DEVELOPMENT OF RELIABLE AND VALID SHORT FORMS OF THE MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE

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Developed, on the basis of responses from 608 undergraduate students to the 33-item Marlowe-Crowne Social Desirability Scale, three short forms of 11, 12, and 13 items. The psychometric characteristics of these three forms and three other short forms developed by Strahan and Gerbasi (1972) were investigated and comparisons made. Results, in the form of internal consistency reliability, item factor loadings, short form with Marlowe-Crowne total scale correlations, and correlations between Marlowe-Crowne short forms and the Edwards Social Desirability Scale, indicate that psychometrically sound short forms can be constructed. Comparisons made between the short forms examined in this investigation suggest the 13-item form as a viable substitute for the regular 33-item Marlowe-Crowne scale.

The need to examine social desirability as a response tendency with self-report measures has been well documented and continues to be a methodological consideration in research (Maher, 1978). Although a number of instruments and techniques have been developed for the assessment of social desirability response tendencies (Block, 1965; Crowne & Marlowe, 1960, 1964; Edwards, 1957, 1970; Messick, 1962), an examination of the current research literature that deals with the measurement of affect and personality indicates the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) to be the primary social desirability measure in use at this time. The Marlowe-Crowne, which has been used extensively in personality research for the past 20 years, consists of 33 items and utilizes a true-false response format. Items originally were chosen for scale inclusion on the basis that they describe culturally approved behaviors that have a low incidence of occurrence, and that response to items in the keyed or non-keyed direction have minimal implication of psychopathology (Crowne & Marlowe, 1960).

A major use of the Marlowe-Crowne scale in research has been as an adjunct measure to assess the impact of social desirability on self-report measures specific to the primary purpose of the investigation. It should be noted, however, that many studies that should examine for the possibility of response style tendencies fail to do so. Although not extensive in length or response time requirements, the Marlowe-Crowne is as long and often longer than many unitary trait/state measures being used in personality research. The development of valid and reliable short forms of the Marlowe-Crowne Social Desirability Scale should stimulate its usage in psychological and social research. While previous researchers have constructed short forms of the Marlowe-Crowne scale, these do not appear to be used to an appreciable extent. Strahan and Gerbasi (1972), who used a sample of 361 college students, constructed three short forms, two of 10 items each, and a 20-item form that subsumed the two 10-item forms. Reliability estimates for the 10-item scales ranged from .49 – .75 (KR-20), for various subsamples of students (median r_{KR-20} = .62), while reliability coefficients for the 20-item form ranged from .73 – .87 (median r_{KR-20} = .78). Validity information consisted of correlations between short forms and the total Marlowe-Crowne scale, which "were in the .80's or .90's."

The intent of this investigation was the construction of Marlowe-Crowne short forms alternative to those suggested by Strahan and Gerbasi (1972) and on the basis of psychometric considerations to suggest a reliable and valid form for utilization in research. In addition to reliability information, psychometric

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considerations included item factor loadings, short form with total scale correlations, and concurrent validation with the Edwards Social Desirability Scale (Edwards, 1957).

METHOD

Subjects

Participants were 608 undergraduate students from a medium sized state university who voluntarily completed the Marlowe-Crowne Social Desirability Scale. There were 239 males (39.3%) and 369 females (60.7%), drawn from a cross-section of college majors. Racially, the sample was 81.2% white, 8.7% black, 6.2% Hispanic, and 1.8% other (2.1% did not indicate race). The mean age was 20.54 years ($SD = 4.01$) with a range of 17 to 54 years. By class level, 30.5% were freshmen, 29.8% sophomores, 21.0% juniors, and 19.7% seniors.

Procedure

Ss completed the Marlowe-Crowne Social Desirability Scale along with several other self-report measures at the end of their class period. Although participation was voluntary, approximately 95% of the students presented with the opportunity did participate. *Ss* recorded their responses to the Marlowe-Crowne on optical scanning/scored answer sheets (NCS Trans-Optic PO99B). All responses were anonymous. *Ss* also completed a general demographic information sheet. All response forms were assigned identification numbers prior to data collection in order to cross-reference information points. A subgroup of 68 *Ss* also completed the Edwards Social Desirability Scale (Edwards, 1957).

Data Analysis

Statistical analyses were conducted using computer programs of the Statistical Package for the Social Sciences (SPSS), second edition, versions six (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) and seven (Hull & Nie, 1979). In order to examine the factor structure of the Marlowe-Crowne, a principal factors analysis was obtained from the product-moment correlation matrix of the 33 Marlowe-Crowne items. Item analyses, in the form of item with total scale correlations, corrected for item redundancy, were calculated for the standard 33-item Marlowe-Crowne, all subsequent short forms, and the Edwards Social Desirability Scale. Internal consistency reliability estimates using Kuder-Richardson Formula 20 (Richardson & Kuder, 1939) were computed for all forms. Descriptive statistics (means, standard deviations) were computed for each form for the total sample, and separately for males and females. Sex differences on scale forms were investigated by the calculation of *t*-tests for unrelated groups. Based on the findings of previous studies (Ramanaiah, Schill, & Leung, 1977; Strahan & Gerbasi, 1972), significant differences between sexes were not expected.

Development of Scales

The initial short form of the Marlowe-Crowne was based on the results of the factor analysis. A criterion factor-variable correlation (factor loading) of .40 was selected as the minimum level for item inclusion on the initial short form. The decision to use .40 is based on the suggestion of Lindeman, Merenda, and Gold (1980), who view a coefficient of .40 as the minimum level for a variable to contribute meaningfully to a factor. After formulation of the initial short form, further forms were developed by adding homogeneous items, selected on the basis of their item with total scale correlation. This procedure was used to increase the internal consistency reliability, which is in part a function of the number of items (Magnusson, 1967). Validity of the short forms was assessed via product-moment correlation coefficients between each short form and the standard 33-item Marlowe-Crowne scale and the Edwards Social Desirability Scale. In addition, coefficients of determination (r^2) also were computed.

RESULTS

Factor Analysis

A principal factor analysis produced a first factor that accounted for 15.9% of the total variance. Although small, this factor accounted for more than three times the variance that the next largest factor accounted for. Applying Cattell's (1966a, 1966b) scree test to the resultant eigenvalues, confirmed this component to be a single significant factor ($\lambda_1 = 5.23$, $\lambda_2 = 1.63$). The 33 Marlowe-Crowne items, their loading on the first factor, and each item with total score correlation are listed in Table 1. Using the factor loading criterion of .40 or greater, 11 items were selected as the initial Marlowe-Crowne short form and designated M-C Form A. Factor loadings ranged from .40 to .54, with a median loading of .46. On the basis of results from the item analysis, two additional forms of 12 and 13 items, designated M-C Form B and M-C Form C, respectively, were developed. Further analyses of Marlowe-Crowne short forms were computed using these three forms, in addition to the three forms by Strahan and Gerbasi (1972). Short forms suggested by Strahan and Gerbasi (1972) were designated M-C Form XX (20 items), M-C Form X1 (10 items) and M-C Form X2 (10 items).

TABLE 1

MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE ITEMS,
FIRST FACTOR ITEM LOADINGS, ITEM TO TOTAL SCALE CORRELATIONS,
AND ITEM ENDORSEMENT PROPORTIONS

Item	Factor loading	r_{ij}[a]	Percent[b]
1. Before voting I thoroughly investigate the qualifications of all the candidates.	.31	.28	.47
2. I never hesitate to go out of my way to help someone in trouble.	.33	.30	.55
3. It is sometimes hard for me to go on with my work if I am not encouraged.	.40	.36	.36
4. I have never intensely disliked anyone.	.38	.34	.28
5. On occasion I have had doubts about my ability to succeed in life.	.33	.28	.34
6. I sometimes feel resentful when I don't get my way.	.54	.49	.30
7. I am always careful about my manner of dress.	.25	.23	.61
8. My table manners at home are as good as when I eat out in a restaurant.	.32	.28	.64
9. If I could get into a movie without paying and be sure I was not seen I would probably do it.	.22	.18	.47
10. On a few occasions, I have given up doing something because I thought too little of my ability.	.39	.35	.44
11. I like to gossip at times.	.35	.30	.24
12. There have been times when I felt like rebelling against people in authority even though I knew they were right.	.39	.35	.42
13. No matter who I'm talking to, I'm always a good listener.	.40	.36	.59
14. I can remember "playing sick" to get out of something.	.32	.29	.29
15. There have been occasions when I took advantage of someone.	.49	.43	.34
16. I'm always willing to admit it when I make a mistake.	.46	.41	.61
17. I always try to practice what I preach.	.30	.27	.85

TABLE 1 (continued)

Item	Factor loading	r_{if}[a]	Percent[b]
18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.	.15	.13	.32
19. I sometimes try to get even rather than forgive and forget.	.48	.43	.47
20. When I don't know something I don't at all mind admitting it.	.34	.30	.74
21. I am always courteous, even to people who are disagreeable.	.44	.40	.55
22. At times I have really insisted on having things my own way.	.23	.27	.17
23. There have been occasions when I felt like smashing things.	.38	.34	.20
24. I would never think of letting someone else be punished for my wrong-doings.	.34	.31	.84
25. I never resent being asked to return a favor.	.31	.28	.77
26. I have never been irked when people expressed ideas very different from my own.	.41	.36	.41
27. I never make a long trip without checking the safety of my car.	.21	.18	.60
28. There have been times when I was quite jealous of the good fortune of others.	.53	.48	.30
29. I have almost never felt the urge to tell someone off.	.22	.20	.11
30. I am sometimes irritated by people who ask favors of me.	.50	.45	.50
31. I have never felt that I was punished without cause.	.33	.31	.25
32. I sometimes think when people have a misfortune they only got what they deserved.	.37	.31	.62
33. I have never deliberately said something that hurt someone's feelings.	.42	.38	.38

Note.—N = 608.

[a]Item to total scale correlation corrected for item redundancy.
[b]Percent of Ss who responded to the item in the keyed (social desirable) direction.

Descriptive Statistics

Table 2 shows the means and standard deviations (*SD*) of the Marlowe-Crowne standard form, the three short forms developed for this investigation, the three forms developed by Strahan and Gerbasi (1972), and the Edwards Social Desirability Scale. The mean of the standard form is similar to that reported by Crowne and Marlowe (1960) in their development study ($\bar{X}$ = 13.72, *SD* = 5.78). The means obtained in this investigation on the Strahan and Gerbasi short forms were quite similar to those reported by the authors in their initial report. The Marlowe-Crowne standard and short forms manifested relatively normal score distributions, while the distribution of scores on the Edwards SDS was quite skewed and restricted in range. The scores on the Edwards SDS obtained in this investigation mirror those reported by Crowne and Marlowe (1960) (Edwards SDS $\bar{X}$ = 31.83, *SD* = 5.06) for their study. Means for each Marlowe-Crowne form calculated separately for males and females, when analyzed via *t*-tests, did not differ significantly (*ps* < .10).

TABLE 2

Means and Standard Deviations of Marlowe-Crowne Standard, Short Forms, and Edwards Social Desirability Scale

Scale	Number of items	$\bar{X}$	SD	Average item $\bar{X}$	Skewness
M-C Standard	33	15.00	5.91	.46	.24
M-C Form A[a]	11	4.81	2.80	.44	.26
M-C Form B[b]	12	5.23	3.00	.44	.29
M-C Form C[c]	13	5.67	3.20	.44	.27
M-C Form XX[d]	20	9.19	4.05	.46	.18
M-C Form X1[e]	10	4.44	2.14	.44	.16
M-C Form X2[f]	10	4.76	2.30	.48	.17
Edwards SDS	39	31.69	5.15	.81	−.80

[a]Form A items: 3, 6, 13, 15, 16, 19, 21, 26, 28, 30, 33.
[b]Form B items: 3, 6, 12, 13, 15, 16, 19, 21, 26, 28, 30, 33.
[c]Form C items: 3, 6, 10, 12, 13, 15, 16, 19, 21, 26, 28, 30, 33.
[d]Form XX items: 2, 4, 6, 11, 12, 14, 15, 16, 17, 19, 20, 21, 22, 23, 24, 25, 26, 28, 30, 33.
[e]Form X1 items: 11, 15, 16, 17, 19, 22, 23, 25, 26, 33.
[f]Form X2 items: 2, 4, 6, 12, 14, 20, 21, 24, 28, 30.

Reliability

Reliability estimates for the various social desirability forms are shown in Table 3. Of the three short forms developed as part of this investigation, the addition of items resulted in an increment in reliability. M-C Form C with 13 items demonstrates an acceptable level of reliability ($r_{KR-20} = .76$) and compares favorably with the reliability of the standard form and M-C Form XX, although it has one-third less items than the latter form. The two 10-item forms (M-C Forms X1 and X2), formulated by Strahan and Gerbasi (1972), were less reliable than M-C Forms A, B, and C.

TABLE 3

Reliability Estimates for the Marlowe-Crowne Standard Short Forms, and the Edwards Social Desirability Scale

Scale	Number of items	r_{KR20}[a]	r_{ij}[b]	Range of item to total score correlations
M-C Standard	33	.82	.32	.13—.49
M-C Form A	11	.74	.39	.27—.45
M-C Form B	12	.75	.39	.30—.46
M-C Form C	13	.76	.38	.32—.47
M-C Form XX	20	.79	.35	.23—.47
M-C Form X1	10	.63	.28	.19—.41
M-C Form X2	10	.66	.32	.25—.43
Edwards SDS	39	.83	.30	−.12—.61

[a]Kuder-Richardson formula 20 reliability.
[b]Mean item to total scale correlations. Values for Marlowe-Crowne short forms are item to short form correlation coefficients. Correlation coefficients are corrected for item redundancy.

Validity

Concurrent validity was examined via correlations between the Marlowe-Crowne short forms and the standard version, and the Edwards Social Desirability

Scale. Table 4 presents the correlations among these variables. As can be seen, short forms M-C C and M-C XX correlated most highly with the standard 33-item Marlowe-Crowne, while forms M-C X1 and X2 demonstrated the lowest relationships with the standard form. The correlations between Marlowe-Crowne forms and the Edwards scale are low, but consistent with the correlation of .35 found by Crowne and Marlowe (1960). Given the similarities in score distributions on the Edwards scale in this and the Crowne and Marlowe (1960) studies, the low correlations obtained are probably due in part by a restricted range of scores on the Edwards scale, and are further attenuated by measurement error inherent in each measure.

TABLE 4

CORRELATIONS BETWEEN THE MARLOWE-CROWNE STANDARD,
SHORT FORMS, AND THE EDWARDS SOCIAL DESIRABILITY SCALE

Scale	Marlowe-Crowne Standard		Edwards SDS	
	r	r^2	r	r^2
M-C Standard	—	—	.47**	.22
M-C Form A	.91**	.83	.37**	.14
M-C Form B	.92**	.85	.38**	.14
M-C Form C	.93**	.86	.41**	.17
M-C Form XX	.95**	.90	.43**	.18
M-C Form X1	.85**	.72	.37**	.14
M-C Form X2	.88**	.77	.42**	.18

r = product-moment correlation coefficient, r^2 = coefficient of determination.
**p <.001.

DISCUSSION

The data presented here indicate that reliable and valid Marlowe-Crowne Social Desirability Scale short forms can be constructed, with substantially fewer items than the original scale. Given the press to examine the degree to which social desirability impinges upon responses to self-report questionnaires and scales, the availability of brief, easy-to-administer scales should facilitate the consideration of this response tendency by researchers. This investigation examined six short form versions. Three of these short forms were developed as part of this investigation, while the remaining three were suggested by Strahan and Gerbasi (1972). On the basis of reliability and validity results, the two strongest forms, psychometrically, were the 13-item form (M-C Form C) developed in this investigation and the 20-item form (M-C Form XX) developed by Strahan and Gerbasi (1972). Given the small psychometric differences between these two forms, and the one-third fewer items on Form C, the 13-item form is recommended as a viable short form for use in the assessment of social desirability response tendencies.

With slightly greater than one-third the items of the Marlowe-Crowne scale, the 13-item short form should provide researchers with a brief, easy-to-administer social desirability measure. It is hoped that the availability of this short form will provide impetus for greater consideration of social desirability response tendencies in psychological and social research that utilizes self-report measures of affect, personality, attitudes, and other cogent individual characteristics.

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COGNITIVE PROCESSES IN DEPRESSION

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Tested hypotheses derived from Beck's cognitive theory of depression using 60 depressed and nondepressed males and females. *S*s rated performance before and after they received feedback on a social interaction task. *S*s then attempted to recall feedback and explain their post-feedback self-rating. Results showed that depressed males and females had more negative evaluation of present circumstances and poorer memory for feedback. Further, depressed males lowered their self-evaluation after feedback significantly more than did nondepressed males. Results with regard to differential response to neutral and positive feedback were not found because *S*s apparently perceived all levels of feedback as somewhat negative. Data were partially supportive of Beck's cognitive theory of depression, especially with regard to males.

Depression is currently a wide-spread mental health problem (Becker, 1977; Secunda, 1973). Although many theoretical explanations of this syndrome have been offered (Beck, 1967; Becker, 1974, 1977) an accepted, unifying theory of depression is yet to be found (Akiskal & McKinney, 1975). A theory that has gained considerable recent attention (Akiskal & McKinney, 1975; Becker, 1977; Rizley, 1978) is Beck's cognitive triad formulation (1967, 1974, 1976). Beck states that the depressed individual "automatically" interprets his experiences, himself, and his future in a negative manner, which leads to the affective state of depression. Depressed cognitions, according to Beck, typically had several consistent distortions: Arbitrary inference, selective abstraction, over-generalization, and magnification and minimization. In essence, these distortions minimize positive information and overemphasize negative data. Thus, the depressed person uses this