

## The Pleasant Events Schedule: Studies on Reliability, Validity, and Scale Intercorrelation

Douglas J. MacPhillamy  
Shasta Abbey, Mt. Shasta, California

Peter M. Lewinsohn  
University of Oregon

The Pleasant Events Schedule is a behavioral self-report inventory of potentially reinforcing events. Good to excellent stability was found for the eight most used scales of the schedule across time periods of 1, 2, and 3 months. Concurrent validity was assessed as the degree of agreement between self-ratings on the schedule and both peer and observer ratings. Predictive validity of the test's frequency ratings was studied in relation to subsequent self-monitoring data, while predictive validity of test enjoyability ratings was determined by comparison with subsequent choice behavior. Construct validity was inferred from the results of other research. Adequate validity of all types was found. Scale intercorrelations are also reported, and the question of response bias is addressed.

The Pleasant Events Schedule (PES; MacPhillamy & Lewinsohn, Note 1; also see Appendix) is a self-report behavioral inventory of the frequency of occurrence and subjective enjoyability of a number of commonly rewarding events. It has been used in a variety of clinical and research studies, including those on the treatment of depression (Fuchs & Rehm, 1977; Harmon, Nelson, & Hayes, 1980; Lewinsohn, 1976; Lewinsohn, Muñoz, Youngren, & Zeiss, 1978; Lewinsohn, Sullivan, & Grosscup, 1980; Padfield, 1976; Rehm, Fuchs, Roth, Kornblith, & Romano, 1979; Turner, Ward, & Turner, 1979), the treatment of drug addiction (Abrahms, 1979), the relationship of pleasant activities to mood (Hammen & Glass, 1975; Lewinsohn & Amenson, 1978; MacPhillamy & Lewinsohn, 1974; Costello, Rogers, & Belton, Note 2), the rate of engagement in pleasurable acts as a function of age (Lewinsohn & MacPhillamy, 1974), the association of attractiveness and success expectancy with obtained pleasure (Cash & Burns, 1977), and the relationship between pleasurable activity level and biological cycles (Wilcoxon, Schrader, & Sherif, 1976; Lee & Lewinsohn, Note 3). Although technical data on this schedule has been available from the authors in unpublished

form since 1973, the increasing use of the PES calls for making such information available in the literature. This article summarizes the data on the reliability, validity, and scale intercorrelation of the instrument.

### Scale Descriptions

The construction of the schedule has been described elsewhere (MacPhillamy & Lewinsohn, 1972). Briefly, the PES items were derived by asking two samples of subjects ( $N = 66$  and  $N = 70$ ) to write lists of pleasurable events. After redundant, ambiguous, nonobservable, and low-variance items were eliminated, the remaining 320 events composed the schedule. The PES instructs the subject to rate each item twice, first on a 3-point scale of frequency during the past month, then on a 3-point scale of subjective enjoyability during that month. The test is machine scored, and a multiplicative rating (frequency times enjoyability) is also obtained for each item. This is called the item's "obtained pleasure" rating, which has a value of zero whenever either the frequency or enjoyability rating is zero. A variety of rational, factorial, and empirical scales have been created (MacPhillamy & Lewinsohn, Note 4); the most commonly used ones are described here. They can be scored using frequency ratings, enjoyability ratings, or the derived "obtained pleasure" combination. Scale scores are calculated by summing

Requests for reprints should be sent to Peter M. Lewinsohn, Department of Psychology, University of Oregon, Eugene, Oregon 97403.

the ratings across all items in the scale (with negatively keyed items on bipolar scales resulting in negative entries) and dividing by the number of items in the scale.

#### *Scale SN*

Since the distinction between social and nonsocial reinforcement is basic to much of the current behavioral work in personality and clinical psychology, a rational scale was constructed to permit differentiation of people who rely more heavily on one type of reward or the other. To this end, all of the PES items were classified as social, nonsocial, or indeterminate independently by five raters using standard definitions. The reliability of these qualitative ratings was examined by using the procedure suggested by Finn (1970). Complete quintuple agreement occurred on 56% of the items, and the mean reliability of categorization of individual items was .77,  $F(16,000, 1,280) = 4.25$ ,  $p < .001$ . Items upon which quintuple agreement had occurred or upon which agreement could be reached immediately in a conference of three of the raters were considered to be characteristically social or nonsocial. All other items were regarded as indeterminate and were discarded for the purposes of constructing this scale. Social items were then keyed positively, and nonsocial items were keyed negatively. Equal numbers of each were chosen on the basis of good demonstrated variance and with regard to keeping the average score of this scale close to zero in the general population. The resulting bipolar scale consisted of 128 items and was designated Scale SN.

#### *Scale G*

Unrotated principal components analysis was performed on the PES items with data from 641 college students. The resulting factors were cross-validated on a sample of 464 nonstudents selected by a stratified sampling procedure to assure heterogeneity of age and social class. In order to assess the stability of factors within the item pool, separate analyses were performed on the odd- and even-numbered items, and, for purposes of assuring generality within the subject population, the analyses were performed sepa-

rately on the male and female subsamples. The first principal component appeared consistently across all data sets and subject samples and was the basis for Scale G.

The first principal component, as expected, was a highly general one upon which most items loaded moderately and all items loaded in the positive direction. It may be interpreted as the general tendency to report activity and to report events as being enjoyable. Stability across random halves of the item pool averaged a correlation of .92 (correlation averages were calculated using the  $Z$  transformation). Cross-validation correlates averaged .79. This component is readily approximated (correlations averaging .96) by the simple mean value of the frequency, enjoyability, or product ratings of all items. Scale G was therefore defined as that mean value of all items and is a unipolar scale of 320 items.

#### *Scale MF*

The second principal component is easily interpretable as masculine role-related activities versus feminine role-related activities. Stability across the odd- and even-numbered items averaged .72, and cross-validation correlations averaged .52. An unweighted approximation to this component was created by calculating the simple mean value of the ratings on 77 keyed items (37 items keyed positively, 40 items keyed negatively). This bipolar scale was called Scale MF, and it correlates with an average  $r$  of .81 with the second principal component. Examples of items on this scale keyed in the male role direction are working on machines, woodworking, riding a motorcycle, gambling, racing, wrestling or boxing, hunting, doing scientific experiments, and hitchhiking. Examples keyed in the female role direction are combing or brushing my hair, canning or making preserves, taking a bath, gardening, talking about my children or grandchildren, and cooking meals.

#### *Scale IE*

This scale was constructed to approximate the third principal component. This component was also a bipolar one, appearing to measure a dimension of extraverted stimulus

seeking versus introverted love of solitude and quiet. Here stability correlations average .71 and cross-validation correlations have a mean of .52 in the three data sets in which this component appeared. The unweighted approximation scale consisted of the mean value of 54 items (35 keyed in the extravertive direction, 19 keyed in the introvertive one) and correlated with an average  $r$  of .80 with the third principal component. Examples of extravertive items on Scale IE include going to a bar, going to a party, driving fast, dancing, gambling, shocking people, amusing people, and talking about sex. Examples of Scale IE introvertive items include doing art work, rock climbing, reading the Scriptures, writing stories, going to a museum, hiking, and bird-watching.

#### *Scale RB*

The principal components were also submitted to varimax rotation. The second rotated factor had mostly positive item loadings, particularly on items relating to outdoorsmanship and crafts. The average stability coefficient of this factor was .78; its average cross-validation  $r$  was .58 in the three out of four data sets in which the factor was found. Scale RB is the approximation to this factor; it consists of 43 items, all keyed positively. The mean values of these items correlated with an  $r$  of .78 with the full factor scores. A sample of the items on Scale RB includes being in the country, doing art work, boating, camping, wood-working, playing a musical instrument, doing craft work, and watching wild animals.

#### *Scale C3*

With the advice and assistance of Lewis Goldberg of the Oregon Research Institute,<sup>1</sup> cluster analyses were performed on the items using the weighted averages algorithm. Separate analyses were performed on the male and female subsamples of the college-student data. Of the seven recognizable clusters that emerged in both subsamples, the third was of particular clinical interest because it consisted of items relating to sexual activity. Scale C3 was defined as the mean value of ratings on the 15 items composing this clus-

ter. Some of these items were going naked, being noticed as sexually attractive, kissing, giving massages or backrubs, petting or necking, and have sexual relations with a partner of the opposite sex.

#### *Scale MR*

In a study examining the relationship between engaging in pleasant activities and daily mood (Lewinsohn & Graf, 1973), 49 of the PES items were significantly correlated with reported mood ( $r \geq .30$ ) in at least 10% of the 90 subjects who recorded their own activities and mood daily for 30 consecutive days. By content, these 49 items fall into three categories. Almost half of them involve social interactions (e.g., going to a party, being with friends, having a lively talk, kissing); another substantial group consists of behaviors that are intrinsically mood-related (e.g., laughing, being relaxed); the third major grouping consists of items related to competence and independence (such as driving skillfully, saying something clearly, planning or organizing something, and making a major purchase or investment). Scale MR was defined as the mean value of ratings on these 49 positively keyed items.

### Reliability

#### *Method*

Reliability was assessed by the test-retest method. Three separate samples ( $N = 85$ ,  $N = 48$ , and  $N = 48$ ) of subjects of diverse ages and social classes were readministered the PES after periods of 1, 2, and 3 months. Subjects were not asked to recall the events of the first month but were instructed to take the schedule again, applying it to the events of the current month. Correlations between scores from the first and second administration are thus attenuated not only by test unreliability but also by true changes in the subjects' activities. The reliability coefficients found in Table 1 are thus lower bounds to the stability of the test itself.

#### *Results*

Test-retest reliability figures for the seven main PES scales are presented in Table 1. Since the correlation coefficients were gen-

<sup>1</sup> The authors wish to express their appreciation to Dr. Goldberg and the staff of the Oregon Research Institute for their substantial contributions to this aspect of the research.

Table 1  
Test-Retest Stability of Principal Pleasant  
Events Schedule Scales

Scale	Average <i>r</i>		
	1 month ( <i>N</i> = 85)	2 months ( <i>N</i> = 48)	3 months ( <i>N</i> = 48)
SN	.78	.73	.72
MF	.86	.79	.71
IE	.88	.74	.62
G	.71	.74	.64
RB	.72	.77	.63
C3	.75	.61	.61
MR	.69	.49	.50

Note. See text for scale descriptions.

erally similar across frequency, enjoyability, and combined rating modes, average correlations are reported.

### Discussion

Stability of the bipolar scales (SN, MF, and IE) was impressive and was in all cases higher than that of the unipolar scales. This outcome may be due to the "trait" nature of their associated constructs: social orientation, sex role preference, and introversion/extraversion. The unipolar scales are less

allied with such presumably enduring traits and are more scales of simple activity preference. As such, they would be expected to fluctuate more than the bipolar scales, which is what they do. Their stability is nevertheless quite respectable.

### Concurrent Validity With Peer Ratings

#### Method

Sixty-six paid volunteer student subjects (average age of 30 years, equal numbers of men and women) were recruited at the University of Oregon and the Lane Community College. After filling out the PES, each subject was asked to take home an alternative form of the schedule to his or her spouse or roommate. The alternative form requested the subject's peer to rate the same 320 events according to (a) how often the peer believed the events to have occurred to the subject during the past month and (b) how pleasurable they seemed to have been for the subject. Subject and peer were asked not to discuss their answers together until after the peer had completed his or her form and returned it to us.

Scores were computed for both self and peer ratings on the seven scales using frequency, enjoyability, and product ratings. These scores were then placed in three separate multitrait-multimethod matrices (Campbell & Fiske, 1959), and statistical tests were made for convergent and discriminant validity. The null hypothesis for convergence was that the heterorater-monoscale correlations were less than or equal to zero for *all* scales *simultaneously*. Therefore, simultaneous *t* tests for the significance of a correlation coefficient were performed,

Table 2  
Summary of Multitrait-Multimethod Validity Matrices

Scale	Self-rating method							Peer-rating method						
	SN	MF	IE	G	RB	C3	MR	SN	MF	IE	G	RB	C3	MR
Self-rating method														
SN	1.00													
MF	.05	1.00												
IE	.43	.30	1.00											
G	.25	-.10	.11	1.00										
RB	-.10	.11	-.27	.70	1.00									
C3	.43	-.11	.11	.56	.40	1.00								
MR	.35	-.23	.07	.88	.63	.68	1.00							
Peer-rating method														
SN	.57 <sup>a</sup>	.09	.41	.12	-.12	.24	.13	1.00						
MF	.10	.77 <sup>a</sup>	.28	.02	.13	.04	-.04	.09	1.00					
IE	.26	.27	.67 <sup>a</sup>	.00	-.23	-.04	-.09	.43	.35	1.00				
G	.03	.04	.00	.22	.20	.03	.11	.15	-.18	.06	1.00			
RB	-.15	.17	-.27	.18	.52 <sup>a</sup>	.09	.14	-.15	.03	-.30	.73	1.00		
C3	.20	.04	.06	.10	.10	.45 <sup>b</sup>	.14	.44	-.04	.05	.52	.47	1.00	
MR	.12	.00	.00	.24	.21	.15	.27	.26	-.26	.01	.85	.32	.63	1.00

Note. See text for scale descriptions. Validity diagonal is in italics. Correlations of G with RB and C3 were not included in the analysis of discriminance because scale nonindependence was assumed a priori.

<sup>a</sup> Convergence and discriminance both significant in all matrices.

<sup>b</sup> Convergence and discriminance both significant in two out of three matrices.

with the overall  $\alpha$  held to be no greater than .05 by the Bonferroni inequality (Miller, 1966). The null hypothesis for discriminance was that the heterorater-monoscale correlations were less than or equal to their respective monorater-heteroscale correlations. This hypothesis was tested by simultaneous one-tailed sign tests on the size of each self-peer within-scale validity coefficient relative to all the relevant self-self and peer-peer across-scale correlations. Again the overall probability of type one error was held to .05 or below.

### Results

Since the magnitude of the correlations and the significance of the findings were very similar across frequency, enjoyability, and obtained-pleasure rating data, a summary table composed of the average correlations across all three rating modes is presented as Table 2. Five of the seven scales were found to possess both convergent and discriminant validity with peer ratings.

### Discussion

While a good measure of concurrent validity was thus established for the PES as a whole, it was the two scales of greatest clinical interest, G and MR, that failed to perform adequately. These scales are both unipolar in scoring and general in content. This result raised the possibility that there exists a suppressor variable, such as yea-saying, that is irrelevant to the behaviors intended to be assessed by the items and is specific to the person responding to the test. This type of suppressor variable would tend to sum across a relatively large number of uniformly keyed heterogeneous items, thus attenuating the self-peer correlations for such scales and inflating their heteroscale-monorater correlations with each other. It has been suggested (Buchwald, 1977) that previous findings of lower reported reinforcement among depressed individuals are due in part to differences in such a response bias.

One method of correcting such a problem would be to create another scale to measure the suppressor and to introduce this scale as a moderator variable in an attempt to improve on the self-peer correlations. Scale K was created to serve this purpose. Items were selected on the criterion of exhibiting poor self-peer item correlations while having high loadings on the first principal component of the self-rating item-correlation matrices.

Table 3  
Summary of Canonical Correlation Study  
With the K Scale

Substantive scale	Original self-peer correlation	Canonical correlation with K	Raw score weight for K scale*
SN	.51	.53	0
MF	.77	.79	0
IE	.67	.72	0
G	.22	.48	-.60
RB	.52	.63	-.60
C3	.45	.59	-1.00
MR	.21	.37	-.70

Note. See text for scale descriptions.

\* Raw-score weight for substantive scales assigned to be +1.0 in all cases.

Forty items meeting this criterion composed the scale. Few of these items appeared in any of the substantive scales of the PES except for the general G scale. (Item overlaps with other scales were: SN, 16%; MF, 3%; IE, 6%; RB, 12%; C3, 7%; and MR, 16%.)

The usual approach to evaluating the potential benefit of a moderator variable is to introduce it into a multiple regression analysis along with the original variable. However, since the "criterion" variable in this case (peer ratings) also must be presumed to be affected by its own suppressing bias, it was more appropriate to perform canonical correlation analyses with the moderating K scales added to both the peer and self scales. This was done for all scales on the data of the 66 subjects and their peers. Since the results were again very similar regardless of whether frequency, enjoyability, or product ratings were used, the average simple and canonical correlations across all three data sets are presented as Table 3, in which canonical  $R$  values are given alongside the original self-peer  $r$  statistics in the first two columns. Marked increases of  $R$  over  $r$  were found for all the unidirectional scales, whereas little or no improvement occurred on the bipolar scales. This is precisely what one would expect if a suppressor variable was influencing the PES and if K was a reasonable measure of that variable. Although Scale MR has been substantially improved, its claim to self-peer agreement remains tenuous. Cross-validation of these results is pending.

In order to make the K scale convenient to use, the canonical weights were transformed into weights applicable to raw scores on K, with the substantive scale scores being arbitrarily assigned a weight of +1.0. As the weights observed in the canonical analyses for the self and peer versions of most scales were quite similar (as were the weights for the frequency, enjoyability, and product ratings on each scale), uniform raw-score weights were assigned to the K scales for each substantive scale. These weights are presented in the third column of Table 3. As a check, the raw-score weights were then applied to the raw scores of the K scales for the 66 subjects and their peers, and the negatively weighted K-scale scores were added to their respective substantive scale scores. The correlations of the resulting linear composites differed from the optimal canonical coefficients by  $r$  values of no more than .04. The test-retest reliabilities of the K scales over 1-, 2-, and 3-months periods were .64, .68, and .59, respectively.

#### Concurrent Validity With Trained Observers

Since behavioral self-report inventories are intended to provide approximations to the type of information gathered by trained observers, concurrence with such detailed intensive observational data had to be established.

#### Method

Three subjects participated in the observational study. This small number was necessitated by the high costs of the procedures. Since college undergraduates served as observers, subjects of the same age were selected in an effort to make the observation process as comfortable and as unobtrusive as possible. Each subject agreed to be observed during his or her entire waking day for 5 consecutive days. Three teams of two observers<sup>2</sup> were trained to observe and code the frequency of occurrence of the 320 events listed in the PES. The subject and the observers were instructed to interact as little as possible and to do whatever they could to minimize the reactivity of the observation process. Subjects were told that certain of their behaviors would be observed, but they were not informed of the particular nature of the experiment. Each observer independently recorded the frequency of occurrence of each of the 320 events during his or her shift. Interobserver reliability was satisfactory. A conservatively computed interobserver correlation of .61 was obtained when only those events that at least one observer reported as having occurred during a partic-

ularly shift were included. The vast majority of events, which the observers agreed did not occur during any given shift, did not enter into the computation of this correlation. Had all 320 events been used, the mean interobserver correlation would have approached unity.

At the conclusion of the 5-day period, the subject was asked to fill out a modified PES on which he or she reported the frequency of occurrence of each of the events during the days of observation. A peer of the subject was also asked to rate the frequency of the events for this time. Neither the subject nor the peer knew that these ratings would be requested of him or her. The degree of correspondence between these ratings and those of the observers provided a measure of the concurrent validity of the PES frequency ratings. One month later, each subject was again requested to report retrospectively on his or her activities during the observation period. As before, the subject was not aware that this would be requested of him or her. This second rating was obtained in order to assess the degree to which a subject's memory of his or her activities had changed after a month. This was of interest since the PES asks respondents to rate their activities over a 1-month interval.

#### Results

The null hypothesis for this experiment was that the frequency of agreement between the ratings made by self, peer, and observers would be less than that expected by chance and the frequency of disagreement would be greater than chance. Four  $\chi^2$  tests were performed on the data for the three subjects combined, each test being done with  $\gamma = .01$ . Since the degree of association between the various ratings was also of interest, the gamma statistic of Goodman and Kruskal (1954) was calculated. This measure is capable of comparing ordered categories with numerous ties. For any pair of events chosen at random from the ratings,  $\gamma$  equals the probability that the two events have the same ordinal relationship in both ratings (given that they are not tied) minus the probability that they have a different ordinal relationship (given that they are not tied). This statistic may be interpreted in much the same way as the tau statistic. In fact, when there are no ties,  $\gamma = \tau$ . The results of this study are summarized in Table 4. The obtained agreements were substantial in all cases, and the degree of agreement and of association was

<sup>2</sup> The authors wish to thank the following persons for undertaking this task: Louise Gray, Jane Hall, Richard and Deborah Ross, Mark Taylor, Michael Vert, and James and Linda Wong.

remarkably similar across all subjects and information sources.

### Discussion

This experiment further supports the conclusion that the items of the PES are, as a whole, valid with respect to their frequency ratings. The small sample size makes it impossible to state conclusions regarding the validity of individual items or scales. Different sources of bias would be expected to influence self ratings, peer ratings, and observer ratings. The finding that there is substantially the same degree of agreement between all of these data sources suggests that the distortion due to such biases may be relatively equal. The fact that the degree of association between observers and peers is the smallest of the gamma values is to be expected since these two data sources are the furthest removed from the actor engaged in the events, namely, the self. The high degree of association across a month's time for the self suggests that the ordinal relationship among events in terms of their frequency may be quite resistant to the effects of forgetting. For these reasons, when the type of measurement inaccuracy is not critical, considerations of cost and efficiency suggest acceptance of PES self-report data.

#### Predictive Validity: Predicting Subsequent Self-Monitoring From PES Frequency Ratings

While it is expected that people's activities will change over time, it is reasonable to assume that a person's self-report about his or her activities in the present month will bear some relationship to what he or she does in the subsequent month.

### Method

An analysis was made of the data reported by Lewisohn and Libet (1972) and Lewisohn and Graf (1973) for 68 and 90 subjects, respectively, who were of diverse ages and occupations and who self-monitored their daily activities for 1 month following taking the PES. Since not all items were monitored by all subjects, data on most PES scales was not possible to retrieve; however, a meaningful correlation could be calculated between the PES G-Scale scores for the frequency ratings and the mean activity level for the subsequent month derived from the subjects' daily activity sheets.

Table 4  
Summary of the 5-Day Observation Study

Data set	% of items showing agreement	$\chi^2$	$P$ ( $df = 4$ )	$\gamma$
Self with observers	.68	385	.001	.83
Self with peer	.72	484	.001	.87
Observers with peer	.70	326	.001	.78
Self (immediate recall) with self (month later)	.81	774	.001	.98

### Results and Discussion

The observed correlations were .57 and .62 in the two data sets. These correlations are both significant beyond the .001 level and are reasonable figures for a "state" (as opposed to "trait") variable. Current PES activity ratings are thus moderately good predictors of subsequent activity level, as measured by individual daily self-monitoring.

#### Predictive Validity: Predicting Subsequent Choice Behavior From PES Enjoyability Ratings

Enjoyability refers to a type of positive value that a person associates with an event (Premack, 1971). Such a value should be related to the reinforcing properties of that event and so should be predictive of the subsequent behavior of the individual when given the opportunity to engage in the event. Thus, the PES enjoyability ratings would generate an ordering of events according to their values identical to the ordering of those events inferred from a person's subsequent real-choice behavior.

### Method

The classic method for assessing the relative value of a set of stimuli is to ask a subject to make choices between paired comparisons of those stimuli. Because most of the events referred to on the PES occur in the natural environment and are not easily amenable to laboratory manipulation, it was difficult to give subjects paired comparisons of the events themselves. It was, however, possible to present subjects with paired comparisons of opportunities to engage in some of those events.

Forty of the subjects who participated in the peer study were also used in this experiment. After each had been administered the PES, he or she was asked to consider accepting payment in prizes instead of cash for

some other experiments in which they were to participate. Those who agreed to this procedure were subsequently contacted 2 to 4 weeks later and asked to choose which prize they would prefer in each of 50 pairs of potential prizes. The prizes were certified checks (shown and later actually given to the subjects) that could be made payable to one of 10 types of business establishment selected because of a direct correspondence between each establishment and one item on the PES. In effect, the prizes were opportunities to engage in one of 10 potentially pleasant events (e.g., one prize was a check to "the bowling alley of your choice," another was a check to "the restaurant of your choice," which corresponded to PES items "bowling" and "going to a restaurant"). The 50 pairs of choices constituted all possible combinations of the 10 prizes, plus several repeated pairs. Each subject was asked to indicate which prize he or she would prefer in each pair. It was explained that a number from 1 to 50 would then be drawn at random, and the subject would be given a check to the establishment that he or she had chosen in the pair whose number was drawn. This procedure was followed, and every effort was made to assure that the subjects knew that their choices were real ones.

Since each subject responded to all paired comparisons of prizes, it was possible to reconstruct his or her value order for the 10 types of events implicit in the prizes. When no intransitive choices occurred, a perfect unidimensional scale was easily retrieved from the perfectly interlocking series of choices. All prizes involved in an intransitive series of choices were assumed to be tied in value. The value order generated by the prize-choice experiment was then compared with the order derived from the enjoyability ratings that the subject had given on the PES some 2 to 6 weeks previously. Predictive validity of the enjoyability ratings for these items was defined as the degree of correspondence between the two preference orders.

Since the order derived from the PES necessarily contained ties (as each item could be given only one of three rating values), and the order retrieved from the prize experiment often contained ties due to intransitivity, a statistic capable of comparing ordered categories with numerous ties was required. Again the gamma statistic of Goodman and Kruskal (1954) was used. Gamma was computed on the two preference orders for each subject in this experiment, and the null hypothesis that the distribution of  $\gamma$  would have a median value of zero was tested by a simple sign test at  $\alpha = .01$ .

### *Results and Discussion*

The median  $\gamma$  value was  $+0.65$ ; the null hypothesis was rejected with a probability well beyond the required  $.01$  level. The enjoyability ratings for these 10 items clearly possess predictive validity with subsequent choice behavior. This finding suggests that the enjoyability ratings of the items on the PES do provide useful information about the reward value of their corresponding events. These findings are based on only 10 of 320

items. However, since many of the other items are as potentially observable as the 10 items selected for this experiment, the validity of the enjoyability ratings for such items could be tested similarly (albeit less conveniently), and there is no reason to suppose that the results would differ markedly from those reported here. It must be noted, of course, that the subject's choices were made in the laboratory, under observation, and not in the field. The results of this study are thus still a step removed from the reality of naturally occurring events, which the PES scores were designed to evaluate.

### *Construct Validity*

Scores on various scales of the PES have been used in a number of research studies and generally have been found to behave as one would predict on the basis of the constructs they purport to measure.

Scores on the G scale and on the MR scale have been found (Lewinsohn & Amenson, 1978; MacPhillamy & Lewinsohn, 1974) to discriminate significantly between depressed persons and both normal and psychiatric control groups. The G scale has also successfully discriminated among subgroups of depressed clients who have shown different levels of clinical improvement (Lewinsohn, Youngren, & Grosscup, 1979).

Since the possibility that such results are due to differential response-bias effects has been raised (Buchwald, 1977; Heiby, 1979), the moderator scale, K, was applied to the results of the first study cited above. The same differences between depressed and control subjects were found whether moderated or unmoderated scores were used. The magnitude of these differences was not substantially changed by the application of the moderator (the significance of the results for activity ratings was decreased slightly; the significance of enjoyability-rating findings was increased slightly). This outcome suggests that response bias is not the primary cause of differences in the PES scores of depressed versus nondepressed subjects. While the Buchwald (1977) study found that depressed persons tend to underestimate the frequency of reinforcers, other studies (Brown, Schwartz, & Sweeney, 1978; Brown,

Table 5  
Average Unmoderated Scale Intercorrelations (N = 464)

Scale	Bipolar			Unipolar				
	SN	MF	IE	G	RB	C3	MR	K
Bipolar								
SN	1.00							
MF	.03	1.00						
IE	.43	.07	1.00					
Unipolar								
G	.23	.15	.18	1.00				
RB	.09	.33	-.27	.72	1.00			
C3	.48	-.01	.27	.65	.48	1.00		
MR	.31	-.30	.22	.90	.57	.71	1.00	
K	.22	-.12	.09	.91	.63	.58	.85	1.00

Note. See text for scale descriptions.

Sweeney, & Schwartz, 1979) suggest that depressives *overestimate* both frequency and pleasurable of events. In view of the conflicting results and relatively small sample sizes in these studies, the most reasonable conclusion would seem to be that response biases do exist in self-reports of pleasure and should be considered, but so far they have not been demonstrated to operate consistently across diagnostic groups.

In other areas of research, the use of the PES with older persons has documented (Lewinsohn & MacPhillamy, 1974) the predicted reduction in activity level with age, while the reported enjoyability of the events remains constant, at least until age 70. As expected, the IE scale also has lower values in older people, as they seek activities of a more quiet and introspective nature. The predicted sex difference on Scale MF was observed in this same study of 464 normal individuals of varying ages. Cash and Burns (1977) found significant relationships between PES measures of general activity level, enjoyability potential, and obtained pleasure and such personality variables as locus of control, success-failure expectancy, and physical attractiveness. The schedule has also proven useful as a means of generating individualized activity schedules for the monitoring of daily reinforcing events in the successful behavior therapy of depressed patients (Lewinsohn, 1976; Lewinsohn, Sullivan, & Grosscup, 1978; Padfield, 1976; Zeiss, Lewinsohn, & Muñoz, 1979).

## Scale Intercorrelations

### Method

A sample was composed of 464 normal individuals selected by a stratified sampling procedure to ensure heterogeneity of age and social class. The subjects were paid volunteers recruited by newspaper advertisements and direct-mail announcements in the Eugene, Oregon area. Each subject took the PES, and his or her scores were calculated on each scale using frequency ratings, enjoyability ratings, and the "obtained pleasure" combination. Correlation matrices of the scales were produced for each rating modality.

A second, demographically similar sample of 206 subjects was recruited, and the moderator scale, K, was added to each original scale using the weights reported earlier, which had been derived from still another group of subjects. A set of moderated interscale correlation matrices was thus also produced.

### Results

Since the results of the three unmoderated correlations matrices were similar to each other and the three moderated correlation matrices also resembled each other closely, the averages of the correlations within each set of matrices are reported in Tables 5 and 6.

### Discussion

Among unmoderated bipolar scales, substantial independence was found between Scale MF and the other two bipolar scales, SN and IE. However, there was a positive correlation (.43 in Table 5 and .39 in Table

Table 6  
Average Moderated Scale Intercorrelations (N = 206)

Scale	Bipolar			Unipolar				
	SN	MF	IE	G - .6K	RB - .6K	C3 - 1K	MR - .7K	K
Bipolar								
SN	1.00							
MF	.02	1.00						
IE	.39	.25	1.00					
Unipolar								
G - .6K	.10	.01	-.12	1.00				
RB - .6K	-.35	.12	-.50	.55	1.00			
C3 - 1K	.37	.09	.16	.33	.16	1.00		
MR - .7K	.32	-.29	-.18	.62	.30	.42	1.00	
K	.23	-.17	-.24	.44	.24	-.01	.50	1.00

Note. See text for scale descriptions.

6) between SN and IE. This result is not surprising, given that they share 28% of items in common and that there is an intuitive association between social and extrovertive activities and between nonsocial and introvertive ones. The correlations are not of sufficient magnitude, however, to consider the two scales to be interchangeable.

The bipolar scales are each largely independent of the various unipolar scales. The exceptions to this pattern would be the positive correlation (.48) between the social-nonsocial scale and the sexual-activities scale and between the masculine-feminine scale and the outdoorsmanship and crafts scale ( $r = .33$ ). Since sexual activities are inherently social and since outdoorsmanship is generally regarded as a primarily male-role-related pursuit, these positive correlations are consistent with the content of the scales. Item overlap is extensive in the former case, with all but three of the items on Scale C3 also appearing on Scale SN. The item overlap for Scales MF and RB is 16%. In neither case is the degree of association so strong as to warrant elimination of one of the scales. Scale C3, overlapping so extensively with Scale SN, could be regarded as a subscale of SN. However, given the importance accorded to sexual activities in much psychological thinking and the moderate correlation between the two scales, it was decided to continue to keep C3 as a separate scale.

The correlations among the unipolar scales, on the other hand, present a very different

picture. Here not one of the unmoderated scales could be said to be independent of the others. The high correlation of Scale K with Scale G was by intent, as Moderator Scale K was composed of items known to be highly correlated with Scale G and also particularly subject to response bias. The magnitude of the other correlations was not by design and was disappointing. Only Scale RB could be said to be sufficiently uncorrelated with the other unipolar scales to be of interest as a separate scale.

This situation could be due to a substantial true association between the constructs allied with the scales, to artifacts such as item overlap, or to the sensitivity of all unipolar scales to some extraneous variable such as response bias. Certainly item overlap must account for some degree of association between Scale G and the others, as all items in the schedule appear on Scale G. Since the items are all keyed positively in the unipolar scales, at least a moderate degree of correlation between these scales and G is assured. Substantial overlap also exists between Scales C3 and MR, where 47% of items on the former scale also appear on the latter one. This duplication itself is interesting given the nature and origin of these scales, as it indicates that a considerable number of the sexual items have been empirically determined to be related to mood for many people. Item overlap between Scale RB and the other scales is not extensive, 7% of items being shared with Scale C3 and 16% with Scale

MR. Scale K also shares few items with the other unipolar scales (12% overlap with RB, 7% with C3, and 17% with MR).

There does not appear to be any strong relationship between the concepts associated with these scales aside from the one between sexual activity and mood-relatedness discussed above. This leaves the possibility that some of the scale intercorrelations among the unipolar scales could be inflated by the operation of a response bias to which all are subject, such as "yea-saying." Such a factor would not influence the bipolar scales, as it would be cancelled out by virtue of the fact

that roughly half of the items in such scales are keyed negatively.

Table 6 shows the results obtained when Moderator Scale K, designed to measure such a response bias, was applied to the other scales before they were correlated. Since previous research had shown that the optimum weights of K for the bipolar scales were close to zero, no correction was made for those scales, and the results in Table 6 for them are simply a replication of the results in Table 5. The application of Scale K to the unipolar scales, however, resulted in a considerable decrease in scale intercorrelations,

Table 7  
*Norms for Normal Adult White Subjects in the Pacific Northwest*

Scale	Male		Female	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
SN				
Frequency rating	-.04	.18	-.06	.18
Enjoyability rating	.07	.17	.06	.19
Cross product	.01	.34	-.02	.37
MF				
Frequency rating	-.33	.17	-.57	.14
Enjoyability rating	-.13	.28	-.39	.22
Cross product	-.46	.42	-.86	.34
IE				
Frequency rating	.13	.25	.03	.24
Enjoyability rating	.12	.29	.01	.29
Cross product	.16	.44	-.01	.44
G				
Frequency rating	.77	.18	.78	.17
Enjoyability rating	1.02	.27	1.04	.24
Cross product	1.02	.35	1.07	.33
RB				
Frequency rating	.64	.24	.62	.22
Enjoyability rating	1.20	.34	1.22	.32
Cross product	1.00	.45	1.01	.44
C3				
Frequency rating	1.10	.40	.99	.42
Enjoyability rating	1.45	.37	1.37	.40
Cross product	1.83	.80	1.65	.84
MR				
Frequency rating	1.31	.27	1.31	.25
Enjoyability rating	1.47	.29	1.54	.26
Cross product	2.06	.63	2.18	.59
K				
Frequency rating	.94	.24	.92	.22
Enjoyability rating	1.09	.29	1.12	.24
Cross product	1.22	.49	1.27	.42

Note. See text for scale descriptions.

both among unipolar scales and between them and the bipolar ones.

Among unipolar scales, the use of the moderator variable substantially reduced intercorrelations in all cases. None of the moderate scales are substantially equivalent to each other, the greatest shared common variance being 37% between (G - .6K) and (MR - .7K). The correlations between the unipolar scales and the bipolar scales were also reduced by the introduction of K. Here, 8 of the 12 correlation coefficients decreased. The modest association between Scales SN and C3 remained, consistent with the constructs of social and sexual activity allied with those scales. The covariation of Scale RB with Scale MF was substantially reduced, but larger negative associations were found between RB and Scales SN and IE. Whether this result is due to the uncovering of a true relationship previously suppressed by response bias or to change variations or artifacts remains to be determined by further study. Certainly there are plausible grounds for expecting an association between engaging in outdoor or craft activities and other generally nonsocial and introverted pursuits. The decrease in scale intercorrelations created by the application of scale K further suggests that this moderator scale may be a useful addition to the test.

#### Norms

Since the PES items could reasonably be expected to be sensitive to cultural, geographic, and climatic differences, and since variations with age has been documented (Lewinsohn & MacPhillamy, 1974), investigators are strongly urged to develop local norms for the populations with which they work. For purposes of comparison, means and standard deviations are given in Table 7 for a sample of 464 normal adult white subjects in the Pacific Northwest.

#### Conclusion

Data have been presented to show that the items and scales of the Pleasant Events Schedule generally possess an acceptable level of reliability and of concurrent, predictive, and construct validity. Because a

response bias may well be operating in people's self-ratings on this instrument, a scale to measure this suppressor variable has been constructed and awaits cross-validation. The apparent robustness of findings of PES differences across clinical groups regardless of whether moderated or unmoderated scales are used, as well as the degree of mutual correspondence between peer ratings, observer ratings, and PES self-ratings, suggest that for many purposes, the Pleasant Events Schedule is as accurate and useful in the assessment of reinforcing events as its more cumbersome and expensive alternatives.<sup>3</sup>

<sup>3</sup> The Pleasant Events Schedule and its manual, which contains scoring criteria for the scales discussed here, may be obtained by writing to Peter M. Lewinsohn, Department of Psychology, Straub Hall, University of Oregon, Eugene, Oregon 97403.

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(Appendix follows on next page)

## Appendix

## Pleasant Events Schedule: Form III-S

This schedule is designed to find out about the things you have enjoyed during the past month. The schedule contains a list of events or activities which people sometimes enjoy. You will be asked to go over the list twice, the first time rating each event on how many times it has happened in the past month and the second time rating each event on how pleasant it has been for you. There are no right or wrong answers.

Please rate every event. Work quickly; there are many items and you will not be asked to make fine distinctions on your ratings. The schedule should take about an hour to complete. Please make your ratings on the answer sheets provided. You should find two of them. Use the answer sheet labeled "A" to answer Question A; use the sheet labeled "B" to answer Question B. When you mark the answer sheet, be very careful to *completely fill* the little box corresponding to your rating. Use only soft pencil, and erase completely any answers you have changed.

## Directions—Question A

On the following pages you will find a list of activities, events, and experiences. HOW OFTEN HAVE THESE EVENTS HAPPENED IN YOUR LIFE IN THE PAST MONTH? Please answer this question by rating each item on the following scale:

- 0 = This has *not* happened in the past 30 days.  
 1 = This has happened *a few times* (1 to 6) in the past 30 days.  
 2 = This has happened *often* (7 or more) in the past 30 days.

Place your rating for each item on the answer sheet labeled "A". Here is an example:

Item number 1 is "Being in the country." Suppose you have been in the country three times during the past 30 days. Then you would mark a "1" on the answer sheet in the row of boxes for item number 1. On answer sheet "A" your mark would look like this:

1.    0   1   2  
      

*Important:* Some items will list *more than one event*; for these items, mark how often you have done *any* of the listed events. For example, item

number 12 is "Doing art work (painting, sculpture, drawing, movie-making, etc.)." You should rate item 12 on how often you have done *any* form of art work in the past month.

Since this list contains events that might happen to a wide variety of people, you may find that many of the events have not happened to you in the past 30 days. It is not expected that anyone will have done all of these things in one month.

Now turn the page and begin.

1. Being in the country
2. Wearing expensive or formal clothes
3. Making contributions to religious, charitable, or other groups
4. Talking about sports
5. Meeting someone new of the same sex
6. Taking tests when well prepared
7. Going to a rock concert
8. Playing baseball or softball
9. Planning trips or vacations
10. Buying things for myself
11. Being at the beach
12. Doing art work (painting, sculpture, drawing, movie-making, etc.)
13. Rock climbing or mountaineering
14. Reading the Scriptures or other sacred works
15. Playing golf
16. Taking part in military activities
17. Re-arranging or redecorating my room or house
18. Going naked
19. Going to a sports event
20. Reading a "How to Do It" book or article
21. Going to the races (horse, car, boat, etc.)
22. Reading stories, novels, poems, or plays
23. Going to a bar, tavern, club, etc.
24. Going to lectures or hearing speakers
25. Driving skillfully
26. Breathing clean air
27. Thinking up or arranging songs or music
28. Getting drunk
29. Saying something clearly
30. Boating (canoeing, kyaking, motorboating, sailing, etc.)
31. Pleasing my parents
32. Restoring antiques, refinishing furniture, etc.
33. Watching TV
34. Talking to myself
35. Camping
36. Working in politics

37. Working on machines, (cars, bikes, motorcycles, tractors, etc.)
38. Thinking about something good in the future
39. Playing cards
40. Completing a difficult task
41. Laughing
42. Solving a problem, puzzle, crossword, etc.
43. Being at weddings, baptisms, confirmations, etc.
44. Criticizing someone
45. Shaving
46. Having lunch with friends or associates
47. Taking powerful drugs
48. Playing tennis
49. Taking a shower
50. Driving long distances
51. Woodworking, carpentry
52. Writing stories, novels, plays or poetry
53. Being with animals
54. Riding in an airplane
55. Exploring (hiking away from known routes, spelunking, etc.)
56. Having a frank and open conversation
57. Singing in a group
58. Thinking about myself or my problems
59. Working on my job
60. Going to a party
61. Going to church functions (socials, classes, bazaars, etc.)
62. Speaking a foreign language
63. Going to service, civic, or social club meetings
64. Going to a business meeting or convention
65. Being in a sporty or expensive car
66. Playing a musical instrument
67. Making snacks
68. Snow skiing
69. Being helped
70. Wearing informal clothes
71. Combing or brushing my hair
72. Acting
73. Taking a nap
74. Being with friends
75. Canning, freezing, making preserves, etc.
76. Drinking fast
77. Solving a personal problem
78. Being in a city
79. Taking a bath
80. Singing to myself
81. Making food or crafts to sell or give away
82. Playing pool or billiards
83. Being with my grandchildren
84. Playing chess or checkers
85. Doing craft work (pottery, jewelry, leather, beads, weaving, etc.)
86. Weighing myself
87. Scratching myself
88. Putting on make-up, fixing my hair, etc.
89. Designing or drafting
90. Visiting people who are sick, shut in, or in trouble
91. Cheering, rooting
92. Bowling
93. Being popular at a gathering
94. Watching wild animals
95. Having an original idea
96. Gardening, landscaping, or doing yard work
97. Shoplifting
98. Reading essays or technical, academic, or professional literature
99. Wearing new clothes
100. Dancing
101. Sitting in the sun
102. Riding a motorcycle
103. Just sitting and thinking
104. Social drinking
105. Seeing good things happen to my family or friends
106. Going to a fair, carnival, circus, zoo, or amusement park
107. Talking about philosophy or religion
108. Gambling
109. Planning or organizing something
110. Smoking marijuana
111. Having a drink by myself
112. Listening to the sounds of nature
113. Dating, courting, etc.
114. Having a lively talk
115. Racing in a car, motorcycle, boat, etc.
116. Listening to the radio
117. Having friends come to visit
118. Playing in a sporting competition
119. Introducing people who I think would like each other
120. Giving gifts
121. Going to school or government meetings, court sessions, etc.
122. Getting massages or backrubs
123. Getting letters, cards, or notes
124. Watching the sky, clouds, or a storm
125. Going on outings (to the park, a picnic, or a barbecue, etc.)
126. Playing basketball
127. Buying something for my family
128. Photography
129. Giving a speech or lecture
130. Reading maps
131. Gathering natural objects (wild foods or fruit, rocks, driftwood, etc.)
132. Working on my finances
133. Wearing clean clothes
134. Making a major purchase or investment (car, appliance, house, stocks, etc.)
135. Helping someone
136. Being in the mountains
137. Getting a job advancement (being promoted, given a raise, or offered a better job, accepted into a better school, etc.)

138. Hearing jokes
139. Winning a bet
140. Talking about my children or grandchildren
141. Meeting someone new of the opposite sex
142. Going to a revival or crusade
143. Talking about my health
144. Seeing beautiful scenery
145. Eating good meals
146. Improving my health (having my teeth fixed, getting new glasses, changing my diet, etc.)
147. Being downtown
148. Wrestling or boxing
149. Hunting or shooting
150. Playing in a musical group
151. Hiking
152. Going to a museum or exhibit
153. Writing papers, essays, articles, reports, memos, etc.
154. Doing a job well
155. Having spare time
156. Fishing
157. Loaning something
158. Being noticed as sexually attractive
159. Pleasing employers, teachers, etc.
160. Counseling someone
161. Going to a health club, sauna bath, etc.
162. Having someone criticize me
163. Learning to do something new
164. Going to a "Drive-in" (Dairy Queen, MacDonald's, etc.)
165. Complimenting or praising someone
166. Thinking about people I like
167. Being at a fraternity or sorority
168. Taking revenge on someone
169. Being with my parents
170. Horseback riding
171. Protesting social, political, or environmental conditions
172. Talking on the telephone
173. Having daydreams
174. Kicking leaves, sand, pebbles, etc.
175. Playing lawn sports (badminton, croquet, shuffleboard, horseshoes, etc.)
176. Going to school reunions, alumni meetings, etc.
177. Seeing famous people
178. Going to the movies
179. Kissing
180. Being alone
181. Budgeting my time
182. Cooking meals
183. Being praised by people I admire
184. Outwitting a "superior"
185. Feeling the presence of the Lord in my life
186. Doing a project in my own way
187. Doing "odd jobs" around the house
188. Crying
189. Being told I am needed
190. Being at a family reunion or get-together
191. Giving a party or get-together
192. Washing my hair
193. Coaching someone
194. Going to a restaurant
195. Seeing or smelling a flower or plant
196. Being invited out
197. Receiving honors (civic, military, etc.)
198. Using cologne, perfume, or aftershave
199. Having someone agree with me
200. Reminiscing, talking about old times
201. Getting up early in the morning
202. Having peace and quiet
203. Doing experiments or other scientific work
204. Visiting friends
205. Writing in a diary
206. Playing football
207. Being counseled
208. Saying prayers
209. Giving massages or backrubs
210. Hitchhiking
211. Meditating or doing yoga
212. Seeing a fight
213. Doing favors for people
214. Talking with people on the job or in class
215. Being relaxed
216. Being asked for my help or advice
217. Thinking about other people's problems
218. Playing board games (Monopoly, Scrabble, etc.)
219. Sleeping soundly at night
220. Doing heavy outdoor work (cutting or chopping wood, clearing land, farm work, etc.)
221. Reading the newspaper
222. Shocking people, swearing, making obscene gestures, etc.
223. Snowmobiling or dune-buggy riding
224. Being in a body-awareness, sensitivity, encounter, therapy, or "rap" group
225. Dreaming at night
226. Playing ping pong
227. Brushing my teeth
228. Swimming
229. Being in a fight
230. Running, jogging, or doing gymnastic, fitness, or field exercises
231. Walking barefoot
232. Playing frisbee or catch
233. Doing housework or laundry; cleaning things
234. Being with my roommate
235. Listening to music
236. Arguing
237. Knitting, crocheting, embroidery, or fancy needlework
238. Petting, necking
239. Amusing people
240. Talking about sex
241. Going to a barber or beautician

242. Having house guests
243. Being with someone I love
244. Reading magazines
245. Sleeping late
246. Starting a new project
247. Being stubborn
248. Having sexual relations with a partner of the opposite sex
249. Having other sexual satisfactions
250. Going to the library
251. Playing soccer, rugby, hockey, lacrosse, etc.
252. Preparing a new or special food
253. Birdwatching
254. Shopping
255. Watching people
256. Building or watching a fire
257. Winning an argument
258. Selling or trading something
259. Finishing a project or task
260. Confessing or apologizing
261. Repairing things
262. Working with others as a team
263. Bicycling
264. Telling people what to do.
265. Being with happy people
266. Playing party games
267. Writing letters, cards, or notes
268. Talking about politics or public affairs
269. Asking for help or advice
270. Going to banquets, luncheons, potlucks, etc.
271. Talking about my hobby or special interest
272. Watching attractive women or men
273. Smiling at people
274. Playing in sand, a stream, the grass, etc.
275. Talking about other people
276. Being with my husband or wife
277. Having people show interest in what I have said
278. Going on field trips, nature walks, etc.
279. Expressing my love to someone
280. Smoking tobacco
281. Caring for houseplants
282. Having coffee, tea, a coke, etc., with friends.
283. Taking a walk
284. Collecting things
285. Playing handball, paddleball, squash, etc.
286. Sewing
287. Suffering for a good cause
288. Remembering a departed friend or loved one, visiting the cemetery
289. Doing things with children
290. Beachcombing
291. Being complimented or told I have done well
292. Being told I am loved
293. Eating snacks
294. Staying up late
295. Having family members or friends do something that makes me proud of them
296. Being with my children
297. Going to auctions, garage sales, etc.
298. Thinking about an interesting question
299. Doing volunteer work; working on community service projects
300. Water skiing, surfing, scuba diving
301. Receiving money
302. Defending or protecting someone; stopping fraud or abuse
303. Hearing a good sermon
304. Picking up a hitchhiker
305. Winning a competition
306. Making a new friend
307. Talking about my job or school
308. Reading cartoons, comic strips, or comic books
309. Borrowing something
310. Traveling with a group
311. Seeing old friends
312. Teaching someone
313. Using my strength
314. Traveling
315. Going to office parties or departmental get-togethers
316. Attending a concert, opera, or ballet
317. Playing with pets
318. Going to a play
319. Looking at the stars or moon
320. Being coached

### STOP

If you have just gone through the list for the first time, go to the next page and follow the directions for Question B.

If you have just finished answering Question B you have completed the test.

### Directions—Question B

Now please go over the list once again. This time the question is: **HOW PLEASANT, ENJOYABLE, OR REWARDING WAS EACH EVENT DURING THE PAST MONTH?** Please answer this question by rating each event on the following scale:

- 0 = This was *not* pleasant. (Use this rating for events which were either neutral or unpleasant.)  
 1 = This was *somewhat* pleasant. (Use this rating for events which were mildly or moderately pleasant.)  
 2 = This was *very* pleasant. (Use this rating for events which were strongly or extremely pleasant.)

*Important:* If an event has happened to you *more than once* in the past month, try to rate roughly how pleasant it was *on the average*. If an

*event has not happened to you during the past month, then rate it according to how much fun you think it would have been. When an item lists more than one event, rate it on the events you have actually done. (If you haven't done any of the events in such an item, give it the average rating of the events in that item which you would like to have done.)*

Place your rating for each event on the answer sheet labeled "B". Here is an example:

Event number 1 is "Being in the country." Suppose that each time you were in the country in the past 30 days you enjoyed it a great deal. Then you would rate this event "2", since it was "very pleasant." On answer sheet "B" your mark would look like this:

1. 0 1 2

The list of items may have some events which you would not enjoy. The list was made for a wide variety of people, and it is not expected that one person would enjoy all of them.

Now go back to the list of events, start with item 1, and go through the entire list rating each event on *roughly how pleasant it was (or would have been) during the past 30 days*. Please be sure that you rate each item and that your marks completely fill the boxes on the answer sheet.

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