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16. Abstract

The effects of response sets to emphasize the appearance of stress in Composite Mood Adjective Check List (CMACL) records was investigated. Responses of 79 subjects asked to simulate stress, and 80 subjects asked to simulate stress in a subtle manner, were compared to CMACL responses obtained under normal conditions. A six-word index was developed which was successful in identifying 95 per cent of the simulated profiles, while misclassifying only 12 per cent of the non-simulated, or authentic, profiles. The application of the index to clinical and research settings in aviation was discussed.

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ASSESSMENT OF A "STRESS" RESPONSIVE-SET IN THE COMPOSITE MOOD ADJECTIVE CHECK LIST

I. Introduction.

One difficulty associated with the study of stress and its psychological effects upon air traffic control (ATC) personnel has been the lack of an appropriate device for measuring such effects. Most of the common psychological techniques, e.g., the Minnesota Multiphasic Personality Inventory (MMPI), the Sixteen Personality Factors Questionnaire (16PF), or the Rorschach Test, have significant limitations for such purposes. Some are difficult to administer, others require considerable experience for adequate scoring, and nearly all require a considerable length of time for completion (45 minutes to two hours). The time requirement also tends to limit the number of administrations which may be repeated, since not only is the actual time needed for each administration substantial, but the subject's attitude toward submitting to such long, demanding, and boring (when repeated) tasks may have a greater influence on response trends than variations in the individual's psychological state.

One technique which may have some potential as a device for measuring the psychological concomitants of stress is the Composite Mood Adjective Checklist (CMACL).[5] This technique consists of 80 adjectives describing various feelings or moods, which the subject rates in terms of the degree to which each adjective describes his current affectual status. It yields values for 15 factors identified by Mahlstrom [5] which range across a wide variety of general feeling states, e.g., anxiety, aggression, etc. It requires only about ten minutes for the subject to complete and is easy to both administer and score. Thus, the CMACL may circumvent several of the problems noted above, especially with respect to the mutiple administrations which might be required in surveying stress effects in ATC personnel.

Although several attributes of the CMACL would seem to make it a highly appropriate technique for use in the assessment of stress effects in ATC personnel, the device may also be very susceptible to the effects of biasing response sets. Such sets, in which the respondent's approach to answering inventory items varies from that intended by the examiner and the instructions, have been shown to influence the results of a variety of personality assessment techniques.[1] For example, malingering, acquiesence (the tendency to reply affirmatively to any question), faking good, and other sets have been identified as influencing psychological assessment devices such as the MMPI.[2]

As yet, there has been little research on the effects of response sets on check list techniques such as the CMACL. Other forms of the check list, specifically the Zuckerman Multiple Affect Adjective Check List,[7] have been studied with respect to the set to check many, as opposed to few, items, but it is difficult to generalize these findings across techniques since the CMACL requires a response to each item. The focus of this investigation was upon the set to emphasize the psychological effects of stress as reflected in responses to the CMACL. The purpose of the study was to determine to what extent such response sets systematically influence responses to the CMACL items, and to develop an index which could be used to identify such response trends.

II. Experiment I.

Method

1. Subjects.—The subjects for this study were 79 respondents, both male and female, recruited from the student body at a large university through the use of advertisements. Each subject was paid for his participation in the experiment.

2. Materials.—The 80 adjectives which comprised the CMACL were typed into booklet form, with a cover sheet of instructions (Appendix 1). The adjectives were listed in alphabetical order, and each was accompanied by a nine point rating scale. The lowest point on the scale was designated as indicating that the particular adjective was "not at all" representative of the individual's feelings, while the highest point corresponded to a judgment that the adjective in question "definitely" described the current feelings of the subject.

3. Procedure.—The CMACL was administered as one part of a multi-task experimental session. The CMACL was not related to the other subtasks in the study.

The CMACL was presented to each subject twice during the experiment. The first administration was always made with the standard instructions, i.e., to rate the adjectives so as to describe one's feelings at the time of testing. The subjects were not told that they would be responding to the check list a second time later in the session. After the CMACL was completed, other sub-tasks were presented, then the second CMACL administered. For the second presentation, the experimenter instructed the subject to respond to the check list as if he were an employee who wanted to appear to the evaluator as if he was in a job which was extremely stressful. The second CMACL was completed without the subject having access to his first responses.

4. Scoring.—A pilot survey had shown that 78 of the 80 words could be characterized as reflecting essentially positive or negative feelings. The ratings on the nine-point scale from each of these words were then scored in the direction of positive feelings; the more positive the feeling, the higher the assigned score. For example, if a subject rated the word "sad" as "not at all" representative of his current feeings, he was given a rating score of nine, just as he would receive the same score from a rating of "definitely" for the word "happy." By the same token, had he rated "sad" as being "definitely" or "happy" as "not at all" descriptive of his feelings, he would have received scores of one on each word.

Results and Discussion

The two ratings for each word obtained from each subject were compared and the direction of change in feelings was tabulated. For each word, the percentage of subjects who gave the second word a lower rating when asked to simulate stress was then determined (Table 1). The rating changes tended to be in one direction for most words, however there were only a few adjectives for which the ratings showed nearly unanimous change in one direction. As shown in Table 1, there were only nine words which had over 90 per cent of the subjects agreeing on the direction of rating change. These adjectives (angry, annoyed, carefree, cheerful, clutched-up, fed-up, grouchy, pleasant, and upset) contributed to five of the 15 affect factors identified within the CMACL. Four of these nine words were from the six adjectives which defined the "aggression" factor.

After identification of the adjectives which showed a high degree of uniformity in direction of change under the "stress-set," the rating scores obtained for these nine words on the second administration were summed for each subject. The range of total scores, the frequency with which each occurred, and the cumulative percentage of biased CMACLs accounted for by each score, are shown in Table 2. It can be seen that a sum of 39 identifies 90 per cent, and a score of 50 includes 96 per cent of the biased profiles.

The scores for the same nine adjectives were subsequently summed for the CMACLs obtained from the first, or standard instruction administration. These scores are also presented in Table 2. At a level which identifies 90 per cent of the biased profiles, only three per cent of the actual profiles were incorrectly classified as distorted (false positive). When the score was raised to account for 96 per cent of the simulated profiles, the false positive percentage increased to 13 per cent of the true profiles. The scores which yielded the fewest misidentified profiles ranged from 39 (eight false-negatives and two false-positives) to 42 (seven false-negatives and three false-positives).

These findings suggest that it is possible to screen CMACL protocols for distorting response-sets, at least of the type used in this study, with a high degree of accuracy. Using 39 as a cutting score correctly classifies 97 per cent of the authentic protocols and 90 per cent of the simulated, or biased records. This compares very favorably with the results of other studies on the biasing effects of response sets, e.g., Gough found that an index for "faking bad" on the MMPI

Table 1

The percentage of paired ratings in Experiment I for each CMACL adjective in which the rating for the simulated record was lower than that for the authentic record.

Adjective	%	Adjective	%	Adjective	%
active	25	fatigued	82	rebellious	62
affectionate	80	fearful	87	regretful	77
afraid	80	fed-up	91	sad	70
angry	90	forgiving	68	satisfied	77
annoyed	92	frightened	76	secure	80
anxious	89	frustrated	81	serious	30
ashamed	60	full of pity - not scored		shaky	85
attentive	51	grouchy	90	shocked	81
blue	63	happy	89	skeptical	73
bored	33	insecure	96	sleepy	53
calm	82	intent	43	sluggish	54
carefree	91	introspective	66	sorry	58
careful	50	jittery	85	startled	73
cheerful	90	joyful	77	steady	71
clutched-up	91	kindly	81	suspicious	58
concentrating	38	lazy	25	talkative	51
contemplative	68	leisurely	85	tense	77
contented	85	lively	57	terrified	81
defiant	75	lonely	49	thoughtful	77
desperate	82	loving	79	tired	84
dizzy	77	nauseous	72	uncertain	72
downhearted	75	nervous	89	upset	91
drowsy	51	nonchalant - not scored		vigorous	49
dubious	60	optimistic	77	warmhearted	80
dull	44	panicky	86	witty	75
earnest	66	playful	73	worrying	84
energetic	65	pleasant	90		

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Table 2

Distribution of sums of scores for the nine-word index from authentic
and simulated CMACL records in Experiment I.

Rating Sum	Authentic Frequency	Authentic Frequency-%	Simulated Frequency	Simulated Frequency-%
9	-	0	11	14
10	-	0	5	20
11	-	0	8	30
12	-	0	2	33
13	-	0	3	37
14	-	0	1	38
15	-	0	2	40
16	-	0	1	42
17	-	0	4	47
18	-	0	3	50
19	-	0	2	53
20	-	0	5	59
21	-	0	5	66
22	-	0	-	66
23	-	0	3	69
24	-	0	1	71
25	-	0	2	73
26	-	0	1	74
27	-	0	1	76
28	-	0	2	78
29	1	1	2	81
30	-	1	-	81
31	-	1	2	83
32	-	1	1	84
33	-	1	-	84
34	-	1	1	86
35	-	1	1	87
36	-	1	-	87
37	-	1	-	87
38	-	1	-	87
39	1	3	2	90
40	-	3	-	90
41	-	3	-	90
42	1	4	1	91
43	-	4	-	91
44	-	4	-	91
45	-	4	-	91
46	2	6	-	91
47	2	9	1	92
48	1	10	-	92
49	1	11	2	95
50	2	13	1	96
51	-	13	-	96
52	1	15	-	96
53	1	16	-	96
54	-	16	-	96
55	1	18	-	96
56	3	21	-	96
57	2	24	-	96
58	-	24	-	96
59	2	27	-	96
60	2	29	-	96
61	2	32	-	96
62	2	34	-	96
63	6	42	2	98
64	2	44	1	100
65	2	47	-	100
66	4	52	-	100
67	2	54	-	100
68	3	58	-	100
69	1	59	-	100
70	4	64	-	100
71	3	68	-	100
72	4	73	-	100
73	-	73	-	100
74	2	76	-	100
75	4	81	-	100
76	3	84	-	100
77	9	96	-	100
78	2	98	-	100
79	1	100	-	100
80	-	100	-	100

correctly classified 97 per cent of the non-biased records, and 75 per cent of the distorted profiles.[3]

III. Experiment II.

This experiment was designed to investigate further the utility of the index developed in Experiment I for the measurement of sets to emphasize stress effects in CMACL protocols. The first study examined the records of subjects told to produce a maximally biased profile on the second administration. However, many individuals, when simulating various conditions, may not be so obvious in their exaggeration of their responses. Therefore, the subjects in Experiment II were asked, when administered the CMACL for a second time, to simulate the profile so as to present a picture of maximum stress, but to do it in such a manner that an examiner would be unable to identify such a trend in the protocol. In other words, the focus in Experiment II was upon subtle, rather than obvious, protocol distortion to suggest severe stress.

Method

The procedure for Experiment II was generally the same as in Experiment I, except that the 80 subjects recruited for this study were given additional instructions at the beginning of the second CMACL administration. Besides being told to respond so as to make it appear as if they were under great stress, the subjects were also directed to "try to prevent the examiner from knowing that you were exaggerating your responses."

Results and Discussion

First, the direction of change in ratings was tabulated. The results (Table 3) show that for only one word (annoyed) did as many as 90 per cent of the ratings change in one direction. Of the group of nine words chosen for the stress-set index from Experiment I, six exceeded the 80 per cent level for agreement in direction change (angry, annoyed, clutched-up, cheerful, grouchy, upset) and the remaining three exceeded 70 per cent agreement.

The scores obtained from the nine-word index for both administrations of the CMACL in Experiment II are shown in Table 4. While in Experiment I a score of 39 identified 90 per cent, and a score of 50 identified 96 per cent of the simulated protocols, in this study the same scores yielded 62 and 88 per cent correct identifications of the biased records. However, the false positive rates for non-simulated records were similar for the two experiments, as the score of 39 yielded three per cent (Experiment I) and five per cent (Experiment II) error rates, and the score of 50 resulted in 13 per cent and 14 per cent false positive rates for Experiments I and II respectively. The cutting scores which yielded the fewest misidentified profiles in the second study were 48 (twelve false negatives and eight false positives) and 49 (eleven false negatives and nine false positives). Considered across both studies, the score of 49 provided the best overall index, as it would have identified 144 of the 159 simulated profiles (91%) while misidentifying only 17 of the 159 non-simulated records (10%).

While the hit-rates, or correct identifications, were still reasonably high in Experiment II, even with subtle instructions, the variance in the specific words identified which showed the greatest consistency in direction of change between the studies suggested that perhaps the original set of nine items could be refined to provide a more sensitive measure of the effects of such biasing response sets. Therefore, the original set of nine words was reduced to the six words (angry, annoyed, clutched-up, cheerful, grouchy, and upset) which were the ones that showed over 90 per cent agreement in the first study *and* over 80 per cent agreement in the second experiment in direction of rating change as a function of response set. The scores obtained from summing the ratings for these six words for each subject for both administrations in each experiment are shown in Table 5. For Experiment I, the best cutting score was 30, which resulted in the correct classification of 74 of 79 simulated profiles (94%) and 75 of the 79 non-biased records (95%). This represents a net gain of one additional profile correctly classified over the nine-item index. For Experiment II, the best cutting scores were 36 or 38. Using 36 as a limit resulted in 73 correct identifications of the 80 simulated profiles (91%) and 71 correct classifications (88%) of the actual protocols, while the 38 score correctly labeled 76 biased records (95%) and 68 non-biased profiles (85%). Both scores represented a moderate gain over the best scores for the nine-item index, in that four additional profiles were correctly classified using

Table 3

The percentage of paired ratings in Experiment II for each CMACL adjective in which the rating for the record simulated under instructions to be subtle was lower than that for the authentic record.

Adjective	%	Adjective	%	Adjective	%
active	26	fatigued	87	rebellious	56
affectionate	52	fearful	68	regretful	61
afraid	71	fed-up	78	sad	59
angry	81	forgiving	48	satisfied	70
annoyed	93	frightened	70	secure	61
anxious	68	frustrated	86	serious	26
ashamed	28	full of pity - not scored		shaky	83
attentive	40	grouchy	81	shocked	60
blue	56	happy	25	skeptical	66
bored	38	insecure	55	sleepy	54
calm	74	intent	41	sluggish	64
carefree	73	introspective	41	sorry	62
careful	36	jittery	79	startled	51
cheerful	83	joyful	65	steady	61
clutched-up	83	kindly	70	suspicious	54
concentrating	39	lazy	20	talkative	45
contemplative	50	leisurely	25	tense	88
contented	84	lively	54	terrified	64
defiant	65	lonely	41	thoughtful	55
desperate	79	loving	56	tired	25
dizzy	55	nauseous	68	uncertain	59
downhearted	70	nervous	81	upset	86
drowsy	55	nonchalant - not scored		vigorous	36
dubious	56	optimistic	76	warmhearted	60
dull	44	panicky	78	witty	64
earnest	35	playful	71	worrying	76
energetic	54	pleasant	71		

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Table 4

Distribution of sums of scores for the nine-word index from authentic

and simulated CMACL records in Experiment II.

Rating Sum	Authentic Frequency	-%	Simulated Frequency	-%
9	–	0	–	0
10	–	0	–	0
11	–	0	–	0
12	–	0	–	0
13	1	1	2	3
14	–	1	1	4
15	–	1	1	5
16	–	1	–	5
17	–	1	2	8
18	–	1	1	9
19	–	1	1	10
20	–	1	3	14
21	–	1	1	15
22	–	1	1	16
23	–	1	1	18
24	–	1	4	23
25	–	1	–	23
26	1	3	–	23
27	–	3	2	25
28	–	3	1	26
29	1	4	7	35
30	–	4	2	38
31	–	4	3	41
32	–	4	3	45
33	–	4	5	51
34	–	4	2	54
35	1	5	–	54
36	1	6	–	54
37	–	6	5	60
38	–	6	–	60
39	–	6	2	63
40	–	6	6	70
41	–	6	–	70
42	–	6	2	73
43	–	6	–	73
44	1	8	2	75
45	–	8	1	76
46	1	9	3	80
47	2	11	1	81
48	–	11	3	85
49	1	13	1	86
50	–	13	2	89
51	–	13	2	91
52	3	16	2	94
53	–	16	1	95
54	2	19	–	95
55	–	19	1	96
56	1	20	–	96
57	–	20	–	96
58	4	25	–	96
59	1	26	–	96
60	4	31	–	96
61	4	36	–	96
62	1	38	–	96
63	–	38	–	96
64	1	39	–	96
65	4	44	1	98
66	4	49	–	98
67	1	50	–	98
68	4	55	–	98
69	5	61	–	98
70	–	61	–	98
71	4	66	–	98
72	5	73	1	99
73	3	76	–	99
74	–	76	–	99
75	4	81	–	99
76	5	86	1	100
77	4	91	–	100
78	1	93	–	100
79	2	95	–	100
80	1	96	–	100
81	3	100	–	100

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Table 5

Distribution of sums of scores for the six-word index from authentic and simulated CMACL records in both Experiments I and II.

	Experiment I		Experiment II	
Rating Sum	Authentic Frequency-%	Simulated Frequency-%	Authentic Frequency-%	Simulated Frequency-%
6	– 0	15 19	– 0	– 0
7	– 0	5 25	– 0	– 0
8	– 0	7 34	– 0	2 3
9	– 0	4 39	– 0	– 3
10	– 0	2 42	– 0	– 3
11	– 0	– 42	– 0	3 6
12	– 0	5 48	– 0	2 9
13	– 0	5 54	– 0	2 11
14	– 0	5 61	– 0	1 13
15	– 0	5 67	– 0	1 14
16	– 0	3 71	– 0	5 20
17	– 0	– 71	1 1	1 21
18	– 0	3 75	1 3	3 25
19	– 0	– 75	1 4	2 28
20	1 1	3 78	– 4	5 34
21	– 1	3 82	– 4	6 41
22	1 3	2 85	– 4	– 41
23	– 3	– 85	– 4	4 46
24	– 3	2 87	– 4	5 53
25	– 3	1 89	– 4	– 53
26	1 4	– 89	1 5	3 56
27	– 4	– 89	– 5	4 61
28	– 4	1 90	1 6	4 66
29	– 4	– 90	1 8	7 75
30	1 5	3 94	– 8	1 76
31	1 6	– 94	– 8	4 81
32	– 6	– 94	2 10	3 85
33	2 9	– 94	– 10	– 85
34	2 11	– 94	– 10	– 85
35	– 11	2 96	– 10	2 88
36	1 13	– 96	1 11	3 91
37	2 15	– 96	3 15	1 93
38	3 19	– 96	– 15	2 95
39	2 22	– 96	3 19	1 96
40	2 24	– 96	4 24	– 96
41	1 25	– 96	2 26	– 96
42	2 28	– 96	2 29	– 96
43	4 33	– 96	1 30	– 96
44	4 38	1 97	2 33	– 96
45	1 39	1 99	4 38	1 98
46	2 42	1 100	6 45	– 98
47	7 50	– 100	4 50	– 98
48	3 54	– 100	2 53	– 98
49	4 59	– 100	4 58	– 98
50	7 68	– 100	7 66	– 98
51	6 76	– 100	4 71	1 99
52	8 86	– 100	9 83	– 99
53	8 96	– 100	6 95	– 99
54	3 100	– 100	8 100	1 100

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the six-item scale. Combined across both studies, the score of 36 was most efficient, as 149 of 159 invalid records were identified (95%) and only 19 of the 159 non-biased protocols were misclassified (12%); a net gain of three correctly identified CMACLs.

It is clear that the reduction in items did not diminish the efficiency of this screening technique, and may, in fact have improved it slightly.

IV. General Discussion.

The results of these experiments suggest that it is possible to apply a simple, yet efficient, screening check to CMACL records which are obtained in situations where effects of stress might be over-emphasized by respondents. The index is apparently effective in detecting both obvious and subtle biasing sets, although, not unexpectedly, it is more accurate in identifying obvious distortions. The efficiency of the index also compares favorably with the indices of distortion developed for other types of inventories, such as the MMPI or the 16PF.[3]

Of interest was the finding that several of the words which showed consistent change were associated with hostile and aggressive feelings. Thus, while aggressive feelings are often thought of as stress producers, these and other data e.g.[6] indicate that such feelings may be responses to threat and stress as well. This aspect of aggressive affective states has been discussed by Lazarus[4] as part of the coping process under stress.

It should be noted that identification of a record as possibly biased through the use of such indices cannot be interpreted as proof that a record has been distorted by a response set. Such an identification means only that a record has some characteristics in common with protocols obtained under distorting response sets. It has generally been found, as in this study, that some legitimate records will be included by most potentially useful cutting scores, with the percentage of such false-positive errors increasing as the cutting score is varied to identify an increasing proportion of valid positives. The determination of whether or not a profile has been actually distorted must be made by other means. In a clinical situation, further evaluation by other psychological techniques would be called for by such an identification. In a research setting, the decision might be made to eliminate all such scores from data analysis realizing that the loss of a considerable number of valid records might have to be tolerated for the desired gain in experimental precision.

While the index derived in this study should prove useful, especialy in research settings where use of the CMACL is contemplated, further validation of the adequacy of the present index will be required. Among the issues which need exploration are the utility of the index for use with other subject populations, such as psychiatric patients, and the identification of the effects of other major response sets.

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Time _____   Name_____

Pre Shift   Post Shift   Date_____

INSTRUCTIONS

Each of the words in the following list has been used at some time or other to describe feelings or mood. I would like you to use this list to describe <u>your</u> feelings <u>at this moment</u>. Mark each word according to the following instructions:

If the word <u>definitely</u> describes your mood or feelings at this moment, circle the number "9." For example, if the word is "peaceful" and you definitely feel peaceful, circle the "9" as follows:

peaceful. 1 2 3 4 5 6 7 8 9

If, on the other hand, the word does <u>not at all</u> describe your mood or feelings at this moment, circle the number "1," as follows:

peaceful. 1 2 3 4 5 6 7 8 9

The numbers "1" and "9" are the two extremes at which you can mark a word. The higher the number you circle, the more that word describes your present mood. The in-between numbers, "2" to "8," indicate various degrees between these extremes, to which the word describes your mood. For example, if you

feel _moderately_ peaceful, circle "5" (the middle of the

scale), and so on.

Please work quickly. Your first reaction to each word

is what I want, so mark each word quickly and move down to

the next. Do the words in order, and please _do not skip_

any words. Do not try to remember how you marked words

earlier in the list. Rather, give your immediate reaction

to each word. However, do not work so hastily that you

become careless. It is very important you be as accurate

and honest as possible in describing your mood.

Please turn the page now and begin.

NOT AT ALL   DEFINITELY

MODERATELY

active	1	2	3	4	5	6	7	8	9
affectionate . . .	1	2	3	4	5	6	7	8	9
afraid	1	2	3	4	5	6	7	8	9
angry	1	2	3	4	5	6	7	8	9
annoyed	1	2	3	4	5	6	7	8	9
anxious	1	2	3	4	5	6	7	8	9
ashamed	1	2	3	4	5	6	7	8	9
attentive	1	2	3	4	5	6	7	8	9
blue	1	2	3	4	5	6	7	8	9
bored	1	2	3	4	5	6	7	8	9
calm	1	2	3	4	5	6	7	8	9
carefree	1	2	3	4	5	6	7	8	9
careful	1	2	3	4	5	6	7	8	9
cheerful	1	2	3	4	5	6	7	8	9
clutched-up	1	2	3	4	5	6	7	8	9
concentrating . . .	1	2	3	4	5	6	7	8	9
contemplative . . .	1	2	3	4	5	6	7	8	9
contented	1	2	3	4	5	6	7	8	9
defiant	1	2	3	4	5	6	7	8	9
desperate	1	2	3	4	5	6	7	8	9
dizzy	1	2	3	4	5	6	7	8	9

                    NOT AT ALL   DEFINITELY

                              MODERATELY

downhearted 1 2 3 4 5 6 7 8 9

drowsy. 1 2 3 4 5 6 7 8 9

dubious 1 2 3 4 5 6 7 8 9

dull. 1 2 3 4 5 6 7 8 9

earnest 1 2 3 4 5 6 7 8 9

energetic 1 2 3 4 5 6 7 8 9

fatigued. 1 2 3 4 5 6 7 8 9

fearful 1 2 3 4 5 6 7 8 9

fed-up. 1 2 3 4 5 6 7 8 9

forgiving 1 2 3 4 5 6 7 8 9

frightened. 1 2 3 4 5 6 7 8 9

frustrated. 1 2 3 4 5 6 7 8 9

full of pity. . . . 1 2 3 4 5 6 7 8 9

grouchy 1 2 3 4 5 6 7 8 9

happy 1 2 3 4 5 6 7 8 9

insecure. 1 2 3 4 5 6 7 8 9

intent. 1 2 3 4 5 6 7 8 9

introspective . . . 1 2 3 4 5 6 7 8 9

jittery 1 2 3 4 5 6 7 8 9

joyful. 1 2 3 4 5 6 7 8 9

kindly. 1 2 3 4 5 6 7 8 9

	NOT AT ALL			MODERATELY				DEFINITELY	
lazy	1	2	3	4	5	6	7	8	9
leisurely	1	2	3	4	5	6	7	8	9
lively	1	2	3	4	5	6	7	8	9
lonely	1	2	3	4	5	6	7	8	9
loving	1	2	3	4	5	6	7	8	9
nauseous	1	2	3	4	5	6	7	8	9
nervous	1	2	3	4	5	6	7	8	9
nonchalant	1	2	3	4	5	6	7	8	9
optimistic	1	2	3	4	5	6	7	8	9
panicky	1	2	3	4	5	6	7	8	9
playful	1	2	3	4	5	6	7	8	9
pleasant	1	2	3	4	5	6	7	8	9
rebellious	1	2	3	4	5	6	7	8	9
regretful	1	2	3	4	5	6	7	8	9
sad	1	2	3	4	5	6	7	8	9
satisfied	1	2	3	4	5	6	7	8	9
secure	1	2	3	4	5	6	7	8	9
serious	1	2	3	4	5	6	7	8	9
shaky	1	2	3	4	5	6	7	8	9
shocked	1	2	3	4	5	6	7	8	9
skeptical	1	2	3	4	5	6	7	8	9

NOT AT ALL   DEFINITELY

MODERATELY

sleepy. 1 2 3 4 5 6 7 8 9

sluggish. 1 2 3 4 5 6 7 8 9

sorry 1 2 3 4 5 6 7 8 9

startled. 1 2 3 4 5 6 7 8 9

steady. 1 2 3 4 5 6 7 8 9

suspicious. 1 2 3 4 5 6 7 8 9

talkative 1 2 3 4 5 6 7 8 9

tense 1 2 3 4 5 6 7 8 9

terrified 1 2 3 4 5 6 7 8 9

thoughtful. 1 2 3 4 5 6 7 8 9

tired 1 2 3 4 5 6 7 8 9

uncertain 1 2 3 4 5 6 7 8 9

upset 1 2 3 4 5 6 7 8 9

vigorous. 1 2 3 4 5 6 7 8 9

warmhearted 1 2 3 4 5 6 7 8 9

witty 1 2 3 4 5 6 7 8 9

worrying. 1 2 3 4 5 6 7 8 9

Please be sure you have completed all 4 pages.