Defensiveness as a moderator variable for self esteem.

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DEFENSIVENESS AS A MODERATOR VARIABLE FOR SELF ESTEEM

A Thesis Presented

By

LAURIE ANN TERASPULSKY

Submitted to the Graduate School of the University of Massachusetts in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

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Psychology
DEFENSIVENESS AS A MODERATOR VARIABLE FOR SELF ESTEEM

A Thesis Presented

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LAURIE ANN TERASPULSKY

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I would like to thank the committee members, Seymour Epstein, Icek Ajzen, and Arnold Well, for making what could have been only a 'performance' experience into a real 'learning' experience; they each had important lessons to teach. Additional gratitude is extended to Seymour Epstein who, between his writings and teachings, has been a continuous source of intellectual stimulation since my undergraduate years, whether here or from afar. I would also like to take this opportunity to express my appreciation to Lauren Alloy at Northwestern University for her encouragement, understanding, and generous supervision through earlier stages of this project. Very able and beyond-the-call-of-duty assistance was provided, also at Northwestern University, by Lisa Brittain, Brigitte Ronnett, David Murray, Steven Hamburg and Twyala Niehaus in the preparation of materials, data collection and coding of data. And the perseverance and skills of Jeffrey Doidge are responsible for the programming of the Apple computer, the vehicle for data collection.
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CHAPTER I
INTRODUCTION

The need to take into account the moderating effects of defensiveness in understanding how scores on self-report assessments of personality are arrived at is suggested on theoretical and empirical grounds alike. To the extent that people have strong images of who they would like to be (e.g., Horney, 1950; Rogers, 1951) and a basic need for self-esteem (Epstein, 1976; Rosenberg, 1979; Snyder, Stephan, and Rosenfield, 1978; Rogers, 1951) it is likely that at least their conscious appraisal of self is subject to distortions of a self-enhancing nature.

Endorsement of this viewpoint in personality psychology is reflected in both the development of and widespread use of measures of defensiveness, such as Crowne and Marlowe's Social Desirability Scale (1960), which is comprised of self-report items of positive but implausible content. Ascribing such unrealistic but desirable characteristics to oneself as "I have never intensely disliked anyone" or "No matter who I'm talking to I'm always a good listener" is taken as an indication of defensiveness, that is a need to present oneself in a positive light, be it for reasons of creating a positive impression on others or oneself. For the most part, this scale has been employed in research evaluating the psychometric properties of personality instruments in early phases of their development. The rationale underlying this tradition is that "social desirability
responding" (i.e., defensiveness) distorts the "truth" about a person in self report techniques and, therefore, demonstrations of a low correlation of scales with the social desirability scale is considered desirable in establishing their validity.

It has also been of interest to examine how various personality variables interact with defensiveness with regard to a host of other behaviors. For example, persons who obtain both high and low self esteem scores through defensive means could be compared to their non-defensive counterparts in such important arenas as reaction to criticism, failure, and the like.

Empirical support for the importance of distinguishing between groups on the basis of defensiveness derives from several studies, of which a few will be mentioned. In a study examining anxiety in conjunction with defensiveness, Weinberger, Schwartz, and Davidson (1979) demonstrated that subjects scoring low on an anxiety self report measure but high on social desirability evidenced greater physiological and behavioral stress than high anxious individuals in response to sentence completion tasks with sexual and aggressive material, in spite of their verbal (conscious) report of little anxiety. Physiological indices of stress included the number of spontaneous skin responses and EMG activity (though these differences were not reflected in self reports of somatic reactions). Behavioral demonstrations of stress included longer reaction times to the stimuli and greater verbal signs of stress such as stimulus avoidance, denial, rationalization, interference (e.g., changing one's response in midstream), and the like. Moderating effects of
defensiveness have also been reported in a study examining the variable of locus of control with regard to attributions for success and failure and acceptance of negative personality feedback (Evans, 1980).

The purpose of this study is to examine whether and how defensiveness moderates the relationship between self esteem and other aspects of the self concept. The first characteristic of the self concept to be explored is the degree to which various traits are endorsed. In general, given that one pole of a trait continuum reflects more positive characteristics than the other pole, defensively high self esteem individuals ought to, in general, endorse the positive poles of traits more than nondefensively high self esteem individuals. Another question that can be posed is whether certain trait dimensions are more prone to defensive distortion of this nature than others. For example, it may be that defensively high self esteem individuals attribute to themselves greater amounts of such sterling characteristics as courage, strength, and beauty but more genuinely high self esteem individuals may surpass their defensive counterparts in ascribing such traits as efficiency, tolerance, and sympathy to themselves.

Differential trait profiles such as these could be expected because possessing the latter category of traits requires more genuine self esteem than the former. Defensive individuals, those who must closely guard their otherwise tenuous self esteem, may suffer with regard to efficiency, tolerance, sympathy, and the like for reasons of being too preoccupied with themselves to work in an organized fashion or extend themselves to others. They may be too
uncertain of their own worth to let themselves even acknowledge, let alone tolerate, imperfections in their character. By virtue of feeling inadequate, they may doubt that their support could be of help to others, or they might already feel too self deprived to be able to afford giving to others without thinking their own resources would be diminished in the process. The dreaded prospect of the "real me" being "discovered" may simply be too anxiety-provoking to permit intimate social discourse for such an individual. In domains such as these, defensively high self esteem individuals may be similar to low self esteem individuals, while in the areas of strength, courage, and so on, they could exceed persons with low self esteem. Or it may be the degree of ambiguity of an attribute that determines how prone it is to defensive distortion.

In essence, then, there are theoretical reasons to expect that, in order to possess some favorable qualities, genuine self esteem is not required, while other, more subtle indices of self esteem may be more dependent on positive feelings about oneself (Epstein, 1982). Thus, trait profiles of people with higher and lower levels of self esteem could well differ as a function of defensiveness.

However, whether defensively high self esteem individuals are actually the same as low self esteem and different from nondefensively high self esteem individuals in these areas is not ascertainable in a study such as this which relies solely on self report techniques of personality assessment; for whatever response biases are operative in defensive individuals receiving high self esteem scores are also likely to influence the positivity of their trait endorsements.
Within the context of self reported traits, however, the interaction between self esteem and defensiveness may reveal itself in a more subtle way. The defensively high self esteem individuals may indeed attribute more strength, courage, and beauty to themselves than their non-defensive counterparts. However, rather than expect the defensively high self esteem individuals to deny such desirable characteristics as efficiency, sympathy, and tolerance, the non-defensively high self esteem persons may increase their self-ratings over the previous set of traits so as to more nearly equal, or even exceed, that of the defensive group.

More formal properties of the self concept, such as the certainty with which self perceptions are held, and the consistency with which a person believes he or she manifests different personality traits will also be examined as a function of self esteem and defensiveness. Possibly such variables are more immune to the influence of defensiveness than the direct self-attribution of a personality trait.
CHAPTER II

METHOD

Forty-eight undergraduate males and 54 females enrolled in Introductory Psychology at Northwestern University volunteered to participate in the study for experimental credits counting toward their course. Subjects were run in groups of up to three at a time, depending only on sign-up factors. Each subject was seated at his or her own Apple computer console and told that the purpose of this study was to validate a new personality instrument. They were further told that where the experimental questionnaire would entail answering items that would appear on the screen before them, it would be followed by filling out more standard personality inventories of the pencil and paper variety for validation purposes.

With the aid of a list of 555 traits compiled by Anderson (1968), 40 traits were selected for inclusion in the present study (see Appendix A). In the hope of enhancing content validity, an attempt was made to maximize diversity and minimize redundancy of content. Each of the 40 traits was responded to in terms of the following sets of questions. The first set of questions asked subjects to mark that place along a 7-point bipolar trait continuum they felt was most self-descriptive in each of the 40 domains. For half of the traits, the left-most end of the scale (i.e., point "1") contained the negative pole of the trait (as determined by the normative "likeableness", or favorability ratings Anderson included in his 1968 paper), and the
right-hand side (i.e., point "7") contained the positive pole, with the reverse being true for the other half of the traits. These were later recoded so that for all items, higher numbers represented greater positive ratings and lower numbers represented more negative ratings.

Following each of the 40 positivity ratings, subjects were asked to indicate their degree of certainty in arriving at their judgments. Five-point Likert-type scales ranged from "not at all" to "extremely" certain. These were then collapsed across the 40 traits to arrive at a total "certainty" score, with higher numbers representing greater certainty.

Finally, subjects were asked to rate on 5-point Likert-type scales the degree to which they considered themselves consistent in each of the 40 trait domains from day to day or occasion to occasion. These too were summed across the 40 traits; the larger the number, the greater the perceived consistency. This terminated the computer presentation of items.

To assess self esteem, four subscales were extracted from O'Brien and Epstein's (O'Brien, 1980) Self Report Inventory. The subscales, each of which contained ten items, provided measures of general self esteem, competency, likeability and physical appearance (see Appendix B). Items are rated on 5-point Likert-type scales. After reversing negatively worded items, ratings are summed to provide a total score, with higher numbers indicating greater levels of self esteem.

Defensiveness was assessed with the sixteen item subscale
included in O'Brien and Epstein's (O'Brien, 1980) Self Report Inventory. (A listing of these items is included in Appendix B).

Five-point scales were employed here, as well, with higher numbers reflecting greater defensiveness.

Subjects were thanked, thoroughly debriefed, awarded experimental credit, and dismissed.
CHAPTER III

RESULTS

Factor analyses were conducted to reduce the 40 separate traits into fewer and more reliable descriptive units. To arrive at an overall positivity score, the 40 trait ratings were submitted to a principal components analysis. The 37 of those traits that loaded .10 or better on the first factor were retained and added together (i.e., unit weightings) to yield a positivity score for each subject. Table 1 shows the 40 traits in order of magnitude of their loadings. As can be seen from the list, this appears to be a general evaluative factor.

To obtain additional broad traits, oblique and orthogonal factor analyses were carried out on the 40 traits with varying constraints (namely, number of factors in the solution, delta levels for the oblique rotations). As the orthogonal factor analysis with varimax rotation constrained to a 4-factor solution yielded the most interpretable factor structure, it was the one that was retained. The 4 factors collectively account for 36.2% of the variance, the first accounting for 14.9% (eigenvalue of 6.09), the second 8.4% (eigenvalue of 3.44), the third 6.8% (eigenvalue of 2.78), and the fourth 6.2% (with its associated eigenvalue of 2.54). All traits with loadings of .37 or greater were retained as measures of a factor as that seemed to be the best cut-off for maximizing cohesion. A few exceptions to this criterion were made when a trait that loaded
**TABLE 1**

Factor Loadings for the 40 Traits on "Positivity" Dimension from Principal Components Analysis, in Order of Decreasing Magnitude

<table>
<thead>
<tr>
<th>Trait</th>
<th>Loading</th>
<th>Trait</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident</td>
<td>.65</td>
<td>Careful</td>
<td>.37</td>
</tr>
<tr>
<td>Worthy</td>
<td>.61</td>
<td>Deep</td>
<td>.35</td>
</tr>
<tr>
<td>Sophisticated</td>
<td>.59</td>
<td>Independent</td>
<td>.33</td>
</tr>
<tr>
<td>Sociable</td>
<td>.55</td>
<td>Sensitive</td>
<td>.31</td>
</tr>
<tr>
<td>Assertive</td>
<td>.53</td>
<td>Tactful</td>
<td>.31</td>
</tr>
<tr>
<td>Sympathetic</td>
<td>.53</td>
<td>Giving</td>
<td>.28</td>
</tr>
<tr>
<td>Courageous</td>
<td>.52</td>
<td>Honest</td>
<td>.27</td>
</tr>
<tr>
<td>Calm</td>
<td>.51</td>
<td>Not guilty</td>
<td>.26</td>
</tr>
<tr>
<td>Optimistic</td>
<td>.47</td>
<td>Nondefensive</td>
<td>.26</td>
</tr>
<tr>
<td>Strong</td>
<td>.47</td>
<td>Intelligent</td>
<td>.25</td>
</tr>
<tr>
<td>Tolerant</td>
<td>.46</td>
<td>Creative</td>
<td>.25</td>
</tr>
<tr>
<td>Competent</td>
<td>.46</td>
<td>Clever</td>
<td>.24</td>
</tr>
<tr>
<td>Enthusiastic</td>
<td>.46</td>
<td>Efficient</td>
<td>.24</td>
</tr>
<tr>
<td>Attractive</td>
<td>.44</td>
<td>Individualistic</td>
<td>.23</td>
</tr>
<tr>
<td>Dominant</td>
<td>.44</td>
<td>Idealistic</td>
<td>.22</td>
</tr>
<tr>
<td>Flexible</td>
<td>.43</td>
<td>Loveable</td>
<td>.19</td>
</tr>
<tr>
<td>Sentimental</td>
<td>.42</td>
<td>Trusting</td>
<td>.19</td>
</tr>
<tr>
<td>Appreciative</td>
<td>.40</td>
<td>Competitive</td>
<td>.08</td>
</tr>
<tr>
<td>Motivated</td>
<td>.39</td>
<td>Emotional</td>
<td>.06</td>
</tr>
<tr>
<td>Invulnerable</td>
<td>.38</td>
<td>Impulsive</td>
<td>.04</td>
</tr>
</tbody>
</table>

(Note: Only that pole of each trait continuum that is associated with positive loadings is listed here).
.37 or greater was conceptually inconsistent with the others on that factor.

Based on the nature of the traits loading highest on the first factor, it was called "Self-Assurance" (see Table 2). The items with the highest loadings on this factor, in descending order, are confident, dominant, assertive, worthy, invulnerable, strong, sophisticated, competent, courageous, attractive, and independent. The second factor was labelled "Accepting of Others." In descending order, the items that loaded on this trait are tolerant, flexible, sympathetic, giving, trusting, calm, sensitive and appreciative. The third factor was labelled "Emotional Spontaneity," for the items that loaded on this trait are, in descending order, emotional, sentimental, sensitive, enthusiastic, sympathetic, and sociable. On this third factor, although attractive had received a loading of .37 and sophisticated a loading of .43, both meeting the criterion adopted for this factor analysis, they were omitted due to their conceptual inconsistency with the other emotional-spontaneity-related traits. Finally an "Artistic-Alienated" factor emerged with loadings, in descending order, for clever, creative, but suspicious and unloveable, and sensitive.

Since subjects' gender, a variable included in the factor analysis, did not load markedly on any of these factors (the greatest loading being .29 on emotionality), factor scores were calculated alike for all subjects. Unit-weighting, rather than weighting by factor-score coefficients, was employed. Because of this, in conjunction with the fact that some traits loaded above .37 on more than
TABLE 2

Factor Loadings of Traits (Minimum Value of .37) on 4-Factor, Orthogonal Solution with Varimax Rotation in Order of Decreasing Magnitude

<table>
<thead>
<tr>
<th>Trait</th>
<th>Factor Loading</th>
<th>Trait</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1: Self-Assurance</strong></td>
<td></td>
<td><strong>Factor 2: Acceptance-of-Others</strong></td>
<td></td>
</tr>
<tr>
<td>Confident</td>
<td>.69</td>
<td>Tolerant</td>
<td>.77</td>
</tr>
<tr>
<td>Dominant</td>
<td>.64</td>
<td>Flexible</td>
<td>.70</td>
</tr>
<tr>
<td>Assertive</td>
<td>.56</td>
<td>Sympathetic</td>
<td>.60</td>
</tr>
<tr>
<td>Worthy</td>
<td>.56</td>
<td>Giving</td>
<td>.56</td>
</tr>
<tr>
<td>Invulnerable</td>
<td>.52</td>
<td>Trusting</td>
<td>.51</td>
</tr>
<tr>
<td>Strong</td>
<td>.49</td>
<td>Calm</td>
<td>.48</td>
</tr>
<tr>
<td>Sophisticated</td>
<td>.48</td>
<td>Sensitive</td>
<td>.43</td>
</tr>
<tr>
<td>Competent</td>
<td>.47</td>
<td>Suspicious</td>
<td>.43</td>
</tr>
<tr>
<td>Courageous</td>
<td>.43</td>
<td>Unloveable</td>
<td>.39</td>
</tr>
<tr>
<td>Attractive</td>
<td>.43</td>
<td>Sensitive</td>
<td>.37</td>
</tr>
<tr>
<td>Independent</td>
<td>.39</td>
<td>Appreciative</td>
<td>.37</td>
</tr>
<tr>
<td><strong>Factor 3: Emotional Spontaneity</strong></td>
<td></td>
<td><strong>Factor 4: Artistic-Alienated</strong></td>
<td></td>
</tr>
<tr>
<td>Emotional</td>
<td>.64</td>
<td>Clever</td>
<td>.59</td>
</tr>
<tr>
<td>Sentimental</td>
<td>.60</td>
<td>Creative</td>
<td>.58</td>
</tr>
<tr>
<td>Sensitive</td>
<td>.49</td>
<td>Suspicious</td>
<td>.47</td>
</tr>
<tr>
<td>Enthusiastic</td>
<td>.48</td>
<td>Unloveable</td>
<td>.38</td>
</tr>
<tr>
<td>Sympathetic</td>
<td>.42</td>
<td>Sensitive</td>
<td>.38</td>
</tr>
<tr>
<td>Sociable</td>
<td>.39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Note: Only that pole of each trait continuum that is associated with positive loadings is listed above).
one factor, the resultant subscale scores are not orthogonal. (The correlation between Self-Assurance and Acceptance-of-Others is .20, \( p < .02 \); Self-Assurance and Emotional Spontaneity = .33, \( p < .001 \); Acceptance-of-Others and Emotional Spontaneity = .42, \( p < .001 \); Emotional Spontaneity and Artistic-Alienated = .16, \( p < .05 \). The correlations of Artistic-Alienated with Self-Assurance and with Acceptance-of-Others were not significantly greater than zero).

Fifteen hierarchical regression analyses were performed, including sex as a dummy variable. The independent variables were sex, self esteem, and defensiveness. A saturated model was employed. The fifteen dependent variables were: the Positivity factor, the total of the consistency ratings across the original 40 traits, the total of certainty ratings across the original 40 traits, each of the four factor scores (also to be referred to as subscales), plus the total consistency ratings for the same 4 factors, and similarly for their certainty ratings. Since the main effect of sex was only significant on the Emotional Spontaneity subscale, the same regression analyses were repeated removing sex from the equation. (Sex had accounted for so little of the variance, however, that the pattern of significance for self esteem and defensiveness remained unchanged once gender was omitted.)

The pattern of significance to be listed below proved to be the same whether the main effect of self esteem or defensiveness was entered first in the fifteen hierarchical regression equations, therefore only the former will be reported. This is not surprising in light of the absence of a systematic linear relationship between the
two predictor variables, self esteem and defensiveness, which correlate .10 (n.s.). (The low correlation between self esteem and defensiveness was, of course, unanticipated, given that both variables were expected to share a sizeable positivity component.) In fact, because of this low intercorrelation between predictor variables, the pattern of results in the hierarchical regression analyses and the zero-order correlations are virtually identical and thus it would be just as informative to examine the zero-order correlations for understanding the main effects. Before doing so, however, the regression analyses do need to be referred to for ascertaining the multiplicative (interactive) effect of self esteem and defensiveness.

The interaction term in the regression analyses was significant only on the Emotional Spontaneity subscale (see Table 3). In order to examine more closely the nature of the self esteem by defensiveness interaction on Emotional Spontaneity, several unweighted-means analyses of variance were performed, retaining sex as an independent variable. Whether the self esteem distribution was divided at the median or into tertiles, quartiles or quintiles, and defensiveness divided at the median or into tertiles, the self esteem by defensiveness interaction was no longer significant. Of course the sex main effect remained intact, and, as the zero-order correlation would suggest ($r = .22, p < .015$), females report greater Emotional Spontaneity than males (mean for males = 4.99, females = 5.33). When separate analyses of variance were performed on males and females, neither of the main effects of self esteem or defensiveness were significant, nor was their interaction. (The means for all dependent variables
### TABLE 3

Hierarchical Regression Analyses with Self-Esteem Entered First, Followed by Defensiveness, and Finally the Interaction of Self Esteem by Defensiveness

<table>
<thead>
<tr>
<th>Criterion Variables</th>
<th>R^2 change: Self Esteem</th>
<th>R^2 change: Defensiveness</th>
<th>R^2 change: Self Esteem by Defensiveness</th>
<th>Multiple R (Final equation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Positivity</td>
<td>.43***</td>
<td>.05**</td>
<td>.01</td>
<td>.70***</td>
</tr>
<tr>
<td>Total Certainty</td>
<td>.08**</td>
<td>.00</td>
<td>.00</td>
<td>.28*</td>
</tr>
<tr>
<td>Total Consistency</td>
<td>.10***</td>
<td>.06*</td>
<td>.00</td>
<td>.40***</td>
</tr>
<tr>
<td>Self-Assurance</td>
<td>.58***</td>
<td>.00</td>
<td>.00</td>
<td>.77***</td>
</tr>
<tr>
<td>Acceptance-of-Others</td>
<td>.05*</td>
<td>.12***</td>
<td>.01</td>
<td>.43***</td>
</tr>
<tr>
<td>Emotional Spontaneity</td>
<td>.08**</td>
<td>.00</td>
<td>.05*</td>
<td>.36**</td>
</tr>
<tr>
<td>Artistic-Alienated</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.06</td>
</tr>
<tr>
<td>Certainty of Self-Assurance</td>
<td>.11***</td>
<td>.00</td>
<td>.00</td>
<td>.33**</td>
</tr>
<tr>
<td>Certainty of Acceptance-of-Others</td>
<td>.00</td>
<td>.01</td>
<td>.00</td>
<td>.09</td>
</tr>
<tr>
<td>Certainty of Emotional Spontaneity</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.07</td>
</tr>
<tr>
<td>Certainty of Artistic-Alienated</td>
<td>.00</td>
<td>.01</td>
<td>.01</td>
<td>.12</td>
</tr>
<tr>
<td>Consistency of Self Assurance</td>
<td>.17***</td>
<td>.02</td>
<td>.00</td>
<td>.45***</td>
</tr>
<tr>
<td>Consistency of Acceptance-of-Others</td>
<td>.00</td>
<td>.07**</td>
<td>.00</td>
<td>.28</td>
</tr>
<tr>
<td>Consistency of Emotional Spontaneity</td>
<td>.04</td>
<td>.01</td>
<td>.00</td>
<td>.22</td>
</tr>
<tr>
<td>Consistency of Artistic-Alienated</td>
<td>.08**</td>
<td>.00</td>
<td>.01</td>
<td>.29*</td>
</tr>
</tbody>
</table>

* _p < .05_  
** _p < .01_  
*** _p < .001_
based on tertile splits of the independent variables can be seen in Appendix C.)

To examine more closely the means of particular interest in this study, individuals scoring in the top and bottom tertiles of defensiveness who were also in the top tertile of the self esteem distribution were compared on the 4 master trait scales. On none of these factors was the high self esteem, high defensive group significantly different from the high self esteem, low defensive individuals (t for Self-Assurance = -1.09; t for Acceptance-of-Others = 1.25, t for Emotional Spontaneity = -1.12 and for Artistic-Alienated, -.16, all with 19 df).

The final assessment of defensiveness as a moderator variable was a repeated measures analysis of variance with unequal n on the Self-Assurance and Acceptance-of-Others Scales using only those subjects scoring in the top or bottom thirds of the defensiveness distribution and in the top third of the self esteem distribution. In other words, a defensiveness by "type" of trait interaction was expected for high self esteem participants. The F ratio was 3.86 for 1 and 19 degrees of freedom, only marginally significant (p < .06). As can be seen from the relevant means in Appendix C, the tendency is for the high self esteem/high defensive group to rate Self-Assurance lower than the high self esteem/low defensive group, but higher than them on the Acceptance-of-Others Scale. The direction of these differences is counter to expectation if one assumes that the defensiveness scale indeed measures defensiveness.
### TABLE 4

Correlations between Predictor and Criterion Variables  
(Based on an N of 102)

<table>
<thead>
<tr>
<th>Criterion Variables</th>
<th>Self Esteem</th>
<th>Defensiveness</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Positivity</td>
<td>.66***</td>
<td>.28**</td>
<td>.03</td>
</tr>
<tr>
<td>Total Certainty</td>
<td>.28**</td>
<td>.01</td>
<td>.08</td>
</tr>
<tr>
<td>Total Consistency</td>
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<td>.27**</td>
<td>.06</td>
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<tr>
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<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>Acceptance-of-Others</td>
<td>.23**</td>
<td>.37***</td>
<td>.00</td>
</tr>
<tr>
<td>Emotional Spontaneity</td>
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<td>.05</td>
<td>.22*</td>
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<tr>
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<tr>
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<td>-.01</td>
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<tr>
<td>Consistency of Artistic-Alienated</td>
<td>.28**</td>
<td>.06</td>
<td>.07</td>
</tr>
</tbody>
</table>

* _p < .05  
** _p < .01  
*** _p < .001
Turning to the main effects, the correlations between the predictor and criterion variables are displayed in Table 4. Self esteem correlated significantly with, in descending order, the Self Assurance Scale, the Overall Positivity factor, Self-perceived Consistency of Self Assurance, Certainty about Self-Assurance, the total Consistency score, the Emotional Spontaneity Scale, the total Certainty score, Self-perceived Consistency of Artistic-Alienation, the Acceptance-of-Others Scale, and Self-perceived Consistency of Emotional Spontaneity. Defensiveness correlated significantly with the Acceptance-of-Others Scale, the Overall Positivity factor, the total Consistency score, Self-perceived Consistency of Acceptance-of-Others, and Self-perceived Consistency of Self-Assurance, in order from the largest to smallest in magnitude. Sex correlated reliably only with Emotional Spontaneity, as already mentioned, and with self-reported consistency in the domain of Acceptance-of-Others, such that females perceived themselves as more consistent in their level of Acceptance-of-Others than do males.
CHAPTER IV
DISCUSSION

The primary purpose of this study was to examine the importance of defensiveness as a moderator variable for self esteem on the self ascription of various traits. The hierarchical regression analyses did not demonstrate support for this contention, as the interaction between self esteem and defensiveness did not add substantially to the predictability of those measures over that of the main effects of self esteem and defensiveness. Even in the one case where the regression equation did reveal a significant additional contribution from the interaction term, namely on the Emotional Spontaneity Scale, attempts to identify the nature of that interaction through simple-effects tests were thwarted. (Recall that in the process of transforming self esteem and defensiveness from continuous to discrete distributions so as to perform analyses of variance, the interaction term was no longer significant.) From further t-tests which compared only the two groups of central interest to this study (those individuals with high self esteem scores accompanied by high versus low defensiveness scores), there was no evidence that they are qualitatively different in regard to their reported self perceptions in any of the four master trait domains.

It would be premature to abandon the notion that defensiveness is an important moderator variable before conducting additional studies that obtain other kinds of measures of traits. Given the
limitations inherent in self report, future research undertaken to explore the moderating role of defensiveness would be well advised to introduce external trait ratings or behavioral observations by such judges as friends, family members, acquaintances, or others, including the psychology experimenter. In other words, it may be that the interaction of import is that between the self esteem and defensiveness of the target population and observers' trait judgments of those individuals. Self ratings may simply be too contaminated for clear patterns to emerge.

One study within the domain of self esteem research which did not rely solely upon self report techniques, for example, was able to find a self esteem by defensiveness interaction when behavioral measures were employed. In his doctoral dissertation, Alexander (1980) found that individuals scoring high on both a self esteem and social desirability scale showed greater physiological reactivity as measured by galvanic skin response when responding favorably to the self esteem items in comparison to high self esteem but low defensiveness respondents.

For that matter, utilization of standard personality inventories, even though also of the self report variety, might uncover the moderating effects of defensiveness. For one thing, they may provide a less contaminated index of traits, as they are less direct than merely placing oneself along a trait dimension. To say whether "I like to go to parties" or "I prefer a quiet evening at home reading a book" (and the typical trait questionnaire consists of numerous such items), is quite different from saying "I am an extravert" or
"I am an introvert". If nothing else, administering the standard self report inventories would provide assurance that a more uniform definition of the traits had been applied to all participants, even though of the researcher's and not the subject's making. Single trait words leave much open to the individual's interpretation. For example, where one individual means his or her feelings are easily hurt when endorsing "sensitive", another individual may mean s/he is keenly aware of other people's feelings. Furthermore, making multiple self attributions on the more molecular items from a single, narrowly defined trait domain, as are solicited in standard trait inventories, simply may not incite the same degree of defensiveness as making a single rating on the trait in general, as was solicited in this study, not to mention its certain associated gain in reliability.

Thus far, discussion of the evidence bearing on the importance (or lack thereof) of the defensiveness/self esteem interaction has been confined to within any given master trait. Recall the more subtle way in which the role of defensiveness as a moderator variable was suggested to reveal itself within the context of self report. This involved between-trait comparisons (particularly for the individuals in the top third of the self esteem distribution with high versus low defensiveness), whereby it was thought that traits more superfluous to genuine self esteem would be endorsed to a greater extent by the defensive group, but that advantage would at least be attenuated, or maybe even removed or reversed, for those traits requiring genuine self esteem.

It just so happened that the empirically-derived factor struc-
ture of the 40 traits employed in this study (the first two factors in particular) lent themselves nicely to this logic. The Self Assurance (or appearance thereof) factor included traits that one would at least expect a defensive individual to exhibit overtly—in a word, they should "wear" their self assurance outwardly in compensation for an otherwise tenuous self esteem. Persons with truly good feelings about themselves, on the other hand, need not "advertise" their greatness.

The situation is quite the reverse for being tolerant of others, trusting and giving, flexible and calm, the traits which loaded on the Acceptance-of-Others factor. Here, a person achieving self esteem through defensive means would likely be incapable of such magnanimousness, while it would come as a natural extension of veritable positive regard for oneself. This reasoning is consistent with the theorizing of Horney (1937), Adler (1921), and Fromm (1939) and the empirical evidence reported by Berger (1952) in a correlational study and Sheerer (1949) in a clinical study, all of which attest to the presence of a relationship between acceptance of self and acceptance of others.

For the reader's convenience, the four means critical to this more specific hypothesis will be retrieved from Appendix C. On the traits representing manifest signs of self esteem (i.e., the Self-Assurance Scale), the high self esteem/high defensive group had a mean of 5.93, and the high self esteem/low defensive group a mean of 6.19. On the Acceptance-of-Others Scale, the former group received a mean score of 5.21 and the latter a mean of 4.73. (These are based on
7-point scales with higher numbers representing more positive characteristics.) As the means illustrate, then, no pattern of the sort expected (that is, if the defensiveness scale is a valid index of the construct) emerged. If anything, the pattern was the reverse, though at only a marginal level of significance (recall the $F$ for the interaction term was $3.86, \text{df} = 1,19; p < .06$).

Lack of support for a general hypothesis when tested with a particular measure may, of course, reveal more about the limitations in the measure than in the hypothesis. Such a methodological limitation seems all the more likely responsible for the lack of findings in this study, as it is self-evident from the clinical phenomenon of delusions of grandeur which accompany manic disorders that defensiveness is a predominant psychological factor in accounting for the alleged self esteem. The pattern of results concerning defensiveness as a main effect may help elucidate reasons for these null findings, or at least suggest possible directions for future modifications to take in order to more effectively assess the moderating effect of defensiveness.

In ensuing discussions of both the defensiveness and self esteem main effects, their zero-order correlations with the criterion variables (as per Table 4) are just as informative, from the standpoint of interpretation, as the results from the regression analyses, given the low correlation between those two predictor variables. (Recall that the correlation between self esteem and defensiveness was $0.10, \text{df} = 100$, n.s.). Beginning with the main effect of defensiveness, the presence of a reliable zero-order correlation between
it and Acceptance-of-Others and the lack of the same with Self-Assurance and Emotional Spontaneity (see Table 6) is somewhat puzzling, though its relationship to the Overall Positivity Scale is not. One would have at the very least expected a positive relationship with Self Assurance for reasons already discussed.

This pattern of correlations with defensiveness, taken in conjunction with finding that the direction of differences between the means of the more restricted (but theoretically pivotal) groups of high self esteem/low defensiveness and high self esteem/high defensiveness on Self-Assurance versus Acceptance-of-Others ran counter to prediction, raises an interesting possibility. Reasoning by induction would lead to the question of what the "defensiveness" instrument must be measuring to yield such a pattern of results. What might a greater amount of acceptance of others and a lesser amount of self-assurance represent? It seems reminiscent of a person who is more other-oriented, rather than self-oriented--in a word, a person whose primary aim is to secure the approval of others.¹

It certainly would be sensible for an individual motivated to obtain the approval of others to be very accepting of them. Furthermore, outward displays of assurance, at least in excess, would likely only alienate those very "others" whose approval is so sought. An individual in constant pursuit of others' acceptance would make great strides toward that goal if s/he were particularly aware of what pleases others. Is there any empirical evidence that people do in general prefer an accepting to a self assured individual, or is this simply speculation? It turns out, by taking the "likeability" scores
that Anderson's (1968) normative data provides, the mean rating is indeed lower (i.e., not as likeable) for the cluster of traits that loaded on the Self Assurance factor in this study than that cluster that had fallen on the Acceptance-of-Others factor.²

In a sense, then, one could reformulate this study as an attempt at identifying the construct being measured by "defensiveness" scales. Given that individuals scoring high on whatever it is that the scale measures show a pattern of means whereby the rating is higher for that set of characteristics that are normatively preferred and lower for the less preferred cluster, the support favors the need-for-approval construct. However, as this support is marginal (recall \( p < .06 \)), the issue becomes how available methodology might be improved upon so that future studies evaluating construct validity are designed, a priori, specifically to put one interpretation of the scale in contraposition to the other. How might this be accomplished?

If one considers the essence of the distinction between the defensiveness and need-for-approval constructs to be that the former is concerned with masking the truth about oneself primarily for his/her own benefit while the latter primarily for the benefit of others, then their discriminant validity should be reflected in differences in overt behavior and covert thought. That is, need-for-approval should be associated with difficulty performing anti-social acts, while defensiveness should be associated with difficulty even acknowledging anti-social impulses. For example, to deny that "I sometimes feel irritated when people ask favors of me" would reflect
defensiveness, while to claim that "I always help people who ask for it" could actually be an accurate indication of one's need for approval without reflecting defensive distortion if that same person can privately acknowledge an impulse to the contrary from time to time. In other words, approval-seeking individuals may indeed engage in pro-social behavior with great regularity so as to maximize the likelihood that their much cherished acceptance by others is obtained.

Separating items into two subscales, based on this distinction, from such instruments as Crowne and Marlowe's Social Desirability Scale (the presently used defensiveness measure was not long enough to have a sufficient number of either type of item in pure form) would afford the creation of four groups of subjects: high defensive/high need-for-approval, high defensive/low need-for-approval, and low defensive/low need-for-approval. (Of course, the two subscales may be correlated with each other, but this is an empirical question, and even so, those subsets of subjects, however small, that are high on one and low on the other subscale would serve as critical test-cases). Then one could even return to a study of this sort, this time with more firm a priori predictions--the high defensive/high need-for-approval individual ought to score high on both the Manifest-Self-Assurance and Acceptance-of-Others subscales, the high defensive/low need-for-approval individual should report greater degrees of self assurance but perhaps less other-directedness, and so on. Add to these direct self ratings of traits the more standard (somewhat less direct) personality inventories, and especially ratings by outside observers, as earlier suggested, and the study should be
more powerful still.

While the foregoing covers those aspects central to the original purpose of this study, findings concerning the pattern of correlations for the main effect of self esteem are of general interest. Recall that self esteem correlated reliably (and at least in the case of the Positivity and Self Assurance subscales the magnitude was quite high) with all the major subscales. (Actually, the only exception to this was that of the "Artistic-Alienated" factor. Since that scale consists of a mixture of positive and negative characteristics, it comes as no great surprise that it would lack a systematic linear relationship to self esteem). It thus appears as though there is a highly general positivity effect cutting across content domains, which is not inconsistent with the definition of people with high self esteem as those who perceive their attributes more favorably than those who evaluate themselves negatively. In addition, it is worth noting that the higher a person's self esteem, the more spontaneous his or her emotional expressiveness. Although the correlation is not of great magnitude, it does make sense that the low self esteem individual would be more likely to inhibit the expression of emotions, either as one of the manifestations of self doubt in general or out of fear of the repercussions.

Interestingly, regarding self-assurance in particular, not only is there a positive relationship between self assurance and self esteem but there is also a reliable relationship of the certainty and perceived consistency of self assurance with self esteem. This makes a coherent picture of a person that scores high in self esteem
actually perceiving him or herself as more self assured, is certain about it, and thinks s/he is consistent in that regard. This overall pattern of self esteem findings provides a source of validation for the self esteem scale (the Self Report Inventory). In fact, when the correlation of .76 between self esteem and the Self Assurance Scale is corrected for unreliability in both of the measures (coefficient alpha for the measure of self esteem is .92 and for the Self Assurance Scale is .81) their correlation is estimated to be .88. As such, with the Self Assurance Scale functioning basically as a parallel form of the "Self Report Inventory", it could well replace that measure of self esteem in studies where subject participation time is at a premium, as it contains roughly a fourth of the number of items in the Self Report Inventory. Even with the inclusion of questions concerning the certainty and consistency of self perceptions of traits in the Self Assurance Scale, while the number of items is slightly higher, the redundance in the format presented to subjects makes for greater ease and speed of completion.

As the present portrait (based on the group of subjects' self-portraits at any rate) of an individual scoring high in self esteem would suggest, positive self regard provides one with the requisite internal confidence to be able to appear self assured (e.g., to be able to be assertive, dominant, courageous, less vulnerable, more independent, and so on), to be somewhat more interpersonally accepting (e.g., tolerant and flexible, sensitive and sympathetic, and the like), and to be spontaneous in expressing emotions (e.g., to be enthusiastic, sociable, sentimental, sympathetic).
Conclusion

The null findings in this study concerning defensiveness as a moderator variable suggests that the widespread employment of defensiveness scales in personality research may not be necessary, at least in cases where the dependent variables are assessed through self report. Perhaps if performance measures, or other behavioral indices, were to replace self-reported claims as dependent variables, the moderating effect of defensiveness would emerge, thereby warranting the administration of defensiveness scales. It may also be that if independent variables (self esteem and defensiveness in this case) were measured with other than self-report techniques (e.g., non-verbal measures or behavioral observations), their interaction would be revealed even if the dependent variables were obtained through self report.
The reader may recognize the resemblance to a distinction already made in the literature inspired by the advent of the Social Desirability Scale (Crowne & Marlowe, 1960) between defensiveness and need for approval. Sometimes the scale is employed as a measure of one of the constructs, sometimes the other. And indeed, there is evidence in support of the validity of either conceptualization. This makes one wonder if there are not two independent subscales contained in the Social Desirability Scale. It was decided that the pertinent literature would not be reviewed here, however, (though the reader may be referred especially to Dixon, 1970, but also Crowne & Strickland, 1961; Marlowe, 1962; Strickland & Crowne, 1962, for validation of the need for approval interpretation of the scale, and Jacobson & Ford, 1966; Millham, 1972; Millham, 1974; for the defensiveness interpretation) since the studies that bear on the validity of the Social Desirability Scale as a measure of defensiveness seem to be referring to a different phenomenon (at least as their operationalization of the construct would suggest). The distinction they are making (see especially Millham, 1974) is between one who seeks social approval versus one who avoids social disapproval, not versus one who seeks "self-approval", if you will. And it is in this latter sense of need for self approval that defensiveness is being thought of here.
Of the 11 traits that loaded on the Self-Assurance factor, only 7 of them were present verbatim in Anderson's (1968) list. The average of those 7 traits' likeableness ratings is 384.4. This was calculated by taking the positive pole of each of the trait dimensions present on that factor in this study, finding their corresponding likeability ratings from Anderson's data, and computing their average. Anderson's likeability scores consist of the sum of 100 subjects' likeability ratings along 7-point scales ranging from 0 to 6. Of the 8 traits loading on the Acceptance-of-Others factor, 6 were present verbatim in Anderson's data; their mean rating is 445.5.
REFERENCES


Epstein, S. What is self esteem and how can it be measured? Paper presented at the American Psychological Association Convention, 1982.


Sheerer, E. An analysis of the relationship between acceptance of and respect for the self and acceptance of and respect for others in 10 counseling cases. *Journal of Consulting Psychology*, 1949, 13, 169-175.


APPENDICES
APPENDIX A

List of 40 Traits

On each of the 40 trait pairs, subjects were asked to rate along 7-point scales the extent to which each was descriptive of them.

Example:

1  2  3  4  5  6  7
extremely dependent  equally dependent & independent  extremely independent

Along the following 5-point scale, subjects were asked to rate the degree to which they were certain of the above rating.

1  2  3  4  5
not at all certain  moderately certain  extremely certain

And finally, along the following 5-point scale, subjects reported the degree to which their behavior is consistent in each of the domains from day to day or occasion to occasion.

1  2  3  4  5
highly consistent  moderately consistent  highly variable
Note: the negative pole is listed on the left, the positive pole is listed on the right

1. worthless/worthy
2. unattractive/attractive
3. unsophisticated/sophisticated
4. unmotivated/motivated
5. unlovable/lovable
6. uncreative/creative
7. careless/careful
8. insensitive/sensitive
9. guilty/nonguilty
10. competitive/uncompetitive
11. dependent/independent
12. dishonest/honest
13. unconfident/confident
14. unassertive/assertive
15. indifferent/enthusiastic
16. unintelligent/intelligent
17. cowardly/courageous
18. tense/calm
19. incompetent/competent
20. unsympathetic/sympathetic
21. conforming/individualistic
22. not clever/clever
23. suspicious/trusting
24. stubborn/flexible
25. intolerant/tolerant
26. unappreciative/appreciative
27. vulnerable/invulnerable
28. inefficient/efficient
29. defensive/nondefensive
30. superficial/deep
31. unemotional/emotional
32. unsentimental/sentimental
33. impulsive/nonimpulsive
34. pessimistic/optimistic
35. weak/strong
36. submissive/dominant
37. pragmatic/idealistic
38. unsociable/sociable
39. demanding/giving
40. tactless/tactful
APPENDIX B

Subscales Extracted from the O'Brien and Epstein Self Report Inventory

For the items marked with an asterisk below, the following 5-point 'frequency' scale was provided.

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<tr>
<td>almost never</td>
<td>seldom or rarely</td>
<td>sometimes</td>
<td>fairly often</td>
<td>very often</td>
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For all other items, a 5-point 'degree of endorsement' scale was provided.

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<tr>
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<td>mainly false</td>
<td>partly true and partly false</td>
<td>mainly true</td>
<td>completely true</td>
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</table>
Competence

Comp+

6. I am usually able to demonstrate my competence when I am being evaluated.
10. I feel that I possess superior skills or abilities in at least some areas.
18. I am usually able to learn new things very quickly.
*30. How often do you expect to perform well in situations that require a lot of ability?
*40. How often do you feel that you are a highly competent and resourceful person?
*41. How often do you feel that you can do well at almost anything you try?

Comp-

*36. How often do you have trouble learning difficult new tasks?
*50. Have you ever felt that you lack the intelligence needed to succeed in certain types of interesting work?
*53. How often do you feel that you are not as intelligent as you would like to be?
*55. How often do you approach new tasks or jobs with pessimism, with the expectation that you will fail?

Likeability

Like+

2. I am very well liked and popular.
14. My friends almost always make sure to include me in their plans.
24. People nearly always enjoy spending time with me.
*46. How often do you feel certain that people you meet will like you?
*48. When you go out with someone for the first time, how often do you feel that you are well-liked?
*51. How often do you feel that you are one of the more popular and likeable members of your social group?
Like-

7. I sometimes feel disappointed or rejected because my friends haven't included me in their plans.
17. On occasion I have avoided dating situations because I feared rejection.
*37. When you are meeting a person for the first time, do you ever think that the person might not like you?
*47. Does it ever seem to you that some people dislike you intensely, that they "can't stand" you?

Physical Appearance

PA+

1. I nearly always feel that I am physically attractive.
15. I usually feel that I am better looking than most people.
20. I am usually very pleased and satisfied with the way I look.
*31. How often do you feel that others are attracted to you because of the way you look?
*38. How often are you complimented on your physical appearance?

PA-

8. There are times when I doubt my sexual attractiveness.
9. There have been times when I felt ashamed of my physical appearance.
19. I have occasionally felt that others were repelled or "put off" by my physical appearance.
*33. How often do you wish that you were more physically attractive?
*49. How often do you feel unattractive when you see yourself naked?

General Self Esteem

Gen SE+

27. All in all, I would evaluate myself as a relatively successful person at this stage in my life.
29. I nearly always have a highly positive opinion of myself.
*34. How often do you feel that you are a very important and significant person?
*39. How often do you feel really good about yourself?
*43. How often do you feel highly satisfied with the future you see for yourself?
SE-5. I occasionally have doubts about whether I will succeed in life.
12. I sometimes have a poor opinion of myself.
22. I put myself down too much.
*32. How often do you feel dissatisfied with yourself?
*45. How often do you feel lacking in self confidence?

Defensiveness
D+

3. No matter what the pressure, no one could ever force me to hurt another human being.
13. The thought of shoplifting has never crossed my mind.
16. I have never felt that I was punished unfairly.
23. It hardly ever matters to me whether I win or lose in a game.
26. I have almost never felt the urge to tell someone off.
*44. How often do you gladly accept criticism when it is deserved?

D-

4. On occasion, I have tried to find a way to avoid unpleasant responsibilities.
11. There have been times when I have felt like getting even with somebody for something they had done to me.
21. There have been times when I intensely disliked someone.
25. There have been times when I have lied in order to get out of something.
28. There have been occasions when I took advantage of someone.
*35. Do you ever "stretch the truth" and say things that aren't completely true?
*42. Do you ever gossip?
*52. Have you ever felt irritated when someone asked you for a favor?
*54. Have you ever felt jealous of the good fortune of others?
*56. How often is it hard for you to admit it when you have made a mistake?
APPENDIX C

Means on Dependent Variables for Tertile Division of Self Esteem and Defensiveness Distributions
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Note: Total Positivity, Self-Assurance, Acceptance-of-Others, Emotional Spontaneity, and Artistic-Alienated are based on 7-point scales. All Dependent Variables involving certainty and consistency of self ratings are on 5-point scales.