

68-3

Reports from the Research Laboratories
of the
Department of Psychiatry
University of Minnesota

"Manual for the Activity
Preference Questionnaire (APQ)"

by

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R311r

Report Number PR-68-3

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by

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MANUAL FOR THE
ACTIVITY PREFERENCE QUESTIONNAIRE (APQ)

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I. BACKGROUND

In connection with some research previously reported (Lykken, 1957), it was desired to have a questionnaire measure of anxiety-proneness which would be relatively fake-proof and free of the usual emphasis on psychiatric and somatic symptoms characteristic of MMPI-type items. A set was drawn up of brief descriptions of experiences or events which most people would regard as unpleasant. Some were intended to be unpleasant mainly because of their frightening or embarrassing character (e.g. "Making a parachute jump," "Finding you've forgotten your billfold after eating dinner in a restaurant"). The others were intended to be onerous but not frightening (e.g. "Having to walk 5 miles along a highway for gas," "Spending an evening with some boring people"). These experiences were rated for unpleasantness by a small group of subjects using a 10 point scale; then test items were constructed by pairing a frightening with an onerous experience which had about the same average unpleasantness rating. The respondent's task was to choose which of each pair of alternatives he would regard as the lesser of evils if one of them had to happen to him. The number of endorsements of the non-frightening or onerous alternative was taken as the 'anxiety' score.

This rather crude 33-item scale showed good internal consistency (odd-even $r = .78$ for $N = 67$), indicating that the items were indeed tending to measure the same thing. The re-test stability was also fairly high ($r = .72$ for $N = 48$) over a two week period. Moreover,

unlike the Taylor Manifest Anxiety Scale (MAT) or the Welch Anxiety Index, this test separated a group of "primary" psychopaths from normal controls in the same way as did the autonomic conditioning and avoidance learning measures employed in the study mentioned above.

This approach to the measurement of anxiety proneness seemed to have several novel and promising features. The scale had the advantages of the forced-choice format, was free of response bias and apparently uncontaminated by social desirability influences. The scale was surprisingly subtle; a class of graduate students in clinical psychology who took the test were unable to guess what it was intended to measure although they had no difficulty in separating the "frightening" from the "onerous" alternatives when that possibility had been pointed out to them. Most important, this approach makes relatively simple demands upon the respondent. He is not asked to reveal intimate or embarrassing facts about himself. He is not required to give an accurate recapitulation of his symptom history nor to make insightful comparisons of himself with others in respect to the intensity of his feelings or the frequency of certain behaviors. Instead, he is merely asked to imagine how he would feel if confronted with various experiences - most of them familiar or commonplace - and to indicate which of two such experiences he thinks he would find least unpleasant. Although his powers of imagery might be weak or strong, the test format requires only that, at least for the majority of the items, the alternative which would seem more unpleasant to him in real life will also engender the greater antipathy

as he thinks about it in the test situation. That is, the factors which govern his behavior in the test situation are thought to correspond reasonably well to the way in which anxiety normally acts to influence behavior choices in everyday life. These considerations, together with the promising empirical findings mentioned earlier, led us to believe that it should be worthwhile to re-build the test more carefully and on a bigger scale as described in the following section.

II. CONSTRUCTION OF THE ACTIVITY PREFERENCE QUESTIONNAIRE

A large pool of alternatives describing unpleasant experiences was collected and edited down to a total of 360 which were then sorted by some 40 judges for 'unpleasantness' to give a rough index of intensity. The alternatives were then classified into ten a priori type-categories (e.g. experiences involving physical danger; experiences involving hostility, expressed or received; experiences involving tiresome or monotonous tasks; etc.) It was possible to select a subset of 40 alternatives which seemed to be generally representative of the total list by choosing four experiences from each of the ten content categories with each set of four ranging from high to low in degree of rated unpleasantness. The remaining 320 alternatives were split into two sets of 160, these sets being also matched for category type and for intensity within category.

The alternatives were then printed on IBM cards, one to a card, giving two decks of 200 cards each (the 40 representative alternatives were included in both decks). College student Ss were given a box containing the two decks plus two sets of 10 index cards and

instructions. These Ss, working at home, sorted both decks for "unpleasantness", using a 10-point scale and a forced-rectangular sorting pattern. Half of the Ss sorted Deck A first and Deck B at least one day later; the other half began with Deck B. A total of 436 males and 348 females sorted the alternatives in this manner.

The results of these sortings were collated and the alternatives intercorrelated, the sexes being analyzed separately. Because of computer limitations, only 100 alternatives could be handled at a time so each deck was split into matched halves yielding eight 100 by 100 correlation matrices (four for each sex) for subsequent factor analysis. In addition, the 40 alternatives which had been included in both decks were correlated across decks to yield re-test reliability estimates. These 40 items are listed in Table 1; since six of the ten a priori content categories were 'frightening,' only 16 of these 40 items are intended to be 'onerous' or non-frightening and, of these, those in the 'disgusting' category (items 4, 14, 24 and 34) seem to correlate better with the 'frightening' categories. One of the 'frightening' categories consisted of some 40 items written by a panel of psycho-analytic experts and intended to tap "castration anxiety" at various degree of symbolic remove (e.g., items 5, 15, 25 and 35 in Table 1). As it turned out, these 'castration' alternatives proved not to work in the sense that they did not correlate with one another and most of them did not load on the anxiety factor.

Some data for these 40 representative alternatives, based on the sample of 436 males, are given in Table 2. The re-test correlations

Table 1

The 40 representative items which were sorted in both decks

1. Having your hands shake and your mouth go dry as you try to talk in front of a group.
2. Having your car swing into a skid on an icy corner.
3. Scrubbing the kitchen floor on hands and knees.
4. Clean off dog mess from your shoe.
5. Balancing along the top rail of a picket fence.
6. "Having it out" with someone.
7. Riding alone in the first car of a roller coaster.
8. Having to get out of bed an hour earlier than usual.
9. Waiting for an overdue bus.
10. Being caught in a bad thunderstorm.
11. Wedged in a crowded bus, discovering suddenly that you're going to vomit.
12. Stepping on the car brakes at an intersection and finding that they don't work.
13. Cleaning paint off your hands.
14. Swallow a tablespoonful of castor oil.
15. Being bitten by a nonpoisonous snake.
16. Having someone say loudly to you at a party, "Why don't you go home? Nobody wants you here."
17. A friend accidently cuts a wrist artery and you have to do something.
18. Sleeping one night on the floor.
19. Waiting in line for two hours to pay a parking ticket.
20. Finding yourself in the midst of a fighting mob.
21. You pass someone on the street and say, "Hi, Charley" and then realize it isn't Charley.
22. Making a parachute jump.
23. Paint the ceiling of a living room.
24. Washing out someone else's dirty bathtub so that you can take a bath.
25. Being bitten by a wild animal.
26. Upsetting the gravy on a friend's tablecloth.
27. Being lost in a swamp at dusk.
28. Having a snowball go down your neck.
29. Watching a long headache-pill commercial on TV.
30. Being pulled out to sea by a powerful undertow.
31. You walk into a public wash room and find that it's the wrong one.
32. Taking a roller-coaster ride.
33. Being a restaurant dishwasher for one week.
34. Clean up the floor where someone has vomited.
35. Spilling a very hot cup of coffee in your lap.
36. Getting a Christmas present from someone you didn't give one to.
37. Letting a large but harmless spider run up your arm.
38. Being sick to your stomach for 24 hours.
39. Having a life insurance salesman come to call on you.
40. Riding a runaway horse.

Table 2
Data on subset of 40 items which were included
in both Decks A and B (Males only, N = 436)

Item No.	Retest AB	Mean		SD		Items with which given item correlates at specified level			
		A	B	A	B	r=.40+	r=.30+	r=.20+	r=.10+
1	.45	6.77	6.62	2.07	2.18				6,11,12,16,26
2	.63	6.64	6.55	2.77	2.67	12		10,27,40	6,17,20,22,30
3	.50	4.10	3.94	1.96	2.04			19,33	4,8,9,23,29
4	.54	6.06	5.93	2.23	2.04		34	9,24	3,11,19
5	.65	3.49	3.32	2.41	2.39				7,18,22,32
6	.60	5.56	5.49	2.22	2.20			20	1,2,10,18,40
7	.77	3.17	3.13	2.76	2.78	32	22,40		5,6
8	.56	3.60	3.42	2.29	2.36				3,9,13,14,19,24
9	.52	4.87	4.60	2.23	2.14		19,29	4	3,8,13,39
10	.53	3.96	3.91	2.33	2.19		40	2,27	6,12,15,17,18,20
11	.31	9.00	9.04	1.31	1.34			34	1,4,12,16,20,26,30
12	.48	8.69	8.56	1.61	1.71	2		20,27,40	16,17,22,25,30,31,35,1,10,11
13	.54	2.37	2.19	1.59	1.47				8,9,23,24,29,33
14	.59	3.47	3.45	2.14	2.24				8,24,34,37
15	.69	6.97	6.90	2.37	2.27	25		37	10,17,22,27
16	.56	8.12	8.00	1.81	1.90			31	1,11,12,21,26,36
17	.71	5.90	6.27	2.77	2.66				20,22,25,27,30,40
18	.58	2.51	2.48	1.78	1.74				5,6,10
19	.46	7.46	7.28	1.89	1.86		9	3,29	4,8,24,33,39
20	.67	6.93	6.96	2.42	2.42		40	7,12,22,27	2,10,11,17,25,30
21	.55	4.67	4.73	2.01	2.11			31	16,26,28,36
22	.83	5.91	6.01	3.35	3.32	40	32,7	20	2,5,6,10,12,15
23	.55	3.98	4.22	2.13	2.14			33	3,13
24	.62	5.33	5.54	2.20	2.30			4,34	8,13,14,19,28,29
25	.55	8.64	8.82	1.66	1.63	15	27	30,40	10,12,17,20,22
26	.47	6.32	6.29	1.79	1.86				1,11,16,21,31,34
27	.56	7.99	7.87	2.11	2.18		30,40,25	2,10,12,20	15,17,22,35
28	.49	4.49	4.59	1.86	1.93				21,24,35
29	.59	4.50	4.58	2.44	2.46		39,9	19	3,8,13,24,36
30	.55	9.18	9.15	1.63	1.65		27	25,40	2,11,12,17,20,22
31	.69	6.23	6.26	2.39	2.33			16,21	12,26,34,36
32	.75	2.36	2.35	2.41	2.36	7	22		5,6,40
33	.60	5.07	5.08	2.42	2.37			3,23	13,19
34	.60	7.89	7.93	1.98	1.95		4	11,24,37	14,26,31
35	.38	7.23	6.96	1.84	1.86				11,12,24,25,27
36	.61	4.97	4.83	2.16	2.24				16,21,24,26,29
37	.74	5.43	5.27	2.74	2.71			15,34	14,25
38	.50	7.92	7.79	1.91	1.82				11,24,25,26,35
39	.65	3.17	3.24	2.29	2.33			29	9,19
40	.70	6.52	6.65	2.88	2.65	22		7,10,20, 2,12,25,30	6,17,32

are high as single item reliabilities go. Note that the 160 items with which these 40 were sorted were entirely different in Decks A and B. As can be seen from the table, the lowest reliabilities belong to alternatives for which the mean 'unpleasantness' was extreme and the SD of the ratings correspondingly small; the average re-test correlation would be very high indeed if corrected for this attenuation of range. The item means and SDs are remarkably alike in the two sortings, indicating that the two decks were, in fact, well matched and that these items behaved very similarly in the two contexts. Table 2 also lists the numbers of all other alternatives (among the 40) with which the given alternative correlated more than +.10. Although all these correlations are significant for $N=436$, they are generally small; it is particularly interesting therefore to note how consistent they are. It is difficult to find a single correlation in the table which does not obviously "make sense" with respect to item content. In particular, 'frightening' alternatives will be seen to correlate almost exclusively with others of the same classification (the 'castration' alternatives being excepted).

The four 100 by 100 correlation matrices for each sex were then subjected to extensive factor analysis. Varying numbers of principal component factors were rotated to orthogonal solutions by both the Quartimax and the Varimax criteria and to oblique solutions by means of the Oblimin criterion. Since factor analysis was being employed here entirely as an heuristic aid, the details of these analyses will

be omitted. All four sets of alternatives produced in both sexes a strong, bipolar first factor having a mixture of 'frightening' alternatives with strong positive loadings and a mixture of 'onerous' alternatives with moderate negative loadings. Such a result was to be expected on our hypothesis that a general 'anxiety-proneness' factor runs through the various content categories of 'frightening' alternatives since the forced-rectangular sorting pattern used requires, e.g., that a high-anxious S must sort the onerous alternatives toward the low end of the 'unpleasantness' scale if he has sorted the 'frightening' alternatives toward the high end.

Four judges were asked to independently label the various factors resulting from the several analyses and these identifications were then compared and reconciled at a joint meeting. Some ten to twelve factors could be named with reasonable agreement in each of the factor matrices examined; perhaps half of these appeared repeatedly in the analyses of different matrices, for both sexes and with different rotational solutions. Taking all the analyses together, a total of 33 factors could be labeled with reasonable agreement. As shown in Table 3, these included some 22 factors involving 'frightening' alternatives and 11 factors involving 'onerous' alternatives.

It appeared at this stage that experiences involving failure and the manifestation of inadequacy or incompetence were under-represented in our list of alternatives. Fifty new alternatives were therefore written and combined with 50 items representative of the 360-item pool

Table 3

All identifiable factors obtained in analyses
of the four sets of 100 alternatives each

I. 'Anxiety' Factors

1. Gross physical danger, threatened by overwhelming force.
2. Social rejection, other's dislike or disdain you, being left out of "in-group".
3. Disgusting, revolting, sickening experience, "my gorge rises at it".
4. Squeamishness; neither revolting nor frightening yet "gives you the shudders".
5. 'Major medical': doctors, hospitals, medical emergency, medical worry, pain, etc.
6. Mortification: "my most embarrassing moment".
7. Hostility toward others; you do something knowing it may make someone angry.
8. Hostility from others; another individual shows anger toward you, is aggressive.
9. Eerie, 'spooky' experiences, frightening without clear logical justification.
10. Death; any experience concerned with, implying or possibly involving having contact with dying, dead bodies, etc. (not your own death).
11. Being evaluated; presenting one's self before others to be judged, graded, etc.
12. High places; risk of falling, vertigo, etc.
13. Risk of pain; actions involving risk of hurtful injury or pain.
14. Stage fright; fear of performing before groups of people.
15. Shyness; fear of social interactions with one or a few persons (e.g. with any stranger, with persons in authority, with celebrities, etc).

Table 3 (Cont.)

16. Speaking up; social or inter-personal situations in which one must or should speak up, express his views, defend his rights, etc.
17. Inadvertently antagonizing others; thru thoughtlessness, carelessness or sheer accident, one's actions lead to offending or injuring others.
18. Panic; items suggesting uncoordinated struggling, flight, loss of control.
19. Unpleasant associations of childhood.
20. Being trapped - physical; being physically prevented from escaping from a painful or dangerous situation or place.
21. Guilt; feeling chagrined or guilty about an action which conflicts with one's own standards of morality or character.
22. Shame; awareness - or fear of discovery - by others of an action which they might regard as shameful; may or may not conflict with one's own standards.

II. 'Onerous' Factors

1. Chores; routine household tasks, etc.
2. Moderate physical discomfort, moderate or nagging aches & pains, etc.
3. Tasks involving tiresome repetition, doing something over and over, etc.
4. Frustration; being held back, prevented from reaching a goal.
5. Irritation; circumstances which nag, annoy, are a nuisance, interrupt, etc.
6. Waiting; wasting time in tiresome waiting for someone or something.
7. Hard physical labor; fatigue, sore muscles, etc.
8. Being trapped - social; forced by social convention to remain in or to tolerate an unpleasant or tiresome situation.
9. Being trapped - restraint; being physically encumbered or restrained without the present situation being necessarily dangerous or painful.

Table 3 (Cont.)

10. Being bossed: having to submit to authority; having one's actions closely controlled or restricted by the will of another.
11. Cleaning, scrubbing, fixing up.

and then submitted for 'unpleasantness' ranking by a new sample of 100 males. These data provided intensity scores for the new alternatives which were reasonably comparable to those obtained for the main pool and factor analysis of these data indicated that the new items fit reasonably well into the factorial structure previously obtained, loading such factors as "Being evaluated," "Speaking up," "Inadvertently antagonizing others," "Guilt," "Shame," and the like.

During this period, various experimental forms of the APQ anxiety scale were constructed from the new pool of alternatives and used in various applications both in our laboratory and elsewhere. These scales were built by pairing a 'frightening' alternative with an 'onerous' alternative of about the same average unpleasantness rating. Several hundred such items were constructed and submitted to various normal groups to provide data for item analysis. Items having internal validity coefficients greater than .3 and difficulty levels between .25 and .75 were retained for later use.

The Present Forms of the APQ. Although it seemed neither possible nor desirable to attempt to measure separately all of the 22 'Anxiety' factors listed in Table 3, inspection of that list suggested that one could reasonably cluster those 22 factors into groups representing the three superordinate dimensions of Physical Anxiety (experiences involving physical danger), Social Anxiety (experiences involving social stress, embarrassment, and the like) and Ego Threat (experiences of guilt, shame, failure, and the like). Therefore, three sub-scales were constructed from items involving 'frightening' alternatives loaded

on the appropriate factors. It is important to note that the forced-choice format of the APQ assumes that the 'onerous' alternatives used on, say, the Physical Anxiety sub-scale do not have a common factor running through them. Thus, if 'irritability' is a trait-unity, then pairing physical anxiety alternatives with alternatives describing irritating experiences may produce a scale which measures either 'physical anxiety' or 'irritability' or some compound of both. For this reason, care was taken in constructing the anxiety sub-scales to insure that the 'onerous' alternatives used in each sub-scale were drawn from several or most of the 11 'onerous' factors shown in Table 3. The success of this procedure was confirmed by subsequent factor analysis of the APQ (analysis of phi-coefficients between items, i.e., pairs of alternatives, rather than of 'unpleasantness' ratings of the separate alternatives as before) in which the three sub-scale factors were the first factors identified while no 'onerous' factors appeared in the 13 factors extracted.

Enough items were available so that it was possible to divide each sub-scale into matched halves and thus to construct two parallel forms of the APQ with 100 items in each. Each form includes a 32-item Physical Anxiety sub-scale, a 32-item Social Anxiety sub-scale and a 16-item Ego Threat sub-scale in addition to two 10-item validity scales. The total Anxiety Reactivity score is obtained by summing the endorsements of the 'onerous' alternatives on the three anxiety sub-scales. Eight of the 80 'anxiety' items are common to both forms.

The Validity Scales. Validity keys in personality instruments have

proven useful for identifying respondents who have faked or slanted their responses or those who have responded carelessly or randomly. For the APQ it was reasoned that validity scales might be constructed from items formed by pairing two 'anxiety' alternatives or two 'onerous' alternatives of different intensities. Subjects responding honestly and deliberately to such items would be expected to endorse the less intense alternative and this tendency should be unrelated to the subject's level of anxiety reactivity. Two 10-item scales were constructed along these lines, one consisting of 'anxiety'-'anxiety' pairs and the other of 'onerous'-'onerous' pairs. In each scale, the intensity differences between the paired alternatives ranged from slight to very large in the hope that the large differences would aid in detecting careless or random responding and that the smaller differences might pick up invalidity of more subtle nature. Validity scale items are interspersed among the content items and serve the additional purpose of helping to prevent subjects from guessing the purpose of the test from the item format; i.e., the inclusion of A-A and O-O pairs prevents the induction that all of the items pit a frightening experience against an unpleasant but non-frightening one.

III. NORMS AND INTERCORRELATIONS OF SUB-SCALES

The following abbreviations will be used in reporting data for Forms A and B of the APQ.

TRS--Total Reactivity Scale. 80 items. This score is the algebraic sum of the scores for the social, physical and ego threat sub-scales.

S--Social sub-scale. 32 items dealing with social fears or embarrassment.

P--Physical sub-scale. 32 items. Content is either actual physical danger or squeamishness.

E--Ego threat sub-scale. 16 items, dealing primarily with recognized failures or lack of competence in social situations.

Ve--Validity scale of items pairing alternatives both of which contain emotional content. 10 items. Five of the items consist of paired social content alternatives and the other five contain physical alternatives.

Vne--Validity scale made up of non-emotional pairs of statements. 10 items.

The validity scales were identical in Forms A and B. All but eight of the items on the content sub-scales were independent. For the eight common items, three were social, three were physical, and two were ego-threat items.

Means and standard deviations for the two forms are reported in Tables 4 and 5. For both forms the norms are reported separately for each sex and for three samples. These were groups of students from a private liberal arts college, a large state university, and a junior college located in a metropolitan area. All three samples were predominately freshmen and sophomores, though the age range was somewhat greater in the university sample.

There is a mean difference of 6 to 8 points between sexes on the two forms. This may in part reflect cultural stereotypes of male and female roles, with males less willing to admit fear than females, particularly under conditions of physical danger. However, this may also be a function of inherent differences between sexes in

Table 4

Means and Standard Deviations for the APQ Emotional Reactivity Scale, Subscales, and Validity Scales, Form A

Sample	TRS	S	P	E	Ve	Vne	Vtotal
<u>Males</u>							
Private Liberal Arts College (N = 36)							
Mean	38.9	16.3	14.8	7.8	2.7	2.1	4.8
SD	9.3	4.8	4.1	2.4	1.5	1.2	1.79
Large State University (N = 61)							
Mean	41.7	17.6	16.2	8.0	2.8	2.1	4.9
SD	11.7	5.8	5.4	2.6	1.6	1.2	1.82
Metropolitan Area Junior College (N = 115)							
Mean	38.8	16.1	14.6	8.03	4.5	3.6	8.1
SD	9.1	4.5	4.4	2.6	1.7	2.0	2.39
<u>Females</u>							
Private Liberal Arts College (N = 68)							
Mean	48.9	20.0	20.2	8.6	2.4	2.4	4.8
SD	10.1	4.8	4.8	3.3	1.2	1.3	1.68
Large State University (N = 65)							
Mean	49.3	20.0	21.0	8.3	2.3	2.5	4.8
SD	8.0	4.2	4.2	2.5	1.3	1.3	1.74
Metropolitan Area Junior College (N = 64)							
Mean	46.0	18.9	18.9	8.3	3.7	3.5	7.2
SD	8.4	5.0	3.6	2.4	1.9	1.9	2.55

Table 4 (continued)

Sample	TRS	S	P	E	V
<u>Total College Sample: Form A</u>					
<u>Males (N = 354)</u>					
Mean	40.5	16.9	15.5	8.1	5.8
SD	10.0	5.0	4.9	2.6	2.7
} sexes combined					
<u>Females (N = 282)</u>					
Mean	48.5	19.8	20.4	8.4	
SD	8.6	4.5	4.4	2.7	
<u>Total College Sample: Form B</u>					
<u>Males (N = 943)</u>					
Mean	41.5	15.8	16.9	8.8	5.6
SD	11.1	4.9	6.2	2.7	2.6
} sexes combined					
<u>Females (N = 694)</u>					
Mean	47.2	17.4	20.6	9.2	
SD	10.0	4.7	5.2	2.6	

Table 5

Means and Standard Deviations for the
APQ Emotional Reactivity Sub-Scales,
and Validity for Form B

Sample	TRS	S	P	E	Ve	Vne	Vtotal
<u>Males</u>							
Private Liberal Arts College (N = 35)							
Mean	36.0	13.9	13.6	8.5	2.7	2.0	4.7
SD	9.2	4.3	4.4	2.6	1.6	1.2	1.82
Large State University (N = 130)							
Mean	38.9	14.7	15.1	9.1	2.7	2.2	4.9
SD	10.0	4.9	5.2	2.6	1.5	1.3	1.81
Metropolitan Area Junior College (N = 427)							
Mean	36.3	14.7	13.5	8.1	3.1	3.6	6.7
SD	9.7	4.6	5.2	2.6	1.6	1.8	2.19
<u>Females</u>							
Private Liberal Arts College (N = 67)							
Mean	48.2	17.7	20.9	9.6	2.2	2.6	4.8
SD	10.0	5.0	5.3	2.8	1.2	1.5	1.82
Large State University (N = 154)							
Mean	48.2	17.6	21.3	9.3	2.2	2.3	4.5
SD	9.6	4.6	4.7	2.5	1.5	1.4	1.95
Metropolitan Area Junior College (N = 167)							
Mean	44.3	16.9	18.6	8.8	3.3	2.9	6.2
SD	10.3	4.6	5.4	2.7	1.5	1.6	2.09

anxiety reactivity.

The means and standard deviations for the two forms are very similar, although Form B tends to average 1 to 2 points higher than Form A in the aggregate samples. The three college samples yielded similar means and standard deviations.

Intercorrelations among the sub-scales are given in Table 6 for the junior college sample, which are representative of the findings for the other samples. The intercorrelations among the social, physical and ego-threat sub-scales were somewhat lower than expected. Items were chosen for both forms with the expectation that they would correlate positively with the total score of each sub-scale, thus increasing the homogeneity of the total Reactivity Scale. However, the intercorrelations suggest that there is enough specific variance in the scales to profitably pursue differential validity. The validity scales generally showed little correlation with the content sub-scales or with each other.

IV. RELIABILITY

A summary of the reliability studies carried out on the present forms of the APQ is given in Table 7, grouped according to the type of reliability being reported. All subjects for the reliability studies were college students.

The immediate equivalence reliability of .86 for the two forms is quite high for personality tests, particularly in light of the fact that the item pool was not extensive enough to allow much precision in the item-by-item matching of the two forms. Nor was this result

Table 6

Intercorrelations of the APA Sub-Scales for
Forms A and B for Metropolitan Area
Junior College Sample

(Males Below Diagonal; Females Above Diagonal)

	TRS	S	P	E	Ve	Vne
<u>Form A</u> (115 males; 67 females)						
TRS		.88	.72	.60	-.17	.10
S	.84		.41	.39	-.20	.02
P	.81	.45		.18	-.19	.10
E	.69	.45	.39		.09	.14
Ve	-.18	-.20	-.15	-.02		.41
Vne	.13	-.02	.18	.17	.30	
<u>Form B</u> (427 males; 167 females)						
TRS		.86	.82	.69	-.32	.08
S	.83		.48	.60	-.19	.22
P	.81	.44		.30	-.31	-.07
E	.61	.44	.24		-.28	-.04
Ve	-.20	-.14	-.17	-.17		.17
Vne	.04	.00	.09	-.06	.21	

unduly influenced by the eight items common to Forms A and B. The equivalence reliability of the 72 independent items was .84, a smaller decrease than would have been predicted by the Spearman-Brown correction formula for forms thus shortened.

Both forms proved quite stable over time, as well. Only in the sample retested with Form B after a one-month interval did the stability estimate fall markedly below .80 and there was some reason to believe that a number of the subjects in this sample were given a false impression of the purpose of the research. Quite possibly these subjects were less motivated to answer carefully than those in other studies.

The homogeneity estimates were done with the Kuder-Richardson Formula 20. These must be considered an underestimate of the true internal consistency reliability because the item proportions diverged from .5 in many instances. The average biserial correlation with the total Reactivity Scale score was .35 in each form. No item had a negative biserial correlation in Form A and only one was identified as such in Form B. (This item has subsequently been altered.) Even the validity scales demonstrated respectable homogeneity for 10 item scales. If the lengths were extended to 80 items, as in the Total Reactivity Scale, they could be expected to have reliabilities of .80 or better, assuming that the assumptions of the Spearman-Brown Formula could be met.

Table 7
 Summary of Reliability Estimates for
 Forms A and B of the APQ

Interval	Form	N	TRS	S	P	E	Ve*	Vne*
<u>Equivalence</u>								
Immediate	A&B	88	.86	.74	.83	.61	.69	.69
1-3 Mos.	A&B	81	.83	.74	.80	.58	.50	.35
3 Week	A&B	71	.78	.73	.74	.40	.65	.53
<u>Stability</u>								
1-3 Mos.	A	58	.82	.72	.85	.61	.48	.46
1-3 Mos.	B	51	.90	.85	.87	.70	.55	.29
10 days	A	37	.92	.92	.90	.82	.58	.49
1 Week	B	32	.78	.75	.87	.63	.85	.53
1 Mo.	B	179	.73	.67	.71	.49	.43	.25
<u>Homogeneity</u>								
	A	448	.84	.74	.76	.50	.38	.40
	B	410	.85	.71	.80	.52	.33	.44

Note --

*The validity scales were identical in the two forms. Reliabilities listed under equivalence are actually test-retest estimates for these scales.

V. VALIDITY

(Some of the validity data presented in the following pages involved the use of earlier forms of the APQ. We have not obtained estimates of the intercorrelation of these several forms but the fact that they were all constructed on the same rationale and from the same item pool suggests that these correlations would be high and that most of the findings outlined below can be assumed to apply to all forms of the test.)

A. Correlation With Other Tests

The reliability data make it clear that the APQ is measuring something with high internal consistency and, in normal subjects, also with high retest stability. One of the intriguing things about the APQ, however, is that it is negligibly correlated with most other commonly used tests and inventories; whatever the APQ is measuring so reliably is a factor that is not now being assessed in the typical psychometric battery.

1. Ability Tests. Katzenmeyer (1967) correlated the APQ with the CEEB, the Coop English Test, Form R, the Concept Mastery Ability Tests, and with Grade Point Average (GPA) in samples of from 30 to 60 undergraduate males and females. Of the 120 correlations, 102 were negative but nearly all were very small. The highest correlation (-.45) was between the Ego Strength sub-scale of the APQ and Concept Mastery among women students. Total APQ score correlated from zero to -.32 with the various aptitude subtests and essentially zero with academic performance in this college sample.

2. Strong Vocational Interest Test. Intercorrelations with the various scales of the Strong were also very small, the largest (-.31)

being that between the APQ 'physical anxiety' sub-scale and the SVIB 'aviator' scale. The 'social anxiety' sub-scale was negatively related to SVIB sales occupations scales for both sexes. A further analysis of the APQ as a moderator of correlations between SVIB scales has appeared promising but cannot yet be reported.

3. MMPI. The APQ in its various forms has been repeatedly correlated with the scales of the MMPI for both normal and psychiatric samples with the consistent finding of small and generally insignificant relationships. A typical result for 85 male and 66 female students is shown in Table 8. As could be predicted from this table, a factor analysis of these data reveals that the APQ is not significantly loaded on either of the two main common factors of the MMPI as well as being generally uncorrelated with the scales taken individually.

Rose (1964) determined the mean MMPI profiles of psychiatric patients scoring in the upper and lower 20 percent on the APQ, i.e., scores of 56 and higher or 30 and lower; 9 males and 12 females in each extreme group. The mean profiles for the high-APQ patients were (in the Hathaway coding system) 728'4'5016 for males and 78246'3019 for females. This is an anxious, worried, neurotic profile seen in anxiety reactions, obsessive-compulsives and schizoid patients. Thus, Gilberstadt's & Duker's (1965) actuarial interpretation of this code type lists the following cardinal features: "Shy, inadequacy feelings, fearful, lacking confidence, difficulties in interpersonal and

Table 8

Correlation of APQ (Form B) with the
Clinical Scales of the MMPI

<u>MMPI Scales</u>	<u>Males (N=85)</u>	<u>Females (N=66)</u>
L	.08	.25*
F	-.08	.19
K	.01	-.11
Hs	-.14	-.19*
D	.09	.04
Hy	-.09	-.17
Pd	-.10	-.17
Mf	.06	.06
Pa	.00	-.07
Pt	-.05	-.05
Sc	-.10	-.13
Ma	-.11	-.26*
Si	.00	.07

* Significant for total group.

heterosexual relationships," and so on, the mean profiles for the low APQ patients were 4'7852369 for males and 4'68327 for females. According to Gilberstadt & Duker, this profile among psychiatric patients is associated with diagnoses of personality trait disturbance or passive-aggressive personality, aggressive type and with cardinal features "Irresponsible, immature, demanding, egocentric, impulsive.... careless, restless, ..., acting-out."

4. Heist's Omnibus Personality Inventory Correlation of the APQ with the 13 scales of the OBI also are generally very small and insignificant. Among females only, significant negative correlations were obtained between the APQ and the only relationship of any size ($r = -.46$) was between the APQ and Impulse Expression, for the female sample.

5. "Anxiety" Scales Because the APQ is uncorrelated with the "first dimension" of the MMPI (Block, 1965), that ubiquitous factor which pervades the "true-false" type of personality inventory and is variously labeled "social desirability" or "neuroticism," it can be anticipated that the APQ is little correlated with most other so-called "anxiety" scales which load primarily on neuroticism. Several studies have indicated correlations between the APQ and the Taylor Manifest Anxiety Scale ranging from zero to low (less than .45) positive. This lack of relationship is not a function just of the difference in format since the correlation is no higher with Heineman's (1953) forced-choice version of the TMAS. Another study by Katzenmeyer showed the APQ to

be uncorrelated with the IPAT Anxiety Scale as well as with the second-order "anxiety" factor of the Cattell 16 PF Scales. Other studies have found similarly negligible relationships with MMPI "anxiety" indices including Welch's Anxiety Index and the Scales 'A' and 'R'. Rose's (1964) finding of a correlation of .65 with Byrne's R-S scale among psychiatric patients appear to have been a sampling variation and has not been borne out in other studies.

Somewhat different results might have been expected from the Hunt S-R Anxiety Inventory (Endler, Hunt & Rosenstein, 1962) since some of the content of this test is very similar to some APQ content. On the other hand, the task set for the subject is very different; in the S-R Inventory, he is asked to rate how upset he would expect to be in each of the situations described rather than to simply choose between two alternative situations as in the APQ. Thus, as in all the other putative "anxiety" scales, the subject is invited to admit his fears, weaknesses, defects or worries and, in consequence, the Hunt S-R seems to measure neuroticism as do all the others. In Katzenmeyer's study of this relationship, the APQ correlated .29 with the Hunt S-R in college males (N=48) and .41 in females (N = 67). These correlations are statistically significant but the common variance is less than 20 percent.

Thus it is clear that the APQ is not measuring any of the dimensions, primary or secondary, which comprise the common factor pool of most existing objective personality, ability and interest inventories. That

it is reliably measuring something, however, is attested to by its high internal consistency and retest stability. That this "something" may be something close to the intended dimension of 'anxiety reactivity' is suggested by the test format and rationale; a subject who indicates, more often than not, that he would prefer some onerous but non-frightening experience to one involving elements of physical danger, social embarrassment or ego threat is presumably a subject for whom fear motivation plays a stronger than average role in determining his behavior choices. To go beyond such evidence of face validity, however, it is necessary to turn to the existing evidence concerning non-test correlates of the APQ.

B. Relationship of the APQ to Non-test Variables

1. The APQ and Sociopathic Behavior. It was mentioned earlier that the original form of the APQ had proven capable of discriminating a group of 'primary psychopaths', prisoners selected to fit a set of criteria listed in Cleckley's classic monograph, from another group of prisoners who did not fit the Cleckley criteria and also from a group of normal controls. These 'primary psychopaths' also showed significantly poorer performance on an avoidance learning task (Lykken, 1957). Schachter & Latene (1964) identified groups of psychopathic and non-psychopathic prisoners using the APQ as one of their criteria and also found that their groups differed significantly on the same avoidance learning test. Interestingly, it was also found that when these same low-APQ psychopaths were pre-injected with adrenaline, for the purpose of phasically

increasing their levels of arousal and hence of emotional reactivity, their avoidance learning scores rose to normal levels.

Hauser (1959) found a correlation of $-.54$ between the score on the original short form of the APQ and a self-report measure of the variety of minor legal offenses admitted by a group of college students. London (1965) similarly reports significant relationships between the APQ and frequency of drinking, smoking, dating, and number of speeding tickets reported by college males, low scorers admitting more of these behaviors. Latene' & Wheeler (1964) gave the APQ to a group of Naval enlisted men who had taken part in a body-gathering detail at the site of the crash of an airliner. High APQ scorers admitted more subjective disturbance after this experience, had been more inclined to write long, cathartic letters home describing what had happened, and felt more inclined to avoid air travel themselves in future than did those with low APQ scores. Chabot (1968) found that delinquents in two institutions scored significantly lower on the APQ than a group of normal adolescent controls and those more incorrigible types in the custodial institution also scored significantly lower than the delinquents newly admitted to a diagnostic reception center. While not wanting to suggest that participation in sport parachuting necessarily implies a sociopathic character structure, it may be appropriate to include here Katzenmeyer's (1966) finding that members of a sky-diving club scored significantly lower on the APQ than did a matched group of non-participants, the greatest difference being on the 'physical anxiety' sub-scale. The

The IPAT Anxiety Scale failed to differentiate these same groups.

2. The APQ and the Adjective Check List. Katzenmeyer (1966) asked 315 college students, who had taken the APQ and also the TMAS, to describe themselves in the terms of the Gough Adjective Check List. The 50 males and 50 females scoring highest on the APQ were compared with the 50 of each sex scoring lowest (i.e. the upper and lower 36 percent for males and upper and lower 31 percent for females) were compared to determine which adjectives differentiated the groups with a p -value of .10 or better (Chi-square). The findings are shown in Table 9. High-APQ males describe themselves as mild, nervous, shy, unselfish, and weak while low scorers claim to be attractive, calm, cool, greedy, informal, lazy, mischievous, relaxed, and so on. High-APQ women say they are feminine, good-natured, patient, shy, silent, slipshod and timid while low-scorers are adventurous, complicated, daring, frank, imaginative, independent, individualistic, peculiar, rebellious, self-seeking, sexy, spontaneous, spunky, temperamental, and the like. Remembering that we are dealing here with "normals," it seems apparent that these data comport with the view that the APQ is measuring a dimension of anxiety reactivity or anxiety proneness, as intended.

This is in considerable contrast to the results obtained when the high and low scores on the Taylor Manifest Anxiety Scale were contrasted. A much larger number of adjectives showed large differences in this comparison, illustrating the high communality of the TMAS and the check-list instruments, both of which invite the respondent to say -- or to

Table 9

Adjectives Demonstrating Differences Better Than $p < .1$ Between High and Low Groups on the Total Emotional Reactivity Scale of the APQ

High	Males		Females	
	Low	High	Low	High
Mild	Attractive*	Feminine	Adventurous*	Interests W
Nervous*	Calm*	Good Natured	Assentive	Leisurely
Shy*	Cool	Patient*	Complicated*	Mischievous
Unselfish	Cynical	Shy	Confused	Original*
Weak	Flirtatious	Silent	Cynical	Peculiar*
	Forceful	Slipshod	Daring*	Pleasure-seeking
	Good-looking*	Timid*	Discreet	Progressive*
	Greedy*		Distrusting	Rebellious*
	Informal*		Forceful	Self-Seeking*
	Lazy*		Frank*	Sexy*
	Mischievous*		Gloomy	Spontaneous*
	Relaxed*		Greedy	Spunky*
	Show-off		Imaginative*	Strong
	Sly		Independent*	Temperamental*
	Spontaneous		Individualistic*	Unconventional
			Insightful	

Note -- * $p < .02$

avoid saying -- 'sick' or critical things about himself. High TMAS scorers of both sexes employ mainly undesirable adjectives in describing themselves while low-scorers employ mainly desirable ones. Fear-relevant adjectives do tend to appear more often in the attributions of the high-scorers but this is apparently because such words have the undesirable, 'sick' or self-critical connotation. It seems clear that such a cluster of adjectives as "anxious," "awkward," "bitter," "careless" and "complaining" does not succinctly characterize what one would expect of an individual endowed with a higher than average anxiety reactivity, all other things being equal.

Finally, a cross-classification of the APQ and TMAS was accomplished, based on the 25 subjects having the highest scores on both tests, the 25 having the highest APQ scores combined with the lowest TMAS scores, and so on, for each sex separately. Thus, for the males, the mean scores for the high-high group were 48 (APQ) and 27 (TMAS); for the high-low group, 45 and 10; for the low-high group, 31 and 21; and for the low-low group, 29 and 7. Adjectives were then selected which differentiated each quadrant from each of the other three. While such data are difficult to summarize briefly, one can say, for example among the males, that the high-high group describe themselves as anxious, disorderly, high-strung, tense, unattractive and unhappy; the low APQ - high TMAS group describe themselves as impulsive, immature, lazy and rather psychopathic; the high APQ - low TMAS give a picture of rather rigid conformity (efficient, formal, handsome, wholesome, not cynical, dominant, rebellious or

reckless); and finally the low-low group is charming, daring, good-natured, humorous, natural, not nervous or awkward. Again, it seems rather clear from this cross-classification that the APQ is taping the intended dimension of anxiety proneness or reactivity while the TMAS (and, no doubt, most other published "anxiety" scales) differentiates those who will describe themselves negatively or critically from those tend to "think positive" in the area of self-description.

3. The APQ as a Measure of State Anxiety. Although designed as a measure of enduring individual differences in anxiety reactivity or "trait anxiety," some little evidence is at hand to suggest that the test does respond appropriately to phasic changes in anxiety level, i.e., that subjects taking the test under stress conditions tend to score higher than they otherwise would. This of course might be expected from the test format on the assumption that any frightening stimulus becomes increasingly salient or evocative to a subject under environmental stress. Thus, we assume -- but have no data yet to show this -- that patients newly hospitalized with anxiety reactions and not yet on drugs will score higher than they would after successful treatment, although many such patients might be expected to show higher than average APQ scores at any time, signifying higher than average "trait" anxiety. Chabot's (1968) finding that juvenile offenders newly admitted to a diagnostic detention center show higher APQs than offenders who have resided for some months in a custodial institution comports with

the clinical observation that these adolescents appear to be phasically anxious and distressed when first sent to the institution just after sentencing. Even this group, however, scored significantly lower than matched non-delinquents, suggesting that lower trait anxiety is a common characteristic of the juvenile delinquent.

One rather curious study of the response of the APQ to phasic changes in state anxiety involved the use of a highly trained hypnotic subject in Blum's (1961, 1963) laboratory who had been intensively 'programmed' to experience graded intensities of anxiety on command, ranging from acute panic in response to the number "100" to a moderate discomfort in response to the number "20." An advantage of using a well-trained hypnotic subject for these purposes is that amnesia can be post-hypnotically induced for each experience with the test. On each testing, this subject re-read the instructions, asked similar questions, commented on the same items, and generally gave a convincing impression of being unaware that he had ever encountered the scale previously. Under normal conditions, this subject scored at about the mean for college males but when a moderate-to-strong level of anxiety was induced hypnotically, his score rose by some four standard deviations; this finding was repeated with another form of the test. Under the moderate anxiety conditions, his score was about three SDs above the mean. This subject was accustomed to performing varied experiments under hypnotically induced states of anxiety or arousal and appeared to have no knowledge or hypothesis about what the APQ was supposed to be measuring.

4. Psychophysiological Correlates of the APQ. Such theorists as Malmö (1957), Lindsley (1957) and Schachter & Latane' (1964) assume that generalized autonomic and CNS arousal or activation is a concomitant of the 'excited emotions' such as fear and rage, i.e., that an anxious subject can be expected to show proportionate autonomic and CNS arousal (although, of course, an aroused subject is not necessarily anxious). Therefore, one might expect moderate correlations between the APQ and such an index of autonomic arousal as tonic skin conductance or such an index of CNS activation as the two-flash threshold (a measure of the temporal resolving power of the visual system). Rose (1964) reported correlations of .43 between the APQ and tonic SC and -.63 with the TFT (both correlations in the expected direction and highly significant) in a heterogeneous sample of psychiatric patients. Luther (1965) reports similar findings in two non-psychiatric samples but insignificant correlations in his psychiatric patients. Both Peterson (1968) and Maley (1967) failed to find significant correlations in small patient samples but methodological difficulties in both experiments make them difficult to interpret. We have noted a tendency for such psychophysiological correlations to be attenuated when the APQ is taken at a different time than the experimental measures and this may reflect the effect of phasic variations in both variables.

Valins (1967) compared high and low APQ scorers in respect to their heartrate response to various intensities of noise and shock, finding both groups showing similar increases in HR as the stimulus intensity

increased. However, the groups differed markedly in their HR response to the warnings which preceded the stimuli, e.g. "Here comes a strong shock" or "Here comes a weak one." The low-anxious group showed increasing cardio-acceleration after being warned that a strong noxious stimulus was imminent while the high-anxious Ss showed deceleration to all of the warnings. On present evidence, the best interpretation of these findings seems to be that the accelerations shown by the low-anxious Ss to the strong stimulus warnings have the effect of minimizing the extent and duration of the disturbance produced by the subsequent shock while the deceleration shown by the high-anxious Ss is an 'orienting reflex' which is maladaptive in this situation, tending to augment the disturbing effects of the shock. In later work, Valins presents evidence suggesting that low-scorers on the APQ pay less attention to internal cues including autonomic arousal.

5. The APQ in Psychiatric Patients. Some preliminary data indicating what might be expected from the APQ in psychiatric patient populations are listed in Table 10. These male VA patients show an average total score about one standard deviation above the normal male mean. Some 82 percent of the acute schizophrenics and 86 percent of the psycho-neurotic inpatients (most of them diagnosed either anxiety reaction or depressive reaction) scored above the mean for normal men. There is some suggestion in these data that the internal relations of the APQ sub-scales may be of interest in individual assessment; e.g., many

Table 10
 APQ Means and Standard Deviations for Three VA
 Psychiatric Inpatient Samples (all Males)

Sample	TRS	S	P	E	V
Chronic Schizophrenics (N = 110)					
Mean	46.0	17.6	20.3	8.1	7.5
SD	8.4	4.6	4.5	2.2	1.8
Acute Schizophrenics (N = 50)					
Mean	46.3	18.5	19.3	8.5	8.0
SD	7.5	4.0	4.3	2.3	1.9
Psychoneurotic, Anxiety and Depression (N = 50)					
Mean	47.4	19.8	20.0	7.9	7.8
SD	9.6	4.9	5.2	2.5	1.7

paranoid patients seem to show higher scores on the social than on the physical anxiety sub-scales and both paranoid and depressed patients may have relatively high scores on the ego threat sub-scale. These observations, however, are much too tentative to be taken seriously at this time.

6. Effectiveness of the Validity Keys. The validity keys consist of 10 items in which an onerous alternative is paired with another onerous alternative of a different intensity (i.e., degree of 'unpleasantness') and 10 items in which two frightening alternatives of different intensities are paired. These scales are identical in Forms A and B and the difference in the rated intensity of the paired alternatives ranges from rather slight to very great in both sets. The scale score is the number of items on which the more intense (more 'unpleasant') alternative is chosen by the subject as preferable. The mean score on the total scale, for which the maximum possible score is 20, was 5.6 for an aggregate sample of some 2300 normal Ss tested thus far, with a standard deviation of 2.6. The distribution is positively skewed with about 8 percent of the sample scoring 10 or above and about 87 percent scoring 8 or below. There is no doubt that some small percentage of these subjects in the norm group produced truly invalid records either through carelessness or otherwise.

In a sample of 70 adolescent delinquents confined to a detention center, 24 percent scored 9 or higher on the validity key, in contrast

to 7 percent of a control group of 30 high school students and 8 percent of a group of 50 college sophomore males. Assuming that delinquent adolescents would more frequently adopt a frivolous or deceitful attitude toward a test of this kind, these figures tend to support that 'face validity' of the validity key and to suggest that a cutting score of 9 might be optimum.

Katzenmeyer further investigated this problem in a series of 'faking' studies employing college students. In the first study, subjects were asked to imagine themselves applying for a job in industry ('fake good' condition) or as a member of the armed forces being tested for some undesirable duty which they wanted to avoid ('fake bad' condition). Fifty-three Ss took the APQ under normal instructions and again under the 'fake good' instructions (counterbalanced for order and sex) and 82 Ss comprised the 'fake bad' group (also counterbalanced). A third group took the APQ twice under normal instructions to insure that mere repetition of testing had no systematic effect either on the anxiety score or on the validity score. In the 'fake good' condition, only the males showed a significant change in anxiety score which increased from 39 to 47 on the average while their mean validity scores increased from 4.7 to 6.4 (not significant). Thus, while the validity key is not very effective detecting distortions resulting from a 'fake good' test attitude, this motivation does not seem to affect APQ scores in women and tends to elevate them in men, a result probably not in the direction the subjects

would have intended had they been aware of what the test was supposed to be measuring.

In the 'fake bad' condition, only the females managed to change their APQ scores, from 49 to 37 on the average, which is again opposite to the direction of change one might expect if the Ss had been aware of the intent of the test. For both males and females, the 'fake bad' test attitude markedly and significantly increased the (in)validity scores, from a mean of 4.5 to 10.2. Thus, the 'fake bad' motivation does not seem to lead to systematic increases in APQ scores and does lead to marked increases in scores on the validity keys.

In another experiment, 41 subjects took the APQ under normal instructions and again under both 'fake high anxious' and 'fake low anxious' instructions. They were asked to imagine that they were being tested for a potentially dangerous job in military intelligence, one which would require them to perform well under stress. For the 'low anxious' condition they were to imagine that they strongly wanted to be selected for the job and conversely for the 'high anxious' condition. The APQ was taken first under normal instructions and then the order of the two faking conditions was counterbalanced. Thus, for the faking conditions, the subjects were aware that the APQ was intended to assess their anxiety-reactivity or ability to cope with stress situations.

With these very specific and revealing instructions, subjects were able to change their scores considerably in the intended directions; from a mean of 40 to 13 under 'fake low anxious' instructions and to 70

under 'fake high anxious' instructions. However, there was also a marked and highly significant increase in their scores on the validity key, from 5.1 under normal instructions to 9.9 and 8.9 under the two faking instructions.

Taking a score of 10 as the cutting point on the validity key (i.e., rejecting as invalid all tests with validity scores of 10 or higher) would result in a rejection rate of about 8 percent of tests taken by unselected Ss in groups and under normal instructions. Our data suggest that subjects tested individually under circumstances which discourage a frivolous attitude toward the test will show a rejection rate of 4 percent or lower with this criterion. In the Katzenmeyer studies, this same cutting score would have rejected 62 percent of subjects faking bad, 63 percent of those faking 'anxious,' and 44 percent of those faking 'non-anxious'. A cutting score of 9 would increase the rejection rate in the faking studies to about 70 percent while increasing the 'false positives' to about 13 percent for group testing and perhaps 8 percent for individual testing. (It should be remembered that these are not all truly "false positives" since it is to be expected that at least a few high-school and college students will produce an invalid protocol when taking the test "for a psychological experiment" even under conditions of individual administration).

In a VA Psychiatric Hospital setting, we have found validity keys scores to be somewhat elevated, averaging about 8.5. Nearly 40 percent of a heterogeneous group of 100 inpatients, half of them

schizophrenic, scored 9 or higher, nearly 20 percent scored 10 or higher, and about 5 percent scored 11 or above. These early findings suggest that a cutting score of 9 is probably too low when dealing with psychiatric patients and that the validity key may not be as useful with this population.

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APPENDIX

Reproductions of Forms A and B of the ACTivity Preference Questionnaire are presented on the following pages. These forms are slightly different than the Forms A and B for which data were reported in this manual but these changes were minor; some statements were reworded and the order of statements was revised in a few instances. Thus, Forms A and B are substantially the same as before with near certainty that the data collected previously will be applicable to these forms.

Following each APQ form is a scoring key for that form. The key is designed to allow each researcher to create his own templates or scoring methodology, using whatever answer sheets he chooses. The scoring keys are organized as follows:

Column 1 - Item Numbers. As given on the APQ Test Booklet.

Column 2 - Alternative Scored. This is the statement in each pair to be given a scoring weight of 1. For the content items the non-emotional alternative is keyed, while for the validity scales the stronger, more unpleasant alternative is keyed. Alternatives have been designated T or F only because most machine scorable answer sheets use these designators for the first and second responses in each item.

Column 3 - Subscale Items

S - Social Subscale

E - Ego-Threat Subscale

P - Physical Subscale

These three subscales sum to form the Total Emotional Reactivity Scale.

Column 4 - Validity Scales

Ve - Items pairing activities of an emotional nature

Vne - Non-emotional statement pairs

Column 5 - Items Included in Short Forms. Shorter versions of Forms A and B have been developed. These short forms contain only two 20-item subscales, S and P. Several E items have been included as part of the S subscales in these forms.

Little data are available on the shortened forms at this time but this correlation with the full scale is very high ($r = .90$ or better) and they seem to be adequate substitutes for the longer forms if test administration time is limited. It is recommended that the validity scales be included with the shortened subscales, making a total of 60 items.

ACTIVITY PREFERENCE QUESTIONNAIRE

Form A

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DIRECTIONS

Read Carefully

One way of understanding a person better is by studying the kinds of activities or experiences he likes or enjoys. This test employs the similar approach of studying the pattern of your dislikes. In each of the items on the following pages -- and in the sample item below -- two activities or experiences are described which most people would consider at least mildly unpleasant. Some of them are very unpleasant indeed. In some instances, you will find that similar things have actually happened to you; in the others, you can at least imagine what they would be like.

Your task is to try to imagine yourself in each of the two situations and then, pretending that either one or the other had to happen to you, to decide which one you would prefer -- which of the two you would take as the 'lesser of evils'.

SAMPLE ITEM

(T) Having to work late one night. (F) Being run over by a train.

In this case there isn't much doubt that, if one of these things had to happen to you, you would prefer the alternative on the left (working late at night) as the lesser evil than the one on the right (being run over by a train)! Therefore, you would make a pencil mark in the left-hand box (the one marked with a T) on the answer sheet. **DO NOT MAKE ANY MARKS ON THE TEST BOOKLET.** . If you would prefer the activity or experience listed on the right -- if you think that one would be less unpleasant than the other alternative -- fill in the right-hand box (the one marked with an F) on the answer sheet.

Answer every item on the test. Work rapidly but consider both alternatives in each item carefully. Imagine how you would feel about each alternative, decide which of the two would seem least unpleasant, and mark your answer sheet accordingly.

- - - Remember: Indicate the alternative that you would prefer. - - -

1. (T) Being interviewed for a job.
(F) Mowing the lawn.
2. (T) Sitting through a dull movie for the second time because the person you're with hasn't seen it.
(F) Turning on a light switch when your hand is wet and you might get a shock.
3. (T) In the midst of traffic your horn sticks and begins to blow continuously.
(F) In school having to give a report in front of the class.
4. (T) Your group takes up a collection to buy a sick member a gift. You discover later that your donation was much smaller than any others.
(F) On doctor's orders, you can eat nothing for two weeks but a liquid dietary product.
5. (T) Take a roller coaster ride.
(F) Wash three storm windows on both sides.
6. (T) Copying four pages of the dictionary.
(F) Belching in church during prayer.
7. (T) Painting a large frame house.
(F) Shoveling the walks after a snowstorm.
8. (T) Attempting to beat a railroad train at a crossing.
(F) Spraining your ankle so that you have to have a cast put on it.
9. (T) Cleaning out a basement.
(F) Going to a party where no one knows you.
10. (T) Getting caught at something.
(F) Having your empty car smashed by a runaway truck.

11. (T) Having to get out of bed an hour earlier than usual.
(F) You pass someone on the street and say, "Hi, Charley" and then realize it isn't Charley.
12. (T) Watching an operation.
(F) Your favorite hat is lost or stolen.
13. (T) Accidentally dialing a wrong number twice in succession.
(F) Giving a loud, uncontrollable sneeze during a quiet moment at the symphony.
14. (T) Walking a mile when it's 15 degrees below zero.
(F) Being near where a volcano erupts.
15. (T) People at a party are telling jokes. You tell a long drawn-out story but no one laughs.
(F) You catch a bad cold the day before a big party.
16. (T) Hitting your thumb while hammering a nail.
(F) After eating in a restaurant, you find that you can't pay the bill.
17. (T) Taking down the Christmas tree and cleaning up after it.
(F) Jumping down 15 feet into soft earth.
18. (T) Whitewashing a long board fence.
(F) Washing 20 storm windows on both sides.
19. (T) It is the first day in a new class. The teacher asks each person to stand up and tell about himself.
(F) Sweep the kitchen floor.
20. (T) You must walk around all day on a blistered foot.
(F) Sleeping out on a camping trip in an area where rattlesnakes have been reported.

21. (T) Several people push ahead of you in line but you can't bring yourself to say anything.
(F) Wanting to go out some night and not having any money.
22. (T) Going to the morgue to identify an acquaintance who has been killed in an accident.
(F) Letting a large but harmless spider run up your arm.
23. (T) Breaking your shoelace while getting dressed.
(F) Your dog has torn up the neighbor's newspaper and you have to go over and apologize.
24. (T) Find a big cockroach under your pillow.
(F) Getting stuck in traffic when you're in a hurry.
25. (T) After a school exam, names and grades are posted on the wall. Yours is at the bottom of the list.
(F) You find you must clean up the floor where someone has vomited.
26. (T) Having to run until your throat is sore and there's a pain in your side.
(F) Help push a stalled car on a winter morning.
27. (T) Getting ready to watch something important on television and having the set fail.
(F) Upsetting a glass of milk on a neighbor's carpet.
28. (T) Finding a wrecked car in the ditch with three occupants unconscious and bleeding.
(F) You go on a two-week ocean cruise and are seasick the entire time.
29. (T) You find that you must cancel your vacation.
(F) You are arguing with friends and get so frustrated and upset that you choke up and your eyes fill with tears.
30. (T) Having your date at a dance leave without you.
(F) Sitting through a long lecture with a runny nose and no handkerchief.

31. (T) Asking someone to pay you money that he owes you.
(F) Sleeping one night on the floor.
32. (T) Balancing along the top rail of a picket fence.
(F) Walking up four flights of stairs.
33. (T) Having to stay in bed with the flu and a sick headache.
(F) Having your hands shake and your mouth go dry as you try to talk in front of a group.
34. (T) Having to spend half a day in a closet.
(F) You overhear a friend say something sarcastic about your parents.
35. (T) Dispose of a dead mouse from a mousetrap.
(F) Being caught in a bad thunderstorm.
36. (T) Being wheeled into the operating room to have your appendix removed.
(F) A doctor has examined a sore in your throat and you are waiting to find out whether it's cancer.
37. (T) You're on stage in the school play and realize that you have forgotten your lines.
(F) You return to your car parked downtown to find you left the lights on so that the battery is dead.
38. (T) Standing in a long line for something.
(F) Being given an electric shock as part of a medical experiment.
39. (T) Having your hair cut by an inexperienced barber.
(F) You slip in the mud and get your new spring clothes soaked and dirty.
40. (T) Put on a shirt or a blouse and finding a button missing.
(F) Having to ask where the bathroom is at a party.

41. (T) You're in a bank and suddenly three masked men with guns come in and make everyone raise their hands.
(F) Sitting through a two-hour concert of bad music.
42. (T) Counting the beans needed to fill a four-quart candy jar.
(F) At a high school picnic, they choose up sides for baseball and you are the last one picked.
43. (T) Washing a car.
(F) Driving a car at 95 miles an hour.
44. (T) Having to ask the person behind you at the movie to stop kicking your seat.
(F) Watching a long headache-pill commercial on TV.
45. (T) You are paddling a canoe across a large Canadian lake and a storm blows up.
(F) Stumbling into an electric fan.
46. (T) You have taken a neighbor's child to the circus and realize you have lost him in the crowd.
(F) While on vacation your car breaks down and you have to wait in a small town while parts are sent for.
47. (T) You must scrub the kitchen floor on hands and knees.
(F) You must make a speech to 100 people.
48. (T) Having your car swing into a skid on an icy corner.
(F) Having to walk five miles for gas.
49. (T) Having your empty car smashed by a runaway truck.
(F) Having your grocery bag break and spill on a crowded street.
50. (T) You go to a party and find that you're the only one who dressed up.
(F) Wet mopping the floor of a hospital corridor.

51. (T) You're at summer camp and must do 30 minutes of stiff calisthenics each morning before breakfast.
(F) You row out in a boat to help bring in the body of a drowning victim.
52. (T) Digging a big rubbish pit.
(F) A high pressure sales clerk bullies you into buying the higher-priced pair of shoes that you didn't really want.
53. (T) Having a doctor stick a needle in your arm for an injection.
(F) Falling out of a boat.
54. (T) Losing your wallet to a pickpocket.
(F) Having someone say loudly to you at a party, "Why don't you go home? Nobody wants you here."
55. (T) Being chased by a huge and angry bull.
(F) Spending a month in bed.
56. (T) Introducing yourself to a total stranger.
(F) Having to stand up on the bus.
57. (T) Cleaning up your house after floodwaters have left it filled with mud and silt.
(F) Making a parachute jump.
58. (T) Being a restaurant dishwasher for one week.
(F) You get a chance to be interviewed on TV to advertise a charity drive but you become tongue-tied and make a poor showing.
59. (T) Finding that you have been short-changed and having to return to the store to ask for the rest.
(F) Sandpapering a wooden chair to get it ready for re-painting.
60. (T) Spending a week with nothing to eat but bread and water.
(F) Going to the hospital to have a minor operation.

61. (T) Running out a gas in the middle of a crowded downtown intersection.
(F) Waiting in line for two hours to pay a parking ticket.
62. (T) Having to give up eating desserts.
(F) Swimming in very rough ocean water.
63. (T) Just sitting around with nothing to do on a Sunday afternoon.
(F) Cutting out the spoiled parts of a bushel of potatoes.
64. (T) You must wash out a dozen of someone else's dirty handkerchiefs by hand.
(F) Walking into a room full of people, you stumble on a footstool and sprawl on the floor.
65. (T) Having someone get mad and tell you off.
(F) Playing cards with people who are more skilled than you are and then making a dumb mistake.
66. (T) Being caught on a sandbar by the rising tide.
(F) Being stranded in an off-shore lighthouse for a week by high tides.
67. (T) Being sick to your stomach for 24 hours.
(F) Finding out you've overslept and missed an important appointment.
68. (T) You are introduced to a girl (man) who is so attractive and poised that you become very shy and awkward.
(F) You must find where someone else parked your car in a big lot at the state fair.
69. (T) Being in a flood.
(F) Carrying a ton of coal from the backyard into the basement.
70. (T) Spilling paint all over your shoes.
(F) Discovering your feet are dirty when you undress for a medical examination.

71. (T) Having a gabby old woman sit down next to you on the bus.
(F) Catching a bad cold the day before a big party.
72. (T) Having to walk half a mile through a soaking rain without a coat.
(F) Walking near a whirling plane propeller.
73. (T) You agree to supervise a child's birthday party but the children won't mind you and race around out of control.
(F) Spending an evening with some boring people.
74. (T) Laughing at something not meant to be funny.
(F) Clean up the popcorn and candy wrappers in the neighborhood movie theatre.
75. (T) Walking around all day in tight, uncomfortable shoes.
(F) Finding yourself in the midst of a fighting mob.
76. (T) You have spent all day preparing for a picnic but it rains just as you start to eat.
(F) You overhear someone comment on how strangely you are dressed.
77. (T) Being threatened by a much bigger and more powerful person.
(F) You're caught in a speed trap driving through a small town and must wait for an hour to pay a \$20 fine.
78. (T) Lick stamps for 1, 000 letters.
(F) Watch someone make a fool of himself on a television quiz program.
79. (T) You are given an IQ test in front of a college class as a demonstration.
(F) Having to go down to the courthouse to renew your driver's license.
80. (T) Cleaning up the living room after the plaster has all fallen down.
(F) Standing on the very top rung of a ladder in order to wash a second floor window.

81. (T) You are broke and have to borrow money for a meal.
(F) You must distribute 1000 handbills in mailboxes from door to door.
82. (T) Having a bad head cold.
(F) Having your employer get mad about mistakes in your work.
83. (T) Looking for something in an attic storeroom on a stifling hot day.
(F) Going into a dark cellar where there may be rats.
84. (T) "Having it out" with someone.
(F) Sitting from midnight to 4:00 a. m. in a railroad station waiting for your train.
85. (T) Walking barefoot in a room where some glass has been broken.
(F) Walking barefoot across a burning hot sandy beach.
86. (T) Coming home hungry and having to eat a cold supper.
(F) Stumbling in a crowded bus and dropping your load of packages.
87. (T) Coming out of a movie in your summer shoes to find it's snowed a foot deep.
(F) Getting out of a warm bed in a room so cold that you can see your breath.
88. (T) Sorting out a pailful of nuts and bolts.
(F) While flying home from a trip you get airsick and have to dash down the aisle to the washroom.
89. (T) Taking a long ride in a taxi and then finding you don't have enough money for a tip.
(F) Getting paint in your hair.
90. (T) While dining at home, you spill a very hot cup of coffee in your lap.
(F) You go with your date to a party but she (he) slips away later and goes home with someone else.

91. (T) Waiting in a dentist's office to have a tooth pulled.
(F) Having an earache.
92. (T) Having to go out to a party with a large red pimple on the end of your nose.
(F) Losing a book that you borrowed from a teacher and which can't be replaced.
93. (T) Your family, along with three others, must spend a month underground testing a fallout shelter.
(F) You want to join a social club, but the members vote not to let you in.
94. (T) Out in the middle of a frozen lake, you realize that the ice is unsafe.
(F) You find that vandals have slashed all four tires on your car.
95. (T) Waiting for an overdue bus.
(F) Meeting a friend on the street and not being able to remember his name.
96. (T) You're in the back seat of a driverless car which suddenly starts rolling downhill.
(F) Giving blood for the blood bank.
97. (T) You go to the beach with some friends and realize that they all have a better build (figure) than you do.
(F) Washing ten storm windows on both sides.
98. (T) Run a steam presser in a laundry for a week.
(F) Being caught in a blizzard.
99. (T) Being asked for a contribution when you haven't any money.
(F) Untying a hard knot in your shoelace.
100. (T) Having to "go out" with a visiting relative.
(F) Banging your head on a cabinet door.

Activity Preference Questionnaire

Form A - Scoring Key

Item No.	Type of Item	Alt. Choice	Gen. Anx. Scale	Anx. Pairs	Onerous Pairs	Item No.	Type of Item	Alt. Choice	GA Scale	Anx. Pairs	Onibus Pairs
1	S-O	F	S			51	P-O	T	P		
2	P-O	T	P			52	E-O	T	E		
3	A-A	T		X		53	A-A	F		X	
4	E-O	F	E			54	S-O	T	S		
5	P-O	F	P			55	P-O	F	P		
6	S-O	T	S			56	S-O	F	S		
7	O-O	T			X	57	P-O	T	P		
8	P-O	F	P			58	E-O	T	E		
9	S-O	T	S			59	S-O	F	S		
10	E-O	F	E			60	P-O	T	P		
11	S-O	T	S			61	S-O	F	S		
12	P-O	F	P			62	P-O	T	P		
13	A-A	F		X		63	O-O	F			X
14	P-O	T	P			64	S-O	T	S		
15	E-O	F	E			65	A-A	T		X	
16	S-O	T	S			66	P-O	F	P		
17	P-O	T	P			67	S-O	T	S		
18	O-O	F			X	68	E-O	F	E		
19	S-O	F	S			69	P-O	F	P		
20	P-O	T	P			70	S-O	T	S		
21	E-O	F	E			71	O-O	F			X
22	A-A	T		X		72	P-O	T	P		
23	S-O	T	S			73	E-O	F	E		
24	P-O	F	P			74	S-O	F	S		
25	E-O	F	E			75	P-O	T	P		
26	O-O	T			X	76	S-O	T	S		
27	S-O	T	S			77	P-O	F	P		
28	P-O	F	P			78	O-O	T			X
29	E-O	T	E			79	S-O	F	S		
30	A-A	T		X		80	P-O	T	P		
31	S-O	F	S			81	S-O	F	S		
32	P-O	F	P			82	E-O	T	E		
33	S-O	T	S			83	P-O	T	P		
34	E-O	T	E			84	S-O	F	S		
35	P-O	F	P			85	P-O	T	P		
36	A-A	F		X		86	S-O	T	S		
37	S-O	F	S			87	O-O	F			X
38	P-O	T	P			88	P-O	T	P		
39	O-O	F			X	89	S-O	F	S		
40	S-O	T	S			90	E-O	T	E		
41	P-O	F	P			91	P-O	F	P		
42	E-O	T	E			92	A-A	F		X	
43	P-O	T	P			93	E-O	T	E		
44	S-O	F	S			94	P-O	F	P		
45	A-A	F		X		95	S-O	T	S		
46	S-O	F	S			96	A-A	T		X	
47	S-O	T	S			97	E-O	F	E		
48	P-O	F	P			98	P-O	T	P		
49	O-O	T			X	99	S-O	F	S		
50	S-O	F	S			100	O-O	F			X

ACTIVITY PREFERENCE QUESTIONNAIRE

Form B

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DIRECTIONS

Read Carefully

One way of understanding a person better is by studying the kinds of activities or experiences he likes or enjoys. This test employs the similar approach of studying the pattern of your dislikes. In each of the items on the following pages -- and in the sample item below -- two activities or experiences are described which most people would consider at least mildly unpleasant. Some of them are very unpleasant indeed. In some instances, you will find that similar things have actually happened to you; in the others, you can at least imagine what they would be like.

Your task is to try to imagine yourself in each of the two situations and then, pretending that either one or the other had to happen to you, to decide which one you would prefer -- which of the two you would take as the 'lesser of evils'.

SAMPLE ITEM

(T) Having to work late one night. (F) Being run over by a train.

In this case there isn't much doubt that, if one of these things had to happen to you, you would prefer the alternative on the left (working late at night) as the lesser evil than the one on the right (being run over by a train)! Therefore, you would make a pencil mark in the left-hand box (the one marked with a T) on the answer sheet. **DO NOT MAKE ANY MARKS ON THE TEST BOOKLET.** If you would prefer the activity or experience listed on the right -- if you think that one would be less unpleasant than the other alternative -- fill in the right-hand box (the one marked with an F) on the answer sheet.

Answer every item on the test. Work rapidly but consider both alternatives in each item carefully. Imagine how you would feel about each alternative, decide which of the two would seem least unpleasant, and mark your answer sheet accordingly.

- - - Remember: Indicate the alternative that you would prefer. - - -

1. (T) Being called on in school.
(F) Cleaning paint off your hands.
2. (T) Counting to 10,000 by threes.
(F) Entering a basement storeroom full of scurrying cockroaches.
3. (T) You are paddling a canoe across a large Canadian lake and a storm blows up.
(F) Stumbling into an electric fan.
4. (T) You return to your car parked downtown and find you've lost your only set of keys.
(F) Having someone walk in while you are absent-mindedly picking your nose.
5. (T) Painting a large frame house.
(F) Shoveling the walks after a snowstorm.
6. (T) You wave back at someone and then realize he was waving at the person behind you.
(F) Washing out someone else's dirty bathtub so that you can take a bath.
7. (T) Unscrewing a broken light bulb with your fingers from a 'live' socket.
(F) Whitewashing a long board fence.
8. (T) On an ocean voyage, you are seasick every day for a week.
(F) Due to a fire in your room, you must stand on the ledge of the 25th floor of the hotel.
9. (T) You pick up an article in a store but forget to pay for it and are stopped by the store detective.
(F) Cleaning up the living room after the plaster has all fallen down.
10. (T) A doctor has examined a sore in your throat and you are waiting to find out whether it's cancer.
(F) Being wheeled into the operating room to have your appendix removed.

11. (T) Being introduced to some new people.
(F) Losing a button off your coat.
12. (T) Having a heavy drawer fall unexpectedly on your big toe.
(F) Being lost in a swamp at dusk.
13. (T) You stand up at a meeting to ask a question and realize that you've forgotten the question.
(F) Spilling something on your new clothes.
14. (T) Working all day when it's 90 in the shade.
(F) Saying 'hello' to a friend and having him look at you and walk on without speaking.
15. (T) Having your empty car smashed by a runaway truck.
(F) Having your grocery bag break and spill on a crowded street.
16. (T) Hiking over a mountain trail during the avalanche season.
(F) Making a hand-written copy of 100 pages from the Bible.
17. (T) You must make a speech to 100 people.
(F) You must scrub the kitchen floor on hands and knees.
18. (T) Having your hair cut by an inexperienced barber.
(F) You slip in the mud and get your new spring clothes soaked and dirty.
19. (T) Slamming a car door on your finger.
(F) Watching someone die on the street after an accident.
20. (T) Going to work or to school with a black eye.
(F) Going to work or school in spite of a sore throat and headache.

21. (T) Riding a motorcycle.
(F) Running out of ink while writing a note.
22. (T) Scraping, sanding, and painting a window sill.
(F) Upsetting the gravy on a friend's tablecloth.
23. (T) Banging your head on a cabinet door.
(F) Having to "go out" with a visiting relative.
24. (T) You must get out of a warm bed in a room so cold that you can see your breath.
(F) You go to a wedding reception and find that the gift you sent seems very cheap and unimaginative compared with all the others.
25. (T) Having to tell someone you know they're lying.
(F) Spending a hot summer afternoon painting a bedroom ceiling.
26. (T) You're alone in the house and you seem to hear footsteps upstairs.
(F) Walking a mile when it's 15 degrees below zero.
27. (T) You are called up for three months of basic training at a distant army camp (or Women's Army Corps encampment).
(F) At a party, you overhear someone say about you, "Doesn't he (she) ever take a bath?"
28. (T) Your club bazaar has hired a knife throwing act and you are chosen to be the "target."
(F) Being sick to your stomach for 24 hours.
29. (T) Shining four pairs of shoes.
(F) Having to blow your nose while in a group of strangers.
30. (T) You're in the back seat of a driverless car which suddenly starts rolling downhill.
(F) Giving blood for the blood bank.

31. (T) Joking about how homely Mary is and then hearing Mary's voice behind you say, "I heard that."
(F) Cleaning up the floor where someone has vomited.
32. (T) You're ready to leave in the morning but the car refuses to start.
(F) Having to complain to the neighbors about being too noisy.
33. (T) You have parked your car in a public lot and return to find a big dent in the door.
(F) While with a group of new people you try to tell a story but the others talk and no one listens to you.
34. (T) Waiting in a dentist's office to have a tooth pulled.
(F) Having an earache.
35. (T) Having a gabby old woman sit down next to you on the bus.
(F) Catching a bad cold the day before a big party.
36. (T) Starting off in the morning, you step in a puddle and get your shoe and stocking soaking wet.
(F) Jumping feet first from the 20-foot diving tower at the beach.
37. (T) You spend hours fixing a fancy barbecue for some guests but they eat very little and seem not to like it.
(F) Distributing 1,000 handbills in mailboxes from door to door.
38. (T) You lean against a hot water pipe and severely burn your arm.
(F) Swimming where sharks have been reported.
39. (T) Carry a heavy bag of groceries four blocks from the store.
(F) Walking on stage as a contestant in a TV quiz show.
40. (T) Riding alone in the first car of a roller coaster.
(F) Getting up to go to work in the morning.

41. (T) Having a doctor stick a needle in your arm for an injection.
(F) Falling out of a boat.
42. (T) Reading a dull book for a school report.
(F) Discovering at a party that there is a big hole in the heel of your stocking.
43. (T) You accidentally lock yourself in a storeroom for half a day.
(F) A friend accidentally cuts a wrist artery and you have to do something.
44. (T) Having to testify as a witness at a jury trial.
(F) Spend two hours simonizing a car.
45. (T) Waiting half the night at the airport for a plane delayed by bad weather.
(F) You get rattled trying to park on a busy street. You block traffic and people start honking.
46. (T) Having to take a bath in cold water since the hot water heater is broken.
(F) You have a good suggestion to make at a meeting but you're too nervous to speak up.
47. (T) Trying to unplug a clogged toilet with a "plumber's friend."
(F) Spend an hour digging crabgrass.
48. (T) Just after the play begins an usher tells you that you are in the wrong seat.
(F) You're late getting ready and have to go without dinner.
49. (T) Getting out of a warm bed in a room so cold that you can see your breath.
(F) Coming out of a movie in your summer shoes to find it's snowed a foot deep.
50. (T) A waiter is rude and unpleasant to you but you can't bring yourself to put him in his place.
(F) Having to make polite conversation with people who don't interest you.

51. (T) Spending a week in the hospital and undergoing a series of medical tests.
(F) Being a restaurant dishwasher for a week.
52. (T) Distributing 1,000 handbills in mailboxes from door to door.
(F) You are broke and have to borrow money for a meal.
53. (T) Letting a large but harmless spider run up your arm.
(F) Going to the morgue to identify an acquaintance who has been killed in an accident.
54. (T) Having to change a flat tire.
(F) Having to return a purchase to a store.
55. (T) Putting out a match by squeezing it between your fingers.
(F) Losing your fountain pen.
56. (T) Having your employer get mad about mistakes in your work.
(F) Realizing that you have caught a bad cold.
57. (T) Spending a week in solitary on bread and water.
(F) Stepping on the car brakes at an intersection and finding that they don't work.
58. (T) Giving a loud, uncontrollable sneeze during a quiet moment at the symphony concert.
(F) Accidentally dialing a wrong number twice in succession.
59. (T) You walk into a public wash room and find that it's the wrong one.
(F) Waiting in line for two hours to pay a parking ticket.
60. (T) You must stay home for a week with a bad case of poison ivy.
(F) Returning from a stag party (or shower) two weeks before your wedding, you see your fiancée necking with someone else in a parked car.

61. (T) The person you're with at the movies turns around and loudly tells the people behind to stop talking.
(F) Eating a slice of lemon, skin and all.
62. (T) Walking up four flights of stairs.
(F) Balancing along the top rail of a picket fence.
63. (T) Lick stamps for 1,000 letters.
(F) Being cursed by an old friend.
64. (T) Having the pilot announce that there is engine trouble and he may have to make an emergency landing.
(F) Working a week in the fields digging potatoes.
65. (T) You have to stay in bed all day with the flu and a sick headache.
(F) Some fast talking person at a party starts teasing you unmercifully and your face begins to burn and your hands tremble.
66. (T) It's below zero, the car's heater doesn't work, and you have to drive for an hour to get home.
(F) Breaking a lamp at someone else's home.
67. (T) You're watching the circus and suddenly two lions get loose down in the ring.
(F) You take your family to the circus but can't get in because they gave you tickets for the wrong night.
68. (T) In the last inning of a softball game you drop a fly ball allowing the other team to score the winning run.
(F) Not being able to get to sleep at night.
69. (T) Cleaning the keys of a piano with a toothbrush.
(F) Telling a lie to somebody.
70. (T) Your car engine quits on a trip and you must wait for a complete overhaul.
(F) Having a front tire blow out while driving on a highway.

71. (T) Having someone say something insulting about a member of your family.
(F) You slip in the mud and get your new spring clothes soaked and dirty.
72. (T) Going to a party where no one knows you.
(F) Cleaning out a basement.
73. (T) Because you overstayed your vacation, you have to drive alone for a day and a half without stopping for sleep.
(F) Jumping from a third story window into a fireman's net.
74. (T) Losing a book that you borrowed from a teacher and which can't be replaced.
(F) Having to go out to a party with a large red pimple on the end of your nose.
75. (T) Being a guest on a sailboat during a great storm at sea.
(F) Having to stay home every night for two weeks with a sick relative.
76. (T) You must give up eating sweets.
(F) You know that you're right but your opponents are so shrewd and so forceful that you lose the argument anyway.
77. (T) Being unexpectedly asked at a church dinner to stand up and introduce the speaker.
(F) You're home alone, taking a bath, when the phone rings.
78. (T) Getting your back badly sunburned.
(F) After a swim you come back to where you'd left your girl (boy) friend on the beach and find three strange men (girls) sitting with her (him).
79. (T) Your car is stolen and you don't have theft insurance.
(F) Riding a runaway horse.
80. (T) While flying home from a trip you get airsick and have to dash down the aisle to the washroom.
(F) Sorting out a pailful of nuts and bolts.

81. (T) In the midst of traffic, your car horn sticks and begins to blow continuously.
(F) In school, having to give a report in front of the class.
82. (T) Tying up a trailer full of papers for the school paper sale.
(F) Driving in the country and seeing a tornado cloud moving toward you.
83. (T) Getting caught at something.
(F) Having your empty car smashed by a runaway truck.
84. (T) Refusing to loan money to a friend because you know he won't repay you.
(F) Cleaning and scaling a fish.
85. (T) Whitewashing a long board fence.
(F) Washing 20 storm windows on both sides.
86. (T) Scour and clean a pot full of burned oatmeal.
(F) Knocking over a glass in a restaurant.
87. (T) Riding a long stretch of rapids in a canoe.
(F) Waiting for someone who's late.
88. (T) Sitting through a long lecture with a runny nose and no handkerchief.
(F) Having your date at a dance leave without you.
89. (T) Spend a week addressing envelopes.
(F) Being in an air raid.
90. (T) Having your hair cut by an inexperienced barber.
(F) Finding you've lost your bus fare when it's time to pay and get off.

91. (T) Rowing a boat across a large lake.
(F) Bouncing over rough water in a high speed outboard being driven by a reckless friend.
92. (T) Cutting out the spoiled parts of a bushel of potatoes.
(F) Just sitting around with nothing to do on a Sunday afternoon.
93. (T) Helping carry a dead body to the ambulance.
(F) Carry a truck load of firewood into the basement.
94. (T) Finding out people have been gossiping about you.
(F) Working all day in the hot sun.
95. (T) Having to take a bath in cold water since the hot water heater is broken.
(F) Having to introduce two people whose names you've forgotten.
96. (T) Playing cards with people who are more skilled than you are and then making dumb mistakes.
(F) Having someone get made and tell you off.
97. (T) Lick stamps for 1,000 letters.
(F) Watch someone make a fool of themselves on a television interview.
98. (T) You've forgotten where you left your car in a big parking ramp.
(F) A drunk gets smart with you on the street.
99. (T) Help push a stalled car on a winter morning.
(F) Having to run until your throat is sore and there's a pain in your side.
100. (T) As the main witness to a serious accident, you have to testify in court and be cross-examined by a very tricky lawyer.
(F) Having to drive across the desert on a hot summer day.

Activity Preference Questionnaire

Form B - Scoring Key

Item No.	Type of Item	Alt. Choice	Gen. Scale	Anx. Pairs	Anx. Pairs	Onerous Pairs	Item No.	Type of Item	Alt. Choice	GA Scale	Anx. Pairs	Onerous Pairs
1	S-O	F	S				51	P-O	F	P		
2	P-O	T	P				52	S-O	T	S		
3	A-A	F		X			53	A-A	F		X	
4	S-O	T	S				54	S-O	T	S		
5	O-O	T			X		55	P-O	F	P		
6	S-O	F	S				56	E-O	F	E		
7	P-O	F	P				57	P-O	T	P		
8	P-O	T	P				58	A-A	T		X	
9	S-O	F	S				59	S-O	F	S		
10	A-A	T		X			60	E-O	T	E		
11	S-O	F	S				61	S-O	F	S		
12	P-O	T	P				62	P-O	T	P		
13	S-O	F	S				63	S-O	T	S		
14	E-O	T	E				64	P-O	F	P		
15	O-O	T			X		65	E-O	T	E		
16	P-O	F	P				66	S-O	T	S		
17	S-O	F	S				67	P-O	F	P		
18	O-O	F			X		68	E-O	F	E		
19	P-O	T	P				69	S-O	T	S		
20	S-O	F	S				70	P-O	T	P		
21	P-O	F	P				71	E-O	F	E		
22	S-O	T	S				72	S-O	F	S		
23	O-O	T			X		73	P-O	T	P		
24	E-O	T	E				74	A-A	T		X	
25	S-O	F	S				75	P-O	F	P		
26	P-O	F	P				76	E-O	T	E		
27	S-O	T	S				77	S-O	F	S		
28	P-O	F	P				78	E-O	T	E		
29	S-O	T	S				79	P-O	T	P		
30	A-A	T		X			80	P-O	F	P		
31	S-O	F	S				81	A-A	T		X	
32	S-O	T	S				82	P-O	T	P		
33	E-O	T	E				83	E-O	F	E		
34	P-O	F	P				84	S-O	F	S		
35	O-O	F			X		85	O-O	F			X
36	P-O	T	P				86	S-O	T	S		
37	E-O	F	E				87	P-O	F	P		
38	P-O	T	P				88	A-A	F		X	
39	S-O	T	S				89	P-O	T	P		
40	P-O	F	P				90	S-O	T	S		
41	A-A	F		X			91	P-O	T	P		
42	S-O	T	S				92	O-O	T			X
43	P-O	T	P				93	P-O	F	P		
44	S-O	F	S				94	E-O	F	E		
45	S-O	T	S				95	S-O	T	E		
46	E-O	T	E				96	A-A	F		X	
47	P-O	F	P				97	O-O	T			X
48	S-O	F	S				98	P-O	T	P		
49	O-O	T			X		99	O-O	F			X
50	E-O	F	E				100	E-O	F	E		