposes that effective decision-making requires retrieval and maintenance in working memory of mental representations of past rewards and punishments associated with each potential response. These representations in turn influence response selection. When aspects of this processing are impaired, response choices will be guided primarily or completely by immediate reward. The Iowa group has focused their experiments on one particular mechanism of impaired decision-making, the failure of representations of reward and punishment history to direct response selection. However, according to this model, defects in other cognitive functions can indirectly contribute to impaired decision-making.

Bechara and colleagues developed a computerized "gambling task" that captures defects in the decision-making process. Notably, the task is sensitive to the poor judgments typically displayed by patients with ventromedial prefrontal lesions, a patient group that often performs in the normal range on most clinical NP tasks despite profound impairment in real-world function. Persons with a history of drug abuse also perform the gambling task more poorly compared to normal controls, although their defects are considerably less severe or common than those of the patients with ventromedial prefrontal lesions.

Briefly, the task requires the subject to make a series of choices from a computerized display of four decks. Unbeknownst to the subject, two decks ("good" decks) are associated with small immediate wins and small losses, with an overall winning total over 100 trials. By contrast, choices from the two "bad decks" result in large immediate wins but also larger losses and an overall losing total. Normal subjects quickly learn to confine their selections to the good decks, but VM patients and drug abusers persist in selecting cards associated with large immediate rewards despite the associated larger losses, a defect termed "myopia for the future" by Bechara et al (2000).

We have recently demonstrated that drug abusers who are HIV+ show additional impairment on the gambling task compared with matched HIV- drug abusers, suggesting that HIV serostatus also affects decision-making and that HIV and drug abuse might

exert additive effects on some neurocognitive functions, entirely consistent with models of brain reserve capacity introduced by Satz. Notably, the Bechara-Damasio model of decision-making has significant implications for the study of cognitive components to HIV-related risk behaviors in the drug user population, and perhaps also for adherence with medication regimens. In addition, their focus on emotional aspects of cognition provide new and exciting information that broadens our focus in HIV research to include limbic components of prefrontal-subcortical systems.

Recent cognitive neuropsychological studies

In addition to decision-making, current cognitive neuropsychological studies have begun to examine more complex cognitive constructs. A key example of these studies is recent work on prospective memory, that is, memory for a future intention or "remembering what we must do." Different types of prospective memory (e.g., cued or event-driven prospective memory, such as "take a pill at each meal" vs. self-generated or time-driven prospective memory, "take a pill every four hours") may be mediated by differing neural systems and might account for some aspects of medication adherence failures or persisting high-risk behavior. A recent study reported that HIV+ women showed selective deficits in both event- and time-related prospective memory compared with cohort-matched HIV- women. Further, preliminary data suggested that working memory defects correlated with impairment on prospective memory tasks, but only for the HIV+ women. Prospective memory is obviously a multifactorial construct and studies of its specific cognitive components could inform the development of strategies for medication management and risk reduction.

Conclusions

Both clinical and cognitive neuropsychological studies have added key data to the literature on HIV-related neurocognitive deficits. Notably, the NIH guidelines for neuropsychological evaluation of persons with HIV/AIDS include inclusion of reaction time testing. Further, cognitive neuropsychological studies have provided unique insights on some of the core cognitive defects associated with HIV disease. Current studies examining the efficacy of cognitive neuropsychological measures in predicting critical behaviors such as engagement in high-risk sexual and injection behaviors and adherence with medication regimens by seropositive users of heroin and cocaine and by MDMA users relative to their matched seronegative control groups are currently in progress by our group.

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In the interest of brevity we have minimized the number of literature citations, but a complete list of references that informed this article's writing are available from the authors on request.

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Announcement

The World Conference on Pediatric Neuropsychology III will be taking place April 4-7, 2002 at The Condado Hotel and Casino in San Juan, PR. We welcome the participation of any interested members of Division 40! We also encourage a Division 40 booth, or materials for distribution to registrants. This is a great opportunity to market APA and Division 40. Please contact *www.wcpdn.org* or Ronald D. Franklin, Ph.D. at *rdfphd@yahoo.com* (561-655-7532) for more information.

President's Message
Continued from page 1

aggression for some time, and I wonder whether the information on brain pathology underlying individual acts of violence and aggression is applicable to the current mass murders. May we assume that there is something wrong with the brains of those who crashed commercial jets into the World Trade Center and the Pentagon? Can we develop neuropsychological profiles of potential killers? I am very doubtful that this would be a successful enterprise. The meager information that we have on the terrorists suggests that they were intelligent, highly motivated, well trained, and sufficiently well adjusted to assimilate into U.S. communities for extended periods. They were soldiers of the Al Queda army; and in that sense, their brains would probably not look different from the brains of comparable soldiers in any army, i.e., normal. There are data that support the notion that factors associated with impoverished environments can lead to altered brain function and reduced cognitive capacity. And in certain persons, this reduced cognitive capacity can lead to high levels of frustration, as they fail to compete successfully with peers. Eventually, this may lead to antisocial acts of various kinds. Again, I am not sure that any of this applies to the terrorists of September 11. Many of them appeared to be from middle-class backgrounds, and presumably had not suffered from the effects of an impoverished childhood. A conclusion reached by many who study violence and aggression is that it is a learned behavior, and that there are factors and factions in all societies (including Muslim societies) that tend to promote and glorify aggression. In this context, I think of Leonard Eron's work, which elucidated the role of violent content in TV programs in increasing aggressive behavior in children.

To turn to matters more directly related to Division 40, I would like to say something about the delightful aspects of being President. The first of these is the wonderful, generous collegial spirit of the officers and committee members. The work that these folks do is prodigious, and we all are in their debt. This was apparent to me at the Executive Committee meetings in Washington, D.C. and San Francisco. But the work continues between meetings. I have had the occasion over the last several months to be in contact with Jill Fischer, Mark Bondi, Mike Westerveld, Chris Grote, Ida Sue Baron, Deborah Koltai-Attix, Paula Shear, Rod Vanderploeg and Jennifer Manly; and I am grateful to all of you for your help and guidance. Thanks also to Jason Brandt, Gordon Chelune, and Tony Puente for sharing their wisdom.

The second delightful aspect of the Presidency has been the opportunity to initiate some new programs. One has to do with providing seed money for an effort to study the neuropsychological effects of the head injuries sustained by torture victims in Kosovo. Lidia Artiola will be the lead person in this effort. The Executive Committee also approved funds for Division 40 to participate in the World Health Organization's worldwide effort against epilepsy. This may entail, ultimately, training psychologists in third-world countries in neuropsychological methods used to detect and assess seizure disorders, and modifying existing methods to make them more applicable for use in those countries. Mike Westerveld and I will head up this project.

In closing, I wish all the members of Division 40 well, and urge you to contact me and/or other officers and committee chairs with any ideas and suggestions you may have for the health and welfare of our Division.

Allan F. Mirsky, Ph.D.
President, Division 40,
American Psychological Association

Clinical Implications for Functional Neuroimaging
in Traumatic Brain Injury
Continued from page 4

functions, current research and the present findings support the concept of distributed neural networks for memory-related functions, with greater emphasis on the role of the prefrontal cortex on memory tasks requiring increased cognitive demand. In addition, investigating the substrates of learning and memory impairment in TBI may assist in determining patterns of cerebral reorganization. If patterns are found, they may be of use in making inferences regarding the effects of spontaneous recovery versus rehabilitative intervention.

Although functional activation studies of working and episodic memory after TBI are still quite investigational in nature, such studies may eventually be of clinical relevance and applicability. In addition, increased Tesla strength is providing refinement of spatial resolution, and issues of temporal resolution are beginning to be addressed through the use of event-related paradigms. Continuing advancements improve research paradigms and allow for researchers to address more specific questions regarding cognitive functioning. Greater specificity when defining a TBI patient's acquired learning and memory disorder may assist in predicting potential for benefit or anticipated level of benefit from rehabilitation or pharmacologic intervention. Expanded information regarding the cerebral substrates of learning and memory impairment and other cognitive deficits following TBI may eventually assist in differential diagnosis, as various premorbid psychiatric conditions or other states of emotional disruption are associated with alterations in functional neuroimaging findings.

Functional brain imaging studies have important implications for TBI rehabilitation. One of the major goals of cognitive remediation is to help TBI patients learn new information more accurately and efficiently, and to improve their performance in activities of everyday life. Because working memory impairments are so prevalent in TBI, the present study can help to shed light on the cerebral underpinnings of cognitive impairment. In spite of the prevalence and popularity of cognitive remediation strategies and procedures, there remains virtually no empirical understanding of the underlying neurocognitive and neurophysiological processes that facilitate intervention. If the previously demonstrated finding of increased "cognitive effort" at the cerebral substrate is needed by TBI subjects even to attain the same net behavioral effect, such findings would suggest that the goal of rehabilitation/intervention should not simply be one of behavioral increase (i.e., training someone to take tests so that they can overtly perform within normal limits on superficial cognitive tests), but rather to attempt to elicit change at the level of the cerebral substrates.

Although fMRI is still a relatively new procedure, it nonetheless has several potential future applications in medical rehabilitation that can only be realized if the enormous amounts of benchmarking research are conducted. FMRI has been used in the study of treatment outcome in stroke rehabilitation. To date, however, there have been no investigations that have used fMRI in the context of TBI *rehabilitation*, particularly in the realm of cognitive functioning. Potential applications of fMRI in TBI rehabilitation (elaborated in Ricker et al, 2001 *a*) include the following:

1. fMRI might be utilized in evaluating the potential efficacy of interventions by providing additional (and presumably objective) evidence of long-term changes occurring at the cerebral level, not just in overt behavior.

2. fMRI might eventually be used as an approach to assessment. For example, if neurofunctional "markers" or patterns of various cognitive disturbances could be reliably established through brain mapping, it might be possible to compare an individual's performance to that of either a normative population or that of other individuals in a clinical populations (much as is done when neuropsychological test results are compared to standardization samples or normative databases).

3. fMRI might be used as a predictive tool. For example, it may be possible to use imaging to predict who will demonstrate benefit from an intervention, as opposed to individuals who might not show benefit. There might also be the possibility to utilize functional imaging in order to determine the most appropriate time window for intervention, as some

techniques may show greater efficacy at earlier, or later, times post-injury.

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Neuropsychological and Neuroimaging Changes
in Preclinical Alzheimer's Disease
Continued from page 6

significantly more individuals with preclinical AD within the ε4 group. When those individuals with preclinical AD were eliminated from each group and the initial test results were re-analyzed, there were no significant differences between the ε4 and non-ε4 groups on any of the tests (see Figure). Thus, it appears that more ε4 individuals were demonstrating subtle memory decrements indicative of preclinical AD.

Although the episodic memory decline described above appears to be one of the most salient markers of preclinical AD, a recent study by Jacobson and colleagues suggests that mild asymmetric cognitive decline may also be indicative of preclinical AD (Jacobson, Delis, Bondi & Salmon, in press). We compared the initial neuropsychological test performance of 20 nondemented older adults who subsequently developed AD with that of 20 demographically comparable normal control subjects. The groups were compared on a measure of cognitive asymmetry derived from the difference in scores between tests of verbal and visuospatial ability. Although both groups performed similarly on the individual cognitive tests, cognitive asymmetry in either direction (i.e., verbal > visuospatial or verbal < visuospatial) was significantly more likely in the group that subsequently developed AD. Although the neuropsychological mechanism underlying cognitive asymmetry in preclinical AD remains unknown, the findings are consistent with a number of reports of lateralized onset with asymmetric neuroanatomic changes or metabolic asymmetry in the early presentation of AD (Franchesi et al., 1995; Giannakopoulous, Hof & Bouras, 1994; Grady et al., 1990; Reiman et al., 1996; Soininen et al., 1994, 1995; Thompson et al., 1998).

Neuroimaging in Preclinical Alzheimer's Disease

In addition to neuropsychological studies, a number of neuroimaging studies have examined subjects at risk for developing dementia through the use of structural (i.e., magnetic resonance or MR) or functional (i.e., positron emission tomography [PET]

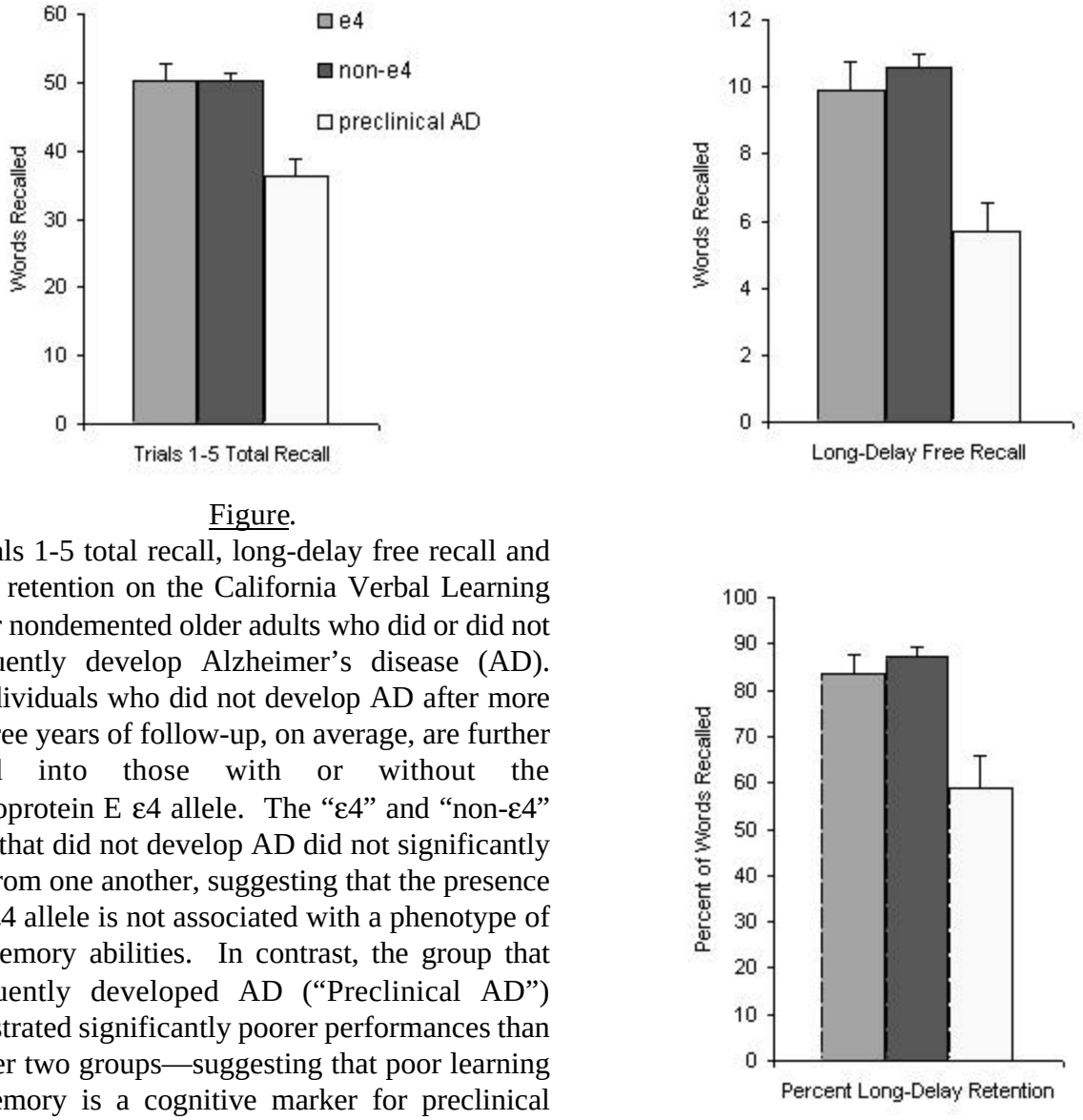

Figure.

Trials 1-5 total recall, long-delay free recall and percent retention on the California Verbal Learning Test for nondemented older adults who did or did not subsequently develop Alzheimer's disease (AD). The individuals who did not develop AD after more than three years of follow-up, on average, are further divided into those with or without the Apolipoprotein E ε4 allele. The "ε4" and "non-ε4" groups that did not develop AD did not significantly differ from one another, suggesting that the presence of the ε4 allele is not associated with a phenotype of poor memory abilities. In contrast, the group that subsequently developed AD ("Preclinical AD") demonstrated significantly poorer performances than the other two groups—suggesting that poor learning and memory is a cognitive marker for preclinical AD. (Adapted from Bondi et al., 1999).

or functional MR) imaging procedures. Again, given the early appearance of memory deficits in AD implicating MTL structures, a number of studies have examined the relationship between episodic memory and MR volumetric indices of the MTL. In a study from our group by Stout et al. (1999), we examined the associations between standardized MR volume measures of regional brain atrophy and performance on the CVLT in 27 AD patients. A pattern of atrophic brain changes in the MTL and the thalamus, with relatively less severe atrophy in the neocortical gray matter, was associated with poorer learning, delayed recall and recognition memory of the word list. These results provide evidence that the verbal memory deficit of AD is associated with medial temporal cortex reductions. Similar findings were replicated and extended in a recent study by Fama et al. (2001) who demonstrated that poorer anterograde memory scores, but not remote memory scores, were correlated with smaller hippocampal volumes.

In one of the first neuroimaging studies of preclinical AD, Fox et al. (1996), conducted a longitudinal study of a family with the chromosome 21 amyloid precursor protein mutation. These authors found that a loss of up to 20 percent of

hippocampal volume correlated with the onset of cognitive symptoms in the at-risk individuals who subsequently developed AD. A subsequent study by Jack and colleagues (1998) demonstrated the ability of MR volumetric measurements of medial temporal lobe (MTL) regions to significantly differentiate elderly normal control subjects from AD patients with the very mildest form of the disease (i.e., CDR = 0.5). However, another study by this same group failed to show an effect of the ε4 allele on MTL volumes (Jack et al., 1998b). Similar results were also demonstrated by Killiany et al. (2000), who found that baseline MR measures of the entorhinal cortex, the banks of the superior temporal sulcus, and the anterior cingulate were most useful in discriminating nondemented subjects who later developed AD, although ApoE genotype did not improve the accuracy of discrimination.

In contrast, Soininen and colleagues (1995; Lehtovirta et al., 1996, 1998), as well as Plassman et al. (1997), have both demonstrated that mild AD patients as well as nondemented older adults with the ApoE ε4 allele have smaller hippocampi than their non-ε4 counterparts or abnormal left-right volumetric asymmetries as compared with their non-ε4 counterparts. These results are concordant with Soininen et al.'s (1994) previous finding that subjects fulfilling criteria for age-associated memory impairment demonstrated less volumetric asymmetry between right and left hippocampal formations than matched control subjects without memory disturbance.

Nevertheless, a number of other studies have not yielded consistent evidence of an ε4 effect on MTL volumes in either nondemented older adults or in AD (Soininen et al., 1996; Reiman et al., 1998; Schmidt et al., 1996), and recent studies by Jernigan and colleagues (Fennema-Notestine et al.,1999; Jernigan et al., 2001) have also failed to evince an ε4 effect in a sample of nondemented older adults. Thus, controversy exists whether there are specific volume reductions in nondemented older adults with an ε4 allele. It may be that decline in MTL volumes represents an important preclinical neuroanatomic marker of AD, but, consistent to the cognitive findings described above, may not represent a normal phenotypic expression of the ApoE ε4 allele on MTL or hippocampal volumes (cf. Plassman et al., 1997).

Given age-associated reductions in the MTL (Jernigan et al., 2001), it may be possible that a more robust ε4 effect on MTL volumes will be evident among the oldest-old. In other words, less severe plaque and tangle accumulations may be required to cause a significant decline in memory due to greater age-associated MTL volume reductions. There is evidence that in this advanced age group, one may be cognitively impaired with far fewer pathologic lesions as measured quantitatively, suggesting that AD begins to interact with loss of neurons and synapses that occur in normal aging (see Kawas & Katzman, 1999, for discussion). Thus, future studies providing detailed morphometric assessments of cortical and subcortical gray and white matter volumes will be especially helpful in determining regional brain volume changes in an examination of an ε4 effect among both nondemented and demented groups, unlike many of the previous volumetric studies which have exclusively examined MTL or related structures.

With respect to functional metabolic activity in subjects at risk for AD, Small et al. (1995) performed PET scans and ApoE genotyping on a group of older adults with a positive family history for AD and mild memory complaints (but normal cognitive performance in other task domains). Despite equivalent MMSE scores (means of 28.8 vs. 29.3 points), parietal lobe metabolism was significantly lower in the at-risk subjects with an ApoE-ε4 allele than in those without an ε4 allele. Similarly, Reiman et al. (1996) compared the PET scans of 11 cognitively-normal, middle-aged ε4/ε4 homozygotes and 22 non-ε4 control subjects. Results revealed that the ε4 homozygotes had reduced glucose metabolism in the posterior cingulate, parietal, temporal, and prefrontal regions, all of which were regions demonstrating specific metabolic reductions in mild AD. Reiman et al. concluded that these findings provide preclinical evidence that the presence of the ε4 allele is a risk factor for AD, and may be especially useful for tracking declines in metabolic functions in the absence of cognitive symptoms in persons at risk for AD (see Reiman et al., 2001, for discussion).

Finally, in perhaps the first published study applying functional MRI technology to the investigation of patterns of brain activation in people at risk for Alzheimer's disease, Bookheimer et al. (2000) studied 30 nondemented older adults, of whom 16 carried an ApoE ε4 allele. Patterns of blood oxygen level dependent (BOLD) responses during functional MRI scanning were determined while subjects memorized word pairs, recalled word pairs, and while subjects rested between such periods. Both the magnitude and extent of brain activation was greater in the ε4 group than in the non-ε4 group. Overall, during recall, ε4 subjects demonstrated significant signal intensity increases in the left parahippocampal region, the left dorsal prefrontal cortex, and in the inferior and superior parietal lobes and the anterior cingulate gyrus. Direct comparisons of the ε4 group to the non-ε4 group further demonstrated the greater extent and magnitude of activity in the left prefrontal region and bilateral orbitofrontal, superior temporal, and inferior and superior parietal regions in the ε4 carriers. Thus, Bookheimer et al. (2000) suggest that patterns of brain activation during tasks requiring memory differ depending on the genetic risk of Alzheimer's disease, and may predict a subsequent decline in memory.

It could be argued that functional neuroimaging methods will be more sensitive to early MTL dysfunction than will structural MR imaging (Haxby et al., 1986). However, PET findings derived from at-risk older adults or from patients with early AD have not typically demonstrated MTL metabolic changes (see Reiman et al., 1996; Small et al., 1995). These findings contrast those derived from structural or MR and neuropathologic studies, which demonstrate that the earliest changes in AD occur in MTL regions (Braak & Braak, 1991; Gomez-Isla et al., 1996). More recently, functional MR studies have shown consistent MTL or adjacent activations during novel encoding tasks (e.g., Johnson et al., 2001). Thus, there exist important rationale for investigating early structural brain changes in AD with MR imaging techniques. First, studies of brain changes using PET have not unequivocally demonstrated the characteristic temporo-parietal hypoperfusion or hypometabolism in all cases of early AD (Azari et al., 1993; Pietrini et al., 1993; Weiner et al., 1993). Additionally, PET technology is prohibitive due to the high costs and need for radioactively labeled substances. Finally, anatomical resolution of brain structures using PET is poorer than with MR imaging, particularly with respect to the examination of changes in MTL regions.

Because the MR data needed to generate a structural brain image can be acquired rapidly and without the use of radioactive tracers, it is possible to perform these non-invasive MRI exams within routine MRI facilities. However, sensitivity of MTL regions vis-à-vis functional neuroimaging may occur at the expense of specificity and other methodological difficulties (e.g., difficulty of obtaining reliable functional neuroimaging data among the oldest-old; the problem of controlling for cerebral atrophy in functional MR activation studies (see Johnson et al., 2000)). Thus, multiple causes of reduced MTL function may be indistinguishable with functional MR assessments alone. Combined cognitive, structural MR, and genetic assessments may ultimately be needed to obtain sufficiently accurate, reliable, and clinically available early identification markers (Albert, 1996; Small et al., 1996).

Summary

The studies reviewed above clearly indicate that a preclinical phase of detectable cognitive decline, and structural and functional brain changes, precedes the clinical diagnosis of AD by several years or more. The detection of preclinical AD would appear to be most effectively accomplished with sensitive cognitive, structural or functional markers of the integrity of the medial temporal lobe system, and may be enhanced if risk factors such as advancing age or the presence of the ApoE ε4 allele are also considered in conjunction with cognitive and neuroimaging findings. Prospective studies of individuals at high risk for AD (i.e., the oldest-old and those with an ApoE ε4 allele) are clearly needed to determine if poor performance on cognitive measures of learning and memory, combined with lowered MTL volume or MTL loss over time, represent specific markers of AD.

The ability of such measures to detect AD in its earliest, preclinical phase will continue to be an important topic of neuropsychological and neuroimaging research, as investigational neuroprotective agents designed to impede the progression of the disease continue to be developed (see Thal, 1999). By accurately identifying and successfully treating such individuals, the preservation of cognitive status and functional independence will have far-reaching implications for maintaining quality of life and decreasing the financial and emotional burden associated with the care of individuals with AD.

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Limitations of Records Reviews
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3. ***Indirect method with lack of direct contact:*** Records are basically paper and ink in various forms. They are physical and can have an apparent reality that is not necessarily the reality of the patient. They can be either accurate or inaccurate, or some mix of the two. They are the written statements of whomever made them. While they can reveal various observations by the examiners, they are indirect and are no substitute for observing the real thing - the patient. Imagine a clinician doing an evaluation by only reviewing records, only seeing pages of paper and ink, never seeing the patient directly and then forming a diagnostic opinion. The clinician would be seriously handicapped in understanding the reality of the patient's problems. Simply stated, If you want to responsibly study the reality of a case, you have to see all the data, especially the real data of the patient.

4. ***Narrow focus that is only one part of a clinical evaluation:*** A records review is only one narrow part of a thorough clinical evaluation. A comprehensive clinical evaluation includes records review, but it also involves direct observations of the patient, direct examination, appropriate tests, analysis and integration of all the information observed or collected, combined with the clinicians knowledge and experience to form a responsible diagnostic opinion. The evaluation usually involves the writing of a report that integrates all of the information. To only focus upon a records review in forming judgements about the complexities and realities of a person's problems and treatments excludes too much useful information to result in a complete and useful opinion.

5. ***Subjective biased interpretations***: Written records, especially in the psychiatric/psychological world, are the subjective interpretations of their authors. While they can be accurate reflections, they are not necessarily accurate portrayals of the realities of a particular patient. They usually contain both accurate and inaccurate information. They frequently have missing information. To view reports as somehow evidence "etched in stone" and reify them as absolute facts is unjustified and can be very misleading. This is why courts view records as hearsay evidence rather than direct evidence. Once the reviewer starts interpreting what the writer did or did not say or mean, another layer of subjectivity is added to an already subjective matter. This layering of subjectivity upon subjectivity can produce beliefs about a patient that are far removed from the reality of the patient. Another complicating issue is that when a person is subjectively interpreting complicated subjective things they are more vulnerable to their own biases and projections (The Rorschach Principle). This leads the reviewer further afield in trying to understand the reality of whatever they are studying in the record. When a record reviewer is reading through a stack of records with a plethora of words, information has to be simplified for the mind to deal with it. The reviewer's biases select out those parts of the records that fit their biases. Other important information is skimmed or even overlooked. There are also no standard methods or research guidelines to use for record reviews. Because of this, record reviews are very inconsistent, selective and often lopsided.

The understanding that records are subjective interpretations is overlooked when a reviewer highlights what a patient may have or have not reported. Why would a psychologist that is generally skeptical of patient self-reporting and questions the validity and reliability of patient self-report, turn around and rely heavily upon someone else's report of the patient's self-report? This seems more than inconsistent. It is often conveniently biased.

6. ***Lack of validation***: What is the reliability and validity of record review and the resulting interpretation? We don't know. This matter has not been adequately studied. To rely heavily on the one aspect of our evaluation process that has the least research validation is poor clinical science.

In summary, the practice of relying solely upon a records review in making serious decisions about a person is very limited and a questionable practice. Judgments about the presence or absence of illness, especially mental illness, and the impact of the illness upon real world functioning (e.g. education, livelihood), are much too complicated and have too many potential consequences for all concerned to only rely upon partial limited information. To make

critical decisions and speak publically about matters that have far reaching effects upon a patient's life with only a records review is much too limited to be responsible or credible. While records should be considered as a part of the evaluation process, they should be viewed as only a limited part of the information needed to draw sensible conclusions.

This is probably why the American Psychological Association Ethical Principles and Code of Conduct (1992) states in the Forensic Activities section:

> Psychologists provide written or oral forensic reports or testimony of the psychological characteristics of an individual only after they have conducted an examination of the individual adequate to support their statements or conclusions...When, despite reasonable efforts, such an examination is not feasible, psychologists clarify the impact of their limited information on the reliability and validity of their reports and testimony, and they appropriately limit the nature and extent of their conclusions or recommendations.

In essence, we should include records into our multi-method assessment approach, but be very careful as to what we conclude from them and not rely solely upon them. If a professional person only wants to know the subjective opinions of others, they should only study records. If they want to know the reality of a patient, so they can make balanced and accurate clinical judgments, they should study not only the records, recognizing all their limitations, but they should also study the patient with all the methods available. To paraphrase an old Chinese saying, "A direct picture of the patient is worth a thousand recorded words."

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Annual Business Meeting
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First, each Division would be awarded one seat. There are 56 Divisions. Thus, after awarding each unit a seat, there would be 44 seats left. Remaining seats would be awarded to each unit according to percentage of membership calculations (1.5% - 2.49% = one additional seat; 2.5% - 3.49% = two additional seats; etc.).

9. Presidential Report: Dr. Brandt then addressed the Membership, providing highlights of the work of many of the Division's Committees, including the Publications and Communications Committee. He mentioned that the EC voted to move forward with fact-finding and solicit a draft or outline of a revised contract with APA to have *Neuropsychology* become the Division's official journal. Drs. Adams and Bauer will continue negotiations to obtain the best possible contract from APA, and Dr. Bauer will keep the Membership informed of any further developments.

10. Dr. Brandt then recognized a number of outgoing Division 40 Committee Chairs and Elected Officers with plaques of appreciation. The Committee Chairs recognized were: Dr. Stan Berent for six years service as Chair of the Fellowship Committee; Dr. Paula Shear for serving as 2001 Chair of the Program Committee; Dr. John DeLuca for six years service as Editor of *Newsletter40*. The newly appointed Committee Chairs are: Dr. Eileen Fennell (Fellows); Dr. Joel Morgan (*Newsletter40* Editor); and Drs. Rodney Vanderploeg (Program Chair) and Jennifer Manly (Program Co-Chair).

Dr. Brandt next acknowledged the contributions of four outgoing elected Executive Committee members, all of whom were presented with plaques of appreciation. Dr. Lloyd Cripe was recognized for his service as Member-at-Large to the Executive Committee, and Drs. Tom Boll, Paul Craig, and Kerry Hamsher as Division 40 Representatives to the APA Council.

11. Dr. Brandt then turned the podium over to Dr. Allan Mirsky, the 2001-2002 President of Division 40. Dr. Mirsky acknowledged the contributions made to the Division over the past year by outgoing President, Dr. Jason Brandt. Dr. Mirsky presented Dr. Brandt with a plaque and, on behalf of the Division 40 membership, thanked him for his outstanding leadership this past year.

12. There being no other business, the meeting was adjourned at 4:58 pm.

Respectfully Submitted,

Mark W. Bondi, Ph.D.
Secretary, Division 40

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Table 1
Summary Descriptive Statistics for the Premorbid MMPI-2 Validity and Standard Scales

	M	SD	% ≥ 65-T	Odds Ratio[a]
L	52.2	7.2	7.4	1.1
F	66.3	16.5	48.1	7.2
K	49.1	8.4	7.4	1.1
1 (Hs)	82.8	15.9	81.5	12.2
2 (D)	78.4	14.2	81.5	12.2
3 (Hy)	84.1	15.2	88.9	13.2
4 (Pd)	68.6	15.6	55.6	8.3
5 (Mf)	52.8	10.4	11.1	1.7
6 (Pa)	66.0	15.2	48.1	7.2
7 (Pt)	71.4	16.2	70.4	10.5
8 (Sc)	77.4	17.6	77.8	11.6
9 (Ma)	62.0	12.6	40.7	6.1
0 (Si)	51.7	12.0	11.1	1.7
Mean T-score	72.9	11.2	n.a.	n.a.

a Calculated by dividing percent of cases > 65-T by 6.7%, the population base rate for abnormality in a uniform T-score distribution.

Table 2
Profile Pattern Frequencies for the Premorbid LPCS sample, MMPI-2 Standardization Group, and the Caldwell (1997) Clinical Dataset.

Pattern	Sample	Caldwell (1997)[a]	Odds Ratio
WNL	0%	30.92%	n.m.
Any Code-Type	100%	69.08%	1.5
13/31	32.1%	15.2 %	2.1
Females	35%	16.7%	2.1
Males	27.2%	12.7%	2.1
24/42	10.7%	2.43%	4.4
High-point with 3	60.7%	17%	3.6
Distress[b]	28.6%	39.9%	.72
Males	36.4%	38%	.96
Females	23.5%	40.4%	.58
Somatoform[c]	75%	41.9%	1.8
Females	88.2%	47%	1.9
Males	54.5%	38.6%	1.4
Conduct[d]	17.8%	17.22%	1.03
Schizotypal[e]	21%	18.8%	1.11

a Caldwell's sample consists of 51,000 profiles from clinically referred participants
b Distress = any code-type containing 2 (D) or 7 (Pt)
c Somatoform = any code-type containing 1 (Hs) or 3 (Hy)
d Conduct = any code containing 4 (Pd)
e Schizotypal = any code-type containing 8 (Sz).

below 65-T. Thus, the LPCS group had a strong premorbid tendency to express complaints from a wide range of symptom domains, a definite "litany". Second, the most frequent abnormal elevations were seen on the "neurotic triad" (scales 1, 2, and 3). Eight out of ten respondents showed elevations on all three scales. This suggests both hypersensitivity to minor physical ailments and a prevailing emotional tone of bitterness.

Table 1 raises an issue of comparative psychopathology. Do the premorbid LPCS profiles proportionally reflect the stratification of psychopathology in mental health referrals, or are the LPCS profiles different, and if so, in what direction? To explore comparative psychopathology, the premorbid MMPI2 profiles were grouped into clinically meaningful patterns. Groupings included the most common 2-point code-types and symptom content patterns. Table 2 summarizes the present sample's MMPI-2 patterns, profile base-rates from Caldwell's (1997) clinical dataset of 51,000 clinical referrals, and odds ratios. First, examining the gross distinction between normal and abnormal, Table 2 shows that 100% of premorbid LPCS profiles were abnormal, defined as any standard score above 65-T. In the Caldwell sample, two-thirds were abnormal. This indicates that premorbidly, LPCS claimants were more likely to show MMPI-defined psychopathology than the typical mental health referral. Next, examination of the most common codes in the LPCS group showed the conversion "V" (13/31) present in one-third of the sample. This is twice the rate of occurrence in Caldwell's dataset. In addition, over 60% of the sample had a high-point code containing Hy, more than 3 times the clinical base rate. Interestingly, females were roughly only half as likely to show MMPI distress signs. This suggests that female LPCS claimants were more likely to show classic conversion disorder signs: Pseudoneurologic features accompanied by inappropriate affective displays. Finally, looking at content, 88% of the females produced code-types containing somatoform complaints, compared to 42% in Caldwell's female sample. Conduct and schizotypal patterns were consistent with the Caldwell dataset.

Discussion

A small sample of premorbid MMPI profiles was examined in a preliminary effort to understand the premorbid personality of chronic LPCS claimants. The most salient findings were as follows. The modal premorbid demographic was an unmarried, unemployed, middle-aged female. All premorbid MMPI profiles were abnormal, in excess of clinical population base rates. Half the sample produced validity patterns indicating negativism and lack of coping resources. Although multi-system complaints were voiced, the dominant pattern was a somatoform presentation in excess of the general clinical population, especially in the females.

These findings may assist in understanding the complaints of the typical LPCS patient described in the introduction. It appears that the bitterness, negativism, deep dissatisfaction and intense focus on minor ailments described in the composite patient are pre-existing. The self-reported attribution of personality change to an accident may not be factual, at least in individuals with a preinjury history of mental health diagnostics. The typical perception of the LCPS client that "I was never like that before the accident" may either be a form of self-deception or conscious impression management. Poor insight and resistance to nonmedical explanations are well known features of somatization disorders (Shorter, 1992). This data supports Lees-Haley's (1997) prediction that protracted soft-tissue injury litigation is pursued by claimants who were "unhappy somatizers" prior to their injuries.

Theoretical Implications

In a recent theoretical paper Greiffenstein(G., 2000), I proposed a three-factor heuristic framework for exploring poor post-accident adjustment. Simplistic monotheories ("Its all brain damage" or "They all malinger") have failed to account for the facts of LPCS presentations. The three-factor framework is a biopsychosocial approach, which organizes research into three domains: Preinjury Factors (e.g., marginal IQ, personality disorder), Precipitating Factors (e.g., agency vs. victimhood), and Maintaining Factors (e.g., primary gain, secondary gain). Each subdomain is further subdivided into variable classes such as neurological, medical, economic, familial, etc. This

model is derived from the chronic behavioral illness literature, such as psychophysiological insomnia. This present study represents one facet on the three-factor model, exploration of premorbid personality. This study suggests that somatization psychopathology is a strong risk factor for chronic postinjury complaining. Given the strong somatization trends present in the premorbid MMPI sample, I argue that LPCS claimants show a dispositional readiness to accept a brain damage diagnosis. Put differently, the typical LPCS ready acceptance of a brain damage diagnosis may represent a form of primary gain. Under this scenario, LPCS claimants are able to organize their pre-existing "difficult" personalities around a simple concept of intractable neurological injury. Alternatively, LPCS claimants may be enmeshed in difficult psychosocial circumstances in the peri-traumatic periods. An attribution of blame away from the self to a single pivotal experience provides patients with a socially accepted means of coping with difficult environments (Mechanic, 1972). Secondary gain may provide powerful reinforcement for maintaining illness behaviors long after the accident.

The present study's limitations need to be considered. Generalization may be limited because only LPCS claimants with pre-existing MMPIs were examined. The sample size is very small and represents less then 1% of all LPCS claimants seen in my offices. One could argue that LPCS claimants without premorbid MMPIs do not have somatoform traits. Nevertheless, this assertion requires a dubious assumption: The absence of a premorbid MMPI means the absence of premorbid psychopathology or the absence of vulnerability. Most mental health problems in this country go undiagnosed and undiagnosed disorders outweigh diagnosed ones. Sub-threshold (i.e., just below DSM-IV thresholds) somatic and hypochondriacal features are very common (Rief, Hessel and Braheler, 2000). Another limitation is the study's focus on the minor neurological aspects of injuries. The sample was not analyzed according to potential psychological aspects of accidents (e.g., witnessed death). It is certainly possible that terrifying accidents without substantial neurological injury can cause new psychopathology. The injury adjustment literature amply demonstrates risk factors for PTSD such as female sex, early separation from parent, marginal SES, and high scores on Neuroticism factors (Breslau, Davis, Andreski and Peterson, 1991).

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REQUEST FOR REVIEW PAPERS ON EMPIRICAL SUPPORT FOR AREAS OF NEUROPSYCHOLOGICAL PRACTICE

Division 40 Committee on Empirically Supported Practice in Neuropsychology: Robert K. Heaton (chair), Jeffrey T. Barth, Bruce A. Crosson, Glenn J. Larrabee, and Cecil R. Reynolds

Neuropsychology is a professional specialty within the broader field of psychology that takes particular pride in its scientific basis and in the application of scientific methods to the problems of clinical practice. Over the last decade, managed care companies have also begun to focus more carefully on certification of services that have been proven through scientific research to be effective in the diagnosis and management of patients (i.e., evidence-based medicine). As a leading organization representing the field of neuropsychology at the scientific and practice levels, it is appropriate for (indeed, some might say incumbent upon) Division 40 to promote the evaluation and documentation of empirically supported neuropsychological practice and clinical application of neuropsychological principles to patient care. Toward this end, the Division has created an ad hoc Committee on Empirically Supported Practice (COESP).

The COESP has been charged to: (1) identify areas of clinical practice in which research data are available which may be sufficient to determine the level of empirical support for particular neuropsychological (NP) methods; (2) develop guidelines for reviewing articles and documenting empirical support; (3) request proposals for scholarly reviews from qualified experts in the field; (4) review proposals from prospective authors and provide feedback regarding the scope and methods of the proposed reviews; (5) provide peer review of submitted manuscripts and request appropriate revisions; and (6) recommend acceptance of revised manuscripts by the Division 40 Executive Committee and by the editors of The Clinical Neuropsychologist. The current report and request for proposals is intended to address the first three of these charges. We begin by specifying the desired content of relatively brief (approximately two-page) proposals, and by clarifying the anticipated process by which review projects will be completed and brought to final Division 40 acceptance and publication. This will be followed by a non-exhaustive list of areas of practice that might be considered for review. Next we will provide guidelines for classifying studies with regard to their nature and methodological adequacy. Finally we provide a method for using the results of the literature review to classify areas of practice with respect to their degrees of current empirical support.

Request for proposals. The proposals are to be sent to the current COESP chair, Robert K. Heaton, UCSD Department of Psychiatry, 140 Arbor Drive, San Diego, CA 92103. Proposals should be as brief as possible, but should include the following: The scientific credentials of the authors in the area(s) to be reviewed (a CV could be attached for this); a clear statement of the question or questions that the review will address; reasons why the questions are important and need to be addressed now and in this format; an outline of the methods of review, to ensure thorough coverage of the relevant literature; and any suggested modifications in the review and classification guidelines provided below. Please note that these guidelines and criteria are not "etched in stone": prospective authors are free to propose alterations that may make the guidelines more appropriate for specific types of reviews, and/or that may improve reliability or validity of the classifications. The Committee anticipates working cooperatively with authors to refine the methods outlined here. However, in order to avoid potential problems later in the review process, it is important that any changes in review guidelines and criteria be approved by the COESP and Division 40 Executive Committee before the formal review process begins.

Proposals will be distributed to COESP members immediately, with a two week deadline for providing feedback. After any needed consultation and/or alteration, proposals will then be submitted to the Division

40 Executive Committee with COESP recommendation regarding acceptance of the review plan; it is anticipated that the Executive Committee vote will occur quickly by email (again, within two weeks).

After acceptance of a proposal, the authors can proceed with confidence that both the topic(s) and general methods of review have been agreed upon.

When review manuscripts are completed, they will then be submitted to the COESP for peer review. It is anticipated that this will be an expeditious and constructive process, but usually one that results in some revision. When the COESP considers a final manuscript acceptable for publication, it will submit it to the Executive Committee with its recommendation for acceptance, and to the editors of The Clinical Neuropsychologist (along with documentation of the entire peer review process) with its recommendation for publication. It is anticipated that the publication will include wording indicating that the paper was commissioned by the Division 40 COESP, subsequently underwent peer review and revision prior to acceptance by that committee, and that the review was also accepted by the Division 40 Executive Committee on (date).

Any accepted review articles will be eligible for reimbursement of certain costs, up to $600. This is intended to cover expenses associated with literature searches and graduate student assistance; no overhead charges or salaries for other than graduate assistants shall be allowed.

Potential areas for review. The following are examples of topics that might be of interest, but this list should not be considered exhaustive or limiting. The first four categories relate to NP assessment activities, and the fifth relates to NP treatments.

Neurodiagnosis. Sensitivity and specificity, compared to or used in combination with other diagnostic methods (clinical neurological/psychiatric, imaging, EEG, other lab tests): Under what circumstances (if at all) can NP evaluations lead to more accurate diagnoses,obviate the need for more expensive/invasive tests, and/or result in different treatment having different health/financial/life qualitybenefits?

—Presence or absence of brain disorders - in general, or for specific etiologies as outlined below under differential diagnosis (e.g., sensitivity and specificity regarding presence or absence of a disorder may be different for Alzheimer's disease vs. MS).
—Presence or absence of involvement of specific brain areas/circuitry/functional systems (e.g., in epilepsy).
—Differential diagnosis (helping to discriminate among ≥two possible etiologies)
—Degenerative diseases ("cortical" vs. "subcortical"; more specific distinctions)
—Traumatic injuries
—Toxic (including alcohol and other substances of abuse vs. side effects of prescribed medications) and metabolic disorders (systemic)
—Infectious disorders (including HIV, other forms of encephalitis)
—Depression
—Schizophrenia
—Developmental disorders (including ADHD, various learning disabilities)
—Other "psychiatric" disorders (OCD, GAD, PTSD)
—Malingering

Baseline assessment to determine likely appropriateness of specific interventions
—Surgical (e.g., WADA, functional imaging)
—Pharmacologic (e.g., early dementias; schizophrenics with certain cognitive profiles may benefit most from certain newer antipsychotics; HIV infected patients with CNS involvement may benefit more from antiretrovirals or other specific drugs that are more likely to have CNS effects)
—Behavioral (target deficits or problem behaviors for rehabilitation, identify strengths that may be necessary or desirable to benefit from certain approaches)

Measurement of change (sensitivity and specificity)
—Progressive disorders and new insults
—Recovery from disease or injury
—Effects of pharmacologic or other treatments (including clinical trials of pharmaceutical agents; e.g., atypical vs. typica antipsychotic medications; benefits vs. adverse side effects; effects of differential dosing; effects of neurosurgery, e.g., for epilepsy)

Prediction of capabilities and limitations in everyday functioning
—Academic
—Vocational
—Independent living (including driving, financial management, child care, medication management, negotiating the health care system, ability to enter legal contracts and provide informed consent for participation in treatments or research)

NP Treatment: Who benefits, how much, and in what ways, from what approaches?
—Treatment with patients (compensatory methods vs. improvement of basic deficits; improving insight, adjusting to losses, improving self-esteem, assisting with realistic planning/goal setting)
—With caregivers/families
—With school systems/teachers
—Cost effectiveness; cost of treatment vs. financial, life quality benefits and additional costs of not treating (e.g., a cost of not treating may be that patients' functional status and needs may get worse)

Guidelines for evaluating and documenting levels of empirical support for NP practice (i.e., evidence based practice).

Recommendations that a clinical NP activity is supported must be based upon empirical evidence from a thorough, critical review of the relevant literature. This evidence should be evaluated and classified with regard to the general nature of the study, its methodological strengths and weaknesses (factors influencing its internal and external validity), and the nature of the results (clear-cut advantage or success for the NP procedure, mixed results or negative results).

Studies will be classified concerning their general nature and associated strength of evidence they can provide, using a version of the I-VI "study level" scale proposed below. Note that different scales will be needed for assessment vs. treatment studies, because the types of studies in these areas are different.

After determining the level of a given study, its methodological adequacy needs to be determined. We include below a proposed checklist for this; for each issue in the checklist, the review must determine whether it represents a significant or "fatal" flaw for the study (seriously compromising the internal or external validity of its findings).

The reviewer would then consider the boxscore regarding the adequacy and nature of the studies, and the direction and consistency of their findings, in determining whether the NP activity is "strongly supported" (Category A), "supported" (Category B), "tentatively supported" (Category C), "insufficiently or inconclusively supported" (Category D), or "contraindicated" (Category E) by the empirical data. More detailed definitions of these support categories also are provided below. Note that these definitions assume reasonable consistency of findings among the highest levels of studies that are available. If criteria for support of categories A or B are met, but there are other studies at the same level with negative or inconclusive findings, we might downgrade the recommendation to the next lowest level if the preponderance of evidence still supports the practice (i.e., more positive studies than equivocal ones, and substantially more positive ones than negative ones). Obviously, if there is really no consistency of findings

the practice is not yet supported.

It is important that reviews using the criteria and guidelines provided below demonstrate the reliability with which the individual studies are classified. Therefore at least two independent reviewers must participate in the process, so that reliability statistics can be computed and reported. Also each review should have an appendix in which the studies reviewed are briefly described and their classifications and method ratings are reported. Examples of such brief study descriptions, which typically will be generated as a matter of course during the review process, can be found in McQuaid and Nassau (1999).

The following ordinal classification indicates the general nature of studies and the potential value of the evidence they can provide (depending upon other aspects of methodological adequacy, which are rated separately):

Assessment Studies

I Controlled studies with subject classification, providing data within the same investigation allowing the determination of sensitivity, specificity, positive/negative predictive value and, where appropriate, odds ratios. Also a broad sampling of the clinical population of interest (often via multisite study). multisite study).

II. Same as level I but with a more restrictive population sampled, usually within a single setting.

III. Comparisons of clinical groups or subgroups without normal controls, but with clinical accuracy reported (based upon external norms and prediction to a criterion diagnoses or other outcome classification).

IV. Studies limited to group mean comparisons or correlations with a continuous "gold standard" diagnostic or outcome measure.

Treatment Studies

I. Randomized clinical trials involving comparisons with other treatments.

II. Randomized clinical trials involving comparisons with no treatment or "standard" (uncontrolled) treatment.

III. Nonrandomized trials with controls who concurrently are untreated or treated differently.

IV. Nonrandomized trails with historical controls.

V. Case series with no controls.

VI. Case reports.

V. Descriptive studies without controls or information about how NP results relate to group membership or outcome measures.

VI. Case reports.

Method ratings. In evaluating the methodological adequacy of a study, a four point ordinal scale will be used:

(a) commendable – essentially a model study.
(b) acceptable – only minor methodological problems that do not substantially limit the interpretation of the results.
(c) marginal – one or more significant methodological limitations not constituting a "fatal flaw."
(d) seriously flawed – one or more limitations that preclude drawing meaningful conclusions from the results.

The following are examples of methodological features that should be considered, as appropriate to the nature of the study (Classifications I to VI above):

Subjects - group ns (adequate power)
- representativeness (methods of recruitment)
- inclusion criteria
- exclusion criteria
- randomization methods
- comparability of groups (age, education, gender, ethnicity, etc.)
- if use norms, appropriateness of the norms for clinical sample or case sample or case
- attrition (rates and associated biases, if applicable)

Procedural confounds
- possible experimenter bias
- adequacy of followup period (if applicable)
- other (specify)

Adequacy of gold standard for diagnostic and other classification studies

Assessment of outcome (if applicable)

Statistics
- group means (parametric) vs. classification of individuals
- assumptions met for statistical tests
- other (specify)

Note that all of the above methodological features will not apply to all studies (especially case reports).

However, case reports should be evaluated, e.g., for representativeness of the individual case for the disorder under investigation, application of appropriate normative data, procedural confounds (adequacy of n of 1 design for the specific purpose), etc. Care should be taken not to "downgrade" studies based upon methodological features that already were covered in the classification (I-VI) above. For example, a single case report (Category VI) would not be classified as "seriously flawed" because of inadequate group n or absence of a control group; in fact it is possible for a study to receive a VI-a classification (case report with commendable methodology), as method ratings are nested within study-type classifications.

Recommendations regarding empirically supported practice.

Once individual studies are classified according to type (I to VI), methodological adequacy (a to d) and results (positive, inconclusive, negative), the following ordinal scale may be used to indicate overall conclusions drawn regarding available empirical support for the NP practice.

CATEGORY A (strongly supported) - The NP practice is supported by at least one definitive, multicenter Level I study (or single center with very broad population) with internally consistent positive findings, or >1 study with more restricted samples (replications). The supporting studies have no "fatal flaws."

CATEGORY B (supported) - The NP practice is supported by only 1 (single center, nonreplicated) Level I study or by >1 , or replicated Level II studies with no fatal flaws and clear, positive results.

CATEGORY C (tentatively supported) - either of the above, but the studies have serious flaws and/or equivocal results. Or, NP practice is supported by a preponderance of evidence from Level III or lower studies - more/better research is needed.

CATEGORY D (insufficiently or inconclusively supported) - Available evidence is insufficient in amount, quality and/or consistency to warrant conclusions at the present time.

CATEGORY E (contraindicated) - Preponderance of adequate evidence indicates that the NP method is not useful.

Reference

McQuaid, E.L., and Nassau, J.H. (1999). Empirically supported treatment of disease-related symptoms in pediatric psychology: Asthma, diabetes, and cancer. Journal of Pediatric Psychology, 24(4), 305-328.

DIVISION 40 EXECUTIVE COMMITTEE MEETING MINUTES
Friday, August 24, 2001
Marriott Hotel, Sierra Conference Suite H
San Francisco, CA

Present: Drs. Adams, Axelrod, Baron, Bauer, Berent, Boll, Bondi, Brandt, Chelune, Craig, Evans, Fennell, Fischer, Grote, Hamsher, Ivnik, Koffler, Koltai, Mirsky, Puente, Ricker, Shear, Smith, Westerveld, Yeates.

Invited Guests: Virginia Holt (APA Science Directorate), Pat Kobor (APA Public Policy Office), and Randy Phelps (APA Practice Directorate).

1. The meeting was called to order by Dr. Jason Brandt at 8:03 am. He thanked the Executive Committee (EC) members for attending this early morning meeting and for all their hard work this past year.

2. Secretary's Report: Dr. Mark Bondi announced that the first use of APA Division Services for printing and mailing activities resulted in a more streamlined and efficient Spring Mailing. Because of its in-house management of the Division mailing list, mailing labels, printing, packing and postage, the costs incurred from the use of APA Division Services were no greater than previous mailings with private companies, and far less burdensome on the Secretary's office. Dr. Bondi reported that the following business had been conducted over e-mail since the last EC meeting in February 2001: In March 2001, the EC voted to appropriate $4,016.50 of additional funding in order to complete of Phase I of the joint NAN-Division 40 Professional Practice Survey.

The Minutes of the EC meeting held in February 2001 were reviewed and approved without revisions.

3. Treasurer's Report: Dr. Jill Fischer presented the Treasurer's Report for fiscal year (FY) 2001. She reported that Division 40 continues to be in an excellent financial state. As of July 2001, Division 40 had total assets of $254,000.10 ($253,275.10 cash on deposit at APA; $725.00 advances/prepaid expenses). Expenses, as of the end of July 2001, amount to approximately 40% of the FY2001 budget. Historically, the Division incurs the majority of its expenses after the APA Convention in August. The line item most significantly over budget is the Practice Survey (a one-time expense of $12,640.10, relative to a budgeted amount of $8,000.00).

Dr. Fischer proposed a FY2002 budget in the amount of $120,150.00. This represents an increase of 19% relative to our FY2001 budget. The Division's cash position is sufficiently strong that no dues increase will be required to cover this budget. Approximately half of the requested increase is for one-time initiatives (i.e., publication of PIAC brochures; two outreach projects requested by Dr. Mirsky), and the remainder will cover expanded activities of the Advisory and Program Committees and increased production costs of *Newsletter 40*. There are also decreases in selected line items for which clerical expenses are running well below what was budgeted for FY2001 (e.g., Secretary, Membership Committee). A motion was made to approve the FY2002 budget as discussed, and the motion carried.

4. Council of Representatives Report: Drs. Kenneth Adams and Thomas Boll reported that Council met during the APA Convention and they gave the following verbal report: The APA Ethics Code revisions are currently under review. A motion was made to have all members of APA become board certified by an appropriate body, similar to our colleagues in the medical profession. Dr. Boll commented that the wording of the motion, as written, was susceptible to allowing vanity boards provide such certification. Membership in APA has been level since 1997, which has resulted in no increase in net income for APA. Finally, apportionment will be determined in a modified manner (termed "Wild Card 2") from its current calculations.

5. Membership: Dr. Bradley Axelrod presented the names of 408 applicants to the EC for membership in Division 40 (161 Members, 7 Associate members, 240 Student Affiliates). The EC voted to accept all of the applicants, whose membership status begins January 2002.

The transfer of clerical tasks to APA Division Services occurred in Spring 2001. The tasks taken on by that office for the Membership Committee includes responding to written requests for applications and maintenance of the Membership database. The status of all Affiliates is determined in July, eliminating the requirement that Student Affiliates reapply annually.

Recommended revisions to the Division 40 Bylaws were proposed. To date, Student Affiliate status has never been incorporated into the Bylaws. The intent of the suggested revisions is to correct

that omission and create a single category of Affiliates that would allow for students, high school teachers, and international affiliates to be associated with Division 40. The Division's current membership categories make no provision for international affiliates, high school teachers, or students. The recommended revisions were approved by the Executive Committee and will be forwarded to the membership for a vote in the next divisional mailing.

6. Election Results: Dr. Gordon Chelune reported the following individuals were elected to office: President-elect: Dr. Antonio Puente; Member-at-Large: Dr. Paula Shear; and Council Representatives: Drs. Eileen Fennell, Robert Heaton, and Wilfred van Gorp. Results were posted on the division webpage in accordance with Division 40 policy.

7. Fellows: Dr. Stanley Berent reported that the Fellowship Committee recommended seven members for fellow status in APA. APA Council will vote on these recommendations on Sunday, and Dr. Berent will make an announcement at the Annual Division 40 Business Meeting.

Dr. Berent reported that Division 40 will host its first convocation to recognize formally new fellows at the 2001 Convention in San Francisco. The "new" fellows will be individually and formally recognized. The prototype certificates that were designed and approved by the EC have been passed on to the incoming chair. The plan by the committee and EC has been to send a certificate to each of the current fellows of the division. In the future, the certificate will be presented at the annual convocation or mailed to those new fellows not in attendance at the meeting.

Dr. Berent announced that this meeting marks the official end of his tenure as chair. The new chair is Eileen B. Fennell, Ph.D. Dr. Berent's office has transferred all materials to Dr. Fennell, including new applications received for 2002. Dr. Berent thanked Patricia Bohland, Elizabeth Humpert, and Drs. Kenneth Adams, Linas Bieliauskas, Bruno Giordani, and Byron Rourke. Dr. Berent concluded by personally thanking Division 40 for allowing him to serve in this important position over these past years. Dr. Brandt thanked Dr. Berent on behalf of the Division for his work as Chair these past six years.

8. Program: Drs. Paula Shear and Rodney Vanderploeg reported that the Convention program is underway, and going smoothly. Dr. Shear thanked her program committee members for their excellent work in reviewing the submissions. She also announced that the Co-Chair to the Program Committee for the 2002 Convention is Dr. Jennifer Manly.

In response to the typically poor attendance at the APA Convention and to strong objections from the APA membership regarding the length and quality of the Convention, Dr. Shear reported that the Bureau of Convention Affairs (BCA) plans to dramatically restructure the annual Convention, beginning with the 2002 Convention in Chicago. As part of this restructuring, each Division must now identify a Cluster Representative in addition to a program chair. Dr. Paula Shear will serve as Cluster Representative for Division 40 for a two-year term. She recently attended the first Cluster Representatives meeting in Washington, D.C. July 28-29, 2001. The Cluster Representatives meeting was attended by one delegate from each division, APA staff, and Dr. Phil Zimbardo (APA President Elect).

The new plan calls for a tripartite structure, in which specific aspects of the programming are dictated by 1) the Divisions, 2) newly formed Clusters of Divisions ("track programming"), and 3) BCA. Programming hours will be allocated so that none of these three levels compete with each other for attendance (e.g., plenary sessions scheduled by APA cannot overlap with any Divisional programming); there will, however, be competitive programming within levels (e.g., Division 40 will be planning programming for the same hours as the other divisions).

Dr. Brandt thanked Drs. Shear and Vanderploeg for their extraordinary efforts, and particularly for their dedicated efforts in responding to the myriad programmatic changes to be effected with the 2002 Convention.

9. Education Advisory Committee (EAC): Dr. Sandra Koffler reported on the activities of the EAC. At the February 2001 INS meeting, the EAC sponsored a meeting attended by representatives of the Association for Doctoral Education in Clinical Neuropsychology (ADECN), the Association of Internship Training in Clinical Psychology (AITCN), and the Association of Post-Doctoral Programs in Clinical Psychology (APPCN). It was agreed that there was need to propose major content areas of study and training and to outline the basic knowledge and skills to be acquired within each area. The group will be invited to reconvene at the

February 2002 INS meeting.

The EAC sponsored a symposium for students at the 2001 INS meeting, at which time Dr. Cimino and Hannay discussed training in clinical neuropsychology at the doctoral level, Drs. Morgan and Pliskin discussed training during internship, and Drs. Malec and Yeates discussed the post-doctoral residency in clinical neuropsychology. Dr. Hamsher presented an overview of the Houston Conference and a summary of the Policy Statement. The success of this effort to meet with and engage our students suggests that we deliver this program at INS next year.

The EAC reviewed a resolution forwarded to the Executive Committee of Division 40 by Dr. Ralph Reitan requesting that the Division rescind endorsement of the Policy Statement of the Houston Conference. The resolution was signed by 58 individuals. In addition, Dr. Reitan provided the results of a survey of 92 individuals regarding the aims of the Conference. After careful consideration of the documents, the EAC recommended to the EC that Dr. Reitan's request for distribution of the materials to the Division membership be denied, and a letter was drafted by Dr. Brandt detailing the reasoning behind such a denial. A motion was made that the EC endorse the draft letter. The motion carried, and the letter was sent out to Drs. Reitan and James Sweeney on August 31, 2001.

Division 40 now has a liaison to the Board of Educational Affairs (BEA). Dr. Koffler will serve as our liaison representative may be requested by the chair of the BEA to participate in the deliberations of the Board. The liaison attends all the open meetings of the BEA. Education Advocacy of the BEA will be seeking $6 million from Senate and House Appropriations Committees for a separate psychology education and training program within the Bureau of Health Professions. The end goal is to eventually establish a $15-20 million program for Graduate Psychology Education (GPE). A Federal Education Advocacy Coordinators Network is being established to serve as a grassroots network to assist APA efforts to gain increased federal support for a separate psychology education and training program. Regional development of this network will begin at the doctoral level.

The Association of Psychology Postdoctoral and Internship programs (APPIC) is planning a meeting in conjunction with other psychology groups/association sponsors, to formulate developmental and integrated models of competency in applied psychology. Issues covered will include specialized as well as cross-cutting and foundational competencies in assessment, intervention, prevention, research, supervision etc.. APPIC will be committing $25,000.00 to this meeting and is looking for other sponsors to reach the goal of $75,000.00 needed for this meeting. Dr. Nadine Kazlow, chair of APPIC, recommended that the Division 40 write a letter indicating interest in forming a workgroup to meet at this conference to study issues relevant to clinical neuropsychology. She also raised the issue of a possible Division 40 donation to the conference.

Prompted by the BEA and the Education Directorate, there will be an APA Education Leadership Conference on September 23-25, 2001 in Washington. The purpose of this conference is to bring together representatives from all levels of education and training to discuss "education in psychology and psychology in education". It is hoped that the outcome of this conference will impact public policy regarding matters of psychology education within and outside of the profession.

10. Science Advisory Committee (SAC): Dr. Michael Westerveld reported on the activities of the SAC. The SAC selected this year's student award winners from among the accepted 2001 abstracts. The Cognitive Neuroscience Award was given to Erin Holker, Ph.D., and the Applied Clinical Award was given to Michael Stevens, Ph.D.. Each awardee will be recognized at the conference and will receive an award of $500.00. A new award was created this year, supported by funds from The Psychological Corporation. This award was created for the purpose of supporting submissions to the APA program by groups that have traditionally been underrepresented in their attendance and participation in the Division 40 program at APA. The first awardee is Ms. Rowena Gomez. This award carries a $1,000.00 stipend, as well as the convention registration fee. A second award is planned, also supported by The Psychological Corporation. This award will be to encourage research into issues in assessment of minority groups. We hope to develop more explicit eligibility and selection criteria and solicit nominations for the 2002 APA Convention. The amount of the award will also be $1,000.00 and include the convention fee.

Diane Howieson, Chair of the Awards Subcommittee, submitted the following report: The Awards Committee selected Dr. Joseph H. Ricker as

the recipient of the Divison 40 Early Career Award. The Awards Committee selected, and the American Psychological Foundation (APF) approved, Dr. Donald T. Stuss as the Arthur Benton Lecturer at the APA meeting. The Awards Committee selected, and the APF approved, two graduate students for scholarship awards. The Henry Hécaen Award recipient is Laura Grande from the University of Florida. The Manfred Meier Award recipient is Jeffrey Bedwell from the University of Georgia.

As part of the Strategic Planning Meeting, the SAC established as one of its goals promoting clinical research and raising awareness of funding opportunities for neuropsychologists. Towards this end, committee members Drs. Mark Aloia and Eileen Martin have prepared a SAC supported symposium and submitted it to INS for the 2002 program. The symposium will bring together a variety of sources of information, including representatives from NIH, to help neuropsychologists understand the process of, and impediments to, securing funding to support research.

Dr. Westerveld provided a report from Dr. Heaton, Chair of the *Committee on Empirically Supported Practice* (COESP), which stated that one request for funding was supported from COESP funds. Since other proposals are currently being reviewed, the COESP is requesting that funds previously allocated to the committee be carried over to the next FY.

The SAC worked closely with the Program Committee on several initiatives. In order to increase submissions, last year's program was scrutinized for neuropsychology-related presentations that were not listed or co-listed on the Division 40 program. The authors of these presentations were contacted by mail, congratulated on their work, and invited to submit related work to the Division 40 program for this year. This resulted in several additional submissions to the program. The SAC and program committee will work to reduce redundancy in the review process for selecting the student award winners.

Dr. William Howell recently wrote to Division 40 on behalf of the *Coalition for Academic, Scientific, and Applied Psychology* (CASAP) to discuss its goals of developing a roster of qualified scientific/academic psychologists willing to become involved in APA governance and to solicit Division 40's input to join CASAP. Dr. Brandt moved to have Division 40 join CASAP and to enjoin Dr. Westerveld, SAC Chair, to provide a formal liaison to CASAP. The motion passed.

11. Practice Advisory Committee (PAC): Dr. Christopher Grote summarized the activities of PAC since February 2001. PAC reviewed the report "Medical Payments for Psychiatric Services in Nursing Homes: A Follow-up". This had been authored by the Office of Inspector General (OIG) of the Department of Health and Human Services, and concluded that over one-third of Medicare payments of mental health services in nursing homes are inappropriate, and that psychological testing of nursing home patients was especially problematic. Commentary was sought from both PAC members and other knowledgeable colleagues. Comments were forwarded to Dr. Brandt who then described some of the limitations of, and problems with, the methodology used in the OIG study in a letter to Dr. Russ Newman of the APA Practice Organization.

Division 40 had been asked by the APA Ethics Code Task Force (ECTF) to review and comment on suggested re-wording of Section 9.04 regarding release of raw data. PAC was asked to provide commentary on this version, which might allow for release of raw data to attorneys and patients. PAC responded with an extensive list of concerns that the suggested re-wording was not sufficiently clear on to whom, and under what conditions, raw data could be released. Dr. Brandt incorporated these concerns in a letter he sent to the ECTF chairperson.

PAC and Dr. Puente were asked to determine if acceptance of Graduate Medical Education (GME) funds by psychology internships would require supervisors to be either be present during, or otherwise observe, the delivery of services of psychology interns. Responses from Dr. Russ Newman and Mr. Doug Walter of the APA Practice Directorate indicated that there is not now anything in the proposed rules that would require a supervisor to be present or to observe these services. However, it is possible that when the Center for Medicare/Medicaid Services (CMMS), formerly HCFA, implements the rule in the coming months it may determine that such supervision is required for GME funding. Dr. Newman and Mr. Walter did not yet know how CMMS will implement the rule in this regard, but will monitor future developments. PAC recently was asked to review and comment on the interpretation of current supervisory requirements related to "incident to" services delivered to Medicare patients.

A number of individuals/committees were asked

to report their activities through PAC, including:

A) Federal Advocacy Coordinator: Dr. Steve Honor continues to distribute Action Alerts from the APA Practice Directorate to the PAC chair and officers of the Executive Committee.

B) Business of Practice Networks: Dr. Wilma Rosen attended a BOPN meeting. The purpose of BOPN is to educate businesses about the value of psychological services. BOPN has recently started to award the Psychologically Healthy Workplace Award (PHWA) to increase awareness of the importance of promoting psychological health in the workplace. Dr. Rosen forwarded suggestions to BOPN on how neuropsychology-related variables (e.g. learning disabilities; substance abuse and the potential for impact on cognitive functioning) might be incorporated in the criteria used to make the awards.

C) Dr. Puente reported on the work of the CPT subcommittee. Recent activities include: 1) Splitting of the technical from the professional component of testing codes. This involves the APA, AMA, HCFA/CMMS, and several related organizations. 2) Review of the recent guideline for supervision from HCFA/CMMS. This involves review by respective committees of Division 40 and NAN with a comment letter to HCFA/CMMS. 3) Review of the recent guidelines for fraud and abuse from HCFA/CMMS. 4) Development of an APA CPT/RUC Committee involving the Inter-Divisional Health Care divisions. 5) Final development of new codes for health and behavior assessment and treatment.

D) Drs. Glenn Smith and Ida Sue Baron are alternating in their attendance as observers to the Committee on the Advancement of Professional Psychology (CAPP). Dr. Baron is also a member of the Integration Group of CAPP. Dr. Smith recently attended the CAPP meeting in Washington, D.C., and reported on key issues discussed regarding involvement and support for the endorsement by the World Health Organization of an International Classification of Functioning (ICF) to complement the International Classification of Disease (ICD). Also reported were congratulatory statements for advocacy professionals regarding the Senate's passage of the McCain, Edwards, Kennedy Patient's Bill of Rights; and the fact that Dr. Ann Marcotte is included on the slate for election to CAPP.

12. Public Interest Advisory Committee: Dr. Deborah Koltai reported on the many activities of the Public Interest Advisory Committee (PIAC) since February 2001. Dr. Koltai and other members of the APA Relations Committee attended the Spring Consolidated Meetings at APA in March 2001. Information gathered at that meeting was forwarded to Division 40 members through both the most recent mailing and *Newsletter 40*. The general activities of the PIAC members have included responses to calls through the APA Media Referral Service and compiling a list of Division 40 child development experts for the Executive Director of the Education Directorate. This directorate is in close contact with the Senior Advisor to the US Secretary of Education and is working to establish an ongoing relationship with the Department of Education to ensure that APA will be providing input on education policy discussions.

Dr. Koltai receives regular correspondence from the Practice Directorate on the Public Education Campaign, "Warning Signs" and will continue to monitor the program as it evolves for areas of potential interest to Division 40. Suggestions for monitoring this program will be requested. The *Clinical Neuropsychology* (for consumers) brochure has been forwarded to APA for cost estimates on printing. Final strategies for printing and distribution were discussed. The *Pediatric Neuropsychology* (for consumers) brochure underwent final revision that incorporated EC input. A motion was made to approve the brochure with additional editorial comments from Dr. Cripe to be incorporated at the discretion of Dr. Koltai; the motion passed and is now ready for the publication stage.

Changes to monitor/liaison/subcommittee roles were discussed and EC input and approval was requested. Dr. Koltai presented a motion to change the role of Dr. Gerry Gioia from that of a Monitor to the *APA Children, Youth and Families Committee* to that of a Liaison. The motion carried.

Dr. Richard Naugle reported that the *Ethics Subcommittee* wrote to the APA Ethics Code Task Force regarding revisions of the Ethics Code that involve releasing test protocols to attorneys. Unfortunately, the Task Force's response indicated that they did not share these concerns. The subcommittee has planned a conversation hour at APA. Dr. Naugle will also be moderating a symposium that involves Division 41 (Forensic Psychology).

Dr. Paula Shear, Chair of the *Committee on Women in Psychology* (CWP), reviewed and

forwarded notices about positions that CWP was trying to fill with women and minorities to the PIAC Chair and Division 40 President to solicit possible Division 40 nominations. Dr. Shear attended the annual CWP Network meeting at the APA convention in August 2001. CWP contacts were updated on women's activities within Division 40 and were asked about potential funding sources within APA for mentoring activities in this Division. After discussion, the suggestion was made that CWP seek funds that are allocated for collaborations across divisions. The first meeting of the Women in Neuropsychology (WIN) was recently held and activities that would foster professional development for women were discussed. Following the conference, a listserv was established for WIN. Interested individuals may join the listserv by sending e-mail to listserv@lists.apa.org. A steering committee was also formed for WIN and has already set goals for the coming year. WIN held a mentoring activity designed to foster discussion about women's issues in neuropsychology. Through the newly established mentoring system many women have now been successfully matched with mentors. Dr. Eileen Martin coordinates activities for WIN members interested specifically in mentoring on issues of research and grants. Also, in a joint effort with Division 40 SAC and WIN, Drs. Mark Aloia and Eileen Martin have organized and will co-chair an INS symposium on the grant process at different career stages.

Dr. Jovier Evans, the Division 40 Liaison to the APA *Minority Affairs Office,* attended the Spring Consolidated Meetings and the CEMA meetings where he was familiarized with the structure of APA governance and the structure and function of CEMA. CEMA discussed several items relevant to Division 40 and APA as a whole. Dr. Evans was made aware of some possible funding sources for this Division and found that priority would be given to activities that would promote leadership among ethnic minority psychologists. Dr. Evans is also beginning to develop a mentoring program similar to WIN.

Dr. Richard Salamone continues to liaison with the APA *Committee on Rural Health.* Additional information about rural health issues can be found at APA's RuralPSYCH at http://www.apa.org.rural/. Dr. Salamone sent an e-mail to the npsych@npsych list-serve requesting neuropsychologists inform him of issues regarding practicing in rural environments. Dr. Salamone believes that improved continuing educational opportunities may be helpful to rural neuropsychologists, and he suggested that relevant Internet sources or web-based educational programs could be effective. PIAC's *Education Advisory Committee* and APS's *Committee on Rural Health* may explore this possibility. Additionally, a primer/resource for rural neuropsychologists has recently been published.

Dr. Kris Herfkens has been established as the Monitor to the APA *Committee on Lesbian, Gay, & Bisexual Concerns.* No formal notes have been forwarded from the committee, and Dr. Herfkens is not aware of any recent committee activities directly relevant to Division 40.

Dr. Scott Hunter, Monitor of the APA *Office on AIDS,* obtained additional information about the HOPE program, which consists of a network of regional HIV/AIDS trainers for a variety of settings. Individuals interested in applying to be a trainer can contact HOPE through email at hope@apa.org. Dr. Hunter will make this information available in the next *Newsletter 40,* and will alert Dr. Anderson in the *Office on AIDS* to PIAC's willingness to provide input to the training program.

Dr. Bernice Marcopulos continues to monitor the activities of the APA *Committee on Aging* (CONA). CONA currently focuses on Medicare reimbursement for psychological services to older adults. A report should be ready by the next Consolidated Meeting where CONA will develop model policy for Medicare review. CONA is working with Diane Padulla of the APA Practice Directorate to develop an educational "tool kit" for state psychological associations which can be used to help (neuro)psychologists critique and testify on Local Medical Review Policies. Dr. Koltai attended part of the CONA meeting at the Spring Consolidated Meeting and was present for the discussion of the Training Guidelines for Clinical Geropsychologists.

Dr. Hunter reported on the recent Call for Nominations from the *Committee on Urban Initiatives* (CUI) for terms beginning in January 2002. The committee sought nominations from two new members who have expertise in public safety issues in urban communities or "urban families". The committee was particularly intent that an individual with expertise in underserved populations, and/or an ethnic minority, fill these slates. Dr. Hunter reported that neuropsychologists interested in contributing their talents to committees concerning Welfare to Work initiatives and program development for creating changes in public, urban

school systems could contact the Office of Urban Initiatives at urban@apa.org.

A review of the advocacy priorities of the APA *Children, Youth and Families Committee* (CYF) revealed several areas of overlapping interest with Division 40. These include mental health services, funding and support for research, advocacy of appropriate inclusion of children and youth in clinical trials, and careful monitoring of legislative initiatives for inclusion of CYA priorities. Dr. Gerry Gioia will continue to monitor CYF's activities regarding these priorities. The primary areas of concern addressed by the APA *Working Group on Children's Mental Health* are likely to be relevant to Division 40. Possible products of the work group include journal articles, new releases, public information products, and policy recommendations. Dr. Gioia will indicate Division 40's availability for consultation through the appropriate CYF officers. Other general CYF activities include making speaker recommendations for the Headstart National Research Conference, planning the next National Conference on Child Abuse and Neglect, and involvement with the Emergency Medical Services for Children (EMSC).

Dr. Doug Johnson-Greene monitored the minutes from APA's *Committee on Disability Issues* (CDIP) and found items that might have particular relevance to Division 40. CDIP is seeking nominations for two new members for three-year terms beginning January 2002. They will request suggestions from the EC for any potential Division 40 nominations. The CDIP committee thought it was vitally important that APA-member psychologists with disabilities be identified and encouraged to participate on boards and committees if they have expertise in the relevant areas. Division 40 may also consider representation by persons with disabilities on Division committees. Additionally, Dr. Kendall-Tacket requested discussions aimed at increasing the number of psychologists with disabilities in APA's editorial pipeline. Division 40 may consider expressing support for representation from persons with disabilities or persons knowledgeable about disability issues on neuropsychology journal editorial boards. Dr. Koltai attended the meeting of the CDIP-CPTA Collaboration at the Spring Consolidated Meeting, which discussed accommodations of test instruments for psychologists with disabilities as well as accommodations for disabled patients. Regarding the former, the working group decided to conduct its own research because no body of knowledge currently exists. A request for information in the Division 40 mailing and *Newsletter 40* has not elicited any responses from Division 40 members. Dr. Johnson-Greene will continue to monitor the activities of this working group.

13. Publications and Communications Committee (PACC): Dr. Russell Bauer reported that the PACC constructed and distributed a survey of the Division membership about the proposal to make *Neuropsychology* the official Division journal. Dr. Bauer drafted the survey for the membership to complete, which was included in the Spring mailing. Of the 824 responses, 79.7% were in favor of adopting *Neuropsychology* as the Division journal. Opinions regarding willingness to pay separately for the journal as part of Division membership dues were split accordingly. Of those in favor of adopting *Neuropsychology*, 92.5% (608 or 657) would be willing to pay between $18-$21 per year for it as part of Division membership. In contrast, of the 146 respondents not in favor of adopting *Neuropsychology*, 70.5% (103) were opposed to paying this amount. Among those in favor of adoption, there were slight preferences for the print/electronic package that delivered *Neuropsychology* and *Neuropsychological Abstracts* in print and rolling electronic form, and support for continuing to work with APA to reduce the proposed price. Of those opposed, there were practically no preferences for either package. Instead, 45 indicated that they would pay for whatever package was decided on by the membership, while 37 indicated that they would not pay. If subscription to *Neuropsychology* were included in the membership dues, these 37 individuals are essentially saying they would resign divisional membership. Several comments were made on the forms. The most common was an indication that the member already obtained *Neuropsychology* with a journal credit and objected to paying for it.

Dr. Bauer then received commentary from the EC to move forward with further fact finding and solicit a draft or outline of a revised contract with APA. Discussion surrounding this issue ensued. Dr. Ivnik questioned the appropriateness of *Neuropsychology* as the Division's official journal, as it is currently edited. Dr. Cripe asked whether the Division will have any role in developing the goals and directions of the journal, and Dr. Adams discussed distinctions between Association versus Division journals within APA.

Following discussion, a motion was made to charge Dr. Bauer with continuing negotiations to obtain the best deal from APA and to enjoin the talents of Dr. Adams in negotiating an initial 3-year contract. Specific recommendations to Dr. Bauer were to negotiate the current $23 proposal with Dr. VandenBos down to $18, and to solicit increased pages for inclusion of the annual Division 40 Program at APA Convention, publication of the EC and Business Meeting Minutes, and publication of the Presidential Address. The motion carried.

Dr. Bauer provided a report from Dr. Joel Morgan, the *Newsletter 40* Editor, that the most recent edition of the *Newsletter 40* is 32 pages and was received by Division members in late July-early August. The Division 40 program listings are published, as are those from Division 22. Dr. Morgan anticipates the next issue, which will have a submission deadline of November 1, 2001, to have a "History of Neuropsychology" column as well as some timely and interesting articles. Dr. Morgan reported that he was approached by a Division 40 member about the prospect of advertising a local conference/meeting. It was explained that *Newsletter 40* has had a long-time editorial policy of advertising only for the APA Convention. This policy remains in place and the editors "eschew any local/regional meeting information or any actual advertisements for goods or services of any kind". Dr. Morgan announced the appointment of Nancy Chiaravalloti, Ph.D. of Kessler Medical Research and Rehabilitation Corporation to be Associate Editor for the next 3 years. Dr. Morgan also wished to convey his gratitude to the Executive Committee for allowing him to contribute to the Division as *Newsletter 40* Editor. On behalf of the EC and the membership, Dr. Brandt thanked Drs. Morgan and DeLuca for producing an excellent newsletter for the Division.

Dr. Bauer provided a report from Dr. Darlyne Nemeth, the Division Archivist. Dr. Nemeth reported that the status of the Archives is very good, and that access problems have been addressed and corrected. There continues to be a lag in the number of documents added to the online archive; 256 of the approximately 356 documents have been transferred to date. Dr. Bauer discussed whether the Archivist should independently interact with the EC. Dr. Bauer made a motion to separate the Archivist from the PACC, giving the Archivist independent reporting authority. The motion did not carry.

The Division 40 website continues to be maintained by Dr. Lloyd Cripe. Comments and suggestions for improving the website are invited from EC members and the general membership. The prior proposed link to the Archives to be included in the main menu has been effected.

14. Committee on APA Relations: Dr. Antonio Puente reported on the activities of the committee, which included liaisons at the 2001 APA Spring Consolidated Meetings in Washington, DC, presentation of a Conversation Hour at the 2001 APA Convention on networking with APA (participants included Drs. Tom Boll, Janet Matthews, and Cecil Reynolds), and continued close working relations with APA Practice Directorate and the Division 40 PAC on the issue of code splitting and supervision of technical services.

15. Committee on Inter-organizational Relations (CIOR): Dr. Joseph Ricker reported on the committee's activities. Dr. Lidia Artiola, subcommittee chair on *International Relations in Psychology*, reported on a meeting that took place in Tucson last February regarding the role of clinical neuropsychology in the assessment and rehabilitation of torture victims. The meeting participants (Tatjana Novakovic-Agopian, PhD, Independent Practice, San Francisco; Uwe Jacobs, PhD, Survivors International, San Francisco; Lidia Artiola, PhD, Independent Practice, Tucson) reached some preliminary conclusions and requested feedback on their intent to submit two research proposals. Specifically, the two proposals include: 1) A neuropsychological study of torture victims in the Balkans, and 2) A neuropsychological study of survivors in the San Francisco Bay area. There are obvious advantages to conducting such a study in the U.S. as the principal investigators are on site, and the facilities for training and testing are easily available. In the meantime, contacts are being established in the former Yugoslavia that will allow the proposed investigators to provide details on the feasibility of a study there. Dr. Mirsky moved that the Division provide this subcommittee with $3,500 to pursue these two respective research proposals. The motion carried and will be incorporated to the FY2002 budget.

Dr. Chelune reported that the *National Academy of Neuropsychology-Division 40 Task Force* has not met since November 2000. There are two upcoming events to announce, however. First, there will be a presentation of the initial results of the Div40-NAN Professional Practice Survey at this APA Convention. A similar presentation will also be

made at the NAN Meeting in November 2001.

Dr. Ricker reported on the American Speech-Language Hearing Association / APA Division 40 Committee on Interprofessional Relations. Two previously discussed documents ("Referral and Collaborative Approaches" and "Interdisciplinary Approaches to Cognitive Rehabilitation") are currently under review for publication. Both documents were previously accepted by the Division 40 EC. As reported at the Div 40 EC meeting held in February 2001, Dr. Ricker has been appointed the new Chair of this committee. In response to one of the Chair's new directions for this committee (i.e., the development of joint educational programs to be presented at national and international meetings, particularly those that would attract students and international professionals), Robin Hanks has organized a symposium that has been submitted for the INS 2002 winter conference. The committee is also developing additional topics for presentation at future meetings.

Drs. Fennell and Silver reported that the *Interdivisional Healthcare Committee* will hold its next meeting at APA. There has been no meeting since the last report made in February 2001.

16. The APA Science Directorate representatives met briefly with the EC. Dr. Virginia Holt (Assistant Executive Director of Science Directorate) and Patricia Kobor (from the APA Public Policy Office) provided the EC with an overview of APA's science advocacy initiatives, to provide a voice for psychology within governmental agencies involved in determining policy and allocating research funds.

17. The EC was then visited by staff members from the APA Practice Directorate who provided updates on the Directorate's current activities. Drs. Randy Phelps and Marilyn Richmond reviewed the Directorate's recent initiatives, which includes advocacy efforts for the general benefit of practitioners, discussion of the Mental Health Parity Bill, and announcement that post-doctoral programs are now eligible to apply for GME funding. They thanked the *Interdivisional Healthcare Committee* of Division 40 for their efforts in the recent CPT code updates.

18. Dr. Linas Bieliauskas was invited to discuss the upcoming application for reaffirmation of Specialty Recognition of Clinical Neuropsychology to be undertaken in the next couple of years. Dr. Brandt moved to establish an *ad hoc* Task Force to perform this task, to have Dr. Bieliauskas serve as its chair, and to have Drs. Mirsky and Koltai constitute additional members of this important Task Force. The motion carried.

19. Chris Loftis (neuropsychology doctoral student at the University of Florida and APA Graduate Students [APAGS] Chair Elect) was invited to discuss a proposal he co-authored with Michael Cole (neuropsychology doctoral student at the University of Florida) regarding the establishment of a neuropsychology graduate student association within Division 40. In order to ensure that clinical neuropsychology continues to be a leading and preeminent specialty of psychology, they believe that an active graduate student constituency within Division 40 is essential. An organization was sought for socializing students into the profession, disseminating information to students about the practice and research of clinical neuropsychology, and providing a forum for students to address training and professional concerns. Following discussion of the merits of such a proposal, Dr. Brandt moved to (a) approve the establishment of a Division 40 Student Organization, (b) to provide the organization with $2,500 in seed money for one year (FY2002), (c) to aid in the establishment of a website for the organization (or a page on the Division's website (www.div40.org), (d) to provide a regular column in the *Newsletter 40* for the organization, and (e) to have a non-voting representative of the student organization invited to each of the Divisional EC meetings. Dr. Brandt further moved to have the organization seated within the Educational Advisory Committee's purview and to have a liaison established with Dr. Koffler (EAC Chair). The motions passed.

20. Due to the late time, Dr. Brandt tabled discussion of a proposal to reconsider the 1995 Division 40 Task Force Definition of a Clinical Neuropsychologist, as well as a discussion of the revised EC meeting format in the wake of the Planning Committee's re-organization of the Division to the next EC meeting.

The meeting was adjourned at 12:01 pm.

Respectfully Submitted,
Mark W. Bondi, Ph.D.
Secretary, Division 40

ANNUAL BUSINESS MEETING
DIVISION 40 - DIVISION OF CLINICAL NEUROPSYCHOLOGY
Sunday, August 26, 2001, 4:00 - 5:00 pm
SF Marriott Hotel Golden Gate Salon C2

1. The Business Meeting of Division 40 was called to order by President Jason Brandt at 4:05 pm. Division members were asked to review the Minutes of the 2000 Business Meeting in the Winter 2001 Edition of *Newsletter40*.

2. Treasurer's Report: Dr. Jill Fischer reviewed the Division's financial status, and informed members that there will be no increase in Division 40 dues for 2002. Expenses from January 1, 2001 through present were $43,420.10, well within the year's budget of $108,537.17. The Division's current assets are $254,000.10. The proposed 2002 budget of $120,150.00 was approved at the Executive Committee (EC) meeting.

3. Elections: Dr. Chelune reported that Dr. Antonio Puente was elected President-Elect for 2001-2002; he will serve as President of the Division in 2002-2003. Dr. Paula K. Shear was elected to a three-year term as EC Member-at-Large. Drs. Eileen Fennell, Robert K. Heaton, and Wilfred van Gorp were elected to three-year terms on the APA Council of Representatives from Division 40.

4. Membership: Dr. Axelrod reported that the EC approved 408 applicants for membership in Division 40 presented to it by the Membership Committee. There were 161 members, 7 associate members, and 240 student affiliates. The transfer of membership-related clerical tasks to APA Division Services occurred in Spring 2001. The EC approved the recommended revisions to the Division 40 Bylaws regarding a new membership category; these revisions will be sent to the Division's membership for a vote in the next mailing.

5. Fellows: Dr. Stan Berent announced that the seven Division 40 members nominated by the Division for Fellow status within APA were approved by APA Council. The new Division 40 Fellows are: Drs. Bradley N. Axelrod, Gregory G. Brown, Robert L. Heilbronner, Robert J. McCaffrey, Scott R. Millis, Mark Sherer, and Peter J. Snyder. The Division has had 100% success in having nominees approved for Fellow status over the past five years. Dr. Berent described progress on developing a certificate to be granted to all Fellows from Division 40. He encouraged members to consider self-nomination to become fellows. This years' deadline for applications is December 15, 2001. Dr. Berent announced that this meeting marks the official end of his tenure as Chair of the Fellows Committee. Dr. Eileen B. Fennell is the incoming chair.

6. Program: Dr. Shear reported that the program for the Convention was going well. She thanked her Co-Chair, Dr. Rodney Vanderploeg, and members of the Program Committee for their contributions. Dr. Vanderploeg, who will serve as 2002 Chair of the Program Committee, then announced that Dr. Jennifer Manly had been appointed to serve as Co-Chair for the 2002 Convention. Dr. Vanderploeg indicated that submissions for the 2002 program will be due December 3, 2001. Finally, he acknowledged Dr. Shear's excellent work on the 2001 program.

Dr. Shear reported that the Bureau of Convention Affairs (BCA) plans to dramatically restructure the annual Convention, beginning with the 2002 Convention in Chicago. As part of this restructuring, each Division must now identify a Cluster Representative in addition to a Program Chair. Dr. Paula Shear has agreed to serve as Cluster Representative for Division 40 for a two-year term.

Dr. Brandt then thanked Drs. Shear and Vanderploeg on behalf of the membership for their extraordinary work, and particularly for Dr. Shear's dedicated efforts in responding to the myriad programmatic changes coming into effect with the 2002 Convention.

7. Awards: Dr. Shear, reporting for Dr. Diane Howieson, announced that Dr. Donald T. Stuss was chosen to deliver this year's Benton Lecture, a distinguished award bestowed by the American Psychological Foundation (APF) with Division 40 sponsorship. The recipients of two student scholarships, also administered through the APF, with Division 40 assisting in the selection of the recipients, were announced. Laura Grande of the University of Florida was awarded the Henri Hécaen Scholarship , and Jeffrey Bedwell of the University of Georgia was awarded the Meier Scholarship. This year's recipient of the Early Career Award in Neuropsychology is Joseph H. Ricker, Ph.D.

The Division 40 Blue Ribbon Student Award recipient is Lori Miller and colleagues (Mary Free Bed Hospital). The three Blue Ribbon Awards recipients are Drs. Jill Rich (York University) and colleagues, Milton Harris (Private Practice, Santa Rose, CA) and colleagues, and Max Trenerry and colleagues (Mayo Clinic). Student awards for the best papers in the areas of cognitive neuroscience and applied clinical neuropsychology were Michael Stevens and colleagues (University of Connecticut Health Center) and Erin Holker and colleagues (Mayo Clinic, Jacksonville), respectively. In addition, the Psychological Corporation has generously initiated an annual travel scholarship to the conference, supporting primarily the work of women and minority students. This year's Psychological Corporation Student Scholarship recipient is Rowena Gomez (Washington University). Congratulations were conveyed to all award and scholarship recipients.

8. Council Representatives Report: Dr. Adams reported that Council met during the APA Convention and discussed the proposed APA Ethics Code revisions. A motion was made to have all members of APA become board certified by an appropriate body, similar to our colleagues in the medical profession. Discussion ensued, with some present maintaining that the wording of the motion would allow so-called "vanity boards" to provide such certification. Membership in APA has been relatively constant since 1997, which has resulted in no increase in net income for APA. Finally, representative apportionment will be determined in a manner modified from the current method (termed the "Modified Wild Card Plan").

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Newsletter