Robust-CFI = .79. Item 11 was nonsignificant and loaded −.04 on the negative self-evaluation factor. Likewise, the fit indices for the null (χ^2 = 4,889.39, df = 630, p < .001), one-factor (S-Bχ^2 = 1,279.23, df = 594; NNFI = .70; Robust-CFI = .71; RMSEA = .07), and 4-factor orthogonal (S-Bχ^2 = 1,508.00, df = 594; NNFI = .61; Robust CFI = .61; RMSEA = .08) models indicated poor fit to the data. Examination of the related Lagrange Multiplier tests suggested substantial changes would be needed to improve the fit of each model.

Pearson correlations (p < .001) were high with scores on *both* the Anxiety and Depression scales of the Mood and Anxiety Symptom Questionnaire: Nonspecific anxiety (r = .51), Anxious arousal (r = .42), Nonspecific depression (r = .63), and Anhedonic depression (r = .63). Men (M = 57.3, SD = 9.5) scored substantially higher than women (M = 53.8, SD = 10.3) on the total scale (t_{388} = 3.28, p < .001), indicating separate norms are required. These findings confirm that revision of this measure is necessary and should include tests of new factor models with new samples.

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THE AFFECT GRID: A MODERATELY VALID, NONSPECIFIC MEASURE OF PLEASURE AND AROUSAL[1]

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Summary.—The Affect Grid was first published in 1989 as a single-item measure of the two affect dimensions of pleasure-displeasure and arousal-sleepiness; however, over the past decade no subsequent validation studies have been published and no further mention of this potentially useful measure has appeared in the literature. In this study, scores on the Affect Grid were obtained from 284 college students and correlated with scores on the Beck Depression Inventory, Positive and Negative Affect Schedule, and the Profile of Mood States. Factor analytic and correlational findings suggest that the Affect Grid is a moderately valid measure of the general dimensions of pleasure and arousal but has little specificity in discriminating among various qualities of affective experience.

The Affect Grid (Russell, Weiss, & Mendelsohn, 1989) was designed as an easily and rapidly administered, single-item measure of affect. The Affect Grid consists simply of a 9 × 9 square grid, with the axes representing two theoretical dimensions of affect, namely, pleasure and arousal (Russell, 1979, 1980). Although a single-item scale is unlikely to be as reliable as lengthier and more time consuming inventories, there are obvious advantages to using a succinct, visually-based scale that can be completed in a matter of seconds rather than over a period of minutes. However, the adequacy of any instrument's psychometric properties must be demonstrated and cross-validated by other researchers using different samples of subjects. When initially published in 1989 (Russell, *et al.*, 1989), the Affect Grid was claimed to possess adequate reliability and validity. However, after nearly a decade since its initial publication, no further references to the Affect Grid have emerged in the literature. Without additional validation studies, the potential value of this apparently useful research tool may never be realized. As an initial step in the cross-validation process, the present study evaluated the factor analytic and concurrent validity of the Affect Grid by examining its correlations with three widely used measures of mood and affect, the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988), and the Profile of Mood States (McNair, Lorr, & Droppleman, 1992).

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Method

Two-hundred eighty-four undergraduate students at a large southwestern university provided self-mood ratings. This group included 120 men and 164 women, with a mean age of 19.3 yr. ($SD = 3.2$). Participants were administered the Affect Grid, Beck Depression Inventory, Positive and Negative Affect Schedule, and Profile of Mood States in accordance with the standardized instructions provided in the test manuals or relevant published literature. Together these four inventories provide data for 12 different scales. The obtained scores from these scales were subjected to principal components factor analysis. Pearson correlations were also calculated among all of the variables.

Results and Discussion

Intercorrelations among the Pleasure and Arousal scales of the Affect Grid and the other mood inventories are presented in Table 1. Of interest are the correlations of the two Affect Grid scales with each of the other affect scales. To adjust for the Type I error rate, experiment-wise alpha was adjusted using a Bonferroni correction for 21 correlations, requiring $\alpha = .002$ for significance. Several findings are evident in the table. First, the correlation between the Pleasure and Arousal scales of the Affect Grid is low and nonsignificant, supporting Russell's (1978, 1979; Russell, *et al.*, 1989) assertion that "pleasure-displeasure" and "arousal-sleepiness" represent two orthogonal dimensions. Second, the Pleasure scale of the Affect Grid has moderate, although significant, correlations with each of the other concurrently administered mood inventories, accounting for 18 to 35% of the variance in scores across measures. Despite the fact that each of the concurrently administered inventories purports to measure different aspects of affective experience, e.g., depression, vigor, confusion, etc., the Pleasure scale of the Affect Grid accounts for a significant amount of the variance among the scores of each, providing evidence for a primary underlying dimension of pleasure-displeasure that is fundamental to the assessment of affect. Unfortunately, reducing the complexities of human emotions to a two-dimensional description limits the ability to distinguish clearly among many of the unique characteristics of affective experience. The trade-off for the parsimony provided by the two-dimensional structure of the Affect Grid is a loss of specificity or "blurring" of the distinctive features of affect measured by the other more extensive scales. These correlational findings provide support for the Affect Grid as a moderately valid general measure of nonspecific hedonic mood state along the pleasure-displeasure dimension.

As seen in Table 1, the Arousal scale of the Affect Grid does not correlate as highly as the Pleasure scale with scores on any of the other inventories. In fact, even the largest correlation accounted for no more than 15% of the variance. Although modest in strength, the Arousal scale's strongest

TABLE 1
Means, Standard Deviations, and Pearson Intercorrelations Among Affect Grid Scales and Concurrently Administered Mood Inventories ($N = 284$)

Measure	1	2	3	4	5	6	7	8	9	10	11	12	*M*	*SD*
Affect Grid														
1. Pleasure		.02	-.49*	.43*	-.56*	-.51*	-.54*	-.45*	.43*	-.46*	-.47*	-.59*	5.23	2.15
2. Arousal			-.17	.39*	.01	.00	-.19	-.15	.26*	-.29*	-.15	-.21*	5.02	1.96
3. Beck Depression Inventory				-.41*	.61*	.56*	.76*	.62*	-.46*	.58*	.69*	.76*	8.50	7.37
4. Positive Affect Schedule					-.18	-.24*	-.36*	-.29*	.69*	-.39*	-.43*	-.47*	26.69	8.53
5. Negative Affect Schedule						.72*	.75*	.69*	-.32*	.55*	.69*	.77*	17.60	7.17
Profile of Mood States							.70*	.69*	-.26*	.66*	.70*	.82*	12.83	7.12
6. Tension								.80*	-.38*	.64*	.81*	.92*	13.59	11.99
7. Depression									-.28*	.62*	.70*	.87*	11.78	10.13
8. Anger										-.43*	-.48*	-.54*	13.93	6.76
9. Vigor											.69*	.81*	11.05	6.50
10. Fatigue												.89*	10.20	5.22
11. Confusion													45.51	39.20
12. Total Mood Disturbance														

*$p < .002$.

associations were with scales measuring affect states that are highly dependent on energy, enthusiasm, activity, alertness, vigor, and fatigue. No significant association was found with scores on tests designed to measure general negative affect, tension, anger, or confusion.

To evaluate further the validity of the Affect Grid as a measure of its theoretical dimensions, the scores from the 12 scales were entered into a principal components factor analysis. Quartimax rotation was selected to maximize the variance of each scale's loading on the factors. Two factors emerged from this analysis, accounting for 71% of the total variance. The first factor, which accounted for 58% of the total variance, obtained high loadings on all affect scales, with the exception of the Affect Grid Arousal scale, Positive Affect Schedule, and the Vigor scale of the Profile of Mood States. The first factor appears to represent a general factor of pleasure-displeasure. The second factor accounted for 13% of the total variance and obtained only high loadings on the Affect Grid Arousal scale, Positive Affect Schedule, and Vigor scale, suggesting an arousal factor that is orthogonal to the pleasure-displeasure factor. Furthermore, in this analysis, the Pleasure scale of the Affect Grid loaded onto the first factor, while not loading on the second, whereas the Arousal scale of the Affect Grid loaded on the second factor but not on the first. This analysis confirmed an underlying two-dimensional factor structure consistent with Russell's (1978, 1979) theoretical model of affect and provides factor analytic support for the Affect Grid as a measure of pleasure-displeasure and arousal-sleepiness.

The present correlational and factor analytic data suggest that the Affect Grid Pleasure scale is a moderately valid measure of hedonic mood state along the pleasure-displeasure dimension. It is, however, a nonspecific measure that shows moderate correlations with a variety of inventories designed to measure several different facets of affective experience. The Arousal scale appears to contribute little, if any, to the differentiation among different affective states unless there is an obvious energy or fatigue component involved. Over-all, the greatest value of the Affect Grid appears to be its brevity and ease of administration. It provides a moderately valid measure of general affective state and might be used in situations when more time consuming measures would not be appropriate or feasible.

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CONTRIBUTIONS TO THE HISTORY OF PSYCHOLOGY: CXVI. AN ORAL HISTORY OF C. KERMIT PHELPS, AN 89-YEAR-OLD AFRICAN AMERICAN CLINICAL PSYCHOLOGIST[1]

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Summary.—In a previous article, the authors presented a brief overview of the findings of four audiotaped interviews with C. Kermit Phelps, an 89-year-old African American who earned a Ph.D. in clinical psychology in 1952 from the University of Kansas. Dr. Phelps, who spent his professional career at the Veterans Administration Hospital in Kansas City, Missouri, also maintained a private clinical practice. The present article provides a comprehensive account of the structured interviews.

During much of the 20th century, few African Americans earned Ph.D.s in psychology (Schultz & Schultz, 1996). A significant exception is C. Kermit Phelps, who earned an M.A. in clinical psychology from the University of Kansas in 1949 and was the first African American to receive a Ph.D. in psychology from the same institution ("Distinguished Service Citees," 1982). He earned the doctorate in clinical psychology in 1952.

From 1952 until 1978, Dr. Phelps served in various capacities as Staff Psychologist, Director of Psychology Services, Director of the Mental Health Clinic, and Director of Education and Training at the Veterans Administration (V.A.) Hospital in Kansas City, Missouri. While working at the V.A., he also maintained a private clinical practice.

The authors conducted four 60- to 90-min. audiotaped interviews with Dr. Phelps at his home in Kansas City, Missouri, during December 1996 and January 1997. In an earlier article, the authors presented a brief overview of themes from the interviews (McCoy & Fried, 1997). Interview topics included Dr. Phelps' childhood, undergraduate and graduate school experience at the University of Kansas, Karl Menninger's influence, work at the V.A., clinical practice, special issues faced as a black psychologist, work in the areas of retirement and life enrichment, the past and future of psychology as a profession, psychologists as expert witnesses, minorities in the profession, Dr. Phelps' family, and the role of religion and spirituality in his personal and professional life. A comprehensive presentation of the interviews follows.

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