

# Development and Validation of the Neuropsychology Behavior and Affect Profile

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This series of 4 studies describes the psychometric properties of the Neuropsychology Behavior and Affect Profile, which consists of 5 peer-rated scales (106 items) designed to measure personality change in brain-impaired individuals. Study 1 pertains to item derivation. Study 2 used relatives of 61 Ss identified as demented to determine the test's internal consistency. Results showed moderate levels of internal consistency across the 5 scales, with slightly higher coefficients (.68-.82) obtained for present (vs. premorbid) emotional status. High test-retest reliability was demonstrated in Study 3 (intraclass correlation coefficients ranged from .92 to .99). Study 4 established discriminant validity; the instrument differentiated 61 demented Ss from 88 normal elderly controls on the basis of present behavioral affective style.

Although it has been fairly well established that both cognitive and noncognitive (emotional) changes accompany selective neurological disorders, traditional approaches to neuropsychological assessment remain primarily cognitive-based (Anastasi, 1982; Lezak, 1983). Whereas this method of testing captures important dimensions of cognitive status, such as attention, memory, or visuospatial ability, the approach virtually ignores psychological changes in personality, affect, and behavior known to accompany neurological impairment (Heilman & Satz, 1983; Ross & Mesulam, 1979; Tucker, Watson, & Heilman, 1977). A major reason for the absence of such measures may be the relative inappropriateness of tests currently available for a heterogeneous brain-impaired population. Neurological deficits alone may impede reliable self-report (attention deficits, memory problems, visuospatial difficulties), and the corresponding lack of appropriate norms raises further inter-

pretive issues. In dementia, for example, judgment is frequently impaired, and patients may be unable to identify and report on specific problems in personal adjustment.

Observations of brain/behavior relationships have led researchers to associate the occurrence of different patterns of emotional responding with specific central nervous system perturbations (e.g., Bear, 1983). Although this is not to suggest a strict structure/function relationship between certain emotions and their neural substrates, evidence has increasingly documented the role of these substrates in emotional processing. The patterns of emotional responding showing some association with focal or lateralized brain dysfunction fall roughly into five major categories: (a) anosognosia or denial of illness (indifference); (b) impulsivity, irritability, and euphoria (mania); (c) apathy, withdrawal, crying behavior, and profound sadness (depression); (d) unusual or bizarre behavior (inappropriateness); and (e) a defect in the pragmatics of communicative style (pragnosia). Elements of indifference, mania, inappropriateness, and pragnosia may co-occur with damage to the right hemisphere (posterior) and with selective right-carotid injections (Wada test; Bates, 1976; Heilman & Satz, 1983; Robinson, Kubos, Starr, Rao, & Price, 1984; Sadock, 1974; Searle, 1969). Inappropriateness and pragnosia have been observed in patients with frontal disorders (Damasio, 1979; Damasio & Van Hoesen, 1983; Lishman, 1968; Nauta, 1971; Stuss & Richard, 1982). Depression has been associated with left-hemisphere dysfunction and left-carotid injections (Gainotti, 1984; Gasparrini, Satz, Heilman, & Coolidge, 1978; Robinson et al.,

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1984), as well as with diseases affecting higher cortical functions, such as dementia (Cummings & Benson, 1983).

Unfortunately, we currently lack the ability to measure these five domains objectively in more cognitively impaired individuals. Also lacking is a systematic means of noting change from premorbid status to current levels of functioning. In many cases, patients are unable, because of type and/or extent of brain impairment, to report problems in personal adjustment reliably. Studies and clinical observation have often demonstrated that individuals closest to the patient are the first to become acutely aware of subtle, noncognitive changes in their relative's or spouse's behavior (Kolb & Wishaw, 1985). Such changes can have a strong negative impact on family relationships and generate conflicts between family members and the patient (Malone, 1977; Oddy, Humphrey, & Uttley, 1978; Rosenbaum & Najenson, 1976). Apart from selected measures used in the assessment of children (e.g., Achenbach & Edelbrock, 1986), significant others remain an untapped source in the objective evaluation of a patient's personality. This is surprising given evidence that families who have information about a neurologically impaired member's psychological status may cope better with the patient's problems than families without such information (Lezak, 1983).

Given that various lines of evidence propose a link between discrete changes in personality and brain impairment, information on the personality and mood state of severely cognitively impaired individuals is needed. Because these individuals are often unable to complete self-report inventories, alternative reporting sources (e.g., family members) are also called for. Not only would information regarding personality and mood be beneficial diagnostically, but it has been shown to significantly enhance the quality of treatment (Diller & Weinberg, 1977).

The purpose of the present article is to report initial findings pertaining to the standardization and validation of the Neuropsychology Behavior and Affect Profile, an instrument designed to measure personality and affective change (i.e., from premorbid to present levels) in brain-impaired individuals. Also incorporated into the test is the use of an alternative reporting source (i.e., significant other). The decision to use demented subjects for the preliminary standardization analyses was based on the following: (a) Changes in personality and affect often occur in all stages of dementia (American Psychiatric Association, 1980; Cummings & Benson, 1983; Mace & Rabins, 1981; Schneck, Reisberg, & Ferris, 1982), (b) some of these symptoms may even predate the onset of cognitive changes (Cummings & Benson, 1983), (c) some demented patients often cannot understand and complete even brief self-report assessments, and (d) a reliable index of personality and affect can be helpful for evaluation and treatment of dementia.

### Study 1: Content Validation

The purpose of Study 1 was to construct test items that were content relevant (e.g., Fitzpatrick, 1983) for the Neuropsychology Behavior and Affect Profile.

#### Method

Item construction for the Neuropsychology Behavior and Affect Profile began in June 1983 and continued through September 1985. Guid-

ing this work was the goal of constructing a test sensitive to behavioral and affective change commonly associated with neurological disorders. The original item pool was intentionally constructed with a minimum number of items twice as large as that expected to be retained through eventual test construction procedures (Cronbach, 1970). The five resulting scales were defined as follows: (a) Indifference—a tendency to minimize a disability or current condition, an indifference to or denial of an illness (e.g., "My relative seems unusually unaware of any existing health problems"); (b) Inappropriateness—behavior that is inappropriate to the context in which it is occurring or to an outside event (e.g., "My relative has habits which seem odd and different"); (c) Depression—dysphoric mood and/or loss of interest or pleasure in most usual activities (e.g., "My relative often seems unhappy"); (d) Mania—elevated, expansive, or irritable mood, sustained high energy, and high levels of activity (e.g., "My relative is excessively talkative"); and (e) Pragmnesia—a defect in the pragmatics of communicative style (e.g., "My relative often seems to 'miss the point' of a discussion").

For almost 2 years, a group of three staff neuropsychologists (P.S., W.V.G., and R.L.), two advanced-level neuropsychology postdoctoral fellows (L.N. and M.M.), and a neurolinguist (D.V.L.) met regularly to develop a pool of test items. Efforts were made to ensure consistency of verb tense (present only), of conjugation to person (third-person reference to significant other), and of response direction ("yes" response = symptomatic of behaviors and type of affect associated with the five clinical scales). In addition, items classified as "neutral" (e.g., "My relative enjoys gardening") were developed to break the tendency of a "yes" response pattern associated with items from the five clinical scales (appropriate responses from the neutral category were scored "no"). To reflect the "change" component implied in our theoretical framework, items were designed to be answered twice by respondents: once as a descriptor of perceived premorbid status and again as an indication of perceived current functioning. This aspect of the test's design permitted assessment of premorbid elements associated with each domain and also allowed for measurement of a major concept in brain/behavior relationships—namely, *change* from the individual's premorbid status. Statements were written to be clearly understood by individuals with less than a 12th-grade education; hence, the use of medical or psychological terminology was discouraged. During this 2-year period, hundreds of items were written, and those not producing consensual agreement were discarded.

After these efforts, an initial pool of 106 items was selected that purported to measure the five hypothesized behavioral and affective domains as well as the one neutral category: Indifference (15 items), Inappropriateness (14 items), Depression (16 items), Pragmnesia (19 items), Mania (27 items), and Neutral (15 items).

Content relevance of the items was examined by having six doctoral-level professionals in the field of clinical psychology blind-sort each of the items into five forced categories corresponding to the five behavioral and affective domains. Judges received a typed copy of the instructions explaining the sorting procedure (also read aloud by the examiner), definitions of the content categories, and items individually typed on 3 × 5 index cards. Each of the categories was labeled and defined as indicated previously. Based on a procedure similar to that used earlier by Garmezny, Clarke, and Stockner (1961), items on which five of the six, or approximately 80%, of the judges agreed were retained.

#### Results

Sixty-six items survived this content-relevant analysis. Table 1 shows the final numbers of items on the five scales as well as the percentages of the total number of items originally constructed for each of these respective scales that met or exceeded our criterion level of agreement among judges.

Neutral items, as well as those that failed to meet the strict

Table 1  
Percentages of Included/Excluded Items From the  
Content-Relevant Sort by Scale

| Scale             | Survived content sort |          | Did not survive content sort |          |
|-------------------|-----------------------|----------|------------------------------|----------|
|                   | %                     | <i>n</i> | %                            | <i>n</i> |
| Indifference      | 80                    | 12       | 20                           | 3        |
| Inappropriateness | 50                    | 7        | 50                           | 7        |
| Depression        | 69                    | 11       | 31                           | 5        |
| Pragnosia         | 63                    | 12       | 37                           | 7        |
| Mania             | 89                    | 24       | 11                           | 3        |
| Total <i>N</i>    |                       | 66       |                              | 25       |

criterion set in the content-sort procedure ( $n = 25$ ), were retained in the total item pool ( $N = 106$ ) comprising the Neuropsychology Behavior and Affect Profile. We included items not meeting agreement among judges in Study 1 in order to determine whether these items would hold up statistically in later analyses.

### Study 2: Internal Consistency

The purpose of Study 2 was to examine the internal consistency of the Neuropsychology Behavior and Affect Profile for patients showing symptoms of dementia. Separate coefficient alphas were obtained for "before" and "now" sets of responses by scale. Also, because items that were temporarily excluded from this content sort might be demonstrated empirically appropriate at this stage in the test construction process, we computed coefficients of internal stability, first for items derived from the sort (66 items) and then for the original item pool (106 items).

### Method

**Assessment.** Three instruments were used. The Neuropsychology Behavior and Affect Profile consisted of 106 randomly ordered statements that corresponded to each of the five content areas (66 items that survived the content sort, 25 items that did not, and 15 neutral statements). Response choices were either "yes" (i.e., typically or often) or "no" (i.e., seldom or hardly at all). Each statement was designed to be answered twice: as a descriptor reflecting premorbid status ("before" responses) and current levels of functioning ("now" responses). Respondents were "significant others" (e.g., relatives or close friends of the patient) who were asked to complete the inventory in terms of how they perceived changes in their relative's or friend's condition. Separate scale scores were attained for "before" and "now" responses by summing the total number of items answered "yes" on each scale and then converting these sums to percentages.

The Mini-Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975) is a test of simple cognitive functions. Scores range from 0 (*severe cognitive dysfunction*) to a maximum obtainable score of 30. Reliabilities ranged from .83 to .99 among groups of psychiatric, neurological, and mixed patients when interrater and test-retest reliability were combined (Nelson, Fogel, & Faust, 1986).

The Clinical Dementia Rating Scale (CDR) is a global rating device designed to assess six domains of functioning (i.e., memory, orientation, judgment/problem-solving, community affairs, hobbies, and personal

care). Scores may be 0 (*healthy*), 0.5 (*questionable dementia*), 1 (*mild dementia*), 2 (*moderate dementia*), and 3 (*severe dementia*). This instrument has been shown to distinguish reliably between healthy and cognitively impaired older subjects (D'Elia, Brauer-Boone, & Brandon, in press).

**Subjects.** Subjects were 61 outpatients, 57 of whom were seeking services from the Dementia Clinic at the University of California, Los Angeles (UCLA), and 4 of whom were seeking services from the Neurobehavior Clinic of the Veterans Administration Medical Center (VAMC) of Los Angeles. These outpatient facilities admit patients from a relatively large geographic area and a broad economic cross-section of California. Those who evidenced drug or alcohol abuse or showed symptoms of major depression were excluded. Subjects included 35 women and 26 men ranging in age from 35 to 90 years ( $M = 73.26$  years,  $SD = 12.2$ ).<sup>1</sup> Ninety-seven percent were Caucasian and 3% were Black. Fifteen percent held college degrees, 60% were high-school graduates, and 25% had less than a high-school education ( $M = 12.98$  years,  $SD = 8.2$ ). Sixty-five percent were married, 22% widowed, and 13% separated/divorced.

All subjects were referred to the clinics because of symptoms commonly associated with dementia. Criteria for subject selection were based on agreement between two physicians (each blind to the other's judgment) that patients were suffering from presenile or senile dementia. Specific behavioral criteria for diagnosing dementia included a multifaceted loss of intellectual abilities (i.e., memory, judgment, abstract thought, and other higher cortical functioning) and changes in personality and behavior (*Diagnostic and Statistical Manual of Mental Disorders*, 3rd edition, criteria, American Psychiatric Association, 1980). In all cases, either an insidious, progressive course or an abrupt, stepwise onset was indicated. Scores on the MMSE ranged from 3 to 30 (2 subjects scored 30), with a mean of 19.75 ( $SD = 6.17$ ). The mean CDR score was 1.13 ( $SD = 0.58$ ). As expected, the two measures were inversely correlated ( $r = -.80$ ,  $p < .0001$ ).

**Procedure.** The Neuropsychology Behavior and Affect Profile was given by a registered nurse to relatives accompanying patients on their initial visit to the UCLA Dementia Clinic. Relatives of patients at the VAMC clinic were given the test by a predoctoral psychology intern. Respondents for patients were wives ( $n = 20$ ), husbands ( $n = 12$ ), sisters ( $n = 2$ ), brothers ( $n = 2$ ), daughters ( $n = 13$ ), sons ( $n = 8$ ), granddaughters ( $n = 2$ ), a grandson, and a nephew. Of this group, 39% were male. Medical residents and other physicians who were trained in the administration of the MMSE and CDR administered these tests to patients at this time also. Data were collected between August 1986 and December 1987.

### Results

**Internal consistency: "Before" responses.** Using formulae given by Cronbach and Azuma (1962), we obtained the following coefficient alphas for the "before" data (66-item response set): Depression, .78; Mania, .74; Indifference, .72; Inappropriateness, .59; and Pragnosia, .49. We then incorporated into these analyses items that had not met the content sort criterion for inclusion, noting shifts, if any, in the internal consistency of separate scales. When these items were included among the total items within each scale, selective coefficients (Depression, Inappropriateness, and Pragnosia scales) increased about 2 points on the average; only the Mania scale showed a drop of 3 points.

<sup>1</sup> A 35-year-old subject and a 47-year-old subject were selected for inclusion in the present study because they met the criteria for dementia. The age range of the remaining subjects was 56 to 90 years.

*Internal consistency: "Now" responses.* Results based on present condition ("now" responses) revealed even higher coefficients: Indifference, .82; Depression, .78; Pragnosia, .75; Mania, .70; and Inappropriateness, .68. As with the "before" set of responses, we combined all items to form a 106-item set. An increase in the alpha coefficients associated with the Inappropriateness (.81), Depression (.81), and Pragnosia (.80) scales was observed. Adding these items to the Indifference and Mania scales made little or no difference in the scales' internal consistencies.

### Study 3: Stability Over Time

The purpose of Study 3 was to assess test-retest reliability or stability of responding over time (approximately 1 month).

As in Study 2, separate analyses were performed on "before" and "now" sets of responses. Scale reliability coefficients were obtained using the 66-item response set. Results also include item analyses based on percentages of subjects responding consistently from test to retest for the entire 106-item pool. We conducted these latter analyses to determine the relative consistency of responding over time for items that did and did not survive the content-relevant sort.

#### Method

Subjects were 39 outpatients (64% of the original sample,  $n = 61$ , described in Study 2). Thirty-five had received services from the UCLA Dementia Clinic and 4 from the VAMC Neurobehavior Clinic. Demographic characteristics of individuals who completed and returned the test were similar to those of the overall sample. Twenty-one women and 18 men were involved. The age range was 35 to 90 years. Mean years of education was 13.94 ( $SD = 9.57$ ). The same group of respondents completed the Neuropsychology Behavior and Affect Profile from test to retest.

Two weeks after completing the tests, respondents were contacted by telephone and requested to complete the test again in terms of how they saw their relatives presently. An average of 37.76 days elapsed from the first administration of the Neuropsychology profile to retest.

#### Results

Intraclass correlation coefficients (Bartko, 1966, 1974) were calculated for each of the five scales (66-item response set) with separate test-retest reliability estimates obtained on "before" and "now" sets of responses. Reliability coefficients based on "before" responses for each of the five scales ranged from .97 (Indifference scale) to .99 (Pragnosia scale). To explore further consistency of responding across subjects, we conducted individual item analyses. Using a  $\geq 75\%$  criterion cutoff (percentage of subjects responding consistently from test to retest), we obtained the following results using "before" data: On the Indifference, Inappropriateness, Depression, Pragnosia, and Mania scales, 100%, 100%, 91%, 83%, and 83% of the total number of items, respectively, met our criterion for consistency of responding across time. Also, 22 of the 25 items from the original item pool (items excluded from the content-relevant sort) met the  $\geq 75\%$  criterion. Of this set, one item from each of the Inappropriateness, Pragnosia, and Mania scales failed to make the criterion.

The following test-retest reliability estimates were obtained

Table 2  
*Demographic Characteristics by Group*

| Characteristic        | Patients | Controls |
|-----------------------|----------|----------|
| Age (in years)        |          |          |
| <i>M</i>              | 73.26    | 70.70    |
| <i>SD</i>             | 12.2     | 5.37     |
| Years of education    |          |          |
| <i>M</i>              | 12.98    | 14.14    |
| <i>SD</i>             | 8.2      | 2.86     |
| Marital status (%)    |          |          |
| Married               | 65       | 100      |
| Widowed               | 22       |          |
| Divorced or separated | 13       |          |
| Total <i>N</i>        | 61       | 88       |

for "now" responses: Inappropriateness, .92; Indifference and Depression, .93; Mania, .94; and Pragnosia, .97. When the Indifference, Inappropriateness, Depression, Pragnosia, and Mania scales were examined in terms of individual item analyses, 41%, 71%, 82%, 67%, and 96% of the total items, respectively, achieved the  $\geq 75\%$  criterion. When items that did not survive the content-relevant sort were included in these analyses, 21 out of 25 met this criterion. Of this set, items not meeting it were from the Inappropriateness (2), Depression (1), and Mania (1) scales. It is noteworthy that all items from the Neutral category were responded to consistently over time ( $>75\%$ ).

### Study 4: Discriminant Validity

The purpose of Study 4 was to obtain discriminant validity information on the Neuropsychology Behavior and Affect Profile. In so doing, we examined its ability to distinguish between a criterion group of demented patients and normal elderly controls. On the one hand, we expected nonsignificant differences between groups when data based on premorbid condition ("before") were used. On the other hand, we predicted significant differences between the two groups using "now" data. We expected the scale scores from the demented sample to undergo an appreciable elevation from premorbid status to present condition and those based on controls to remain about the same.

#### Method

*Subjects.* The clinical group, described earlier, consisted of demented subjects who participated in Study 2 ( $n = 61$ ).

Control-group subjects ( $n = 88$ ) came from a retirement center in Camarillo, California. A criterion for subject selection was that the elderly controls all had undergone a major and potentially stressful life change (retirement) that could not be attributed to any underlying brain insult, medical problem, or personal loss. In this sense, any change that might potentially alter some or most of the domains assessed by the Neuropsychology Behavior and Affect Profile was ruled out. The controls were carefully equated for age, sex, and education with the elderly group of demented outpatients. Hence, the "before" and "now" sets of responses associated with the Neuropsychology Behavior and Affect Profile were deemed appropriate for both samples. Demographic characteristics of control subjects (34 men and 54 women) are summarized in Table 2. All were Caucasian. Respondents for controls were husbands ( $n = 54$ ) and wives ( $n = 34$ ).

Table 3  
 Mean Neuropsychology Behavior and Affect Profile Scale Percentages for "Before" and "Now" Items by Group

| Scale             | "Before" |           |          |           | "Now"    |           |          |           |
|-------------------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
|                   | Patients |           | Controls |           | Patients |           | Controls |           |
|                   | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Indifference      | 11.6     | 15.84     | 10.30    | 17.75     | 40.96    | 28.08     | 11.52    | 18.77     |
| Inappropriateness | 14.0     | 20.35     | 10.97    | 17.90     | 40.50    | 25.41     | 11.80    | 19.46     |
| Pragnosia         | 15.5     | 15.65     | 13.66    | 16.00     | 47.55    | 24.24     | 14.91    | 17.10     |
| Depression        | 17.37    | 20.67     | 10.87    | 14.52     | 51.91    | 28.01     | 14.25    | 17.40     |
| Mania             | 14.41    | 17.63     | 13.76    | 13.42     | 12.80    | 12.06     | 14.37    | 12.63     |

Note. *N* = 61 for patients, 88 for controls.

*Procedure.* The Neuropsychology Behavior and Affect Profile was administered to the groups of demented outpatients and controls. As described in Study 2, relatives of subjects from the clinical group were asked to complete the Neuropsychology profile in terms of before and after the onset of symptomatology. Respondents associated with control subjects were requested to complete the test as they saw their relatives/friends "before and after retirement."

### Results

Mean Neuropsychology Behavior and Affect Profile scale percentages ("before" and "now") based on clinical and control sample data are presented in Table 3. For "before" scores, Table 3 shows no appreciable elevation on any of the five scales for either patients or controls. When "now" response data from the demented group are examined, however, a shift in scale percentages from premorbid ("before") to present levels of functioning ("now") is evident. Inspection of this table shows that four of the five scale scores had an appreciable shift in elevation, except for the Mania scale. For control subjects, mean scale percentages on all domains remained essentially unchanged. Univariate analyses comparing men and women on each of the five scales ("before" and "now") were nonsignificant.

*Discriminant validity: "Before" responses.* As predicted, univariate analyses comparing clinical and control groups on each of the five scales ("before") were nonsignificant.

*Discriminant validity: "Now" responses.* With the exception of the Mania scale, univariate analyses performed on data associated with current level of functioning ("now" responses) revealed significant differences between groups. The Indifference,  $F(1, 147) = 51.52$ , Inappropriateness,  $F(1, 147) = 49.85$ , Depression,  $F(1, 147) = 107.48$ , and Pragnosia,  $F(1, 147) = 93.86$ , scales were all significant at the  $p < .001$  level. Given the highly significant mean score difference between patients and controls on the Depression scale, the nonsignificant results from the Mania scale were reassuring.

Because MMSE scores showed a wide range of variability (3–30), we decided to divide the dementia sample into two subgroups, one with scores above the median MMSE score ( $Mdn = 21$ ) and one with scores below the median. We then performed univariate analyses on "before" and "now" scale percentages using the two groups of demented subjects (mild to moderate and moderate to severe). Results showed nonsignificant differences between the two dementia groups across all scales except

Inappropriateness ("before"),  $F(1, 59) = 4.46$ ,  $p < .05$ . In general, results indicated that both groups responded similarly to "before" items and both showed a similar shift or elevation in "now" responses regardless of level of cognitive impairment (i.e., MMSE score).

### General Discussion

The preceding results provide preliminary support and cautious optimism for the Neuropsychology Behavior and Affect Profile. Stability over time and internal consistency were demonstrated for each of the five scales in terms of patients' perceived premorbid status ("before" item set) and present level of functioning ("now" item set). Discriminant validity was apparent in the instrument's ability to effectively distinguish a criterion group of demented patients from elderly controls on all scales except Mania. Finally, theoretical and statistical support for a 66-item set came from both the content-relevant procedure and the psychometric analyses. In short, the results of initial efforts to construct a test of personality and affective functioning suitable for selected groups of brain-impaired individuals were encouraging.

Despite preliminary support for the instrument, however, some remaining issues need attention. One issue pertains to sample characteristics. Because the present criterion sample was restricted to individuals suffering from dementia, the generalizability of the instrument to other types of organic impairment cannot be assessed until research using other clinical samples is conducted (especially traumatic brain injury).

A second issue relates to this test's ability to discriminate on the basis of group (clinical vs. control). Our elderly sample represented an emotionally well-adjusted, physically healthy group. As predicted, when we compared them to clinical subjects using the Neuropsychology profile ("before" version), we obtained nonsignificant results. However, it should be noted that relatively greater (although nonsignificant) impairment was found among demented subjects, particularly in terms of inappropriateness and depression. This observation raises the possibility of premorbid personality factors that may signal the onset of dementia before specific cognitive symptoms (e.g., intellectual decline, memory impairment) are noted. The failure to find Neuropsychology profile differences between the less demented and the more demented patients suggests that either (a)

the test is not sensitive to differing degrees of affective and behavioral changes, or (b) such changes are unrelated to the degree of cognitive change. This deserves further attention. To ensure that the Neuropsychology Behavior and Affect Profile is indeed discriminating on the basis of organic factors, cross-validation research using different control groups (e.g., orthopedically elderly handicapped) is needed. Also, although we used strict subject selection criteria and obtained significant results from discriminant analyses ("now" version), the need for interrater reliability must be emphasized in future research.

A third issue relates to person perception. A unique aspect of the Neuropsychology Behavior and Affect Profile is its ability to obtain information on individuals too cognitively impaired to report on present levels of functioning (e.g., individuals suffering from aphasia, delirium, or dementia). Although the present approach offers an alternative to traditional test procedures, special organic syndromes exist (e.g., cerebrovascular disorders, frontal disturbances) for which comparison of self- and other-person perception may be useful from a clinical standpoint (Heaton & Pendleton, 1981). In this respect, use of both self- and other reporting procedures could offer a unique and potentially sensitive index of early pathological change. Research comparing the Neuropsychology profile in its present format to a revised, self-report version is recommended, not only to determine clinical utility but to ascertain degree of rater bias, if any, between types of respondents. Such a revision is currently under way.

A final issue pertains to test items. The present version of the Neuropsychology Behavior and Affect Profile contains 106 items demonstrated empirically valid on a sample of individuals suffering from dementia. Although we expect the main results reported here to hold through further study, individual item responses may vary depending on the samples tested. Consequently, we do not want to make final decisions on item inclusion until replication analyses and further validation studies have been carried out. Indeed, a recent study by Soper, Cicchetti, Satz, Light, and Orsini (1988) confirms the importance of replication before test items are either discarded or retained. Although the psychometric properties of the Neuropsychology Behavior and Affect Profile lend support for the retention of this item set, further analyses are called for to better ascertain variability of responding across different groups.

In summary, despite encouraging preliminary results, a number of issues remain to be addressed that will require rigorous and systematic efforts toward further validation. In particular, the test scales have not been studied thus far to determine their accuracy in classifying individuals. Further research is needed to offer additional support for the instrument's reliability, as well as its validity, as a measure of personality and affective change in brain-impaired populations.

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### Call for Nominations

The Publications and Communications Board has opened nominations for the editorships of *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, the *Journal of Experimental Psychology: Animal Behavior Processes*, *Contemporary Psychology*, the Personality Processes and Individual Differences section of the *Journal of Personality and Social Psychology*, and *Psychology and Aging* for the years 1992–1997. Alan Kazdin, Michael Domjan, Ellen Berscheid, Irwin Sarason, and M. Powell Lawton, respectively, are the incumbent editors. Candidates must be members of APA and should be available to start receiving manuscripts in early 1991 to prepare for issues published in 1992. Please note that the P&C Board encourages more participation by members of underrepresented groups in the publication process and would particularly welcome such nominees. To nominate candidates, prepare a statement of one page or less in support of each candidate.

- For *Psychological Assessment*, submit nominations to Richard Mayer, Department of Psychology, University of California-Santa Barbara, Santa Barbara, California 93106. Other members of the search committee are David H. Barlow, Lloyd Bond, Robert D. Hare, Henry Leland, and Ruth G. Matarazzo.
- For *JEP: Animal*, submit nominations to Bruce Overmier, Department of Psychology-Elliott Hall, University of Minnesota, 75 East River Road, Minneapolis, Minnesota 55455. Other members of the search committee are Donald A. Riley, Sara J. Shettleworth, Allan R. Wagner, and Jon L. Williams.
- For *Contemporary Psychology*, submit nominations to Don Foss, Department of Psychology, University of Texas, Austin, Texas 78712. Other members of the search committee are Edward E. Jones, Gardner Lindzey, Anne Pick, and Hans Strupp.
- For *JPSP: Personality*, submit nominations to Arthur Bodin, Mental Research Institute, 555 Middlefield Road, Palo Alto, California 94301. Other members of the search committee are Charles S. Carver, Ravenna S. Helson, Walter Mischel, Lawrence A. Pervin, and Jerry S. Wiggins.
- For *Psychology and Aging*, submit nominations to Martha Storandt, Department of Psychology, Washington University, St. Louis, Missouri 63130. Other members of the search committee are David Arenberg and Ilene C. Siegler.

First review of nominations will begin January 15, 1990.

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