ATTRIBUTION AND DENIAL IN
SOCIALLY DESIRABLE RESPONDING
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Abstract

Paulhus's (1984) Balanced Inventory of Desirable Responding (BIDR) contains scales designed to assess the two major components of socially desirable responding. The Self-Deception Scale (SDS) assesses the tendency to give favorably biased but honestly-held self-descriptions; the Impression Management Scale (IMS) assesses the tendency to give deliberately favorable self-descriptions. Research by Millham (1974) and Roth, Snyder and Pace (1986) has distinguished two tactics of desirable responding: (a) attribution: the claiming of positive attributes, and (b) denial: the rejection of negative attributes.

This thesis presents three studies designed to evaluate the relative importance of these two distinctions in the BIDR. The first study, a factor analysis of 130 cases, demonstrated that both the content (self-deception vs. impression-management) and tactic (attribution vs. denial) were important in determining responses to the BIDR. The IMS items, including both attribution and denial, formed one factor. The attribution SDS items fell on a second factor. Surprisingly, the denial SDS items fell closer to the IMS factor. Rosenberg's Self-Esteem scale was most highly correlated with the attribution SDS items.

Study 2 was a similar factor analysis of the data from a much larger dataset (N = 670). The factor pattern was identical to that in Study 1. Moreover, the SDS attribution
items again predicted adjustment, including high self-esteem, low social anxiety and low empathic distress.

Study 3 (N = 137) was designed to determine whether the critical difference between the attribution and denial items depends on: (a) whether the item refers to positive or negative attributes, or (b) whether the statement as a whole is favorable or unfavorable. To test these competing hypotheses, 20 negations were written, one for each of the 20 original assertions on the SDS. Results showed that items referring to positive characteristics (I am a saint; I am not a saint) formed a distinct factor from items referring to negative characteristics (I am a sinner; I am not a sinner). Simple negations (I am not a sinner) fell on the same factor as their corresponding assertions (I am a sinner) but at the opposite pole. Finally, the correlations with various personality measures were consistent with Studies 1 and 2.

These results clarify the distinction between attribution and denial components. The distinction is not simply one of keying direction, that is, whether the statement as a whole is desirable or undesirable. Rather, the critical factor is whether the item content refers to a positive or negative characteristic. This distinction is critical in measuring self-deception, but not impression management.
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And a special note to Cori Emwright and Paul Trapnell for their friendship throughout it all.
Attribution and Denial in Socially Desirable Responding

One source of inaccuracy in self-reports of personality, attitudes, and behavior is the tendency of (at least) some subjects to engage in socially desirable responding (SDR). Respondents who consistently engage in SDR across time and assessment instruments are said to have a response style (Jackson & Messick, 1958). To assess the SDR response style, a great number of instruments have been developed using a wide variety of scale construction strategies (for a review see Paulhus, in press).

Structural Models

Factor analytic studies over the last 25 years have supported the structural partitioning of SDR response styles into two major components, which have been labeled Alpha (Block, 1965) and Gamma (Wiggins, 1964). Measures loading on the Alpha factor include the MMPI K scale (McKinley, Hathaway, & Meehl, 1948; Meehl & Hathaway, 1946), the SD scale (Edwards, 1957) and the Self-Deception Questionnaire (Sackeim & Gur, 1978). Several commentators view this factor as the general tendency to give socially desirable self-reports (Edwards, 1957; Jackson & Messick, 1958). Damarin and Messick (1965) applied the term "autistic bias", the tendency to distort self-perception to be consistent with self-attitudes. Paulhus (1984) preferred the term "self-deceptive positivity". In contrast to these stylistic interpretations, Block (1965)
interpreted this factor substantively as a general adjustment factor.

Measures falling on the Gamma factor included the Positive Malingering scale (Cofer, Chance, & Judson, 1949) and the Sd scale (Wiggins, 1959). Damarin & Messick (1965) labeled the factor "propagandistic bias", an instrumental distortion aimed at a specific audience. Edwards (1970) and Paulhus (1984, 1986) used the term "impression management".

Perhaps the most compelling evidence for the Alpha-Gamma model was provided by Paulhus's (1984) factor analysis of traditional SDR measures along with the Self- and Other-Deception Questionnaires (Sackeim & Gur, 1978). As in previous studies, the Alpha factor was marked by Block's (1965) ERS, Byrne's (1964) R-S, and Edwards's (1957) SD, while Wiggins's (1959) Sd and the EPI Lie scale (Eysenck & Eysenck, 1964) loaded on the Gamma factor. The Marlowe-Crowne scale (Crowne & Marlowe, 1960) loaded highly on both factors. Most important, the SDQ and ODQ were the best single markers of the Alpha and Gamma factors, respectively, thus empirically supporting the interpretation of Alpha and Gamma as self-deception and impression management.

Paulhus (1984) also provided experimental support for this distinction by contrasting scores obtained in an anonymous testing situation with those from a public disclosure condition. Under threat of public disclosure, desirable responding increased significantly more on scales
representing the Gamma factor than on those marking the Alpha factor.

**Measuring Self-Deception and Impression Management**

Given that they mark the Alpha and Gamma factors, the Self- and Other-Deception scales warrant some scrutiny. Sackeim and Gur (1978) developed the two scales on a rational basis. The Self-Deception Questionnaire (SDQ) contains 20 psychoanalytically oriented questions about threatening feelings and thoughts that everyone is assumed to experience but that some people deny to themselves (e.g., Do you enjoy your bowel movements?). The critical feature of the SDQ items is that only the respondent can know the truth value of the responses. Therefore, any bias evident under anonymous testing conditions must reflect honestly held beliefs of the test taker.

In contrast, the Other-Deception Questionnaire contains items concerning overt behaviors for which the individual should have accurate memory (e.g., I always declare everything at customs.). Like the Marlowe-Crowne scale, the items refer to behaviors that are likely but undesirable or unlikely but desirable. Many of the Marlowe-Crowne items, however, referred to private thoughts and feelings.

The construct validity of the SDQ and ODQ have been supported in a number of experimental and correlational studies (Gur & Sackeim, 1979; Paulhus, 1982; Sackeim, 1983; Sackeim & Gur, 1978, 1979; Winters & Neale, 1985). Paulhus (1984) addressed a number of psychometric deficiencies while
developing his new instrument called the Balanced Inventory of Desirable Responding (BIDR). The new subscales, termed the Self-Deception and Impression Management Scales, were improvements in several respects: (a) The keying direction was balanced, (b) items referring to adjustment were deleted, and (c) items with low part-whole correlations were replaced. The BIDR has been used successfully in a number of studies (Linden, Paulhus, & Dobson, 1986; Paulhus & Levitt, 1987).

**Attribution and Denial**

Another distinction that has been advanced in the SDR literature is that between the attribution of positive attributes and the denial of negative attributes (e.g., Millham, 1974; Jacobson, Kellogg, Cauce, & Slavin, 1977; Roth, Snyder, & Pace, 1986). Following this literature, I will use the short forms, attribution and denial to refer to these two kinds of socially desirable responding.

Millham (1974) formed attribution and denial measures simply by partitioning the Marlowe Crowne scale into true- and false-keyed subscales. He found some evidence that the two components had different behavioral correlates. However, when Ramanaiah and Martin (1980) wrote reversals to balance the keys for each subscale, differences in external correlates disappeared.

Rather than using a known scale, Roth et al. (1986) rationally assembled a set of 30 attribution and 30 denial statements. They used only affirmations (e.g., I am a saint, I am a sinner). Thus the desirable response was "true" to an
attribution statement or "false" to a denial statement. A confirmatory factor analysis showed that the attribution and denial items formed distinct factors with an intercorrelation of .19. The two components also showed differential external correlates. Compared to the denial scale, the attribution scale showed higher correlations with Rosenberg's (1965) self-esteem scale (.31 vs. .05) and Beck's Depression Inventory (1967) (.30 vs. -.15). In contrast, the denial scale showed higher correlations with public self-consciousness (-.28 vs. .01) and private self-consciousness (-.20 vs. -.01).

In a follow-up study, Roth, Harris, and Snyder (1988) performed a confirmatory factor analysis to demonstrate that a two-factor tactics model was superior to a one-factor model. However, they did not replicate the Roth et al. (1986) finding that attribution scores predicted adjustment better than did denial scores.²

Paulhus (1984) directly compared the two structural models using confirmatory factor analysis. He found that the Self-Deception/Impression Management distinction accounted for more variance than the Attribution/Denial model. The results of the Roth et al. (1986) study, however, indicate that attribution and denial components play a significant role in socially desirable responding.

Therefore this thesis presents several studies designed to examine the two structural models simultaneously. This requires a partitioning of the BIDR into separate measures of attribution and denial for each of the Self-Deception and
Impression Management scales. Only such an approach will permit an assessment of the joint contributions of the four types of socially desirable responding. Following Sackeim and Gur (1979) and Roth et al. (1986, 1988), I will also examine the link between these different forms of SDR and adjustment.

Study 1

To examine the importance of keying-direction, three measures were separated into subscales containing true- and false-keyed items. Following the previous literature and for easy reference, I will use the term attribution for the true-keyed items and the term denial for the false-keyed items. The three partitioned measures were the Self-Deception and Impression Management Scales from the BIDR and Rosenberg’s Self Esteem scale.

Method

Subjects. Subjects were 130 introductory psychology students (42 men, 81 women, and 7 gender-undisclosed) at the University of British Columbia. They participated for course credit.

Materials. The instruments administered were the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965); and the Balanced Inventory of Desirable Responding, Version 3 (BIDR-3; Paulhus, 1984) which contains 20-item subscales to measure self-deception and impression management. All items were answered on a 7-point Likert scale ranging from 'not true' to
'very true". These two instruments are included in Appendix I.

**Procedure.** Subjects were recruited by announcing the study in classes of students eligible for extra course credits. As subjects arrived they were given a subject participation credit form to fill out. Upon return of the credit form, subjects were given the questionnaires to complete. As the questionnaires were disbursed, each subject was instructed not to sit directly next to anyone or near a friend, and that it was essential to answer the questions as thoroughly and honestly as possible. Talking was not allowed. These instructions were also printed on the blackboard at the front of the class and reiterated at random intervals throughout the testing session. After subjects completed the questionnaires they deposited them in a box at the rear of the class as they left.

**Results**

The means, standard deviations and alpha reliabilities of the six subscales and three totals are given in Table 1.

Insert Table 1 about here

The statistics on the scale totals are similar to those in previous studies at UBC using the BIDR and Rosenberg’s scale (e.g., Paulhus & Levitt, 1987). The intercorrelations of the six subscales are presented in Table 2. All subscales have been keyed in the socially desirable direction. Note that the intercorrelation of the two SDS subscales (.19) is
substantially lower than the corresponding intercorrelations for the IMS (.47) and the SE scale (.74).

The six subscales were factored using principal components extraction followed by varimax rotation. The first two factors explained 65 percent of the common variance. A plot of the factor loadings is presented in Figure 1.

The subscales of the Self Esteem scale load primarily on one factor whereas the subscales of the Impression Management Scale fall on a second factor. The attribution items of the Self-Deception Scale fall closer to factor 1 whereas the denial items fall closer to factor 2.

Discussion

This study clarifies the relation between the two methods of partitioning social desirability items. The two structural models are interactive in the sense that both are required to explain the observed pattern of relations among the subscales. For the Self-Deception Scale, scores on the true-keyed (attribution) items were relatively independent of scores on the false-keyed (denial) items. On the Impression Management Scale, the two sets of items were more highly correlated. The attribution and denial items for the Self-Esteem scale were also highly correlated, replicating previous studies (e.g.,
Carmines & Zeller, 1979). In short, the attribution/denial partitioning appears to be important, but only for self-deception items.

Of the four subscales formed from the BIDR, only the SDS attribution items appear to be linked to self-esteem. This finding is consistent with the results of Roth et al. (1986) in showing a closer linkage of adjustment with attribution than with denial. At the same time, this study demonstrates that the findings of Roth and his colleagues do not apply to all forms of desirable responding.

Study 2

Given the interesting pattern of results in Study 1, it would be reassuring to see a replication. Therefore, one purpose for Study 2 was to replicate the results of Study 1 on a larger sample. The second purpose was to clarify the meaning of the attribution and denial components of self-deception. Presumably the two components represent different aspects of desirable self-presentation. Therefore, I administered the BIDR along with an inventory of measures of a wide range of defenses and biases.

This inventory was a set of 120 new items written to tap well-known concepts not usually measured with self-reports (see Appendix II). These included some concepts from the social psychology literature. For example, the illusion of control is the general tendency for people to exaggerate the
degree of control they have over their environment. Individual differences in such a tendency may well be linked to self-deceptive tendencies. Other indexes developed from the social psychology literature include hindsight bias and self-fulfilling prophecy. Still further indexes originated in the psychoanalytic literature (e.g., suppression, denial of sexuality).

Another way to clarify the significance of the distinction between attribution and denial measures would be to look for differential relations with standard personality measures. Accordingly, a set of personality measures related to desirable responding was administered along with the BIDR and the inventory of defenses and biases. The Marlowe-Crowne scale (Crowne & Marlowe, 1960) was included because it is the most widely used measure of desirable responding. The Self-Monitoring Scale (Snyder, 1974) and the Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975) both measure constructs related to the relative amount of attention paid to one's internal and external environments. Finally, Davis's (1983) Empathy scale contains subscales measuring Fantasy, Perspective Taking, Empathic Concern for Others, and Personal Distress. All of these concepts may bear some relation to an individual's tendency to self-deceive.

Method

Subjects. Subjects were 670 introductory psychology students (279 men, 349 women, and 42 gender-undisclosed) at
the University of British Columbia. They participated for course credit.

**Materials.** The BIDR and Rosenberg scales were administered as part of two different questionnaire batteries. Battery A also included a Self-Rating Inventory comprising several indexes rationally developed to assess a variety of concepts related to psychological defense and cognitive distortion: Denial of hostility, sexuality, and parental conflict; Reported need for approval; Acceptance of criticism; Enjoyment of undesirable acts; Suppression tendency; Illusion of control; Hindsight bias; Just world belief; Self-fulfilling prophecy; Belief in prayer; Dogmatic thinking; Self-deceptive behavior; Reported procrastination; Perceived safe driving; and Love proneness. The complete list of items composing these scales is given in Appendix II.

As well as the BIDR and Rosenberg Self-Esteem scales, Battery B included a set of personality measures; the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960); the Interpersonal Reactivity Index designed to measure empathy (Davis, 1983); the Self-Monitoring Scale (Snyder, 1974); and the Self-Consciousness Scale (Fenigstein, Scheier, & Buss, 1975). All items were answered on a 7-point Likert scale ranging from 'not true' to 'very true'. The complete set of scales is provided in Appendix III.

**Procedure.** Subjects were recruited from seven psychology classes. Seventy-five percent of the subjects received Battery A and twenty-five percent, Battery B. The inventories
were randomly disbursed in unmarked envelopes that included a cover letter stressing confidentiality and the necessity of honest responding. Subjects were instructed to take home the batteries and to return them at the beginning of the next class. They were given oral intructions to answer all questions as honesty as possible and not to discuss the items or responses with family or friends.

Completed inventories were collected at the start of the next class. An explanation of the nature of the study was given at that time.

**Results**

The intercorrelations among the six subscales are presented in Table 3. They closely resemble those in Study 1. Again the correlation of the subscales of the SDS scale (.22) is much smaller than those of the SE scale (.70) or the IMS (.49). Therefore in the remaining analyses, the latter two scales will not be separated into subscales.

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Insert Table 3 about here

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The correlations were factored with principal components extraction followed by varimax rotation. The first two factors explaining 66 percent of the total variance are depicted in Figure 2. The factor loadings are very similar to those in Study 1.

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Insert Figure 2 about here

---
The correlations of the BIDR scales with the common personality instruments are presented in Table 4.

Insert Table 4 about here

The two measures of psychological distress, the Social Anxiety scale and the Personal Distress scale, show much higher correlations with the attribution items that with the denial items or the IMS. In contrast, the Marlowe-Crowne scale and the Other-Directedness scale show lower correlations with the attributions than with the denial items and IMS.

Note that the SDS attribution and denial items do not differentially correlate with Marlowe-Crowne attribution and denial items. This requires an explanation that goes beyond the partitioning of true- and false-keyed items. For one thing, the Marlowe-Crowne scale includes many impression management items, which as I have shown, do not show separate patterns for the denial and attribution items. Moreover, the Marlowe-Crowne items are not all affirmations, as on the SDS.

The correlations between the BIDR measures and the various distortion indexes are presented in Table 5.

Insert Table 5 about here

Note that several indexes correlate higher with the attribution items than with the denial items: Dogmatic thinking, Procrastination, Denial of parental conflict, Illusion of control, Self-fulfilling prophecy, Perceived Safe
Driving and Love Proneness. The denial items correlate higher than attribution with the following indexes: Denial of hostility, Denial of sexuality, Acceptance of criticism, Enjoyment of undesirable acts, Suppression tendency, Hindsight bias, Just world belief, Belief in prayer, and Self-deceptive behaviors. In general, the indexes that correlated with denial also correlated with impression management.

Discussion

The replication of the factor pattern from Study 1 on such a large sample is reassuring. Attribution and denial tendencies on the SDS are apparently independent. The relations with other adjustment measures extended the differential linkage of attribution and denial components with psychological health. Attribution of positive qualities to the self is associated not only with high self-esteem, but with minimal social anxiety and low empathic distress caused by other’s problems.

The differential associations of attribution and denial with the various indexes of defense and cognitive bias were also informative. In general, the attribution items predicted biases associated with confidence in one’s own judgments. In contrast, the denial items were associated with rejection of psychological threats, e.g., denial of one’s hostility and sexuality. The exception to this pattern was a higher correlation of attribution with denying parental conflict. Rather than being true denial, the latter may be an accurate
developmental antecedent of the optimistic thinking typified by the attribution factor.

One clear implication of these findings is that the true- and false-keyed items of the same scale may assess different constructs. Any assumption about the homogeneity of the two subscales should be empirically substantiated. This substantiation should include an examination of the external correlates of the two subscales.

Study 3

For self-deception items, the tendency to attribute positive characteristics to the self is relatively independent of the tendency to deny negative characteristics. Because all items are written as affirmations (I am a saint; I am a sinner), however, there remains a critical ambiguity in the distinction between attribution and denial items. What aspects of the items are triggering two distinct response styles?

It could be that the distinction is simply one of keying direction: The tendency to agree with desirable statements may be independent of the tendency to disagree with undesirable statements. If so, the attribution-prone individual would agree with "I am a saint" and also agree with "I am not a sinner". Similarly, the denial prone individual would disagree with "I am a sinner" and also disagree with "I am not a saint".
On the other hand, the distinction between attribution and denial factors may depend on whether the item refers to a positive or negative attribute. That is, the attribution-prone individual would agree with "I am a saint" and disagree with "I am not a saint". In both cases, the respondent is claiming a positive characteristic. The denial-prone individual would agree with "I am not a sinner" and disagree with "I am a sinner". In both cases, the respondent is disclaiming a negative characteristic. The four types of items are illustrated in figure 3.

A critical test of these alternative structural models requires data on how subjects respond to the negations of the original 10 attribution and 10 denial items on the SDS. Therefore, negations were written for each item. For example, the negation for "My parents always loved me" was "My parents didn’t always love me".

**Method**

**Subjects.** Subjects were 137 introductory psychology students at the University of British Columbia (53 men, 74 women, and 10 gender undisclosed). They participated for course credit.

**Materials.** As in Studies 1 and 2, the questionnaire battery included the Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Balanced Inventory of Desirable Responding (Paulhus, 1984). Also included were the Trait form of the
State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970); and the Interpersonal Adjective Scale (IAS) measures of the big five personality dimensions: surgency, neuroticism, conscientiousness, openness to experience, and agreeableness (B5 Revised Short Form; Trapnell & Wiggins, 1988). These instruments are provided in Appendix IV.

Also included were 20 new items consisting of the self-deception items written as negations. These negations were presented as far away from the orginals as possible. The two sets were first and last in the battery with the order counterbalanced. Items in all instruments were answered on a 7-point Likert scale ranging from 'not true' to 'very true'. A complete listing of the negations is provided in Appendix IV.

Procedure. Subjects were recruited in classes giving credit for experimental participation. The inventories were disbursed in unmarked envelopes that contained a cover letter stressing confidentiality and the necessity of honest responding. Subjects were instructed to complete the questionnaire packets at home and to return them at the beginning of the next class. Oral instructions were given that it was essential to complete the questions in private and without discussion with family or friends. Subjects were also told that the subject participation forms would be collected separately from the inventories to ensure anonymity. Completed inventories and credit slips were collected independently at the start of the next class after which the
nature of the study was explained orally. Debriefing forms were also disbursed at that time.

Results

The correlations among the various subscales of the BIDR and Self-Esteem measures are presented in Table 6. All subscales have been keyed in the socially desirable direction.

Insert Table 6 about here

Most striking are the high correlations between each affirmation scale and its corresponding negation scale. For example, the negations of the attribution items (e.g., I am not a saint) correlated .63 with the original affirmations (I am a saint). Similarly, the negations of the denial items (I am not a sinner) correlated .86 with the original affirmations (I am a sinner).

Compare these to the low correlation (.31) between original attributions (I am a saint) and the original denials (I am a sinner). Similarly low (.29) was the correlation between negated attributions (I am not a saint) and negated denials (I am not a sinner).

To show these relations in graphical format, the correlation matrix was factored with a principal components extraction followed by varimax rotation and plotted. The first two factors, which explained 66 percent of the common variance, are depicted in Figure 4.
It is clear that the original items and their respective negations fall together on the same factors as in Studies 1 and 2.

**Personality Correlates**

The personality correlates of the BIDR subscales are presented in Table 7. Note that the correlations with the "Big Five" traits are underestimates because each variable was measured with only six items.

The first two columns show correlations with the SDS similar to those in Studies 1 and 2: That is, correlations with adjustment measures (self-esteem, trait anxiety, neuroticism) are consistently higher for the attribution items than for the denial items. The differences are not as large as in Studies 1 and 2 but they are consistent. There is little correlation between the IMS and the personality measures except for Agreeableness ($r = .18$, $p < .05$).

The new variable AttTot is the sum of the original attribution items and their reversals: This summing seems reasonable given their high intercorrelation (.63). Similarly, the new variable DenyTot is the sum of the original denial items and their reversals. This aggregation increases
the advantage held by the attribution items over the denial items from a mean of .10 to .15. The difference between the two correlations was tested using the dependent samples t-test for a difference in correlations (Glass & Hopkins, 1984). This difference was significant for the trait anxiety and neuroticism measures, $p < .05$, but only showed a trend for self-esteem, $p < .20$. This difference also increased significantly for surgency, $p < .01$.

Discussion

The relative independence of SDS attribution and denial items is not simply due to the difference in keying direction. The attribution-prone subjects were assigning desirable qualities to themselves by agreeing to some items (I am a saint) and disagreeing with others (I am not a saint). Both kinds of items allow the respondent to assign a positive characteristic to the self. Similarly, the denial-prone subjects agreed with some items (I am not a sinner) and disagreed with others (I am a sinner). Both kinds of items allow the respondent to disclaim a negative characteristic.

These analyses suggested that affirmations and their corresponding negations could be combined to form homogeneous scales. The resulting Attribution and Denial scales were therefore balanced with respect to keying direction, thus highlighting the fact that keying direction is not a distinguishing criterion for measuring the two constructs. When these balanced scales were used to predict adjustment, in every case the Attribution scale was significantly more
predictive than the Denial scale. To summarize, when describing one’s psychological makeup, the tendency to claim positive characteristics is associated with good psychological adjustment whereas the denial of negative characteristics is unrelated to adjustment.

Note that balancing the key only controls agreement acquiescence (Bentler, Jackson, & Messick, 1971). Acceptance acquiescence, the willingness to accept attributes as being true of the self, is not controlled in the AttTot and DenyTot scales. On the AttTot scale, for example, both the affirmations and negations index the tendency to claim positive attributes. Indeed, the scale might be labeled "Acceptance of Desirable Qualities". Similarly, the DenyTot scale might be labeled "Denial Of Negative Qualities". This confounding is not a psychometric problem given that even Bentler and colleagues view the style as dimension-specific.

General Discussion

The present research evaluated two structural models of socially desirable responding. One model derives from a tradition of distinguishing between self-deception and impression management processes (e.g., Damarin & Messick, 1965; Paulhus, 1984). The second model emphasizes the distinction between claiming positive attributes and denying negative attributes (e.g., Millham, 1974; Roth, Snyder and Pace, 1986).
This thesis presented three studies designed to determine the importance of these two distinctions in the BIDR. Study 1 demonstrated that both the content (self-deception vs. impression-management) and tactics (attribution vs. denial) were important in determining responses to the BIDR. The attribution and denial IMS items formed one factor. The attribution SDS items formed the second factor. The denial SDS items fell closer to the IMS factor. Rosenberg's Self-Esteem scale was most highly correlated with the attribution SDS items.

Study 2 was a similar factor analysis of the data from a much larger dataset. The factor pattern was identical to that in Study 1. Moreover, the attribution items were again associated with adjustment, including high self-esteem and low social anxiety and empathic distress.

Study 3 was designed to determine whether the critical difference between the attribution and denial items depends on: (a) whether the item refers to positive or negative attributes, or (b) whether the statement as a whole is positive or negative. To test these competing hypotheses, 20 negations were written, one for each of the 20 original assertions on the SDS. Results showed that items referring to positive content (I am a saint; I am not a saint) formed a distinct factor from items referring to negative content (I am a sinner; I am not a sinner). Simple negations (I am not a sinner) fell on the same factor as their corresponding assertions (I am a sinner) because they were highly
negatively-correlated. Finally, the correlations with various personality measures were consistent with Studies 1 and 2.

These results clarify the distinction between attribution and denial components of self-deception. Rather than keying direction, the critical factor in triggering these two processes is whether the item content refers to a positive or negative characteristic.

**Offense versus Defense**

The empirical distinction between two forms of self-deception is consistent with the arguments developed by Sackeim (1983). In that paper, Sackeim argued that self-deception could be used for purposes of gaining pleasure as well as avoiding pain. A parallel distinction has been made in the literature on impression management. Arkin (1981) and Lennox and Wolfe (1984), for example, distinguished acquisitive and defensive forms of impression management.

None of these treatments, however, addresses the provocative finding that ego-enhancement promotes good adjustment better than does ego-defense. The traditional view is that maladjustment and psychopathology involve threats to a normally-functioning organism—thus the need for defense mechanisms. The present findings suggest that defensiveness operates independently of adjustment: Apparently, some people reject negative information about the self and some don’t: This tendency neither promotes nor hinders one’s adjustment.

Ego-enhancement may promote adjustment for a number of reasons. It may provide an alternative to dealing directly
with threatening information: Attempts to defend may never be entirely successful. Instead the ego-enhancer turns to his or her assets and wallows in them to neutralize the threat. Another possibility is that the ego-enhancer constantly makes use of pedestrian events to build up positive esteem—the balance is so positive that threats can not impinge on the ego.

**Impression Management**

The attribution-denial distinction does not appear to be relevant in measuring impression management. The two subscales are highly correlated and show similar external correlates. The consistency may result from the instrumental quality of impression management: Individuals who have decided to present themselves favorably will calculate what response will most impress the audience and select it. This consistency would result whether the motive for the impression management were a need for approval (Crowne & Marlowe, 1964), an over-control of needs and impulses (Gough, 1987), or status-seeking (Hogan, 1983).

It is intriguing that the SDS denial items fall close to the impression management factor. This phenomenon was presumably masked in previous research because the attribution and denial items were not scored separately. This location of the denial items suggests the provocative possibility that subjects are faking good on the denial items rather than self-deceiving.
Such impression management behavior on the SDS denial items may result from their reference to threatening behaviors (e.g., enjoying one's bowel movements, fearing one's homosexuality) that would be embarrassing to admit. In contrast, the attribution items refer to positive qualities (e.g., quitting bad habits, accepting criticism)—ones that the individual can claim or disclaim without embarrassment.

These results suggest a sequential model of self-presentation in response to personality items. If the impression management mode is in effect, it assumes priority. The response would be tailored to maximally impress the audience. Items such as "I enjoy my bowel movements." would be influenced here because of their public embarrassment value. If impression management were not in effect, the individual would consider accepting them as self-descriptions. Either the enhancement or defense process would be invoked depending on whether the item was a potential reward or punishment. Note that the independence of reward and punishment processes is supported by an extensive literature (e.g., Gray, 1975; Arkin, 1981). Some self-reports may survive these filtering processes (perhaps because of neutral social desirability) and remain to be examined for self-accuracy by a memory search (e.g., Paulhus & Levitt, 1987).

**Future Research**

The findings of these studies are now being applied in the construction of new scales to measure the two components of self-deceptive positivity (Paulhus & Reid, 1988).
Attribution and Denial scales assembled in Study 3 are being used as the basis for constructing reliable, balanced and valid measures of the two response styles. Many of the items from the indexes used in Study 2, turn out to load higher on the SDR factors than do the original SDS and IMS items.

Correlations with the various bias indexes in Study 2 provided some suggestions about the meaning of the two constructs. On this basis the separate subscales have been labeled Self-Deceptive Enhancement and Self-Deceptive Defensiveness (Paulhus & Reid, 1988).
Footnotes

1. Note that these two scales completely confound content and keying direction. The likely effect is to lower the true correlation between these constructs.

2. A possible explanation is that the second study induced more demand for impression management than the first (The first study was administered to a large class, whereas the second was administered in small groups). An impression management demand usually induces a higher correlation between various measures of socially desirable responding (Wiggins, 1964). Indeed, the correlation between the attribution and denial subscales increased from .19 in first study to .49 in the second study. As the two subscales become correlated, it naturally becomes more difficult to show different correlations with adjustment.

3. The response format used in the BIDR is a 7-point Likert scale. However, I will use the terms True and False to refer to the keying direction (rather than positively and negatively-keyed). The terms, positive and negative, are already used to denote the type of characteristic referred to in the items. Use of the True-False terminology does not seem unreasonable given that the Likert scale anchors were "Very True" to "Not true".
References


Table 1

Subscale Statistics: Study 1. \((N = 130)\)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SE-A</td>
<td>5.52</td>
<td>.91</td>
<td></td>
<td>.84</td>
</tr>
<tr>
<td>2. SE-D</td>
<td>5.29</td>
<td>1.16</td>
<td></td>
<td>.80</td>
</tr>
<tr>
<td>3. SE Total</td>
<td>5.40</td>
<td>.96</td>
<td></td>
<td>.89</td>
</tr>
<tr>
<td>4. SDS-A</td>
<td>4.40</td>
<td>.75</td>
<td></td>
<td>.59</td>
</tr>
<tr>
<td>5. SDS-D</td>
<td>4.49</td>
<td>.85</td>
<td></td>
<td>.64</td>
</tr>
<tr>
<td>6. SDS Total</td>
<td>4.45</td>
<td>.62</td>
<td></td>
<td>.67</td>
</tr>
<tr>
<td>7. IMS-A</td>
<td>4.22</td>
<td>.91</td>
<td></td>
<td>.72</td>
</tr>
<tr>
<td>8. IMS-D</td>
<td>3.35</td>
<td>.87</td>
<td></td>
<td>.65</td>
</tr>
<tr>
<td>9. IMS Total</td>
<td>3.78</td>
<td>.76</td>
<td></td>
<td>.77</td>
</tr>
</tbody>
</table>

Note. SE = Rosenberg Self-Esteem Scale (Rosenberg, 1965); SDS = Self-deception scale of the Balanced Inventory of Desirable Responding, Version 3 (BIDR-3; Paulhus, 1984a); IMS = Other-deception scale of the BIDR-3. Suffix A = Attribution items; D = Denial items. All items rated on 7-point scales.
Table 2

Intercorrelations of SDR Measures: Study 1 (N = 130)

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SE-A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. SE-D</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. SDS-A</td>
<td>.45</td>
<td>.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. SDS-D</td>
<td>.06</td>
<td>.14</td>
<td>.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. IMS-A</td>
<td>.09</td>
<td>.01</td>
<td>.25</td>
<td>.38</td>
<td></td>
</tr>
<tr>
<td>6. IMS-D</td>
<td>.05</td>
<td>.18</td>
<td>.17</td>
<td>.39</td>
<td>.47</td>
</tr>
</tbody>
</table>

Note. SE = Rosenberg Self-Esteem Scale (Rosenberg, 1965); SDS = Self-deception scale of the Balanced Inventory of Desirable Responding, Version 3 (BIDR-3; Paulhus, 1984); IMS = Other-deception scale of the BIDR-3. Suffix A = Attribution items; D = Denial items. Correlations above .23 are significant, p < .01, two-tailed.
Table 3

Intercorrelations of SDR Measures: Study 2 (N=670)

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SE-A</td>
<td></td>
<td>.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. SE-D</td>
<td></td>
<td></td>
<td>.30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. SDS-A</td>
<td>.41</td>
<td></td>
<td>.23</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>4. SDS-D</td>
<td>.15</td>
<td>.23</td>
<td>.33</td>
<td>.39</td>
<td></td>
</tr>
<tr>
<td>5. IMS-A</td>
<td>.16</td>
<td>.08</td>
<td>.33</td>
<td>.39</td>
<td>.49</td>
</tr>
<tr>
<td>6. IMS-D</td>
<td>.06</td>
<td>.19</td>
<td>.22</td>
<td>.52</td>
<td></td>
</tr>
</tbody>
</table>

Note. SE = Rosenberg Self-Esteem Scale (Rosenberg, 1965); SDS = Self-deception scale of the Balanced Inventory of Desirable Responding, Version 3 (BIDR-3; Paulhus, 1984); IMS = Other-deception scale of the BIDR-3. Suffix A = Attribution items; D = Denial items. Correlations above .10 are significant, p < .01, two-tailed.
Table 4

Personality Correlates of SDR measures: Study 2 (N = 157)

<table>
<thead>
<tr>
<th>Measure</th>
<th>SDS-A</th>
<th>SDS-D</th>
<th>IMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Empathy - Total</td>
<td>-.07</td>
<td>.17</td>
<td>.07</td>
</tr>
<tr>
<td>2. Fantasy</td>
<td>.00</td>
<td>-.01</td>
<td>.01</td>
</tr>
<tr>
<td>4. Empathic Concern</td>
<td>-.03</td>
<td>.35</td>
<td>.11</td>
</tr>
<tr>
<td>5. Personal Distress</td>
<td>-.31</td>
<td>-.16</td>
<td>-.18</td>
</tr>
<tr>
<td>6. Self-Monitoring - Total</td>
<td>.13</td>
<td>.05</td>
<td>.02</td>
</tr>
<tr>
<td>7. Acting</td>
<td>.12</td>
<td>-.17</td>
<td>-.16</td>
</tr>
<tr>
<td>8. Extraversion</td>
<td>.20</td>
<td>.16</td>
<td>.10</td>
</tr>
<tr>
<td>9. Other-Directedness</td>
<td>-.27</td>
<td>-.43</td>
<td>-.40</td>
</tr>
<tr>
<td>10. Self-Consciousness - Private</td>
<td>-.02</td>
<td>-.10</td>
<td>.02</td>
</tr>
<tr>
<td>11. Self-Consciousness - Public</td>
<td>-.11</td>
<td>-.18</td>
<td>-.21</td>
</tr>
<tr>
<td>12. Self-Consciousness - Social Anxiety</td>
<td>-.28</td>
<td>-.10</td>
<td>-.22</td>
</tr>
<tr>
<td>13. Marlowe-Crowne - Total</td>
<td>.32</td>
<td>.50</td>
<td>.48</td>
</tr>
<tr>
<td>14. Marlowe-Crowne - True</td>
<td>.30</td>
<td>.51</td>
<td>.53</td>
</tr>
<tr>
<td>15. Marlowe-Crowne - False</td>
<td>.18</td>
<td>.22</td>
<td>.17</td>
</tr>
</tbody>
</table>

Note. SDS = Self-deception scale of the Balanced Inventory of Desirable Responding, Version 3 (BIDR-3; Paulhus, 1984); IMS = Other-deception scale of the BIDR-3; Empathy subscales are from the Interpersonal Reactivity Index (IRI; Davis, 1980); Self-Monitoring (Snyder, 1974; subscales from Briggs, Cheek, & Buss, 1980); Self-Consciousness Scale (Fenigstein, Sheier, & Buss, 1975); Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964), True and False refer to desirability keying direction.
Suffix A = Attribution items; D = Denial items. Correlations above .21 are significant, p < .01, two-tailed.
Table 5

Index Correlates: Study 2  \( (N = 513) \)

<table>
<thead>
<tr>
<th>Self-Report Index</th>
<th>SDS-A</th>
<th>SDS-D</th>
<th>IMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Denial of hostility</td>
<td>.09</td>
<td>.42</td>
<td>.35</td>
</tr>
<tr>
<td>2. Denial of sexuality</td>
<td>.05</td>
<td>.22</td>
<td>.16</td>
</tr>
<tr>
<td>3. Denial of parental conflict</td>
<td>.14</td>
<td>-.01</td>
<td>.03</td>
</tr>
<tr>
<td>4. Reported Need for approval</td>
<td>-.14</td>
<td>-.10</td>
<td>-.12</td>
</tr>
<tr>
<td>5. Acceptance of criticism</td>
<td>-.22</td>
<td>-.37</td>
<td>-.42</td>
</tr>
<tr>
<td>6. Enjoyment of undesirable acts</td>
<td>.03</td>
<td>.54</td>
<td>.45</td>
</tr>
<tr>
<td>7. Suppression tendency</td>
<td>.20</td>
<td>.33</td>
<td>.27</td>
</tr>
<tr>
<td>8. Illusion of control</td>
<td>.28</td>
<td>.01</td>
<td>.09</td>
</tr>
<tr>
<td>9. Hindsight bias</td>
<td>.10</td>
<td>-.17</td>
<td>-.03</td>
</tr>
<tr>
<td>10. Just world belief</td>
<td>.01</td>
<td>-.21</td>
<td>-.11</td>
</tr>
<tr>
<td>11. Self-Fulfilling prophecy</td>
<td>.16</td>
<td>-.01</td>
<td>.13</td>
</tr>
<tr>
<td>12. Belief in prayer</td>
<td>.14</td>
<td>.27</td>
<td>.29</td>
</tr>
<tr>
<td>13. Dogmatic thinking</td>
<td>.23</td>
<td>-.05</td>
<td>.08</td>
</tr>
<tr>
<td>14. Self-deceptive behavior</td>
<td>.01</td>
<td>-.13</td>
<td>-.16</td>
</tr>
<tr>
<td>15. Reported procrastination</td>
<td>.20</td>
<td>.06</td>
<td>.32</td>
</tr>
<tr>
<td>16. Perceived safe driving</td>
<td>.18</td>
<td>.09</td>
<td>.16</td>
</tr>
<tr>
<td>17. Love proneness</td>
<td>.11</td>
<td>.03</td>
<td>.21</td>
</tr>
</tbody>
</table>

Note. SDS = Self-deception Scale of the Balanced Inventory of Desirable Responding, Version 3 (BIDR-3; Paulhus, 1984); IMS = Other-deception scale of the BIDR-3; indexes are rationally derived.
Suffix A = Attribution items; D = Denial items.
Correlations above .12 are significant, \( p < .01 \), two-tailed.
### Table 6

**Intercorrelations of SDR Measures: Study 3** \((N = 137)\)

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SE-A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. SE-D</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. SDS-A</td>
<td>.34</td>
<td>.32</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. SDS-D</td>
<td>.18</td>
<td>.18</td>
<td>.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. IMS-A</td>
<td>.13</td>
<td>-.04</td>
<td>.28</td>
<td>.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. IMS-D</td>
<td>-.05</td>
<td>.00</td>
<td>.16</td>
<td>.36</td>
<td>.29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. SDS-D-N</td>
<td>.18</td>
<td>.21</td>
<td>.30</td>
<td>.86</td>
<td>.26</td>
<td>.31</td>
<td>.29</td>
</tr>
</tbody>
</table>

**Note.** SE = Rosenberg Self-Esteem Scale (Rosenberg, 1965); SDS = Self-deception scale of the Balanced Inventory of Desirable Responding, Version 3 (BIDR-3; Paulhus, 1984); IMS = Other-deception scale of the BIDR-3. Suffix A = Attribution items; D = Denial items; N = Negations. Correlations above .23 are significant, \(p < .01\), two-tailed.
Table 7

Personality Correlates of SDR Measures:  
Study 3 (N = 137)

<table>
<thead>
<tr>
<th>Measure</th>
<th>SDS-A</th>
<th>SDS-D</th>
<th>AttTot</th>
<th>DenyTot</th>
<th>IMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-Esteem</td>
<td>.34</td>
<td>.21</td>
<td>.32</td>
<td>.23</td>
<td>-.06</td>
</tr>
<tr>
<td>2. STAI - Trait Anxiety</td>
<td>-.46</td>
<td>-.37</td>
<td>-.53</td>
<td>-.34</td>
<td>-.16</td>
</tr>
<tr>
<td>3. Surgency</td>
<td>.29</td>
<td>.13</td>
<td>.38</td>
<td>.13</td>
<td>.04</td>
</tr>
<tr>
<td>4. Neuroticism</td>
<td>-.30</td>
<td>-.22</td>
<td>-.36</td>
<td>-.20</td>
<td>-.07</td>
</tr>
<tr>
<td>5. Conscientiousness</td>
<td>.05</td>
<td>.01</td>
<td>.01</td>
<td>.03</td>
<td>.08</td>
</tr>
<tr>
<td>6. Agreeableness</td>
<td>.11</td>
<td>.13</td>
<td>.06</td>
<td>.20</td>
<td>.18</td>
</tr>
<tr>
<td>7. Openness to Experience</td>
<td>.09</td>
<td>.02</td>
<td>.13</td>
<td>-.01</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note. SDS = Self-deception scale of the Balanced Inventory of Desirable Responding, Version 3 (BIDR-3; Paulhus, 1984); IMS = Other-deception scale of the BIDR-3; AttTot = total of positive content BIDR-3 self-deceptive items; DenyTot = total of negative content BIDR-3 self-deceptive items; Self-Esteem = Rosenberg Self-Esteem Scale (Rosenberg, 1965); STAI = Trait form of the State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970); Surgency, Neuroticism, Conscientiousness, Agreeableness, and Openness to Experience are six-item scales from the Interpersonal Adjective Scale - B5 Revised (Short Form; Trapnell & Wiggins, 1988). 
Suffix A = Attribution items; D = Denial items. 
Correlations above .23 are significant, p < .01, two-tailed.
Factor loadings from Study 1.
Figure 2.

Factor loadings from study 2.
Figure 3

Four types of social desirability items.

<table>
<thead>
<tr>
<th>Characteristic Referred To</th>
<th>Favorability</th>
<th>Keying Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>positive</td>
<td>negative</td>
</tr>
<tr>
<td>Favorable</td>
<td>I am a saint</td>
<td>I am not a sinner</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>I am not a saint</td>
<td>I am a sinner</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>attribution</th>
<th>denial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tactic</td>
<td></td>
</tr>
</tbody>
</table>
Factor loadings from study 3.
Appendix I
ROSENBERG SCALE

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

[Scale: + + + + + + + (+1 to 7)]

not true       somewhat       very true

1. I feel that I'm a person of worth, at least on an equal basis with others.

2. I feel that I have a number of good qualities.

3. All in all, I am inclined to feel that I am a failure.

4. I am able to do things as well as most other people.

5. I feel I do not have much to be proud of.

6. I take a positive attitude toward myself.

7. On the whole, I am satisfied with myself.

8. I wish I could have more respect for myself.

9. I certainly feel useless at times.

10. At times I think I am no good at all.
BIDR Scale - Version 3

Sex ____ ID ____

<table>
<thead>
<tr>
<th>not true</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>+</th>
<th>very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Using the above scale as a guide, write a number beside each statement to indicate how much you agree with it.

____ 1. I always throw my litter into waste baskets on the street.
____ 2. I have received too much change from a salesperson without telling him(her).
____ 3. When I hear people talking privately I avoid listening.
____ 4. I have taken things that didn’t belong to me.
____ 5. I sometimes tell lies if I have to.
____ 6. I always keep my promises, no matter how inconvenient it might be to do so.
____ 7. I have taken sick-leave from work or school even though I wasn’t really sick.
____ 8. I like to gossip about other people’s business.
____ 9. I have done things that I don’t tell other people about.
____ 10. I say only good things about my friends behind their backs.
____ 11. I sometimes put things off until tomorrow what I should do today.
____ 12. I always declare everything at customs.
____ 13. I have some pretty awful habits.
____ 14. I always tell the truth.
____ 15. I am sometimes late for appointments.
____ 16. I always obey traffic laws even if I’m unlikely to get caught.
17. When I was a child I obeyed my parents.
18. I sometimes pick my nose.
19. I am always polite to others including my friends and family.
20. I have never cheated on a test or assignment in any way.
21. I have sometimes hated one or both of my parents.
22. I am always free of guilt.
23. Seeing an attractive person of the opposite sex makes me think about having sex.
24. I have sometimes felt like I wanted to kill someone.
25. I could easily quit any of my bad habits if I wanted to.
26. I always accept criticism if it is accurate.
27. I have felt physically attracted to at least one person of the same sex.
28. I have felt joy over someone else’s failure.
29. I always return a favor without hesitation.
30. It’s alright with me if some people happen to dislike me.
31. I’m not interested in knowing what other people really think of me.
32. My parents only punished me when I really deserved it.
33. I sometimes get jealous over the good fortune of others.
34. My parents always loved me no matter what I did.
35. I often have sexual fantasies.
36. I have always been certain that I am not homosexual.
37. I have always been confident about my ability as a sex partner.
38. I usually enjoy my bowel movements very much.

39. At times I have wanted to rape or be raped by someone.

40. I have thought of committing suicide to get back at someone.
Appendix II
SELF-DESCRIPTION INVENTORY

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

\[ \begin{array}{cccccc}
1 & 2 & 3 & 4 & 5 & 6 & 7 \\
\text{not true} & \text{somewhat} & \text{very true} \\
\end{array} \]

Denial of hostility

\_ \_ 1. I have never intensely disliked anyone.
\_ \_ 2. There have been occasions when I felt like smashing things.
\_ \_ 3. I have never deliberately said something to hurt someone’s feelings.
\_ \_ 4. I have gotten so angry at a friend that I felt like hitting him/her.
\_ \_ 5. I can think of someone I hate deeply.

Denial of sexuality

\_ \_ 6. People who masturbate a lot are probably sick.
\_ \_ 7. Those who sleep around probably feel inadequate in some way.
\_ \_ 8. I have sometimes thought that I would like to change sex.
\_ \_ 9. I can remember being sexually excited about the thought of seeing my mother (or father) without cloths on.

Denial of parental conflict

\_ \_ 10. I have gotten so angry at my mother that I felt like hitting her.
\_ \_ 11. I often suspected that I was not my parents favorite child.
\_ \_ 12. I feel bad about doing things that my parents disapprove of.
13. My parents often fight.

Reported need for approval

14. The approval of my friends is very important to me.

15. I sometimes conform to social pressure and do something that I would prefer not to do.

16. I often do things that my friends don’t approve of.

Acceptance of criticism

17. I sometimes feel irritated when I don’t get my own way.

18. There have been times when I felt like rebelling against authority even though I knew they were right.

19. I sometime feel resentful when people find fault with me or my work.

20. It never irritates me when people express ideas conflicting with my own.

Enjoyment of undesirable acts

21. I must admit that I enjoy watching cartoons.

22. I really enjoy watching sexy scenes in movies.

23. In certain cases I could enjoy being cruel to someone.

24. More than once I felt good when I heard on the news that someone had been killed.

25. I must admit that revenge can be sweet.

26. When I criticize someone, I’m only doing it for their own good.

27. I enjoy it when obnoxious people get put down.

28. I try to avoid smelling my own body odors.

29. I don’t usually bother reading the comic strips in the newspaper.

30. I sometimes try to get even rather forgive and forget.
Suppression tendency

31. People should not dwell on unpleasant thoughts.
32. Once in a while I think of things too bad to talk about.
33. It's easy for me to turn off a disturbing thought.

Illusion of control

34. On a gamble for high stakes, I would rather throw the dice myself than let someone throw them for me.
35. I am fully in control of my own fate.
36. The reason I vote is because my vote can make a difference.
37. I can usually predict first thing in the morning how good my day is going to be.

Hindsight bias

38. After hearing the answer to an exam or trivia question, it always seems like I knew it all along.
39. If I were in charge of this country, I certainly would not make as many mistakes as the current leader.

Just world belief

40. Most people killed in traffic accidents did something to deserve their fate.
41. Victims of crime very often were not as careful as they should have been.
42. I sometimes think that when people have a misfortune, they only get what they deserved.

Self-fulfilling prophecy

43. My first impressions about people usually turn out to be right.

Belief in prayer

44. In one way or another, God answers all my prayers.
Dogmatic thinking

45. Often when people criticize me, they don't have their facts straight.

46. Once I've made up my mind, other people can seldom change my opinion.

47. No one can talk me out of something I know is right.

Self-deceptive behaviors

48. I often set my watch ahead so I won't be late.

49. I just switch channels on TV when I hear someone talking nonsense about politics or religion.

50. I avoid changing answers on a test because my first reaction is usually right.

51. I will go out of my way to avoid someone if we have an unsettled problem.

52. I often buy lottery tickets.

53. I have avoided seeing the doctor, even when I had a problem.

Reported procrastination

54. I realize I sometimes procrastinate (puts things off).

55. I always manage to meet important deadlines.

56. I often put off doing things until it's too late.

Perceived safe driving

57. I don't have any dangerous driving habits.

58. Other drivers interfere with me more than I interfere with them.

59. I am a safe driver even when I exceed the speed limit.

Love proneness

60. I have never told anyone I loved them unless it was absolutely true.
61. I can't fall in love with someone unless they love me first.

62. I don't want to know about my lover's past experiences.

63. I have been so much in love that I couldn't see the other person's faults.

64. A person's physical attractiveness does not influence me.
Appendix III
Marlowe-Crowne Scale

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you.

T  F  1. Before voting I thoroughly investigate the qualifications of all the candidates.

T  F  2. I never hesitate to go out of my way to help someone in trouble.

T  F  3. It is sometimes hard for me to go on with my work if I am not encouraged.

T  F  4. I have never intensely disliked anyone.

T  F  5. On occasion I have had doubts about my ability to succeed in life.

T  F  6. I sometimes feel resentful when I don't get my way.

T  F  7. I am always careful about my manner of dress.

T  F  8. My table manners at home are as good as when I eat out in a restaurant.

T  F  9. If I could get into a movie without paying for it and be sure I was not seen, I would probably do it.

T  F  10. On a few occasions, I have given up doing something because I thought too little of my ability.

T  F  11. I like to gossip at times.

T  F  12. There have been times when I felt like rebelling against people in authority even though I knew they were right.

T  F  13. No matter who I'm talking to, I'm always a good listener.

T  F  14. I can remember "playing sick" to get out of something.

T  F  15. There have been occasions when I took advantage of someone.
T  F  16. I'm always willing to admit it when I make a mistake.
T  F  17. I always try to practice what I preach.
T  F  18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.
T  F  19. I sometimes try to get even, rather than forgive and forget.
T  F  20. When I don't know something I don't at all mind admitting it.
T  F  21. I am always courteous, even to people who are disagreeable.
T  F  22. At times I have really insisted on having things my own way.
T  F  23. There have been occasions when I felt like smashing things.
T  F  24. I would never think of letting someone else be punished for my wrongdoings.
T  F  25. I never resent being asked to return a favor.
T  F  26. I have never been irked when people expressed ideas very different from my own.
T  F  27. I never make a long trip without checking the safety of my car.
T  F  28. There have been times when I was quite jealous of the good fortune of others.
T  F  29. I have almost never felt the urge to tell someone off.
T  F  30. I am sometimes irritated by people who ask favors of me.
T  F  31. I have never felt that I was punished without cause.
T  F  32. I sometimes think when people have a misfortune they only got what they deserved.
T  F  33. I have never deliberately said something that hurt someone's feelings.
INTERPERSONAL REACTIVITY INDEX

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

1 2 3 4 5 6 7

not true somewhat very true

1. I daydream and fantasize, with some regularity, about things that might happen to me.

2. I sometimes find it difficult to see things from the "other guy’s" point of view.

3. I often have tender, concerned feelings for people less fortunate than me.

4. In emergency situations, I feel apprehensive and ill-at ease.

5. I really get involved with the feelings of the characters in a novel.

6. I sometimes try to understand my friends better by imagining how things look from their perspective.

7. Sometimes I don’t feel very sorry for other people when they are having problems.

8. I sometimes feel helpless when I am in the middle of a very emotional situation.

9. I am usually objective when I watch a movie or play, and I don’t often get completely caught up in it.

10. Before criticizing somebody, I try to imagine how I would feel if I were in their place.

11. When I see someone being taken advantage of, I feel kind of protective of them.

12. When I see someone get hurt, I tend to remain calm.

13. Becoming extremely involved in a good book or movie is somewhat rare for me.
14. When I'm upset at someone, I usually try to "put myself in his shoes" for awhile.

15. Other people's misfortunes do not usually disturb me a great deal.

16. Being in a tense emotional situation scares me.

17. After seeing a play or movie, I have felt as though I were one of the characters.

18. I try to look at everybody's side of a disagreement when I make a decision.

19. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.

20. I am usually pretty effective in dealing with emergencies.

21. When I watch a good movie, I can very easily put myself in the place of a leading character.

22. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.

23. I am often quite touched by things that I see happen.

24. I tend to lose control during emergencies.

25. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.

26. I believe that there are two sides to every question and I try to look at them both.

27. I would describe myself as a pretty soft-hearted person.

28. When I see someone who badly needs help in an emergency, I go to pieces.
Self-Monitoring Scale

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

+ + + + + + +
1 2 3 4 5 6 7
not true somewhat very true

1. I can make impromptu speeches even on topics about which I have almost no information.
2. I can only argue for ideas which I already believe.
3. At parties and social gatherings, I do not attempt to do or say things that others will like.
4. My behavior is usually an expression of my true inner feelings, attitudes, and beliefs.
5. I find it hard to imitate the behavior of other people.
6. I may deceive people by being friendly when I really dislike them.
7. I can look anyone in the eye and tell a lie with a straight face (if for the right end).
8. I feel a bit awkward in company and do not show up quite so well as I should.
9. At a party, I let others keep the jokes and stories going.
10. I have trouble changing my behavior to suit different people and different situations.
11. I have never been good at games like charades or improvisional acting.
12. In order to get along and be liked, I tend to be what people expect me to be rather than anything else.
13. I have considered being an entertainer.
14. I would not change my opinions (or the way I do things) in order to please someone else or win their favor.
15. I'm not always the person I appear to be.

16. Even if I'm not enjoying myself, I often pretend to be having a good time.

17. I am not particularly good at making other people like me.

18. In different situations and with different people, I often act like very different persons.

19. In a group of people, I am rarely the center of attention.

20. I laugh more when I watch a comedy with others than when alone.

21. I sometimes appear to others to be experiencing deeper emotions than I actually am.

22. I rarely seek the advice of my friends to choose movies, books, or music.

23. I would probably make a good actor.

24. When I am uncertain how to act in a social situation, I look to the behavior of the others for cues.

25. I guess I put on a show to impress or entertain people.
Self-Consciousness Scale

Using the scale below as a guide, write a number beside each statement to indicate how much you agree with it.

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<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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very true   somewhat   not true

1. Large groups make me nervous.
2. I’m aware of the way my mind works when I work through a problem.
3. I’m always trying to figure myself out.
4. I’m concerned about my style of doing things.
5. Generally, I’m not very aware of myself.
6. It takes me time to overcome my shyness in new situations.
7. I reflect about myself alot.
8. I’m concerned about the way I present myself.
9. I’m often the subject of my own fantasies.
10. I have trouble working when someone is watching me.
11. I never scrutinize myself.
12. I get embarassed very easily.
13. I’m self-conscious about the way I look.
14. I don’t find it hard to talk to strangers.
15. I’m generally attentive to my inner feelings.
16. I usually worry about making a good impression.
17. I’m constantly examining my motives.
18. I feel anxious when I speak in front of a group.
19. One of the things I do before I leave my house is look in the mirror.

20. I sometimes have the feeling that I'm off somewhere watching myself.

21. I'm concerned about what other people think of me.

22. I'm alert to changes in my mood.

23. I'm usually aware of my appearance.
Appendix IV
Self-Deception Scale - Negations

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<td>6</td>
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</tbody>
</table>

Using the above scale as a guide, write a number beside each statement to indicate how much you agree with it.

1. I have never hated either of my parents.
2. I am never free of guilt.
3. It's not true that seeing any attractive person of the opposite sex makes me think about having sex.
4. I have never felt like I wanted to kill someone.
5. It would be hard for me to quit any of my bad habits.
6. I rarely appreciate criticism even if it is accurate.
7. I have never felt physically attracted to a person of the same sex.
8. I have never felt joy over someone else's failure.
9. I never return a favor without hesitating.
10. It bothers me if someone dislikes me.
11. I am interested in knowing what other people really think of me.
12. My parents punished me even when I really did not deserve it.
13. I never get jealous over the good fortune of others.
14. My parents sometimes didn't love me.
15. I rarely have sexual fantasies.
16. I have sometimes wondered if I am homosexual.

17. I have sometimes doubted my ability as a sex partner.

18. I rarely enjoy my bowel movements.

19. I have never wanted to rape or be raped by someone.

20. I have never thought of committing suicide to get back at someone.
Interpersonal Adjective Scale - Revised: Big Five

Using the scale below as a guide, write a number beside each word to indicate how descriptive it is of you.

1 2 3 4 5 6 7
Not true somewhat Very true

___ Outgoing
___ Unphilosophical
___ Worrying
___ Organized
___ Conventional
___ Coldhearted
___ Fretful
___ Caring
___ Relaxed
___ Undisciplined
___ Broadminded
___ Disorganized
___ Tenderhearted
___ Efficient
___ Quiet

___ Unauthoritative
___ Unsearching
___ Unkind
___ Tidy
___ Imaginative
___ Tense
___ Vocal
___ Commanding
___ Gentlehearted
___ Anxious
___ Systematic
___ Unsympathetic
___ Calm
___ Inquisitive
___ Shy
State-Trait Anxiety Inventory - form X-2 (Trait form)

Sex ____

Almost never Sometimes Often Almost always
+ + + +
1 2 3 4

Using the above scale as a guide, write a number beside each statement to indicate how you generally feel.

____ 1. I feel pleasant.
____ 2. I tire quickly.
____ 3. I feel like crying.
____ 4. I wish I could be as happy as others seem to be.
____ 5. I lose out on things because I can’t make up my mind soon enough.
____ 6. I feel rested.
____ 7. I am "calm, cool, and collected".
____ 8. I feel that difficulties are piling up so that I cannot overcome them.
____ 9. I worry too much over something that really doesn’t matter.
____ 10. I am happy.
____ 11. I am inclined to take things hard.
____ 12. I lack self-confidence.
____ 13. I feel secure.
____ 14. I try to avoid facing a crisis or difficulty.
____ 15. I feel blue.
____ 16. I am content.
17. Some unimportant thought runs through my mind and bothers me.

18. I take disappointments so hard I can't put them out of my mind.

19. I am a steady person.

20. I get in a state of tension or turmoil as I think over my recent concerns and interests.