THE PRESENTATION OF SELF TO SELF: ANOTHER LOOK AT
THE MARLOWE-CROWNE SCALE

DISSERTATION

Presented in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy in the
Graduate School of The Ohio State University

By
Robert William McPeek, B.S., M.A.

The Ohio State University
1976
© Copyright by
Robert William McPeek
1976
DEDICATION

I should like to take this rare opportunity to dedicate the following pages (and the self-discipline they represent) to Peter Townshend and all the many other musicians who have inspired me to be whatever I must be.

I hereby proclaim all previous dedications (i.e., McPeek, 1974) halfway null and void.
ACKNOWLEDGMENTS

My greatest amount of gratitude is due to two people: Herb Mirels, a source of continuous support and an excellent adviser, and Johnen Luken, who helped in more ways than I can recall.

I'd like very much to thank the dedicated group of students who aided me in the collection of the data reported in the text. Cynthia Ruehl, Ian Fink, Timothy Becker, and especially Debra Wascher proved themselves to be extremely reliable and resourceful.

Drs. Thomas Ostrom, John Harvey, Timothy Brock, and Anthony Greenwald all contributed constructive criticisms to my attempts to research the problem of self-knowledge in general and the interpretation of the Marlowe-Crowne scale in particular. I'd also like to thank Dr. J. Dennis Nolan for encouraging me to complete work on my Ph.D.

Many of my friends offered strength and stamina to help me muddle through the confusion of the last few months. I'm indebted to Stephen Freeman, Jack Martin Penick, Mary George, Brian O'Connor, Ric Kaestner, Karl Rosenberg, Helen Bowman, John Bowman, Rebecca Buehler, Melanie Mahannah, Amy Burton, John Gerchar, John Lingle, Gary Wells, Robert Smith, and all the people at George Zzyzoff's household.

Finally, I'd like to thank my father for all he has done to help me. Thanks, Dad.
VITA

Born: October 19, 1951 - Ft. Carson, Colorado

Education:

1968-1972 Loyola University, Chicago, Illinois
         B.S. in Psychology, June 1972

1972-1976 The Ohio State University, Columbus, Ohio
         M.A. in Psychology, June 1974
         First minor: Clinical psychology
         Second Minor: Quantitative psychology

Academic honors and experience:

1968-1972 Awarded Illinois State and Loyola University
         scholarships

1970-1972 Student in honors program, Loyola University

1972 Graduated cum laude from honors program, Loyola University

1972-1973 Ohio State University Graduate Fellow

1973-1974 Research Associate, Ohio State University

1974-1975 Introductory Psychology Teaching Associate,
         Ohio State University

Summer, 1975 Summer Fellow, Second Annual Summer
         Institute, Center for Creative Leadership,
         Greensboro, North Carolina

1975-1976 Dissertation Year Fellow, Ohio State University

Editorial experience:

Occasionally consulted in the review of manuscripts sub-
mitted to the Journal of Personality and Social Psychology
and Memory and Cognition.
Publications and convention presentations:


Manuscripts under review:


# TABLE OF CONTENTS

DEDICATION ........................................... ii

ACKNOWLEDGMENTS ........................................ iii

VITA ................................................... iv

LIST OF TABLES ........................................ viii

Chapter

I. INTRODUCTION ......................................... 1

II. PAST RELEVANT RESEARCH AND THEORY ........... 8

III. EXPERIMENT ONE: THE EFFECTS OF ANONYMITY AND OBJECTIVE SELF-AWARENESS ON MC-SDS SCORES ........... 13

   Objective self-awareness theory ........ 15
   Method ....................................... 17
   Subjects, overview, and design ....... 17
   Procedure .................................. 18
   Post-experimental questionnaire ... 20
   Results ..................................... 23
   Checks on manipulations ............... 23
   MC-SDS results ......................... 24
   Time spent working on test .......... 26
   Subjects' perceptions of the MC-SDS .. 28
   Discussion .................................. 29

IV. EXPERIMENT TWO: EFFECTS OF OBJECTIVE SELF-AWARENESS AND SELF-ADVOCACY ON MC-SDS SCORES ............ 33

   Method ....................................... 36
   Subjects, overview, and design ....... 36
   Procedure .................................. 37
   Results ..................................... 42
   MC-SDS scores ............................. 43
   Self-esteem scores ...................... 43
   Perceptions of the MC-SDS ............ 46
   Time spent working on the scale ...... 47
   Harshness ratings ....................... 47
   Discussion .................................. 49
V. CONCLUSIONS ................................................. 52

Defensive self-esteem ........................................... 54

Appendix

A ................................................................. 57

B ................................................................. 68

LIST OF REFERENCES ........................................... 82

LIST OF REFERENCE NOTES ................................. 86
LIST OF TABLES

Table 1
Mean MC-SDS Scores as a Function of Mirror Presence, Anonymity, and Median Position 27

Table 2
Mean MC-SDS Scores as a Function of Mirror Presence and Essay Topic 44

Table 3
Mean Self-Esteem Scores as a Function of Mirror Presence and Essay Topic 45

Table 4
Mean MC-SDS Scores as a Function of Subjects' Perceptions of the Scale 48
INTRODUCTION

In an attempt to redress the unequal distribution of power between "The Organization" and its workers, Whyte (1956) offered the following strategy to employees faced with the task of completing one of the Organization's personality tests:

When an individual is commanded by an organization to reveal his innermost feelings, he has a duty to himself to give answers that serve his self-interest rather than that of The Organization. In a word, he should cheat...why be hypocritical? Most people instinctively cheat anyway on such tests. Why, then, do it ineptly? (p. 179).

Whyte's prescriptions to give conventional, approval-seeking responses in a test-taking situation would produce an overly desirable portrait of the respondent at the expense of accuracy, thus producing consternation in any naive psychologist who might assume (or, even worse, predict behavior based on the assumption of) a direct link between actual behavior and self-reports of behavior.
Fortunately, architects of personality scales have long been aware of the problem of response dissimulation. Indeed, attempts at solutions to this difficulty are almost as old as attempts at measuring personality traits themselves. Strategies for coping with this problem have included (a) the technique of essentially side-stepping the issue by treating test-responses as significant verbal behaviors in their own right, regardless of correspondence with other behaviors (e.g., Meehl, 1945), (b) the approach of simply treating tendencies to misrepresent behavior as unwelcome sources of error variance, and (c) the strategy of searching for identifiable response patterns which dictate a consistent mode of answering personality test items with widely varying content. Research modeled on the latter approach has led to the identification of various kinds of response-sets: one of the most ubiquitous of these has since come to be known as “social desirability.”

Social desirability simply refers to the kind of self-serving test responses alluded to by Whyte in his suggestions that personality scale respondents should portray themselves in a favorable light. Such a response set dictates answers which are conventional and approval-oriented rather than honest and factual.
Although Edwards (1953, 1957) first popularized and attempted to systematically measure social desirability, his work was anticipated by several earlier researchers. Considerations of social desirability relevant to test construction date back to early studies which employed the intriguing strategy of using questionnaires to identify people who lie on questionnaires. Such "lie scales" (Hartshorne and May, 1928; Meehl and Hathaway, 1946) worked by affording respondents opportunities to claim possession of desirable attributes which in fact very few people possess. Such a test-construction strategy represented a dramatic psychometric turn-around. Instead of attempting to ignore or circumvent the problem of fallible self-report in personality testing, these lie scales actually capitalized on this phenomenon by affording respondents ample opportunity to misrepresent their true behaviors. Scores on lie scales were typically used as corrections for scores on content scales.

Edwards' (1957) measure of social desirability borrowed heavily from this earlier research, to the point of using items from earlier lie and lie-related scales. His dependence on past scales, however, has limited the utility of his scale. For example, as a result of using MMPI items to derive his test, high scores on the instrument imply a degree of psychopathology, and can be interpreted "as a measure of the willingness
to admit to certain symptoms of a 'neurotic' nature" (Crowne and Marlowe, 1960, p. 352).

In addition to this problem of interpretation, Edwards' conceptualization of social desirability has been unnecessarily limited to interpreting the phenomenon as a characteristic of test items rather than as an attribute of the test taker.

With the shortcomings of Edwards' scale in mind, Marlowe and Crowne (1960) developed a new scale which is relatively free of psychopathological overtones, and which has been used to assess social desirability as a personality trait present in the respondent rather than as a statistical score correction device. The Marlowe-Crowne Social Desirability Scale (or MC-SDS; Crowne and Marlowe, 1960) is both a reliable and predictively useful measure of social desirability. Like the Edwards test, it employs the strategy of a lie scale; the 33 items of the scale present subjects with a true-false response choice for a collection of described behaviors either desirable to espouse but infrequent in occurrence (sample item: "I don't find it particularly difficult to get along with loud-mouthed obnoxious people."), or undesirable to admit but very frequent (e.g., "I am sometimes irritated by people who ask favors of me."). Since few people actually unequivocally and universally engage in the saintly activities depicted in the scale, high scores on the MC-SDS are interpreted as indicating a desire to gain
the approval of others by presenting an over-glamorized and under-criticized self image.

The importance of the conceptualization and measurement of social desirability is undeniable -- it is both a powerful and parsimonious tool in the analysis of personality test responses (to the extent that Edwards and Walker, 1961, have called their measure of social desirability "a short form of the MMPI," since it correlates highly with MMPI scales), and a valid means of predicting a variety of behaviors (e.g., aggression and conformity) extending far beyond the narrow limits of test-taking and scale completion (Crowne and Marlowe, 1964).

The MC-SDS thus appears to be a reliable and valid measure of an important psychological construct. Despite the predictive success of the scale, however -- or perhaps because of it -- the assumptions underlying its construction and interpretation have not been sufficiently scrutinized. By exploiting rather than circumventing the phenomenon of self-misrepresentation, Crowne and Marlowe have focused on the problem of detecting response dissimulation but have overlooked a more subtle conceptual difficulty. Self-report can be invalid for at least two reasons: because the self-reporter is willfully projecting a false self-image, for whatever reason, or because he is genuinely mistaken, i.e., deceiving himself as well as others. In other words, given that the respondent is lying, the next question to
ask is: does he know he is lying?

Self-deception likely arises from an individual's reluctance to admit to himself his negative traits and behaviors -- there is abundant theory and empirical evidence testifying to man's desire to avoid threatening negative self-information (e.g., Bramel, 1962; Jones and Wortman, 1973; Middlebrooke, 1973; Moore, Note 1; Ostrom, 1973), and to readily believe positive information (e.g., Sappenfield, 1970). An erroneous self-report, particularly when it involves renouncing undesirable behaviors and endorsing desirable ones, may thus represent one's unwillingness to admit one's faults. Therefore the MC-SDS, a collection of just such renunciations and endorsements, can be interpreted as a measure of the need for approval from others (the traditional interpretation), or as a measure of a person's unwillingness to admit his shortcomings to himself as well as, or even instead of, other people.

Crowne and Marlowe (1964) assign secondary importance to this potentially important issue; they simply comment that "it is not necessary to assume...that [subjects] are consciously lying and that their responses represent witting and deliberate deceit" (p. 21). Yet their less explicitly articulated interpretation of what their scale is measuring consistently emphasizes the essential role of the need to gain approval from others.
at the expense of examining the need (and consequences of the need) to gain approval from oneself.

The difference in these two interpretations primarily involves the scope of application of the scale. While the social flavor of the approval-of-others interpretation suggests use of the MC-SDS in the prediction of behaviors involving the prospect of evaluations made by other people, the new proposed analysis would suggest application of the scale to more private aspects of human behavior as well. A high score on the scale would no longer simply connote a desire to please others, but also frankness and open-mindedness. Particularly intriguing in terms of an expanded interpretation is the as-yet unexplored potential use of the scale as a measure of self-deception (i.e., unwillingness to acknowledge one's flaws), a phenomenon undoubtedly common in many arenas of human behavior. Indeed, many psychotherapists have implicitly or explicitly posited self-deception as the defining feature of psychopathology (e.g., Raimy, 1975).

The potential for expanded conceptualization and application of the MC-SDS thus warrants a closer examination of the assumptions underlying its interpretation. A few past studies have been conducted which are relevant to this examination; they are summarized below, to be followed by the two studies designed, conducted, and analyzed with the proposed reinterpretation in mind.
CHAPTER 2
PAST RELEVANT RESEARCH AND THEORY

Although no published research has explicitly conceptualized the MC-SDS as a measure of self-deception, some of the literature relevant to the scale — and some literature addressing other issues — supports the validity of the arguments developed.

One particularly relevant body of literature is concerned with the development of the self-image. The traditional social psychological approach to describing the development of one's image of himself stresses the role of others and their perceived evaluation of one's socially presented self. Cooley's (1902) concept of the "looking glass self" summarizes this viewpoint quite succinctly: each person sees and evaluates himself by studying the reactions he produces in other people. Thus, since the self-image represents an abstraction or conclusion fashioned from the raw data of others' reactions to him, a person's private conception of self should strongly resemble the image he is socially exposing for others to react to. An image of self consistently presented in overly positive detail (analogous to the usual interpretation of what the MC-SDS is measuring) should thus be internalized: i.e., it
should become an overly-positive self-projected-to-self image as well.¹ In short, the traditional conception of the social antecedents of the self-concept suggests that the high-scoring MC-SDS respondent is both deceiving others and himself.

A more recently hypothesized but less traditional and less social source of ideas about the self leads to the same conclusion. The work of Bem (1967, 1972) and various attribution theorists (e.g., Jones and Davis, 1965) suggests that a person may form a self-concept independent of others by observing his own behavior in a variety of situations. Behavior of the self perceived as unusual in one situation or enduring across situations should lead to a correspondent (i.e., a more disposition-revealing) self-attribution (cf. Jones and Davis, 1965), enabling the identification of dispositional qualities within the self and the ultimate formation of a self-concept (Strong, 1970). Thus the image one presents to himself will derive from his self-observation of his image-projections to others; in the context of completing the MC-SDS, the respondent should believe what he answers.

¹ An alternative argument is that a consistently projected positive self-image might produce a negative reaction in others, with resultant internalization of negative feelings about the self. However, an approval seeking strategy that produced disapproval would probably not be long maintained, especially by an approval-orientated individual, thus suggesting that high scorers on the MC-SDS are successful in getting others to like them.
In short, these arguments suggest that the need for approval from others may also reflect a need for approval from oneself, and that the false front presented to others may also be inwardly projected. Crowne and Marlowe (1964) only briefly explore this possibility, and suggest that high MC-SDS scorers "seem to maintain defensive, encapsulated pictures of themselves (1964, p. 150)," a conclusion they base primarily on a study reported by Conn and Crowne (1964). These authors found that high need-for-approval subjects failed to acknowledge hostility towards a confederate who betrayed their trust in an experimental game and who apparently cheated them out of prize money. More importantly, however, these subjects also not only behaved less angrily but more euphorically (prompted by the euphoric antics of the confederate) than subjects whose trust was not violated, presumably because of their heightened susceptibility to cognitive cues dictating a socially acceptable ("proper") definition of an otherwise unacknowledgable state of arousal. This combination of behavioral and self-report evidence led Crowne and Marlowe (1964) to incorporate a component of "repression, or a repression-predicated defense" (p. 148) into their original conceptualization of approval dependence (cf. Crowne and Marlowe, 1960). Reports of therapists about high need-for-approval patients corroborate the validity of this expanded interpretation: MC-SDS scores and therapists' ratings of
patients' defensiveness correlated +.67 in a study conducted by Strickland and Crowne (1963). Since then, Becker (1968) has found that need-for-approval scores covary with a measure of need-for-self-approval, prompting his conclusion that "approval dependent persons...tend to use avoidant, repressive defenses against...fear of rejection by self and by others" (p. 14, italics added).

More impressive support for these notions of defensiveness has emerged from research conducted by Jacobson and his colleagues and students. Uneasy with Crowne's and Marlowe's blending of the concepts of need-for-approval and defensiveness, Jacobson and Ford (1966) conducted a study designed to separate and contrast these two interpretations of social desirability scores. Following the example of Horton, Marlowe, and Crowne (1963), Jacobson and Ford argued that a straight need-for-approval interpretation implies that high SD scorers will evidence more sensitivity and responsiveness to situational and cultural demands and to normatively prescribed behaviors. In contrast, a conceptualization stressing defensiveness would associate high SD scores with insensitivity to cultural nuances. Their results demonstrated that persons scoring high on the Ford Social Desirability Scale (Ford, 1964), a forced-choice questionnaire which correlates highly (in the .70's and 80's) with the MC-SDS and which the authors feel measures the same personality dimension, were less responsive than low scorers to cultural norms dictating an evaluative preference (see Crane and Levy,
1962; Osgood, Suci and Tannenbaum, 1957) for the color white relative to black. Jacobson and Ford thus concluded in favor of the defensiveness hypothesis, a view of "social desirability" which conceptualizes scores in a fashion similar to present arguments concerning self-deception. The similarity, however, is not perfect -- the authors still view defensiveness as "fear of social disapproval" (p. 607, italics added), whereas the present proposed conceptualization minimizes the role of social influences, regardless of their disapproving or approving character. Follow-ups to the Jacobson and Ford study (e.g., Jacobson, Berger and Millham, 1970; Millham, 1974) have likewise focused on the difference between social approval and social disapproval, rather than distinguishing social influences from the relatively private dynamics of need-for-approval.

Two facts clearly emerge from the foregoing discussion: first, that the interpretation and application of the MC-SDS may hitherto have been unnecessarily limited to a domain involving the need-for-approval (or need to avoid disapproval) from other people, and, second, that research directly attacking the problem is necessary to explore the viability of the proposed expanded conceptualization of the scale. The two experiments which follow represent some initial steps in addressing this need for research.
CHAPTER 3
EXPERIMENT ONE
The effects of anonymity and objective self-awareness on MC-SDS scores.

As mentioned, the proposed revision of the traditional interpretation of the Marlowe-Crowne scale challenges the supposed requisite social dynamic of need-for-approval. Thus research addressing reinterpretation of the scale might well begin by varying the availability of social approval to respondents. If the scale does indeed measure need for social approval, then the response set it taps should not be evoked if the questionnaire were completed anonymously, i.e., if the approval-seeker could not be identified as a potential recipient of the approval he has sought. Anonymity should thus lower scores on the MC-SDS. If, instead, the scale measures degree of unwillingness to admit one's faults to oneself via the projection of an approval-seeking image to oneself, then the effect of anonymity should be minimal, since, in any circumstance, a respondent has his own self-evaluation to face.

This argument suggests employment of an anonymity/identifiability manipulation as a means of addressing the issue of the socially evaluative nature
of the MC-SDS. Crowne and Marlowe (1964) report some relevant but inconclusive information in relationship to anonymity and scores on the scale. First, these authors note that mass vs. individual administration of the scale produced no differences in scores among Ohio State undergraduates (p. 209). Given the anonymity that accompanies membership in a large group (Zimbardo, 1969), this lack of difference argues against the importance of social factors in determining scores. In contrast to this, however, Crowne and Marlowe also report that the scores of insurance company employees who were told that their responses would be seen only by the test administrator were nine points lower than the scores of insurance company job applicants who were led to believe that their responses would be considered in the hiring process. This sizeable difference suggests that social approval does indeed influence MC-SDS scores; however, subject self-selection, the numerous confounding differences between the two groups of respondents, and the lack of a totally anonymous condition preclude a definitive conclusion. A more carefully controlled manipulation of anonymity is clearly necessary.

An anonymity manipulation is one means of varying the potential degree of evaluation of and approval bestowal upon the test respondent. This method in effect varies evaluative potential as a function of the
availability of interpersonal evaluators; since the issue in question involves the social vs. private nature of the MC-SDS, a complete experimental investigation of the problem should also entail a manipulation of conditions facilitating self-evaluation. One means of achieving such a manipulation might involve making an individual carefully attend to his self-image, thus increasing the frequency of introspective self-evaluation.

OBJECTIVE SELF-AWARENESS THEORY

A recent social psychological theory (Duval and Wicklund, 1972; Wicklund, 1975) suggests that confronting a person with his mirror image (or with some other means of directing attention to the self) will induce a state termed "objective self-awareness," or OSA. According to the theory, OSA is a state of consciousness in which an individual scrutinizes and evaluates himself and his behaviors vis-à-vis his ideals. Confrontation with one's mirror image, according to the major thrust of the theory, should therefore produce a shift in MC-SDS scores away from approval orientation; in thinking about his behaviors, an objectively self-aware person should become highly sensitized to salient socially desirable behaviors (since the MC-SDS items focus on behavioral ideals) and, by comparison, to his own less-than-ideal shortcomings, which he should more readily acknowledge (see Wicklund, 1975, p. 234).
Recent theoretical developments and empirical findings relevant to objective self-awareness theory, however, qualify this prediction. Evidence from studies by Ickes, Wicklund, and Ferris (1973), Duval and Wicklund (1973), and Carver (Note 2) (all summarized in Wicklund, 1975, pp. 245-247) suggests that self-focused attention can, under certain circumstances, lead to a positive rather than a negative self-appraisal. The affective direction of OSA is apparently influenced by whatever self-dimensions are salient during the state -- if one is comparing his behavior to his ideals along dimensions of positive discrepancy (e.g., following a recent success), positive affect will result. Thus, if a person is dispositionally or situationally inclined to think positively of himself along relevant self-dimensions, the self-attention and introspection resulting from the presence of a mirror could produce higher MC-SDS scores. Despite acknowledging the possibility of self-aggrandizement, however, Wicklund maintains that "self-criticism...is evidently the most likely initial reaction to self-focused attention" (1975, p. 245), and thus the prediction of a reduction in MC-SDS scores is the most straightforward derivation from OSA theory. The self-aggrandizement possibility, however, is both intriguing and important, and will be addressed in later analyses.

The study described below directly follows from this discussion. It was designed to examine the effects of a mirror manipulation upon MC-SDS scores. Principal
propositions to be evaluated are summarized below:

(a) If the MC-SDS measures social approval needs, then the introduction of anonymity should depress scores, while the asocial mirror\(^2\) should not affect them.

(b) If the test measures self-deception, then the anonymity manipulation should not affect responses, while the mirror's presence and the resultant comparison of actual to ideal behaviors should change scores in a downward (self-critical) direction. However, as will be suggested later, instances in which positive self-information is salient to a person who is sitting before his mirror image may produce a self-aggrandizing (higher MC-SDS score) effect.

A few additional propositions will be considered later.

METHOD

Subjects, overview, and design. Eighty introductory psychology student subjects (40 males and 40 females) were randomly assigned to conditions in a 2 (mirror facing vs. mirror turned away) x 2 (anonymous vs. identifiable testing conditions) factorial design. Subjects believed they were participating in a questionnaire development project which involved their completing the MC-SDS and a few ancillary

\(^2\)The term "asocial mirror" is used only to denote the fact that the presence of a mirror does not involve the physical presence of other people.
paper and pencil measures.

**Procedure.** Subjects, run individually, were met by an experimenter (blind to the experimental hypotheses) and taken to a room containing a mirror either facing them or turned away. The presence of the mirror was explained as having been left over from another experiment, a consequence of crowded research space. The experimenter explained to the subject that (s)he was "not participating" in an experiment in the usual sense but rather a part of a project aimed at developing personality scales." The subject was told (s)he had about 10 to 15 minutes to complete one questionnaire. In the anonymity conditions, the subject was specifically told that "it's not necessary for you to put your name or any other identifying information on the questionnaire. All of your responses will be totally anonymous -- only you will know how you answer." To give credence to this claim, the experimenter directed the subject's attention to three piles of manila envelopes, explained that each pile contained a different personality scale, and told the subject (s)he was free to privately choose any envelope from any pile, so long as (s)he replaced the completed test in the envelope and deposited the package in a corresponding pile of completed questionnaires. (In actuality, all envelopes contained the MC-SDS, identified simply as "Inventory E," and a given subject's form could be identified because it was the only completed questionnaire in any pile.) The experimenter then left the room,
ostensibly to allow the subject to choose and complete the test privately.

In the identifiability conditions, the subject was specifically told that "it's necessary for you to put your name, age, address, and phone number on the questionaire. Your responses will not be anonymous -- they will be available for inspection by members of the project." The subject was then given an envelope containing the MC-SDS (again identified as one of three scales being simultaneously developed), preceded by a page asking for the identifying information. The experimenter then left the room.

Once outside the room, the experimenter timed how long it took the subject to complete the test (timing ceased when the subject opened the door to indicate completion of the test). These time measurements were collected to test two opposing hypotheses: (a) completing the test in front of the mirror will increase the time spent working, since OSA theory predicts that a mirror will elicit a time-consuming process of reviewing past behaviors and comparing them to the behavioral ideals made salient by the MC-SDS; and (b) completing the test in front of the mirror will decrease the time spent working, since past research (e.g., Duval, Wicklund, and Fine, 1971; Lingle and McPeek, Note 3) has shown that subjects will escape an OSA-producing stimulus as quickly as possible.

When the subject completed the test, the experimenter returned to the room, administered a post-experimental
questionnaire, and instituted debriefing procedures. Post-experimental questionnaire. The post-experimental questionnaire consisted of three parts:

(a) Checks on the experimental manipulations. The anonymity manipulation check was straightforward, consisting simply of a 7-point scale asking "how confident are you that your responses were anonymous?"

The check on the mirror manipulation (and presumed resultant increased self-focused attention) was more indirect, representing an attempt to develop a new measure of objective self-awareness. Wicklund (1975) addressed the oft-stated criticism that manipulation checks are usually not employed in OSA research, and concluded that there is "quite good reason to believe that they are worthless in objective self-awareness paradigms" (p. 267). The "quite good reason(s)" he cites include the complex multi-level chain of mental events which transpire during self-awareness (for example, self-focused attention can be directed to one salient dimension to the exclusion of others, or it can produce a general tendency to avoid awareness of self) and the potential reactive nature of questions asking subjects "how self-aware are you?" Wicklund does concede that projective-type tests are "the most likely candidate(s) for success" (p. 263), and mentions the pronoun-translation test successfully employed by Davis and Brock (1975) as one promising possibility.
Three subsequent attempts to use the Davis and Brock measure, undertaken by two separate groups of researchers (Lingle and McPeek, Note 3; Lang, Note 4), however, have not confirmed the initial promise of that projective device, despite obtaining the predicted CSA effects on other dependent measures. Consequently a different measure was employed in the present study.

The new measure is based on the work of Ziller (1973), who has developed a number of self-concept related projective tests, including one which measures something he terms "self-centrality." Although this term is not conceptually identical to Duval's and Wicklund's definition of objective self-awareness, the two concepts are highly similar in that each emphasizes the degree to which one's image of the self occupies a prominent mental position. Ziller obtains a non-verbal dispositional measure of self-centrality by having respondents place two circles, one representing the self and one representing a friend, within the boundaries of a larger circle. Placement of the self circle closer to the larger circle's center represents greater self-centrality. Ziller's measure has been shown to possess moderate reliability and predictive utility (Ziller, Alexander, and Long, Note 5; Ziller and Long, Note 6; Ziller, Long, Ramana, and Reddy, 1968).

In the present study subjects were similarly asked to place a "friend" and a "self" circle within a larger circle, and the measure of degree of self-focused
attention was computed by subtracting the distance from the large circle's center to the friend circle's center. From the large-to-self-circle-center distance. Smaller scores, representing high self-awareness, were predicted for mirror conditions.

An additional attempt to measure self-awareness was more straightforward but also potentially more subject to problems of reactivity described by Wicklund (1975). This measure consisted simply of a 7-point scale asking subjects how self-conscious they felt while working on the test.

(b) A measure of subjects' perceptions of the MC-SDS was also included in the post-experimental questionnaire. A multiple-choice question asked subjects what they thought the test measured. Four alternative answers were provided: impulsiveness/cautiousness, truthfulness/untruthfulness, self-concerned/concerned about others, and friendliness/hostility. These alternatives were taken from a study by Shrauger (1972), who found that subjects who perceived the MC-SDS as a measure of honesty scored lower than subjects who perceived it as a measure of either of the other three possibilities. The present results were predicted to replicate Shrauger's findings; in addition, an examination of the possibility that differing perceptions might interact with either or both independent variable manipulations was planned. For example, subjects in the identifiability conditions who perceive the scale as a test of their honesty might be expected to lower their scores in
order to gain approval of their frankness.

(c) The post-experimental questionnaire also contained open-ended questions designed to solicit subject's suspicions about various aspects of the procedure.

A copy of all experimental forms, including the experimenter's instructions, may be found in Appendix A.

RESULTS

Checks on manipulations. The anonymity manipulation was highly successful: subjects in the anonymity conditions (overall mean = 5.80) reported significantly higher confidence that their responses were anonymous than did subjects in identifiability conditions (overall mean = 3.05; F(1, 76) = 49.59, p < .001). Neither the mirror nor the interaction of the mirror and anonymity manipulations significantly affected anonymity scores.

The two checks of the mirror manipulation, however, were less successful. Subjects who filled out the MC-SDS in front of a mirror tended, if anything, to rate themselves as less self-conscious than did mirror-away subjects, although this difference was not significant (p < .25). The projective measure of self-centrality derived from Ziller (1973) similarly failed to reveal any significant mirror-attributable difference (F(1)). Mirror subjects did place their self-representing
circles closer to the center of the circular field \((F(1, 76) = 4.93, p < .05)\); however, they also centralized their friend-representing circle more than did mirror-away subjects \((F(1, 76) = 4.66, p < .05)\). The failure of these manipulation checks does not necessarily impeach the validity of the objective self-awareness manipulation. Instead, the lack of significant differences may very well be attributable to problems involving the measurement of the manipulation rather than to the manipulation per se (Wicklund, 1975). Moreover, the check was administered after a period of time (approximately 10 minutes) which may have been sufficient to allow adaptation to the state of OSA (cf. Ickes, Wicklund, and Ferris, 1973). As mentioned, the checks were included primarily for exploratory purposes. 

**MC-SDS results.** Since the sex of the subject, either as a factor in itself or in conjunction with the other independent variables, did not significantly affect MC-SDS scores, all analyses reported have been computed with this factor collapsed.

Contrary to the results predicted by a conceptualization of the MC-SDS as a measure of need for social approval, the identifiability vs. anonymity of the scale respondent failed to affect scores \((F(1), p < 1)\), despite the success of the anonymity manipulation. The presence of a mirror tended to decrease scores (as predicted by an interpretation of the test as representing unwillingness to privately admit one's faults), although this difference
was not significant \((p < .25)\). Considerations of salience and self-aggrandizement discussed previously, however, suggested an additional data analysis.

Assuming that a high score on the MC-SDS reflects a dispositional tendency to deny one's shortcomings in order to maintain an overly-positive self-conception, individuals with scores falling in the upper range of the distribution of test scores, given their dispositionally positive self-approval, should have positive self-information highly salient when objectively self-aware. In contrast, persons who score low on the MC-SDS, indicating a dispositional self-critical style, should focus on salient negative self-information during OSA. Thus, high MC-SDS scorers should show a self-aggrandizing OSA effect, evidenced by increased MC-SDS scores in front of a mirror, while persons falling in the lower ranges of the scale would evidence decreased scores. In effect, this analysis predicts that subjects will respond to a situational manipulation in a manner consistent with their dispositional style. However, since OSA theory (Wicklund, 1975) and recent research on self-criticism (Regan, Gosselink, Hubsch, and Ulsh, 1975) indicates that the tendency to negatively evaluate oneself is more pronounced than the opposing tendency for positive self-appraisal, the score-lowering, self-critical effect should be greater in magnitude than the score-increasing tendency.
In accordance with these arguments, MC-SDS scores within each cell were split at the median. The MC-SDS data were then reanalyzed in a 2 x 2 x 2 ANOVA, the third variable being each subject's position (above or below the median) in his cell's distribution. This analysis revealed an interesting pattern of results, as seen in Table 1. First, as expected from the primary tenets of objective self-awareness theory, the presence of the mirror significantly decreased scores on the MC-SDS ($F(1,72) = 4.43, p < .05$). Moreover, a significant 3-way interaction emerged ($F(1,72) = 4.08, p < .05$), primarily due to the reversal of the mirror effect for subjects whose scores were above the median on the MC-SDS and who completed the test anonymously. Thus, some support was evidenced for the salience/self-aggrandizement arguments which prompted the median split analysis; further discussion of this partial support, including speculation about the difference of the mirror effect for above-median anonymous and identifiable subjects, will be undertaken shortly.

**Time spent working on test.** The mirror did not significantly affect the time subjects took to complete the MC-SDS ($F(1), p > .05$), supporting neither time hypothesis (perhaps reflecting the mutual cancellation of opposing

---

3 This analysis was done using within-cell distributions because of its post-hoc nature. A median split involving the entire distribution would ignore potential differences among cells. In any case, both methods of analysis produced similar results.
TABLE 1
Mean MC-SDS Scores as a Function of Mirror Presence, Anonymity, and Median Position

<table>
<thead>
<tr>
<th>Anonymous Testing Conditions</th>
<th>Mirror facing</th>
<th>Mirror away</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above Median</td>
<td>20.00 (3.30)*</td>
<td>18.33 (3.67)</td>
</tr>
<tr>
<td>Below Median</td>
<td>9.17 (3.22)</td>
<td>11.27 (3.32)</td>
</tr>
<tr>
<td>Identifiable Testing Conditions</td>
<td>Above Median</td>
<td>17.10 (3.51)</td>
</tr>
<tr>
<td>Below Median</td>
<td>9.10 (2.18)</td>
<td>10.64 (3.08)</td>
</tr>
</tbody>
</table>

*Numbers in parentheses are standard deviations.
behavioral tendencies. Identifiable subjects took longer than anonymous subjects to complete the scale ($F(1,76) = 8.77, p < .01$); however, the mean difference was approximately equal to the time taken by pilot subjects to complete the identifying information, and probably reflects the slight amount of additional work required of identifiable subjects.

Subjects' perceptions of the MC-SDS. Following the work of Shrauger (1972), subjects were divided into two groups, one which indicated on the post-experimental questionnaire that they perceived the MC-SDS as a measure of honesty, and one group which indicated that they perceived the scale as a measure of either impulsiveness, friendliness, or self-centeredness. Contrary to Shrauger's results, however, subjects who felt their honesty was being tested did not score significantly lower than the other groups ($F(1) < 1$); moreover, the differing perceptions of the test were not differentially affected by the experimental manipulations. Thus the present results offer little support for Shrauger's claim that "one's hypothesis about the purpose of the [Marlowe -Crowne] test are related to the score he obtains" (p. 289).
DISCUSSION

The results of Experiment 1 offer no support for the traditional interpretation of the MC-SDS as a measure of the need-for-social approval. The most damaging piece of evidence to this interpretation is the fact that a highly successful experimental manipulation of anonymity/identifiability failed to influence scale scores in the direction which would be dictated by a social approval motive guiding test responses. Moreover, a non-social manipulation involving a mirror did lower scores, an empirical finding which simultaneously argues against the social approval interpretation and supports an analysis of the MC-SDS emphasizing its measurement of a person's unwillingness to acknowledge his own faults.

One exception to the general finding that completing the MC-SDS in front of a mirror decreased scores occurred when high-scoring subjects (i.e., those characteristically unwilling to admit their own imperfections) completed the test under anonymous conditions. While this finding per se is completely consistent with the recent theoretical notions regarding salience and self-praise which prompted the relevant analysis (Wicklund, 1975), the perplexing inconsistent fact that the scores of high-scoring identifiable subjects nonetheless
decreased in the mirror's presence (thus producing a 3-way rather than a 2-way interaction) is troublesome. The difference between the identifiable and anonymous conditions lies in the fact that anonymous subjects were in effect left to their own evaluations, while identifiable subjects were exposed to interpersonal influences. Conceivably, the former group of subjects might have exhibited a "purer" representation of the psychological activities transpiring during objective self-awareness, while the failure of the latter group of subjects to follow suit may be due to the operation of some additional complexities elicited by the threat of interpersonal evaluation. In particular, identifiable subjects may have feared a comparison by outside judges of their claimed behaviors to their actual ones, a circumstance which research (Schlenker, 1975) indicates will produce a less positive self-presentation.

In any case, the speculative nature of this explanation, and the admitted post-hoc nature of the median split analysis necessitated the design and execution of a second study aimed, first, at replicating the mirror-produced decrement in MC-SDS scores and, second, at clarifying the role of salient self-positive thoughts in the dynamics of responding to the scale. The results of Experiment 1 only tentatively supported an interpretation that the MC-SDS is measuring unwillingness to admit faults and shortcomings to oneself.
Two ancillary hypotheses were not supported by the collected data. One of these hypotheses, derived from Shrauger (1972), involved a failure to replicate a past finding that perception of the MC-SDS as a measure of honesty is associated with lowered scores on the scale. However, one of the numerous procedural differences between Shrauger's original study and the present experiment required present subjects to complete the Ziller measure immediately prior to indicating their perceptions of the dimension assessed by the MC-SDS. The effect of completing a measure concerned with "self-centrality" may have led some subjects who might otherwise have indicated they thought the test measured honesty to indicate a perception of self-centeredness instead. Indeed, this perception was the most popular one chosen by subjects (55% indicated it), and the mean MC-SDS score (13.82) for this group was very similar to the mean for the honesty group (13.62), but tended to be lower than the impulsive/cautious and friendly/hostile group means (14.67 and 15.00, respectively). In short, the nature of the activities necessary to complete the Ziller self-centrality measure may have led subjects to a self-centeredness interpretation of the MC-SDS -- subjects who otherwise would have indicated that they felt the scale measured honesty. (Given this problem, the Ziller measure was not employed in Experiment 2).
The second unconfirmed hypothesis involved the failure of the mirror to significantly affect the length of time spent completing the MC-SDS. This lack of significant difference may be due to the mutual cancellation of two opposing tendencies produced by the mirror -- one to increase cogitation, and one to escape the mirror. In any case, the time hypothesis was of only secondary interest to present concerns, and was tested primarily because of the ease of collecting the relevant data.

In conclusion, the results of the first experiment suggested a bi-directional (upward or downward) influence of self-focused attention upon scores on the MC-SDS. Experiment 2, described below, was designed to further explore conditions leading to self-criticism and self-aggrandizement.
CHAPTER 4

EXPERIMENT TWO

Effects of objective self-awareness and self-advocacy on MC-SDS scores.

The significant 3-way interaction of Experiment 1 suggested circumstances in which self-focused attention might lead to an enhanced self-assessment. Individuals who dispositionally think of themselves in overly positive fashion (high scorers on the MC-SDS) elevated their already positive self-appraisal even more under conditions of anonymous objective self-awareness. This finding is consistent with recent theoretical developments in OSA theory (Wicklund, 1975), in which the possibility of (and actual evidence for) a self-aggrandizing effect of self-focused attention has been incorporated into the theory's original concepts.

Experiment 2 was designed to examine the bi-directional (self-aggrandizing and self-deprecation) consequences of self-awareness in a more direct manner. Whereas Experiment 1 employed a dispositional measure of this tendency, Experiment 2 employed an experimentally created variation in direction of self-evaluation.
The strategy of the study involved inducing subjects to think of themselves either positively (i.e., with reluctance to admit their shortcomings) or critically (i.e., with readiness to admit their faults). One means of successfully inducing such self-related mental sets was employed by Mirels and McPeek (Note 7), who extended the generality of the well-established attitudinal advocacy effect (cf. Cialdini, 1971) into the realm of attitudes towards oneself. Mirels and McPeek found that subjects who wrote 5-minute essays describing themselves in positive terms subsequently indicated a higher level of self-esteem than did subjects who wrote 5-minute essays about socio-political issues. The latter group of subjects in turn indicated greater endorsement of the topics they addressed in their essays. One popular and convincing means of accounting for such advocacy effects is Greenwald's (e.g., 1969) cognitive response explanation. According to this analysis, the self-persuasion effects demonstrated in many experiments (see Cialdini, 1971) "are mediated by the rehearsal and learning of attitude-relevant cognitive responses elicited in the persuasion situation" (Greenwald, 1969, p. 376). In short, the advocate of a particular stance marshalls and reviews arguments in its favor and changes his opinion accordingly.
Thus, someone writing an essay praising himself will be disposed to think in positive "attitude-relevant" ways about himself, and this tendency should be intensified by the increased self-focused attention elicited by a mirror or other self-awareness inducing stimuli. Therefore, while the usual effect of self-awareness is to lower the threshold for admitting negative self-information (as shown in the previous experiment), thus lowering scores on the MC-SDS, the presence of a mirror following the induction of a self-positive mental set (resulting from the composition of a self-praising essay) should raise both the threshold for admitting negative self-information and scores on the MC-SDS, reflecting subjects' increased tendency to view themselves favorably. This prediction was the principal hypothesis tested in the second experiment; it and ancillary hypotheses are listed below:

(a) The presence/absence of one's mirror reflection and the kind of essay one writes (self-praising vs. attitude-espousing) will interact to determine MC-SDS scores, such that the mirror will decrease scores following the composition of a socio-political essay, but increase scores following a self-praising essay.

(b) Similarly, the mirror and essay manipulations should interact to determine self-esteem scores. The usual effect of objective-self-awareness is to decrease self-esteem (Ickes, Wicklund, and Ferris, 1973; Ferris
and Wicklund, Note 8); however, the third study by Ickes et al. (1973) found a suggestion of a self-esteem mirror-produced elevation following subjects' reception of positive self-information. In the present study, positive thoughts about the self (elicited by the self-essay) should therefore lead to an OSA-induced elevation of self-esteem, while OSA would presumably lower self-esteem following completion of the socio-political essay.

(c) The composition of a self-praising essay should elevate self-esteem, replicating the findings of Mirelds and McPeek (Note 7).

(d) The composition of a self-praising essay should elevate MC-SDS scores, since the essay should elicit a self-positive mental set.

METHOD

Subjects, overview and design. Forty introductory psychology students (30 males and 10 females) were randomly assigned to conditions in a 2 (mirror facing vs. mirror away) x 2 (self vs. socio-political essay topic) factorial design. Subjects were led to believe that they were participating in a preliminary collection of essays to be used in a future psychology experiment; subsequent completion of the MC-SDS and the post-experimental questionnaire were justified as necessary for obtaining
information about participants in psychology experiments. 

Procedure. The procedure used deviated only slightly from the successfully employed paradigm used by Mirels and McPeek (Note 7). Subjects, run individually, were met by an experimenter who explained that the session did not involve "an experiment in the usual sense, but an attempt to develop a number of materials and instruments which will be used in several studies during the next autumn quarter."

In the socio-political essay conditions, the future study was described as dealing with "the way we form attitudes on the basis of material which we read,... what we'll do is give autumn quarter subjects persuasive communications which people this spring quarter have written about certain topics." The subject was asked to write a 10-minute essay advocating cessation of government funding for the space-exploration program. The subject was given a sheet of paper headed "Proposition: The government should stop channelling money into the space-exploration program," followed by a 5-point scale with endpoints labeled "strongly disagree" and "strongly agree". He was told the essay should attempt to achieve one goal: "that the person reading what you wrote would give an extremely high agreement rating on the scale."
In the self-essay conditions, the future study was described as dealing with "the impressions we form of a person on the basis of how that person describes him or herself...what we'll do is give autumn quarter subjects description which people this [Spring] quarter have written about themselves." The subject was asked to write a 10-minute essay describing certain "positive aspects of yourself." He was given a sheet of paper headed with a 5-point scale; one scale endpoint was labeled "gets along with others easily and pleasantly; warm, friendly, open-minded; willing to help others," while the opposite pole was labeled "gets along with others poorly and unpleasantly; hostile, dogmatic; hesitant to help others." Each subject was told the essay should attempt to achieve one goal: "that the person reading what you wrote would give you an extremely high [positive] rating on the scale." Each subject was asked to present the strongest possible case, with the restriction that the essay be truthful.

Subjects were assured that their essays were anonymous and were provided with a sealed box with a slot in the top for deposit of the completed essay. Anonymity was stressed in order to minimize any effects of fear of evaluation by others.

The subject was left alone for 10 minutes and allowed to work on his or her essay. The experimenter then returned to the room and asked the subject to come to another experimental cubicle to fill out a few additional
forms. The room change was explained as being necessitated by a crowded room use schedule, with someone scheduled to use the first room shortly. This cover story provided a rationale for moving the subject to the room containing the mirror.4

The second experimental room contained a few pieces of equipment and a mirror (either facing or turned away from the subject). The experimenter, who identified the equipment and mirror as belonging to "someone else using this room," began to pick the mirror up to move it, paused briefly, appeared to think twice, and said, "Oh, well -- we may as well leave it here." Despite extensive probes for suspicion (both written and conversational) following the experiment, no subject voiced suspicion that the mirror played a role in the study.

The experimenter then continued the instructions, explaining that "we have a couple of forms here that we'd like you to fill out. We've just started collecting responses from everyone who participates in experiments conducted here in the psychology department. We're doing this because we're interested in what kinds of people are going through our sessions -- we'd like to find out what our subject population is like." These instructions, along with the change

4The mirror was introduced at this late point to save its maximal impact for the subject's completion of the MC-SDS. Past studies (e.g., Ickes, Wicklund, and Ferris, 1973) have indicated that the impact of an OSA-inducing stimulus may wear off rapidly with the passage of time.
of rooms, were intended to divorce the second part of the experiment from the first, to minimize any carry-over demand characteristics from Part 1.

Subjects were then asked to complete "Inventory E" (the MC-SDS). To best replicate the anonymous conditions leading to the mirror-enhancing effect suggested in the first study (see footnote 5), subjects were told "your questionnaire responses are anonymous -- no one but you will know which questionnaire is yours. You can just put your completed form in this container with all the others." Another sealed box, apparently full of completed forms, was indicated as the receptacle for the finished product. The experimenter then left the room to allow the subject to complete the scale privately.

Outside the room the experimenter activated a stop-watch to measure the length of time taken by the subject to complete the task (to once more examine any relationship of the state of objective self-awareness to the time subjects spent completing the MC-SDS). When the subject was finished, the experimenter covertly stopped the watch, returned to the room, and gave the subject a second form (described below) to complete (once more to be deposited, presumably anonymously, in a box stuffed with forms). Finally, the experimenter debriefed the subject and collected the completed data.

The second form which the subject was asked to complete was entitled "Post-session Questionnaire," and it
consisted of the following major parts:

(a) Seven self-esteem items, consisting of polar adjectives written at the endpoints of 21-point scales. Four of the seven sets of adjectives used were "stubborn/accommodating," "competitive/cooperative," "critical of others/tolerant of others," and "warm temperament/cool temperament." All four of these sets were employed by Mirels and McPeek (Note 7). Furthermore, Harrison (Note 9) has shown that the scales bounded by these adjectives load on a personality factor from which the descriptions provided as guidelines to facilitate composition of the self-essay were derived. Thus, these four sets of adjectives were used because of their direct connection to the self-essay topic. The remaining three sets of adjectives ("good/bad," "likeable/dislikeable," and "conscientious/unconscientious") were included to test the generalizability of the self-esteem effect to dimensions of self-evaluation not directly addressed by the essay. Each subject was asked to indicate "your true feelings about yourself" by placing an "X" along each scale.

(b) Three questions pertained to the MC-SDS. Subjects were given Shrauger's 4-item multiple choice question concerning perceptions of the test (see method section for Experiment 1), one 7-point item asking the subject to rate his or her degree of harshness in judging him (her) self when answering the MC-SDS items, and one 7-point item
asking the subject to indicate his (her) degree of confidence that responses to the scale were anonymous.

(c) One 7-point scale asked for an appraisal of the subject's usual (i.e., dispositional) degree of harshness in self-judgment. This and the previous harshness scale were included to explore the relationship between perceived harshness of self-appraisal and MC-SDS scores.

A copy of the materials used, including the experimenter's instructions, may be found in Appendix B.

No attempt was made to measure the objective self-awareness manipulation for a variety of reasons. Wicklund (1975) has suggested that such attempts are futile, and previous attempts to use the Ziller-derived measure (Lingle and McPeek, Note 10; Experiment 1 in the present paper) have not proven useful. In any case, considerations raised in the previous discussion section concerning the possible effects of the Ziller measure upon the failure to replicate Shrauger's results argued against its use in Experiment 2.

RESULTS

As mentioned earlier, the second experiment, although not varying anonymity, did attempt to create the feeling that subjects' responses were anonymous. Comparing across experiments, this attempt seemed successful -- the overall anonymity mean for Experiment 2 was 6.13 (cell means ranged from 5.8 to 6.6), which is very similar to the mean (5.8) for the anonymous conditions of Experiment 1.
As in Experiment 1 sex of subject did not significantly affect any dependent variables. All analyses to follow were computed ignoring the sex variable as a factor. **MC-SDS scores.** The major hypothesis of the study -- the prediction of an interaction between the essay topic and the presence of the mirror -- was significantly supported ($F(1,36) = 5.70, p < .025$). Within the space-program essay conditions, the presence of the mirror tended to decrease MC-SDS scores ($F(1,36) = 1.41$, ns.), while within the self-essay conditions the mirror increased scores significantly ($F(1,36) = 4.79, p < .05$). The pattern of means is presented in Table 2.

Inspection of this table, however, reveals that hypothesis d, which predicted that, overall, the self-essay subjects would score higher on the MC-SDS than space-program subjects, was not supported ($F<1$); while the mirror-self cell is the highest of the four conditions, the no-mirror-self cell shows the lowest mean.

**Self-esteem scores.** The major self-esteem hypothesis -- that composing an essay espousing "positive aspects" of oneself would produce greater self-esteem than writing an essay about the space program -- was supported. Collapsing across the mirror manipulation, all seven of the self-esteem adjective ratings were more positive for the self-essay conditions. The combined 7-item self-esteem score (means are shown in Table 3) was significantly greater for
TABLE 2

Mean MC-SDS Scores as a Function of Mirror Presence and Essay Topic

<table>
<thead>
<tr>
<th>Essay Type</th>
<th>Mirror Facing</th>
<th>Mirror Away</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-laudatory essay</td>
<td>16.9 (5.55)*</td>
<td>12.3 (4.64)</td>
</tr>
<tr>
<td>Space-program essay</td>
<td>14.0 (4.24)</td>
<td>16.5 (4.25)</td>
</tr>
</tbody>
</table>

*Numbers in parentheses are standard deviations.
TABLE 3
Mean Self-Esteem Scores as a Function of Mirror Presence and Essay Topic

<table>
<thead>
<tr>
<th></th>
<th>Mirror facing</th>
<th>Mirror away</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-laudatory essay</td>
<td>105.2 (15.66)*</td>
<td>100.2 (14.16)</td>
</tr>
<tr>
<td>Space-program essay</td>
<td>94.3 (17.33)</td>
<td>92.8 (12.00)</td>
</tr>
</tbody>
</table>

*Numbers in parentheses are standard deviations.*
the self-essay conditions than for the space program essay conditions ($F(1, 36) = 3.76, p < .06$). The 4-item agreeableness sum was also greater for self-essay conditions, although marginally so ($F(1, 36) = 2.89, p < .10$). Of the individual items, the one most sensitive to the essay manipulation was the "good/bad" scale ($F(1, 36) = 3.87, p < .057$) -- which is the scale which intuitively seems most representative of self-esteem. On the whole the results provided a convincing replication of the findings of Mirels and McPeek (Note 7).

In contrast, the second self-esteem hypothesis received very little support, at best. This hypothesis predicted an interaction between the essay topic and mirror manipulations. However, only two (likeableness and conscientiousness) of the seven self-esteem items showed the predicted pattern of means, and only one of these (conscientiousness) approached significance ($F(1, 36) = 3.17, p < .10$). Thus, the bi-directional effect of USA on self-esteem obtained by Ickes, Wicklund, and Ferris, 1973) was not replicated in the present study.

Perceptions of the MC-SDS. As anticipated, the scores of subjects who perceived the MC-SDS as a measure of honesty ($n = 11$) were significantly lower than the scores of subjects who perceived the scale as a measure of either friendliness ($n = 2$), self-centeredness ($n = 21$), or impulsive-
ness \( (n = 6) \) \( F (1, 36) = 4.48, p < .05 \).\(^6\) As can be seen in Table 4, subjects in Experiment 2 who perceived the test as a measure of self-centeredness scored higher on the MC-SDS than did their Experiment 1 counterparts. Thus the findings of Experiment 2 are quite similar to those reported by Shrauger (1972).

**Time spent working on the scale.** As in Experiment 1, the mirror failed to significantly affect the time subjects spent working on the test \( F (1) \). However, subjects who wrote essays about themselves took longer to complete the MC-SDS than did space-program essay writers \( F (1, 36) = 6.94, p < .025 \). This increased time may have resulted from a greater number of self-relevant cognitions made salient by preparing and writing an essay about oneself (consistent with Greenwald's cognitive response analysis, 1969); in answering the MC-SDS, the respondent would have more information to consider before deciding how to answer.

**Harshness ratings.** Subjects were required to make two ratings of the degree of harshness of their own self-criticism. One rating was specifically restricted to the degree of self-criticism employed during completion of the MC-SDS, while the second referred to general (dispositional)

---

\(^6\)This \( F \)-value was computed from a 2 (mirror away vs. mirror facing) x 2 (honesty perception vs. other perception) ANOVA. A 3-way analysis (including essay topic as a factor) was impossible because one of the eight cells contained no subjects. Subjects' perceptions of the scale did not interact significantly with the mirror manipulation.
TABLE 4

Mean MC-SDS Scores as a Function of Subjects' Perceptions of the Scale

<table>
<thead>
<tr>
<th>Perception</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honesty</td>
<td>12.27</td>
</tr>
<tr>
<td>Scale perceived as a measure of Self-centeredness</td>
<td>16.05</td>
</tr>
<tr>
<td>Impulsivity</td>
<td>15.50</td>
</tr>
<tr>
<td>Friendliness</td>
<td>16.00</td>
</tr>
</tbody>
</table>
harshness. Neither measure was affected by experimental manipulations; moreover, neither measure was significantly correlated with MC-SDS scores (r for general measure = .07; r for specific measure = -.21, both ns.). These results suggest that subjects have little insight into how harshly they judge themselves; indeed, the modal response for the harshness ratings was 4, anchored "fair" on the scale, suggesting that most people feel they are just self-appraisers. Alternatively, the presence of the anchor "fair" may have elicited subjects' checkmarks by acting as a transparent demand cue to present oneself as fair.

**DISCUSSION**

In general, the results of Experiment 2 confirmed the interpretations of the MC-SDS which were suggested by the first study. Once more a mirror, a stimulus which does not involve the presence of other people, affected scores on a scale which supposedly is responsive only to social stimuli; moreover, the direction of the effect was shown to be predictably reversible, with the mirror tending to lower scores in circumstances where self-critical thoughts are salient, and increasing scores when individuals were pre-disposed (dispositionally in Experiment 1 and situationally in Experiment 2) to think of themselves positively. An interpretation of the MC-SDS as a measure of the respondent's
unwillingness to admit his faults to himself thus seems viable.

Experiment 2 also replicated the findings of two past studies. The results of Mirels and McPeek (Note 7) and the present data agree that organizing and expressing positive thoughts about oneself actually improves one's self-evaluation. Shrauger's (1972) report of lowered MC-SDS scores for subjects perceiving the scale as a measure of honesty was also confirmed. Thus the failure of Experiment 1 to replicate his results appears attributable to the confounding effect of the Ziller measure of self-centrality upon subjects' reported test perceptions. Perhaps difficulties such as these can be avoided in the future by simply asking subjects whether a high score on the test reflects a negative or a positive attribute; those perceiving a high score as negative (in the present case, as a measure of lack of honesty) should score lower.

The results of Experiment 2, while confirming the aforementioned hypotheses, also failed to support two predictions. First, writing a self-laudatory essay did not elevate MC-SDS scores. Thus, subjects do feel more positively about themselves following the completion of such an essay (as evidenced by the self-esteem ratings), but this positivity apparently does not preclude the admission of one's faults. This potentially important
distinction between high self-esteem and a denial-maintained positive self-image will be further discussed in Chapter 5.

The second unsupported hypothesis is perhaps attributable to the dissipation of the effects of OSA with the passage of time. Contrary to expectations, the mirror and essay manipulations failed to interact significantly in determining self-esteem scores. Ickes, Wicklund, and Ferris (1973), however, reported that the effects of OSA on self-esteem were short-lived, enduring only for the first five items of a 20-item questionnaire. This period of time is certainly shorter than the 5 or 10 minutes that subjects spent in front of the mirror before completing the self-esteem scales, suggesting that the failure to obtain the anticipated interaction on self-esteem ratings may have been attributable to adaptation.
CHAPTER 5
CONCLUSIONS

The results of the two experiments point the way towards the next step in the continuing re-conceptualization of the Marlowe-Crowne Social Desirability Scale. When the test originally appeared (Crowne and Marlowe, 1960), it was interpreted as a measure of an individual's need to gain the approval of others. Further thought and the additional collection of intriguing data gradually led to an expansion of the scale's conceptualization to incorporate a component of defensiveness (Crowne and Marlowe, 1964; Jacobson and Ford, 1966). The results of the current research, indicating that the test measures unwillingness to acknowledge undesirable information about oneself, are compatible with this expanded interpretation. More importantly, however, the major contribution of the present data is the indication that this unwillingness need not involve other people -- an individual with a high MC-SDS score is reluctant to admit his flaws even when he believes such admission is anonymous.

The MC-SDS thus appears to be a promising means of specifying an individual's dispositional position along a continuum ranging from openness to
negative self-information at one extreme to defensive rejection of negative information at the other.\footnote{Alternative labels for these extremes could be "self-knowledge" (or "self-acceptance") and "self-deception." These terms, however, (particularly the former) have rich connotative meanings and may be more multidimensional and subject to influence by more variables than the chosen labels. When the broader terms are used, only the narrower implications are intended.}

The poles of this hypothesized continuum are directly comparable to the bi-directional nature of objective self-awareness theory in its most recently articulated form (Wicklund, 1975). The admission-of-faults pole is directly analogous to the self-critical mode of OSA, while the denial-of-faults extreme corresponds to OSA-induced self-aggrandizement. Since the affective consequences (and, for that matter, the very occurrence) of OSA are largely situationally determined, the positions of individuals on the openness/defensiveness continuum can apparently vary situationally as well as dispositionally. A person typically open about his faults may become defensively self-deceptive in a given situation, just as the proper set of circumstances can wrench a self-admission from a habitually closed, self-deceptive individual.

The identification of the exact varieties of situations which will produce an increase or decrease in such self-deception remains the task of future research. The MC-SDS may prove a useful tool for measuring the consequences of creating
such situations once they are identified. Techniques for increasing openness should decrease scores, while attempts to encourage defensiveness should elevate them. Defensive self-esteem. The aforementioned similarity between the self-aggrandizement described by Wicklund (1975) and the denial pole of the proposed openness-to-faults continuum suggests that a high opinion of oneself, at least in some cases, may be contingent upon rejection of unpleasant self-conceptions. Indeed, this argument formed the basis for the predictions made in Experiment 2 concerning the parallel effect of the mirror and essay topic manipulations on self-esteem and MC-SDS scores.

In the past, this concept, known as "defensive self-esteem", has been a popular one in the personality literature (e.g., Cohen, 1959), predating both the creation of the MC-SDS and the development of objective self-awareness theory. The idea of high self-esteem representing a defensive attempt to maintain a shaky positive self-appraisal is a radical departure from more intuitive notions which portray high self-esteem individuals as mature, confident persons "less dependent upon external sources of reinforcement" (Ziller, 1973, p. 77).

These two conceptions of self-esteem may represent two varieties of high self-appraisal, one defensive and one more genuine. This position has been taken by Schneider and Turkat (1974), who, interestingly,
identified persons with defensive self-esteem by examining MC-SDS scores. High defensive self-esteem was indicated by a high MC-SDS score coupled with a high score on a traditional measure of self-esteem, while the combination of a high self-esteem and a low MC-SDS total was viewed as evidence for a more genuinely positive, less defensive kind of positive self-appraisal. Schneider and Turkat (1974) found that defensive self-esteem subjects reacted to failure with self-aggrandizement.

The work of these researchers has two implications for the present research. First, these authors suggest yet another possible use of a better conceptualized MC-SDS scale. Second, the significant increase of self-esteem scores following the completion of a self-laudatory essay (Mirels and McPeek, Note 7; Experiment 2 of the present research) apparently reflects a genuine increase, since, in Experiment 2, it was not paralleled by the predicted increase in MC-SDS scores.

In conclusion, the present results suggest that the Marlowe-Crowne Social Desirability Scale may be a useful psychometric tool in the study and measurement of self-deception. The validity of the proposed conception, while promising, requires further support in a variety of paradigms. Such research might firmly establish that Crowne and Marlowe actually developed a
measure of a person's awareness of his negative traits --
ironically, a fact of which they were unaware.
EXPERIMENTER’S INSTRUCTIONS

This is not an experiment in the usual sense but rather a part of a project aimed at developing personality scales. What I'd like you to do is to spend about 10 or 15 minutes completing one of the scales we're interested in. We're simply trying to find out how people respond to the different items.

It's necessary for you to put your name, age, address, and phone number on the questionnaire. Your responses will not be anonymous - they will be available for inspection by members of the project. I'm going to give you this scale out of the three which we're developing for you to complete. Simply wait till I leave the room, open the envelope, complete the test, return it to the envelope, and place it in the appropriate completed pile over here (indicate).

I'll give you about 15 minutes to finish. Any questions?
(Before leaving)...Oh, I'm sorry about the other stuff in this room but that's part of another experiment. We have to double up on lab space.
This is not an experiment in the usual sense but rather a part of a project aimed at developing personality scales. What I'd like you to do is to spend about 10 or 15 minutes completing one of the scales we're interested in. We're simply trying to find out how people respond to the different items.

It's not necessary for you to put your name or any other identifying information on the questionnaire. All of your responses will be totally anonymous - only you will know how you answer. In fact, to make sure that you can't be identified I'm going to give you the choice of which of these scales we're developing you'd like to take (point). Simply wait till I leave the room, choose an envelope from any one of the three piles, open it, complete the test, return it to the envelope, and place it anywhere in the appropriate completed pile over here (indicate).

I'll give you about 15 minutes to finish. Any questions?

(Before leaving)...Oh, I'm sorry about the other stuff in this room but that's part of another
experiment. We have to double up on lab space.
INVENTORY E

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 personally. Then circle the appropriate letter, T or F.

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 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 myself.

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 get what they deserve.
T F 33. I have never deliberately said something that hurt someone's feelings.
In the large circle below, draw two circles—one to stand for yourself and a second to stand for a typical friend of yours. Place an S in the circle for self and an F in the circle for your friend.
If you had to make a choice, which would you say the test was measuring? (check one)

____ the degree to which you are impulsive or cautious
____ the degree to which you are truthful and honest or untruthful
____ the degree to which you are self-centered or concerned about others
____ the degree to which you are friendly or aggressive and hostile

Often psychology students read in their classes about experiments in which things are not as they seem, and this occasionally disturbs their natural responses when they are subjects. As you think back honestly, did you feel any doubts about any aspects of this experiment while you were participating? If so, what were they? Describe in what ways, if any, they affected your behavior.

Describe, briefly, in what ways, if any, your thoughts and behaviors were affected by the presence of the mirror in the room.
Please answer each of the following questions by placing an "X" between the slashes on the line. Thank you.

How self-conscious did you feel while you were working on the scale?

/ ............................. ............................. ............................. ............................. .............................
not at all                                         very much

How carefully did you consider the way you behave before responding to the questions?

/ ............................. ............................. ............................. ............................. .............................
not at all                                         very much

How confident are you that your responses were anonymous?

/ ............................. ............................. ............................. ............................. .............................
not at all                                         very much

Describe in your own words what you think the test was measuring.
APPENDIX B
EXPERIMENTER'S INSTRUCTIONS

SELF ESSAY

Hi. I'm . I'm a research assistant in the psychology department.

What I'd like you to help me with today is not an experiment in the usual sense, but an attempt to develop a number of materials and instruments which will be used in several studies during the next autumn quarter. Even though it is a bit awkward, I'll be reading most of the instructions to you, to make sure that I don't leave anything important out.

One of the studies we'll be running in the autumn will deal with certain aspects of interpersonal perception - with how people form impressions of one another. We are particularly interested in the impressions we form of a person on the basis of how that person describes him or herself.

Specifically, what we'll do is give autumn quarter subjects descriptions which people this quarter have written about themselves. Each autumn quarter subject
will read a number of such descriptions. After reading the self-descriptions written by a person, the subject will rate the person who wrote it on a number of scales such as these (show examples).

What we need now from you and others participating this quarter is a large pool of such self-descriptions, especially certain types of descriptions, which I'll tell you about in a moment.

But before we go any further I want to assure you that what you write will be completely anonymous - when you're done you can simply drop your materials in this box here (indicate), and you can be assured that all descriptions will be kept completely confidential.

Ok - now the kind of description I'd like you to write is what we term "plus" description, in which you describe positive aspects of yourself. I'd like you to provide one such self-description. Use this form here. At the top is the kind of scale which autumn quarter subjects will use to make their ratings (point, and have subject read the scale endpoints). Of course these subjects will not know who wrote what they are
reading. Now here's your task: Taking about 10 minutes, write about yourself with one goal in mind: that the person reading what you wrote would give you an extremely high rating on the scale. In other words, present the strongest case you can - with one restriction (pause) that whatever you write must be true.

I'll come in and tell you when the time is up. Again, your goal is that the person reading what you write will give you an extremely favorable rating on the scale. Do you have any questions?

(LEAVE, WAIT TEN MINUTES AND RETURN).

Ok, time's up. There are a few more things that I need to ask you to do now. Could you please come to our other room? (GO TO MIRROR ROOM). (ON THE WAY TO MIRROR ROOM, CASUALLY REMARK): Lots of people use these rooms, and somebody's scheduled to use the one we were in in a little while. (UPON ARRIVAL AT MIRROR ROOM CONTINUE CASUALLY): Someone else is using this room, too--all this stuff (make a sweeping gesture, indicating mirror in the sweep) belongs to them. (ATTEMPT TO MOVE MIRROR - GIVE UP).
Ok - We have a couple of forms here that we'd like you to fill out. We've just started collecting responses from everyone who participates in experiments conducted here in the psychology department. We're doing this because we're interested in what kinds of people are going through our sessions - we'd like to find out what our subject population is like. Again, all of your questionnaire responses are anonymous - no one but you will know which questionnaire is yours. You can just put your completed form in this container with all the others. When you're finished with this first one (give Marlowe-Crowne), open the door - I'll be waiting right outside (LEAVE ROOM AND START STOPWATCH).

(WHEN SUBJECT OPENS DOOR, STOP STOPWATCH AND RETURN TO ROOM). Ok, just one more short form and then we're finished. This just asks for your impression of the session. (GIVE POST-EXPERIMENTAL QUESTIONNAIRE TO SUBJECT).

When the subject's card has been signed and he has gone, record any pertinent observations about how suspicious, uncooperative, or unusual the subject's
behavior was. Do this while it is fresh in your mind.
ATTITUDE ESSAY

Hi. I'm . I'm a research assistant in the psychology department.

What I'd like you to help me with today is not an experiment in the usual sense, but an attempt to develop a number of materials and instruments which will be used in several studies during the next autumn quarter. Even though it is a bit awkward, I'll be reading most of the instructions to you - to make sure that I don't leave anything important out.

One of the studies we'll be running in the autumn will deal with attitudes concerning certain current topics - with how people form such attitudes. We are particularly interested in the way we form attitudes on the basis of material which we read.

Specifically, what we'll do is give autumn quarter subjects persuasive communications which people this quarter have written about certain topics. Each autumn quarter subject will read a number of such communications. After reading each persuasive
communication, the subject will rate his opinion of a number of scales such as these (show samples).

What we need from you and others participating this quarter is a large pool of such persuasive messages, especially about certain topics, which I'll tell you about in a moment.

But before we go any further I want to assure you that what you write will be completely anonymous - when you're done you can simply drop your materials in this box here (indicate), and you can be assured that they will be kept completely confidential.

Ok - now the kind of persuasive message I'd like you to write is what we term a "pro" message, in which you support a proposition. I'd like you to provide one such message. Use this form here. At the top is the kind of scale autumn quarter subjects will use to indicate their opinions on the topic (point, and have subject read the scale endpoints). Of course these subjects will not know who wrote what they are reading. Now here's your task: Taking about 10 minutes, write
about this topic - funding the space program - with
one goal in mind: that the person reading what you
wrote would give an extremely high agreement rating on
the scale. In other words, present the strongest
case you can - with one restriction (pause) that
whatever you write must be true.

I'll come and tell you when the time is up. Again,
your goal is that the person reading what you write will
give an extremely high agreement rating on the scale.

Do you have any questions?

(LEAVE, WAIT TEN MINUTES AND RETURN).

Ok, time's up. There are a few more things that
I need to ask you to do now. Could you please come to
our other room? (GO TO MIRROR ROOM).

(ON THE WAY TO MIRROR ROOM, CASUALLY REMARK): Lots of
people use these rooms, and somebody's scheduled to use
the one we were in in a little while.

(UPON ARRIVAL AT MIRROR ROOM CONTINUE CASUALLY): Someone
else is using this room, too - all this stuff (make a
sweeping gesture, indicating mirror in the sweep) belongs
to them. (ATTEMPT TO MOVE MIRROR - GIVE UP).
Ok - We have a couple of forms here that we'd like you to fill out. We've just started collecting responses from everyone who participates in experiments conducted here in the psychology department. We're doing this because we're interested in what kinds of people are going through our sessions - we'd like to find out what our subject population is like. Again, all of your responses are anonymous - no one but you will know which questionnaire is yours. You can just put your completed form in this container with all the others. When you're finished with this first one (give Marlowe-Crowne), open the door - I'll be waiting right outside (LEAVE ROOM AND START STOPWATCH). (WHEN SUBJECT OPENS DOOR, STOP STOPWATCH AND RETURN TO ROOM).

Ok, just one more short form and then we're finished. This just asks for your impression of the session. (GIVE POST-EXPERIMENTAL QUESTIONNAIRE TO SUBJECT).

When the subject's card has been signed and he has gone, record any pertinent observations about how suspicious, uncooperative, or unusual the subject's behavior was. Do this while it is fresh in your mind.
Scale A-1

Gets along with others easily and pleasantly; warm, friendly, open-minded; willing to help others

1 2 3 4 5

Gets along with others poorly and unpleasantly; hostile, dogmatic, hesitant to help others
Scale B-1

Proposition: The government should stop channelling money into the space exploration program.

Strongly disagree 1 2 3 4 5 Strongly agree
## POST-SESSION QUESTIONNAIRE

Part 1. Please indicate below your true feelings about yourself by placing an "X" between the slashes on each line, representing your appraisal of yourself on the personality traits described.

<table>
<thead>
<tr>
<th>Conscientious</th>
<th>Unconscientious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stubborn</td>
<td>Accommodating</td>
</tr>
<tr>
<td>Competitive</td>
<td>Cooperative</td>
</tr>
<tr>
<td>Good</td>
<td>Bad</td>
</tr>
<tr>
<td>Critical</td>
<td>Tolerant</td>
</tr>
<tr>
<td>Of Others</td>
<td>Of Others</td>
</tr>
<tr>
<td>Likeable</td>
<td>Dislikeable</td>
</tr>
<tr>
<td>Cool</td>
<td>Temperament</td>
</tr>
</tbody>
</table>

Part 2. The following question refers to the essay which you wrote at the beginning of the session.

How would you rate the essay you wrote?

| Very Bad      | Very Good       |

Part 3. The following questions refer to the questionnaire which you completed.

If you had to make a choice, what would you say the questionnaire was attempting to measure? (check one)

- [ ] the degree to which you are impulsive vs. cautious
- [ ] the degree to which you are truthful and honest vs. untruthful
- [ ] the degree to which you are self-centered vs. concerned about others
- [ ] the degree to which you are friendly vs. aggressive and hostile

To what extent were you too harsh, fair, or too easy in your judgments of yourself when answering the questionnaire items?

| Too Easy     | Fair   | Too Harsh |

---

[Note: The above text appears to be a fill-in-the-blank questionnaire with options to rate oneself on various personality traits, and questions about the essay and questionnaire content.]
Part 3. (continued)

To what extent are you usually too harsh, fair, or too easy with yourself when you make judgments about what you are like and how you behave?

/       /       /       /       /       /       /
  too easy       fair       too harsh

About how much time per day (on the average) do you spend introspecting or thinking about yourself (please give an exact figure in minutes)?

How confident were you that your questionnaire responses were anonymous?

/       /       /       /       /       /       /
  not at all       very much

Part 4. Often psychology students read in their classes about experiments in which things are not as they seem, and this occasionally disturbs their natural responses when they are subjects. As you think back honestly, did you feel any doubts about any aspects of this experiment while you were participating? If so, what were they? (please be specific).
LIST OF REFERENCES


Edwards, A.L. The relationship between the judged desirability of a trait and the probability that the trait will be endorsed. *Journal of Applied Psychology*, 1953, 37, 90-93.


LIST OF REFERENCE NOTES


9. Harrison, R. The structure and measurement of person perception. Unpublished manuscript, Yale University, undated.