INFORMATION TO USERS

This material was produced from a microfilm copy of the original document. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the original submitted.

The following explanation of techniques is provided to help you understand markings or patterns which may appear on this reproduction.

1. The sign or “target” for pages apparently lacking from the document photographed is “Missing Page(s)”. If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting thru an image and duplicating adjacent pages to insure you complete continuity.

2. When an image on the film is obliterated with a large round black mark, it is an indication that the photographer suspected that the copy may have moved during exposure and thus cause a blurred image. You will find a good image of the page in the adjacent frame.

3. When a map, drawing or chart, etc., was part of the material being photographed the photographer followed a definite method in “sectioning” the material. It is customary to begin photoing at the upper left hand corner of a large sheet and to continue photoing from left to right in equal sections with a small overlap. If necessary, sectioning is continued again — beginning below the first row and continuing on until complete.

4. The majority of users indicate that the textual content is of greatest value, however, a somewhat higher quality reproduction could be made from “photographs” if essential to the understanding of the dissertation. Silver prints of “photographs” may be ordered at additional charge by writing the Order Department, giving the catalog number, title, author and specific pages you wish reproduced.

6. PLEASE NOTE: Some pages may have indistinct print. Filmed as received.

University Microfilms International
300 North Zeeb Road
Ann Arbor, Michigan 48106 USA
St. John's Road, Tyler's Green
High Wycombe, Bucks, England HP10 8HR
JOHNSON, Patricia Ann, 1945-
The relationships of trait anxiety, personality characteristics and values to assertiveness in the adult woman.
The Ohio State University, Ph.D., 1976
Psychology, clinical

Xerox University Microfilms, Ann Arbor, Michigan 48106
THE RELATIONSHIPS OF
TRAIT ANXIETY, PERSONALITY CHARACTERISTICS AND VALUES
TO ASSERTIVENESS IN THE ADULT WOMAN

DISSERTATION

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

By

Patricia Ann Johnson, B.A., M.A.

The Ohio State University
1976

Reading Committee:
Dr. Don M. Dell
Dr. Frank Fletcher
Dr. Lyle Schmidt

Approved by:

Adviser
Department of Counseling Psychology
ACKNOWLEDGMENTS

The time has finally come and there are so many people who have helped along the way that I can't begin to mention them all. Somewhat removed from the scene but close in spirit is my family to whom I give my thanks and my love; they always trusted that I could make it.

I'd like to thank Dr. Nancy Betz for the hours of her own time which she gave to help me understand the statistics for this study. Many thanks go to my proposal committee and especially my adviser, Dr. Don Dell, for the support, interest and suggestions which helped me avoid possible disasters.

Most of all I thank Marsha Buckalew who was always there to be my hands and feet when I needed an extra set and surrounded me with encouragement, support and love throughout the entire process of doing my dissertation.
VITA

<table>
<thead>
<tr>
<th>Year(s)</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 28, 1945</td>
<td>Born - Aberdeen, South Dakota</td>
</tr>
<tr>
<td>1967</td>
<td>B.A., Ohio Wesleyan University, Delaware, Ohio</td>
</tr>
<tr>
<td>1968</td>
<td>M.A., Middleburg Graduate School of German in Germany, Middleburg, Vermont</td>
</tr>
<tr>
<td>1972-1974</td>
<td>Student Personnel Assistant, The Ohio State University, Columbus, Ohio</td>
</tr>
<tr>
<td>1974</td>
<td>M.A., The Ohio State University, Columbus, Ohio</td>
</tr>
<tr>
<td>1974-1975</td>
<td>Intern, Counseling and Consultation Services, The Ohio State University, Columbus, Ohio</td>
</tr>
<tr>
<td>1975-1976</td>
<td>Graduate Teaching Associate, Department of Psychology, The Ohio State University, Columbus, Ohio</td>
</tr>
</tbody>
</table>

FIELD OF STUDY

Major Field: Counseling Psychology
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>11</td>
</tr>
<tr>
<td>VITA</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vi</td>
</tr>
<tr>
<td>Chapter</td>
<td></td>
</tr>
<tr>
<td>I. PRESENTATION OF THE PROBLEM</td>
<td>1</td>
</tr>
<tr>
<td>II. SURVEY OF THE LITERATURE</td>
<td>6</td>
</tr>
<tr>
<td>Assertive Behavior</td>
<td>6</td>
</tr>
<tr>
<td>Correlates of Assertiveness</td>
<td>13</td>
</tr>
<tr>
<td>Correlation of Values with Behavior</td>
<td>19</td>
</tr>
<tr>
<td>III. METHODOLOGY</td>
<td>27</td>
</tr>
<tr>
<td>Purpose</td>
<td>27</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>27</td>
</tr>
<tr>
<td>Subjects</td>
<td>28</td>
</tr>
<tr>
<td>Instrumentation</td>
<td>29</td>
</tr>
<tr>
<td>Procedure</td>
<td>37</td>
</tr>
<tr>
<td>Analysis</td>
<td>39</td>
</tr>
<tr>
<td>IV. RESULTS</td>
<td>40</td>
</tr>
<tr>
<td>Student Population</td>
<td>40</td>
</tr>
<tr>
<td>Non-student Population</td>
<td>45</td>
</tr>
<tr>
<td>V. DISCUSSION</td>
<td>50</td>
</tr>
<tr>
<td>Student Population</td>
<td>50</td>
</tr>
<tr>
<td>Non-student Population</td>
<td>54</td>
</tr>
<tr>
<td>Comparison of Groups</td>
<td>56</td>
</tr>
</tbody>
</table>
APPENDIX

A Instructions to Student Subjects.......................... 63
B Instructions to Non-student Subjects......................... 65
C Biographical Data Sheet........................................ 67

LIST OF REFERENCES............................................ 69
# LIST OF TABLES

**TABLE 1** Means and Standard Deviations for  
A. Student population and  
B. Non-student population

**TABLE 2** Correlation Coefficients: Student Population

**TABLE 3** Summary Table for Multiple Linear Regression: Student Population  
A. Including Positive Pole Values  
B. Including Negative Pole Values

**TABLE 4** Correlation Coefficients: Non-student Population

**TABLE 5** Summary Table for Multiple Linear Regression: Non-student Population  
A. Including Positive Pole Values  
B. Including Negative Pole Values
CHAPTER I
PRESENTATION OF THE PROBLEM

The term "assertive behavior" is a well-known concept today not only in the field of psychology, where the term was first coined, but also to the public-at-large. This popularization has been partially due to movements for civil and human rights by different groups--blacks, native Americans and women, to name a few. The popularity of the concept of assertiveness is evident in the variety of courses and workshops in assertive training in many university and community settings and by the myriad of magazine articles and popular paperbacks urging people to become assertive and offering techniques for doing so.

Historically the concept of assertiveness has undergone several changes. Wolpe (1958), who introduced the term "assertive," based his concept on Salter's (1949) original work on the excitatory person in which excitation and spontaneous expression of emotion are equivalent terms. Inhibition, the opposite of excitation, is caused by early childhood conditioning and resultant anxiety over the consequences of expressing emotions. This inhibitory state is considered to be a neurotic state. Wolpe (1969) defines assertiveness as the outward expression of practically all feelings other than anxiety. However, Wolpe and Lazarus (1966) have indicated that sometimes purely behavioral skill deficits in the absence of anxiety can also be the reason for
nonassertion. These two basic characteristics, anxiety and lack of skills were considered by behaviorists to be the complete explanation of the phenomenon of nonassertive behavior. Today the term assertive behavior is usually defined as "interpersonal behavior involving the honest and relatively straightforward expression of feelings" (Rimm & Masters, 1974). The techniques used to teach assertive behavior include the behavioral techniques of behavioral rehearsal, modeling, successive approximation, response shaping and reinforcement. Recently many therapists (e.g., Lange, Rimm, & Loxley, 1975) have begun to include cognitive restructuring techniques to restructure the belief systems which have sustained the nonassertive behaviors. This has been done in accordance with cognitive theory which states that behavioral change occurs more rapidly if the person is aware of the beliefs and values underlying his behavioral choices and changes any belief or value which is maintaining ineffective behavior.

Only recently with the development of several new paper-pencil assessments for assertiveness have psychologists begun to study the correlates of assertive and nonassertive behavior. Bates and Zimmerman (1971) used both the Adjective Check List (Gough & Heilbrun, 1965) and the Eysenck Personality Inventory (Eysenck & Eysenck, 1968) with college student subjects to study the relationship of personality characteristics to assertiveness, as measured by their experimental Constriction Scale. The results showed that for both males and females affiliation, dominance, autonomy and exhibitionism were negatively correlated with constriction (nonassertion) and deference, abasement and neuroticism were positively correlated. Orenstein, Orenstein, and Carr (1975) reinforced these
findings that nonassertiveness was related to neuroticism. In addition they discovered that for their college student subjects nonassertion correlated more strongly with the Social Interaction factor of the Fear Survey Schedule (Geer, 1965) than with the Live Organism factor. This would seem to indicate that social or interpersonally triggered anxiety is more highly correlated with nonassertiveness than is general anxiety level.

The studies of assertive behavior are not all unanimous, however. Eisler, Miller, and Hersen (1973) found that for their male psychiatric patients anxiety in interpersonal situations was not significantly related to assertiveness. Morgan (1974) did find a significant relationship between these two characteristics, but concluded that the relationship showed little predictive importance since it accounted for less than 6% of the variance.

One determinant of human behavior which has not been studied for its relationship with assertiveness is values. Rokeach (1973) defines a value as

> an enduring prescriptive or proscriptive belief that a specific mode of behavior or end-state of existence is preferred to an opposite mode of behavior or end-state. This belief transcends attitudes toward objects and toward situations; it is a standard that guides and determines actions, attitudes toward objects and situations, ideology, presentation of self to others, evaluations, judgments, justifications, comparisons of self with others, and attempts to influence others. (p. 25)

He has carried out extensive studies which provide empirical evidence that values act as guides and determinants of both attitudes and social behavior. Values are hypothesized to be more central than attitudes and
interests and therefore should be expected to be more stable and at the base of many decisions to act or not to act.

In view of the popularity of assertive training techniques it seems that psychologists have an ethical obligation to understand as much as possible about the assertive person. The brief review of hypotheses concerning possible correlates of assertive behavior points out the variety of directions which research has taken on the question. Data show that assertiveness is correlated with anxiety in some way, although there is some conflicting evidence. Assertiveness also seems to be correlated with certain basic personality characteristics. It may be that values, which seem to have a strong impact on any decision to behave in a certain way, would therefore be correlated with personal decisions concerning assertiveness; this hypothesis has never been put to an empirical test. Another limitation of the research done on this topic is that the samples used have been quite limited, mainly college students and psychiatric patients.

The purpose of this study was to subsume all the characteristics discussed above in relationship to assertiveness into one study and to include a general adult population in addition to a college student population. The general objective was to determine if assertiveness in adult women, as assessed by a paper-pencil self-assessment, is correlated with trait anxiety, theoretically relevant personality characteristics, or theoretically relevant values. The study of anxiety and personality characteristics was similar to previous studies for the college population. The introduction of a values measure was new in this study, as was the use of a general non-student adult population.
The consideration of values as they relate to assertive behavior may serve the interests of psychology in several ways. First of all if values are correlated in some significant way with assertive behavior, it may help explain some of the discrepancies which seem to exist in the relationship between anxiety and assertive behavior. Secondly since assertive training techniques do stress intrapsychic variables—beliefs, feelings, thoughts—as preparation for behavioral change techniques, it seems important to be able to discover which basic values act as underpinnings for those beliefs, feelings and thoughts in assertive and nonassertive people. Thirdly the possible values related with assertive behavior need to be clarified in order to help each person in assertive training determine for himself/herself the appropriateness of assertive behavior in various situations as it relates to his/her own value system. As Flowers, Cooper, and Whitely (1975) state:

The appropriateness of assertive techniques for any particular instance needs to be evaluated by the individual, with a full awareness of all possible consequences and ethical implications of such behavior, and finally, with the understanding that assertiveness is a choice, not a moral imperative for all circumstances. (p. 4)

In summary, the purpose of the present study was to consider a broad spectrum of possible correlating characteristics of assertive behavior in women in general. The population used was women only since some previous studies (Percell, Berwick, & Beigel, 1974) have shown different characteristics in men and women as they relate to assertiveness. The study included a measure of trait anxiety, several theoretically pertinent scores from a normal personality inventory, and an instrument to assess the value system the subject affirms in addition to a paper-pencil assessment of assertive behavior.
CHAPTER II
SURVEY OF THE LITERATURE

Only recently have some initial studies on the correlates of assertive behavior been conducted. The purpose of this chapter is to review and critique that literature as a basis for formulating the hypotheses of this study. Initially, however, the historical development of the concept of assertive behavior will be presented. This will include various definitions of assertiveness as they have evolved from theoretical ideas as well as some experimental studies to develop an operational definition of assertiveness and describe its behavioral components. Following this background discussion, the actual studies of the correlates of assertiveness will be reviewed and critiqued. The final section of the chapter will present studies which provide a basis for considering the relationship between values and assertive behavior. Since no studies of that specific relationship have been conducted, the studies reported here will deal with the relationship between values and other types of specific, defined behavior.

Assertive behavior

The person to whom the origin of the concept of assertiveness is attributed is Andrew Salter (1949). His original work included two sections which were ideal descriptions of the excitatory personality
(the assertive person) and the inhibitory personality (the nonassertive person). Basically he considered excitation as any expression of emotion. The excitatory person was described as the person who responds directly and openly to his environment, takes immediate action on problems, is energetic, self-supportive and does not let other peoples' desires control his behavior. Most important Salter stated, is that the excitatory person is free of anxiety; "he is truly happy" (p. 46). The inhibitory person possesses the opposite pole characteristics: he conceals emotional impulses, makes no behavioral response to the environment or else responds only as he feels others would want, and in general "suffers from constipation of the emotions" (p. 47).

Salter conceived of all mental health problems being due to inhibition which was conditioned during childhood and early social learning. The inhibited response was theorized as being based on conditioned unhealthy habits, not on any volitional decision-making process. Thus, there was only one therapeutic technique necessary for all clients: a set of techniques which today are recognized as some of the basic elements of assertive training.

Developing his ideas from Salter's (1949) basic descriptions of the excitatory person, Wolpe (1958, 1969) restricted the concept to a more specific behavior instead of a personality trait and called it assertive behavior. He agreed with Salter that assertive behavior was the expression of any emotion other than anxiety. However, he believed that assertive training techniques were the treatment of choice only for those who had unadaptive anxiety responses in interpersonal situations. Other treatment techniques--e.g., systematic desensitization--were
developed for other forms of anxiety. He also tempered his view of assertiveness with a recognition that self-control and restraint can be necessary sometimes. Wolpe and Lazarus (1966) suggested that some people were assertive in some situations and unassertive in others. However, other general descriptors of the assertive and nonassertive individual were in concordance with Salter.

In general in the literature of counseling psychology today there are different definitions and ways for studying assertive behavior depending on the context and the need of the practitioner or experimenter. Some of these are purely theoretical; others have evolved as a result of experimental studies and factor analyses. Four of these methods for defining assertive behavior will be presented.

In a recent text in behavior therapy Rimm and Masters (1974) provide only a basic definition of assertive behavior: "interpersonal behavior involving the honest and relatively straightforward expression of feelings" (p. 81). They include statements concerning the benefits of behaving assertively: an increased feeling of general well-being and greater social rewards leading to more satisfaction from life. However, a more specific description of the assertive and nonassertive person is not directly provided. In fact they state explicitly that "Lack of assertiveness should be seen as a behavioral deficit related to specific situations rather than as a personality trait" (p. 90). Thus it seems that they place little emphasis on a more specific definition of assertive behavior or the characteristics of the assertive person. From the general theoretical description of assertiveness they continue directly to techniques for teaching assertiveness as a behavioral skill.
Focusing on the importance of assertiveness as a behavior, several experimenters conducted studies to define the important behavioral components of effective assertive behavior. Alberti and Emmons (1974), in a generally used guide for developing assertive behavior, enumerate seven elements which contribute to overall assertiveness: eye contact, body posture, gestures, facial expression, voice tone, inflection and volume, timing and content. Several of these components were hypothesized and studied by Eisler, Miller, & Hersen (1973). The components studied were operationally defined and a 5-point rating scale was provided for judges. The subjects, male psychiatric inpatients, were requested to role-play on videotape 14 standardized situations which required assertive behavior. Judges were then supplied descriptions of assertive behavior according to Wolpe (1969) and Wolpe and Lazarus (1966). Using these descriptions they were asked to rate all videotaped scenes for assertiveness on a 5-point scale with "1" indicating very unassertive and "5" indicating very assertive. Based on these ratings subjects were divided into two groups, high assertiveness and low assertiveness. High assertive subjects were found to be significantly different from low assertive subjects on latency of response, loudness of speech, compliance content, requests for new behavior and level of affect. No differences were found for duration of looking (eye contact), frequency of smiles, duration of reply and fluency of speech. Three problems seem to decrease the generalizability of this study. First, the subject population is limited to male psychiatric patients. Secondly, no consideration was given for the possible effect of different psychiatric classifications on the behavior of patients. Thirdly, the subjects were divided into two groups by using
the mean as the dividing point; this might be a questionable procedure for determining "high" and "low" assertive people for the subsequent analysis of variance. However, this was an important first step in determining the actual components of assertive behavior and has been used as the basis for many follow-up studies (Eisler, Hersen, & Miller, 1973; Gormally, Hill, Otis, & Rainey, 1975; Hersen, Eisler, & Miller, 1973).

Most of the follow-up studies have dealt with the effect of assertive training in general or specific assertive training techniques on changes in these behaviors. The studies have shown that most of the components of assertive behavior are changed by the training with only minor differences from study to study.

Winship and Kelley (1976) operationally defined an assertive response as one characterized by three elements:

1) an empathy statement—the ability to see the situation through the other person's eyes; 2) a conflict statement—the individual's communicative rationale for his action; and 3) an action statement—what it is the individual wants to happen. (p. 216)

In their study of the effectiveness of assertive training techniques, the occurrence of any one of these three elements in a response from the subject was scored one point; a response which included all three elements was scored three points. This study is mentioned here because their operational definition of an assertive statement is unique and yet seems to meet the criteria which are often listed for assertiveness: the feelings of the other person are taken into consideration (empathy statement), the speaker's feelings are stated clearly and openly (conflict statement) and a proposal for action is offered (action statement). However their assessment of assertiveness does not include observation of nonverbal behavior.
Another method for categorizing assertive responses includes an examination of the setting for the behavior as well as the style of response required. According to Galassi and Galassi (Note 1) assertiveness is conceived of as a series of learned situation-specific behaviors. Thus the environmental setting will have an effect on the level of assertiveness. There are also three different types of assertiveness. Positive assertiveness includes complimenting others and expressing affection, approval and agreement; negative assertiveness involves expressions of justified anger, disagreement, and dissatisfaction; and self-denial includes overapologizing, excessive anxiety and exaggerated concern for others. Paper-pencil instruments usually attempt to evaluate all three types of assertive behavior in various interpersonal settings. A factor analysis (Galassi & Galassi, Note 1) of their own instrument, the Adult Self Expression Scale (Galassi, DeLo, Galassi, & Bastien, 1974), resulted in nine factors which are based mainly on the types of assertiveness required and only somewhat on the setting. The only factor which dealt entirely with an environmental setting was a factor which consisted entirely of items concerning situations with parents. This may be due to the sample used which consisted of college freshmen who may be in the first stages of establishing independence from their parents and encountering a preponderance of occasions for assertive behaviors with parents. The nine factors are: (1) Expression of Personal Opinions; (2) Expression of Personal or Legitimate Rights; (3) Concern for the Feelings of Others; (4) Initiating Requests; (5) Situations Dealing with Parents; (6) Expressing Justified Anger; (7) Initiating Interactions with Opposite Sex, Especially Expressing Feelings of Love and Affection; (8) Avoiding Trouble or Conflict; and (9) Complimenting and Praising Others.
In summary, it seems that four different ways of viewing assertiveness are used depending on the context and need of the experimenter or practitioner. One is the general, theoretical definition: assertive behavior is "interpersonal behavior involving the honest and relatively straightforward expression of feelings" (Rimm & Masters, 1974). This definition is related to Wolpe's theory that anxiety inhibits assertive (honest and straightforward) behaviors. Thus, based on this definition the hypothesis is often made that anxiety is inversely related to assertiveness.

The second definition of assertiveness mentioned in the studies above operationally defines assertiveness according to specific verbal and nonverbal elements of the respondent/response. These elements can be measured and provide an effective means for forming evaluations of levels of assertiveness but are inefficient for use with large numbers of subjects.

The third definition of assertive behavior discussed (Winship & Kelley, 1976) deals only with content and format of the verbal response. With the continued experimental significance of nonverbal elements of the response, it seems this definition is too limited. However, it does specifically add the element of consideration for the other individual, thus providing a basis for differentiating between the assertive response and the aggressive response. This difference is theoretically included in the concept of assertiveness (Alberti & Emmons, 1974) and some experimental work has been done showing that the two are different behaviors (Galassi & Galassi, 1975). Therefore it is helpful to incorporate this idea into a working definition of assertiveness.
Finally, Galassi and Galassi (1973) do not so much provide a
different definition of assertive behavior as a way for subdividing the
general set of potential assertive behaviors into meaningful subgroups.
These subgroups are formed according to the environmental setting in which
the behavior is taking place and according to the type of response re­
quired, positive assertion, negative assertion or self-affirmation. A
self-estimate by subjects of behavioral responses which would be given in
each of these various environment/response-type combinations is the most
efficient manner of estimating the level of assertiveness in large numbers
of subjects and several moderately reliable instruments have been validated
for this use (Galassi et al., 1974; Gay et al., 1975; Rathus, 1973). In
essence this type of instrument is based on the generalized definition of
assertiveness as the relatively honest and straightforward expression of
feelings; this general definition is simply transformed into its component
behaviors and a variety of settings. It is this definition and method of
evaluation which was used in the present study.

Correlates of assertiveness

Understanding the concept of assertive behavior and how it is meas­
ured provides the basis for the present study. The next step is to review
any studies which have been conducted to investigate correlates of asser­
tiveness.

Most of the early experimental studies done on the correlates of
assertiveness were conducted as construct validity measures for newly
developed paper-pencil assertiveness tests. Bates and Zimmerman (1971)
constructed a constriction scale to be used for screening clients for
assertive training. The questions were written in the manner of a functional behavioral analysis (Kanfer & Saslow, 1965). Students taking the scale also took the Eysenck Personality Inventory (EPI) (Eysenck & Eysenck, 1968), the Geer (1965) Fear Survey Schedule, and a fear survey constructed of MMPI items. Subsequent analyses of the data showed for female subjects a negative correlation between the EPI Extraversion scale and constriction and positive correlations with constriction for both the EPI Neuroticism scale and the MMPI Fear scale. However, although these correlations were significant, only the correlation of the MMPI Fear scale accounted for more than 10% of the variance. It was also hypothesized that subjects with high constriction scores would be more socially compliant than those with lower scores. Operationalizing this theoretical hypothesis, it was suggested that constricted subjects would have better grade point averages than non-constricted subjects since they would be more apt to complete assignments as required. An analysis of variance showed that the GPA's of subjects who scored in the upper 1% of the group on the constriction scale were significantly higher than those in the lowest 1%. The fact that the comparison was only made for the extreme scorers on this scale makes these results less impressive, however.

Using a second group of students, a shortened form of the constriction scale, and the Adjective Check List (ACL) (Gough & Heilbrun, 1965), Bates and Zimmerman (1971) found the following significant correlations with constriction scores for female subjects (N = 50):
Further studies showed a significant correlation between the Multiple Affect Adjective Check List (MAACL) (Zuckerman & Lubin, 1965) Anxiety scale and constriction as well as between MAACL Depression and constriction.

This study seems important in many ways. It is one of the few studies which made a deliberate attempt at using the concept of functional behavioral analysis to construct items for determining assertive and nonassertive (constricted) behavior. These scores were then found to be significantly correlated with a large number of personality characteristics which had previously been ignored or only hypothesized. This work forms an important first step in studying the personality correlates of constricted (nonassertive) people in a non-treatment setting. However the population studied was restricted to college freshmen. Since several differences were found between males and females, only the results for female subjects have been presented here.

Orenstein et al. (1973) collected data from 450 college freshmen concerning their level of assertiveness as measured by the Rathus Assertiveness Scale (RAS) (1973). From this large group 86 subjects were selected for a study of the correlates of assertiveness. The subjects were selected according to assertiveness level so that they formed three non-contiguous high, average and low assertive groups.
The results showed a significant relationship between low assertiveness and neuroticism as measured by the Maudsley Personality Inventory (MPI) (Eysenck, 1962) and between MPI Extraversion scale and assertiveness. Low scorers had significantly higher trait anxiety scores as measured by the State-Trait Anxiety Index (STAI) (Speilberger et al., 1969). The experimenters collected data on the Geer (1965) Fear Survey Schedule also using a total score as well as three factor scores—Social Interaction, Negative Social Evaluation and Sum of Social Factors. All four scores differentiated significantly among high, medium and low scorers on the RAS. Some differences were found between the males and females with men being significantly more assertive than women and also experiencing greater social anxiety than women at comparable levels of assertiveness. This would seem to indicate that it is profitable to study sex groups separately when studying assertiveness. This may be due to the influence of social learning and sex role differences in learning assertiveness in this culture. This study would have been strengthened by using all the original subjects instead of the small number used; however, the inclusion of a group of average scorers in addition to the extreme high and low scorers lessens this point of criticism.

Galassi et al. (1974) constructed a scale for measuring assertiveness in a college student population. They hypothesized that the assertive individual would be expressive, spontaneous, well defended, confident and able to influence and lead others. With this in mind they studied relationships between assertiveness scores on the College Self Expression Scale (CSES) and several ACL (Gough & Heilbrun, 1965) scales. CSES scores correlated positively and significantly with defensiveness,
number of favorable adjectives checked, self-confidence, achievement, dominance, intraception, heterosexuality, exhibition, autonomy and change scales; negative significant correlations were found for number of unfavorable adjectives checked, succorance, abasement, deference, and counseling readiness. These results support those obtained by Bates and Zimmerman (1971) and seem to indicate that for a college student population at least, there may be some stable personality characteristics which correlate with self-reported assertiveness.

A similar study was carried out by Gay et al. (1975); however for the first time adults formed the sample for their study. The results showed that for an adult population, with age range from 18 to 60 years of age, scores on the Adult Self Expression Scale (ASES) correlated positively ($p < .001$) with the number of favorable adjectives checked, defensiveness, self-confidence, lability, achievement, dominance, affiliation, heterosexuality, exhibition, autonomy, aggression and change scale on the ACL. Anxiety scores from the Taylor (1953) Manifest Anxiety Scale significantly discriminated between the low and high assertive groups but locus of control scores (Rotter, 1966) did not. These findings are very similar to those of both Bates and Zimmerman (1971) and Galassi et al. (1974) indicating that basically similar personality characteristics can apparently be used as descriptors of adult and college subjects scoring similarly on these assertive behavior measures. No breakdown for males and females was provided in this study.

Whereas each of the studies mentioned thus far in this section used subjects from a general student and/or adult population, Hartsook, Olch, and deWolf (1976) studied the characteristics of women who volunteered
for an assertiveness group at a college counseling center. This additional variable, the act of seeking counseling, may account for some of the personality characteristics found in the sample. This must be kept in consideration, even though one of the control groups was a group of students seeking vocational counseling since the social implications and possible motivations for seeking assertive training and vocational counseling could be expected to be quite different. A second comparison group was the college female norm group for the Edwards Personal Preference Schedule (1959). The subjects and the control group were somewhat older than the average student (mean ages were 29.28 and 28.44 years respectively) so the use of the college female norms group should be questioned on two accounts. First, personality measures for a 28- or 29-year-old female would not be expected to be comparable to the usual freshmen women. Secondly, the application of 1959 female norms to women in today's culture where the role of women has been changing so rapidly may also be questionable. The only significant differences between the two counseling groups were a higher score on the succorance scale for the assertiveness group subjects and lower scores on achievement, order and exhibition. The succorance and exhibition scores coincide with previous studies of correlations of assertiveness. The lower score on order was explained by the authors as being possibly more attributable to the characteristics of vocational counselees who were in the midst of a decision-making, life-ordering type of process. They explained the lower achievement score as characteristic of women with lower self-confidence, a description which is frequently applied to nonassertive people. The fact that these scales are from a different instrument from the one used in previous
studies needs to be kept in mind when making comparisons with those earlier studies. An apparent flaw in the study lies in the fact that the assertiveness level of the vocational counselees was never ascertained, but only presumed to be higher than that of students seeking assertive training. This assumption may not be totally justifiable and the results of the study should be considered cautiously due to the problems discussed above.

In summary, in the past five years a few studies have been conducted of personality characteristics and their correlation with level of assertiveness. There seems to be enough consistency in the results of different studies to suggest that there are indeed some personality characteristics which correlate in a possibly predictive manner with level of assertiveness. Although the studies have used different personality instruments to measure these, the following characteristics can be generally stated as being positively correlated with assertiveness: affiliation, extraversion, dominance, autonomy, exhibition, and self-confidence. Succorance, abasement, deference, neuroticism and anxiety are generally negatively correlated with assertiveness. These studies would be productively supplemented by considering a broader subject population.

Correlation of values with behavior

In addition to anxiety level and personality characteristics, it has also been hypothesized in this study that values may be related to assertive behavior. Although this specific relationship has never been studied, some work has been done considering the relationship between values and other specific behaviors. These studies will be considered
here as a general background for generalizing to a relationship between
values and assertiveness.

The study of the impact of specific values on the behavior of an
individual is a topic which is frequently found in the literature of
anthropology and sociology. However, it seems important since applied
psychology has begun dealing with the concept of values clarification and
cognitive behavior modification—including modification of values and
beliefs—that we also begin considering the correlation between specific
values and behaviors. This is particularly so for behaviors which are
specified as goals in the counseling process. Just such a behavior is
assertiveness. The correlation between values and assertive behavior
has not been examined previously, so the studies which follow will
include only a very brief glimpse of work indicating correlations be­
tween values and other specific behaviors. Much of the work included be­
low was conducted using Rokeach's (1967) Value Survey, which was the
instrument used in this study.

Rokeach's definition of value, as quoted earlier, is based on the
concept of value-as-criterion, setting the standards in terms of which
evaluations are made. He makes five descriptive statements about
values: (1) a value is enduring; (2) a value is a belief, having cogni­
tive, affective and behavioral components; (3) a value refers to a mode
of conduct (instrumental values) or end-state of existence (terminal
values); (4) a value is a preference as well as a conception of the
preferable; and (5) a value is a conception of something that is person­
ally or socially preferable (Rokeach, 1973, pp. 5-10). Rokeach's Value
Survey includes 18 instrumental values and 18 terminal values; the
subject is requested to rank order each set of 18 values separately according to their relative importance in his life. Keeping this concep-
tion of values and their measurement in mind, the studies correlating behaviors with rank orders of specific values from the Value Survey will be considered more closely. Rokeach hypothesized that certain sets of values should distinguish people who behave in a specific way from those who do not.

Joining a civil rights organization, participating in a civil rights demonstration, and making eye contact with persons of another race were hypothesized as being behaviors which could be expected to correlate strongly with the value equality. In 1968 and 1969 a total of 408 college freshmen were solicited by mail to join NAACP by returning an enclosed application form and a $1.00 application fee. Forty-eight of the freshmen did join. Upon comparing the value rankings of joiners and non-joiners, seven values were found to discriminate between the two groups beyond the .05 level. As was expected, equality was the best discriminator; its composite rank for joiners was second, for nonjoiners, fifth. Joiners ranked ambitious, a comfortable life, national security and pleasure significantly lower than those who did not join. They ranked honest and a world of peace significantly higher than nonjoiners. Each of these differences in stated values seems to make theoretical sense in forming a picture of someone who values equality highly. The one experimental question which needs to be asked is whether these students described themselves thus and even joined NAACP out of desire to be doing the socially desirable thing. In 1968 civil rights was becoming a very important concern on many college campuses. Kelly, Silverman, and
Cochrane (1972) studied the effect of social desirability on the ranking of terminal values in the Rokeach Value Survey. They asked subjects to rank the values "in the order that you think would make you appear most favorable in the eyes of the experimenter." Then another instrument was given to the applicants, and finally subjects were asked to rank the terminal values again, this time using the usual instructions. The correlation between the two was only -.09, indicating relatively no relationship between the two rankings. This would indicate at least for subjects attempting to follow the stated instructions that social desirability is not a significant factor in the ranking of the terminal values. No similar study has been conducted on the instrumental values.

In 1967 a group of college students was asked to respond to the question: "In general, are you sympathetic with the aims of civil rights demonstrations?" They were given three response possibilities: (1) Yes, and I have personally participated in a civil rights demonstration; (2) Yes, but I have not participated in a civil rights demonstration; and (3) No, I am not sympathetic. Again several values discriminated among the groups with equality being the best discriminator. The median ranking of equality by those who had participated was 6.8, by sympathizers was 9.6, and by nonsympathizers was 14.1 (p < .001). Nine other values discriminated among the groups at a .05 level or better. In a separate analysis, the data from both pro-civil rights groups were combined and compared with nonsympathizers. The pro-civil rights groups valued equality, a world of beauty and being helpful relatively more, and they valued a comfortable life and national security relatively less than nonsympathizers (Rokeach, 1973).
In the final study of the correlation of values with civil rights behavior to be discussed here, eye contact was hypothesized as being a measure of one's liking of another person. This assumption may be questionable in biracial situations, since avoidance of eye contact could be equally likely due to guilt or some other emotion. Penner (1971) videotaped a 10-minute discussion between white subjects and white and black confederates. He then obtained separate measures of eye contact for the first five minutes of the discussion and the second five minutes. Subjects ranked the list of 18 terminal values only. Not one of the correlations between terminal values and eye contact was significant when white subjects were talking with white confederates. However, when white subjects talked with black confederates four of the values correlated at the .05 level or better with length of eye contact. Those who had longer eye contact ranked equality higher; those who had less eye contact with black confederates ranked a comfortable life, family security and pleasure higher. Keeping in mind the questionable use of eye contact as a dependent variable, nevertheless, these measures are consistent with the value rankings for the other two civil rights behavior studies discussed. Together these three studies provide good support for the hypothesis that the values of people who behave in ways favorable to civil rights issues have a different value structure from those who do not.

A similar survey was conducted to study the relationship between values and church attendance. Two samples were used, a national sample of adults and a sample of college students. All 12 values which distinguished between the adult churchgoers and nonchurchgoers also
distinguished between those two groups among college students. Differences in the values between the two groups were extreme: the value salvation ranked first among churchgoing college students and last among nonchurchgoers. In addition churchgoers placed greater value on being helpful and obedient and less value on a comfortable life, an exciting life, freedom, pleasure, and being imaginative, independent, intellectual and logical. Thus the self-concepts of churchgoers and the values they espouse do differ significantly from nonchurchgoers.

Other studies have been conducted correlating values with political activism, anti-war protesting, honest and dishonest behavior, people in situations of interpersonal conflict and other areas of academic interests, occupational choices and general life styles. These are all summarized and compiled in the text (Rokeach, 1973) which serves as a manual for Rokeach's Value Survey. It is interesting to note here that one of these studies indicates that there were significant differences in value rankings of those graduate students in counseling psychology who were judged to be effective counselors by their peers and those who were judged to be ineffective counselors. Effective counselors valued equality, being broad-minded and being loving significantly more and national security and being independent significantly less that ineffective counselors.

Brown (1975) considered the interrelationships between values and personality characteristics in 13-year-old pupils in British comprehensive schools. His definition and measurement of values were based on a prior study by Kahl (1965) concerning the difference between motivation for achievement and valuing achievement. Kahl's definition of value is
"a verbal system, an official ideology that is deliberately taught to new members of given groups or strata" (Kahl, 1965, p. 669). The measurement of the values was accomplished through use of sets of attitudes scales. The definition, though quite different from that of Rokeach, is not contradictory to any of Rokeach's ideas. Nevertheless, the information obtained from this study should be considered with the difference in definition in mind. The age of the subjects makes this study less applicable to the present study also. In Brown's (1975) study he discovered that five value orientations concerning achievement--family loyalty, intolerance, passivity, cynicism and education primacy--were correlated to personality characteristics as measured by the Eysenck Junior Personality Questionnaire (Eysenck, 1963). The specific characteristics studied were Psychoticism--odd, isolated, troublesome, glacial and lacking in human feelings; Extraversion--sociable, active, optimistic, outgoing; Neurotic--moody, touchy, anxious, restless, rigid; Lie Scale--socially acceptable response set, possibly combined with poor self-knowledge. The correlations between these characteristics and a specific value were often significant at \( p < .001 \). Thus even though the population was pre-adolescents and adolescents and the values measure different, it seems significant to the study at hand that the hypothesis that values and personality characteristics are interrelated could not be rejected. The material presented in this section would all lend support to the hypothesis that behavior, values and personality characteristics may all be interrelated.

In conclusion, the materials presented in this chapter are summarized as follows.
Assertiveness can be defined in several ways, theoretically, behaviorally or according to the structural components of the response. For this study a general theoretical definition was assumed. This definition was in turn behavioralized in a paper-pencil self-assessment instrument for determining level of assertiveness. Secondly, several personality characteristics have been found in previous studies to be fairly consistently related to assertiveness. These studies provide support for directional hypotheses concerning the relationships between the characteristics examined in this study and assertiveness. Finally, although the specific relationship between values and assertiveness has never been considered, other studies have shown significant relationships between values and other observable behaviors. On the basis of these studies, it was hypothesized that a significant relationship could be expected between values and assertiveness also.
CHAPTER III

METHODOLOGY

Purpose

The purpose of this study was to determine if assertiveness in adult women, as assessed by the Adult Self Expression Scale (Gay, Hollandsworth, & Galassi, 1975), is correlated with trait anxiety, as measured by the State-Trait Anxiety Index (Spielberger, Gorsuch, & Lushene, 1969), theoretically relevant personality characteristics as measured by the California Psychological Inventory (Gough, 1957), or theoretically relevant values as measured by the Value Survey (Rokeach, 1967). The personality characteristics under consideration were Interpersonal Adequacy, sense of well-being, and femininity. The values being measured were clustered into two bipolar factors of Self-constriction vs. Self-expansion and Inner- vs. Other-minded.

Hypotheses

Based on research cited previously, directional hypotheses for the relationships of anxiety and personality traits seemed warranted. Hypotheses for the relationships of the values under consideration to assertiveness were also directional based on the available theoretical information about values, about the assertive person, and on empirical studies concerning the effects of values on behavior.
The hypotheses to be tested in this study were:

For the score obtained from the STAI:

1. There will be an inverse relationship between trait anxiety and assertiveness.

For the scores obtained from the CPI:

2. There will be a direct relationship between Interpersonal Adequacy and assertiveness.

3. There will be a direct relationship between well-being and assertiveness.

4. There will be an inverse relationship between femininity and assertiveness.

The values used in this study loaded on two bipolar factors. Thus hypotheses concerning these values must deal with the relationship of each value pole to assertiveness. The assertiveness scale in this study is scored so that an increasing score indicates a higher level of assertiveness. The values are ranked with the most important value being number one. As a result a negative statistical correlation between assertiveness and values indicates a positive covariance of the qualities described.

5. There will be a direct relationship between assertiveness and the negative pole of Value 1, which is Self-constriction and an inverse relationship between assertiveness and the positive pole of Value Factor 1, Self-expansion.

6. There will be a direct relationship between assertiveness and the negative pole of Value Factor 2, which is Other-minded and an inverse relationship between assertiveness and the positive pole of Value Factor 2, Inner-minded.
Subjects

Two subject populations were used for this study. The first population was female students enrolled in the introductory psychology class at The Ohio State University. Ninety-three women participated in the study in return for two experimental credits for their psychology course. These subjects signed up for the experiment and were tested in groups. The questionnaires from three subjects were incomplete for this sample and therefore the final subject sample consisted of 90 female students. The mean age of the students was 20 years; modal age was 18 and the age range was 17 to 40 years of age. Most of the students were freshmen and sophomores; 10 were juniors and 2 were special students.

The non-student population consisted of 100 women who were members of First Community Church in Columbus, Ohio. Each woman was contacted by telephone and voluntarily consented to take part in the study after hearing a brief description of the type of questionnaires involved. The packet of questionnaires was delivered to each woman's home and picked up again usually 2-3 days later. Ninety-six of the sets of questionnaires were completed correctly for this sample and used in the final analysis of the data. The average age of the women was 32.9 years with the range being from 22 to 40 years of age. The average number of years of education was 16.1 and the range was from completed high school to 21 years of education. Only four women indicated no work experience; the average number of years of gainful employment was 5.4 years. The average level of income could not be calculated, but in general the women represented a middle- to upper-middle-class population.
**Instrumentation**

This study used four instruments to measure the variables under consideration. These were the Adult Self Expression Scale (ASES) (Gay et al., 1975), the trait scale from the State-Trait Anxiety Index (STAI) (Spielberger et al., 1969), the California Psychological Inventory (CPI), (Gough, 1957), and the Value Survey (Rokeach, 1967).

The ASES was chosen as the scale for assertiveness because it is the only such instrument which has been designed and normed for use with adults in general. The scale consists of 48 items which are answered by using a 5-point Likert scale ranging from 0-4, "almost always or always" to "never or rarely." The items survey a wide variety of interpersonal situations in which assertive behavior may occur and a number of different behaviors which may occur in those situations.

The sample on which this scale was normed was drawn from a large community college. This sample was presumed to be representative of a population of diverse social, economic and academic backgrounds. The age range of the subjects was 18 to 60 with the mean age of 24.5 years. Over one third of the pilot sample for the instrument were married and 44.8% were employed full or part time. The mean score for 640 adults was 115 with a standard deviation of approximately 20.

Evidence pertaining to the construct validity of the ASES was obtained by examining the relationship between high and low scorers on the scale and two theoretically relevant variables, anxiety as measured by the Taylor Manifest Anxiety Scale (Taylor, 1953) and self-confidence as measured by the Adjective Check List (Gough & Heilbrun, 1965). Both anxiety and self-confidence discriminated between the low and high
scorers as hypothesized. A third hypothesized relationship between assertiveness and locus of control was not significant.

Further validation studies of the ASES have been carried out using the Campbell and Fiske multitrait-multimethod approach which indicate moderately strong convergent validity and moderate discriminant validity (Hollandsworth, Galassi, & Gay, Note 2). Four different subject populations were used, two of which are relevant to the present study: a group of adults taking evening avocational interest courses, average age 29.5 years; and a group of students in a graduate level evening class, average age 30.18 years and mean years of education 16.64. Only results from studies using these groups will be reported here.

The subjects were given self-report measures of assertiveness (ASES) and personal characteristics (Adjective Check List, Gough & Heilbrun, 1965). The ACL was also used by peers of the subjects to rate the subjects using only the abasement, dominance and aggression scales; peers also used a Behavior Questionnaire (BQ) to rate the observed behavior of the subjects. The correlations between ASES scores and observation of behavior by peers was significant at the .01 level for both groups. For discriminant validation of the ASES, it was also shown that the correlation of ASES scores with peer ratings on the BQ was significantly greater than the correlations between ASES scores and peer rating of aggression. This was only true for the avocational interest group, however.

Another source of support for the validity of the ASES can be found in studies involving the College Self Expression Scale (CSES) (Galassi, DeLo, Galassi, & Bastien, 1974). The ASES was written using many items from the CSES with the final version of 48 items including
4 original CSES items and 29 slightly rewritten items. The correlation between the ASES and the CSES was .88 for all subjects and .79 for married subjects 30 years of age or older. Several studies have shown the CSES to have good construct, concurrent and behavioral validity (Galassi & Galassi, 1974; Galassi, Hollandsworth, Radecki, Gay, Howe, & Evans, 1976).

Reliability coefficients for the ASES for a two-week and five-week test-retest measure were .88 and .91 respectively.

The second instrument, the State-Trait Anxiety Inventory (STAI) is composed of separate self-report scales for measuring two distinct anxiety concepts, state anxiety (A-State) and trait anxiety (A-Trait). A-Trait refers to "relatively stable individual differences in anxiety, that is to differences between people in the tendency to respond to situations perceived as threatening with elevations in A-State intensity" (Spielberger et al., 1969). This is the only portion of the scale to be used in this study. A-State measures transitory anxiety perceived by the subject at the time of testing and is therefore not applicable to a study of general anxiety affecting assertive behavior.

The STAI was chosen as the anxiety measure for this study for two reasons. First, the STAI has been shown in previous studies to measure anxiety which is correlated with self-assessed assertiveness (Orenstein et al., 1975; Gay et al., 1975). Thus it would seem to be a useful measurement. Secondly, the other type of measure which has been indicated by previous studies to be relevant to assertive behavior measurements, the fear survey, has typically been normed on college students. The use of such instruments on other populations has been
questioned with concern as to how to interpret results (Demaree, 1973). The STAI was originally developed as a research instrument for use with normal adults and has since been extended to application with many other specific groups.

The A-Trait scale consists of 20 statements to which subjects are asked to respond according to how they usually feel. Responses are made on a 4-point Likert scale ranging from 1, "almost never," to 4, "almost always."

Test-retest reliability data for the A-Trait scale for females for 1 hour, 20 days, and 104 days were .76, .76, and .77 respectively.

For a test of concurrent validity the STAI A-Trait scale was compared with the IPAT Anxiety Scale (Cattell & Scheier, 1963), the Taylor (1953) Manifest Anxiety Scale (TMAS) and the Zuckerman (1960) Affect Adjective Checklist (AACL), General Form. Since the intercorrelations of the IPAT, the TMAS and the A-Trait scale approach the reliabilities of the individual scales (range of $r$ from .73 to .85), it would seem reasonable to believe that STAI A-Trait scale is an alternative measure for either of the other two.

The third instrument used is the California Psychological Inventory (CPI) (Gough, 1957). The CPI was chosen for this study because of its specific applicability for measuring personality characteristics important for social interaction of normal subjects (Gough, 1969). This test consists of 480 items and yields 18 standard scores. Of these 18 scales, only 6 will be used for the statistical analysis in this study; these are dominance, capacity for status, social presence, self-acceptance, sense of well-being, and femininity. These scales were chosen for the
theoretical relevance to assertiveness of the traits which each scale measures. Four of the scales—dominance, capacity for status, social presence, and self-acceptance—will be combined and treated as one scale called "Interpersonal Adequacy." This clustering was done for two reasons: (1) several factor analyses of the CPI have consistently grouped these four together into one factor (Megargee, 1972, p. 112); (2) the large number of variables being considered greatly increases the possibility of experiment-wise error. Therefore if the number of individual statistical significance tests in the study can be reduced in a theoretically logical manner, this seems desirable. The other two scales will each be considered as a separate independent variable.

Coefficients of stability for each CPI scale are available for high school students who took the test in the fall of their junior year and again late in their senior year. For the females the coefficients for the pertinent scales in this study ranged from .63 to .85. Internal consistency coefficients for the scales vary considerably. For a college freshmen women population the range is from .80 for the dominance scale to .30 for the femininity scale. For adult women the internal consistency is better, ranging from .70 to .86 on the pertinent scales (Megargee, 1972).

Summaries concerning validity tests given for each scale of the CPI are available in the CPI Manual (Gough, 1969) and will be summarized only briefly here. In general most of the scales in this study were correlated with appropriate peer and supervisor ratings of the characteristics being measured. The femininity scale score was correlated with the masculinity scale on the Strong Vocational Interest Blank and with the
Hf scale of the Minnesota Multiphasic Personality Inventory. The validity data, all of which were drawn from cross-validational studies of the CPI, are low but acceptable for the purposes of this study.

The fourth instrument used in this study was the Rokeach (1967) Value Survey. This survey requests subjects to rank order two sets of 18 values each which are listed and briefly defined. One list is a set of values described as terminal values, values which indicate a belief concerning desirable or preferred end-states of existence, for example, "a comfortable life" and "a world of peace." The other list is a set of values described as instrumental values, values which indicate a belief concerning a desirable or preferred mode of conduct. The subjects in this study were asked only to rank the instrumental values since this study is only concerned with the underlying values for certain types of behavior, i.e., assertive behavior. Studies thus far have indicated that there is no direct correlation between instrumental and terminal values (Rokeach, 1973) and thus the terminal value ranking has little apparent importance for this study.

The test-retest reliability of the instrumental values for college students using form D of the Rokeach Value Survey ranged from .72 for a three-week interval to .61 for a 14-16 month interval. Reliabilities for instrumental values are lower than for terminal values; this supports Rokeach's basic theory that instrumental values are somewhat less stable than terminal values and more apt to be open to influences to change. Rokeach explains this in several ways: (1) terminal values are learned earlier and thus stabilized earlier in the development of the individual; (2) there are relatively fewer terminal values than instrumental values and thus the list of terminal values in this instrument is more complete;
this would allow the subject to be more certain of his rankings; (3) possibly terminal values are more distinctively different from one another than instrumental values are. Another factor concerning reliability which is important for this study is that women have significantly more stable value systems than men (Rokeach, 1973, p. 35). Thus for women subjects using form D of the Value Survey, the form providing the highest reliability coefficients, the reliability for this instrument is acceptably high.

The ranking task is actually highly projective in nature since the values listed are defined only minimally and the subject therefore responds to the stimulus using his/her own unique understanding of the word. The test is structured in that each subject responds to the same 18 values by ranking them. The most important information gained from this ranking is how the subjects rank one value in relationship to other values. The more important values are assumed to have a comparatively greater impact on behavior. Looking more to the connotative meaning of the values, Homant (1969) measured the semantic meaning of each of the values and correlated semantic differential indices with the rank ordering of values. The median correlations he obtained between the evaluative factor of the semantic differential and the rank ordering of the instrumental values was .62. Considering the reliability of the instrumental values mentioned above, it would seem that ranking of values measures essentially the same kind of meaning as that done using a semantic differential technique.

For this study only the rank order of eight of the listed values were used in the statistical analysis. These values—obedient, polite, self-controlled, honest, broad-minded, capable, courageous and independent—
have been shown in a previous study to be the components of two of the seven factors found in a factor analysis of the Value Survey. The factors are bipolar and the values load on them as follows: Value Factor 1 is named Self-expansion vs. Self-constriction and consists of the values broad-minded and capable vs. honest, obedient, polite and self-controlled. Value Factor 2 is named Inner- vs. Other-minded and contains the values independent and courageous vs. polite. These two factors seemed at face value to be the most theoretically pertinent value clusters pertaining to assertive behavior. Since the use of these two factors, instead of eight individual value rankings, reduced the total number of significance tests and thereby the probability of increased experiment-wise error, combined scores from the rankings of the values were used for the purpose of the correlational analysis.

There may be some question concerning the use of the ipsative data which the Value Survey provides in performing a correlational analysis since the assumption of complete independence of scores cannot be met. According to Hicks (1970, p. 181), however, the degree of artificial interdependency decreases with an increasing number of items in the ranking. As Rokeach (1973, p. 43) points out in his justification for using correlational statistics with his Value Survey, the average intercorrelation among the 18 values of either portion of the survey is only -.06. Thus the violation of the independence assumption is relatively small.

Procedure

Since each of the above four instruments can be self-administered, they were assembled into self-administering packets and given to each
subject. In addition to the four instruments each subject was given a biographical data sheet to complete. This requested information concerning age, marital status, years of education, occupation, number of years of gainful employment, and previous introduction to the concept of assertiveness or participation in assertive training workshops or groups. Subjects were provided with a definition of assertiveness and asked to assess how assertive they were using a 7-point Likert-type scale; they were also asked to assess how consistent they were from one situation to another in their assertive/nonassertive behavior. The order of the four instruments was varied randomly in the packets to prevent experimentally built-in order effects. The biographical data sheet appeared at the end of each packet. Each packet of instruments was assigned a number and each answer sheet in the packet was marked with the number in order to identify an individual subject.

Each subject was given an instruction sheet for completing the material. She was instructed to follow carefully the instructions for each instrument, to complete each item on every instrument leaving no question unanswered, and to complete the instruments in the order given in the packet. Each non-college adult woman was also informed that if she wished to receive information about the results of the study she should put her name, address and telephone number on the biographical data sheet and results of the study would be mailed to her. Student subjects who wished information about the experiment were instructed to remain after the testing session for an explanation of the study.
Analysis

In summary, the present study provided the following scores for each subject:

1. a measure of assertiveness obtained from the ASES;
2. a measure of general trait anxiety;
3. a measure of each of the following four personality characteristics as measured on the CPI: Interpersonal Adequacy (dominance, capacity for status, social presence, and self-acceptance), sense of well-being, and femininity;
4. a ranking for each of the following two value factors obtained from the Value Survey: Self-constriction (obedient, polite, self-controlled, honest) vs. Self-expansion (broad-minded, capable) and Inner-minded (courageous, independent) vs. Other-minded (polite).

Since this was an exploratory study, the data were analyzed in two ways, a correlational analysis and a multiple linear regression. The correlations provided the basic statistical analysis for the experimental hypotheses.

The use of multiple linear regression in addition to individual correlation coefficients allows the experimenter to determine the total amount of variance accounted for in predicting assertiveness when using all six independent variables; it also provides a measure of the incremental variance accounted for by each separate independent variable when all others are held constant.
CHAPTER IV

RESULTS

This chapter presents the results of the analysis of the data obtained from each of the two sample populations in this study. Initially the means and standard deviations for each of the pertinent scores will be presented for both groups and compared. The results obtained from the multiple linear regression will be presented for each population sample separately. In summary the results of the analyses will be presented across populations for each experimental hypothesis.

Table 1 presents means and standard deviations for all variables for both populations. As can be observed in Table 1, separate means and standard deviations were computed for each of the poles of each value factor. On comparing the means and standard deviations of the variables between groups, there are apparently some relatively large differences. In fact, a $t$ test of the differences between the two mean assertiveness scores was significant at the .025 level. Since assertiveness is the dependent variable in this study, it seems most appropriate in the light of this significant difference to consider the two populations separately for the remainder of the presentation of the results.

**Student population**

Table 2 presents the correlation matrix of the scores of the student population. The two ends of each bipolar value factor were
Table 1
Means and Standard Deviations for
A. Student population and
B. Non-student population

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S. D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Student population: $N = 90$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assertiveness (Assert)</td>
<td>115.07</td>
<td>22.93</td>
</tr>
<tr>
<td>Trait anxiety (Anx)</td>
<td>40.97</td>
<td>9.94</td>
</tr>
<tr>
<td>Positive Value Factor 1 (Value 1+)</td>
<td>17.46</td>
<td>6.19</td>
</tr>
<tr>
<td>(broad-minded; capable)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Value Factor 1 (Value 1-)</td>
<td>39.93</td>
<td>9.89</td>
</tr>
<tr>
<td>(honest; obedient; polite; self-controlled)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Value Factor 2 (Value 2+)</td>
<td>18.47</td>
<td>6.80</td>
</tr>
<tr>
<td>(independent; courageous)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Value Factor 2 (Value 2-)</td>
<td>11.22</td>
<td>3.84</td>
</tr>
<tr>
<td>(polite)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal Adequacy (CPI l)</td>
<td>102.43</td>
<td>17.57</td>
</tr>
<tr>
<td>Sense of well-being (Wb)</td>
<td>31.62</td>
<td>6.35</td>
</tr>
<tr>
<td>Femininity (Fe)</td>
<td>22.92</td>
<td>3.51</td>
</tr>
<tr>
<td>B. Non-student population: $N = 96$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assert</td>
<td>124.96</td>
<td>20.15</td>
</tr>
<tr>
<td>Anx</td>
<td>33.42</td>
<td>7.69</td>
</tr>
<tr>
<td>Value 1+</td>
<td>15.45</td>
<td>5.40</td>
</tr>
<tr>
<td>Value 1-</td>
<td>45.09</td>
<td>7.84</td>
</tr>
<tr>
<td>Value 2+</td>
<td>18.34</td>
<td>7.02</td>
</tr>
<tr>
<td>Value 2-</td>
<td>12.35</td>
<td>3.97</td>
</tr>
<tr>
<td>CPI 1</td>
<td>112.32</td>
<td>14.87</td>
</tr>
<tr>
<td>Wb</td>
<td>37.96</td>
<td>4.69</td>
</tr>
<tr>
<td>Fe</td>
<td>24.06</td>
<td>2.90</td>
</tr>
</tbody>
</table>
never entered into the same analysis and therefore no correlation coefficients were computed between the so-called negative pole values and positive pole values.

Table 2
Correlation Coefficients: Student Population

<table>
<thead>
<tr>
<th>Assert</th>
<th>Anx</th>
<th>Value 1+</th>
<th>Value 1-</th>
<th>Value 2+</th>
<th>Value 2-</th>
<th>CPI 1</th>
<th>Wb</th>
<th>Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assert</td>
<td>1.00</td>
<td>-.55*</td>
<td>.01</td>
<td>.04</td>
<td>-.23*</td>
<td>-.11</td>
<td>.65*</td>
<td>.32*</td>
</tr>
<tr>
<td>Anx</td>
<td>1.00</td>
<td>.04</td>
<td>-.18</td>
<td>.03</td>
<td>-.13</td>
<td>-.59*</td>
<td>.68*</td>
<td>.10</td>
</tr>
<tr>
<td>Value 1+</td>
<td>1.00</td>
<td>---</td>
<td>.10</td>
<td>---</td>
<td>.20*</td>
<td>-.06</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td>Value 1-</td>
<td>1.00</td>
<td>---</td>
<td>.56*</td>
<td>.24*</td>
<td>.15</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value 2+</td>
<td>1.00</td>
<td>---</td>
<td>.12</td>
<td>.09</td>
<td>.06</td>
<td>.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value 2-</td>
<td>1.00</td>
<td>---</td>
<td>.09</td>
<td>.52*</td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPI 1</td>
<td>1.00</td>
<td>.03</td>
<td>.05</td>
<td>.03</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wb</td>
<td>1.00</td>
<td>-.08</td>
<td>.03</td>
<td>.03</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fe</td>
<td>1.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td>.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The first-order correlations computed in this matrix indicate that trait anxiety, the Interpersonal Adequacy factor from the CPI, and the sense of well-being score are not only the most strongly correlated of all the variables with the assertiveness measure but are also highly intercorrelated. All of these correlations are significant at the .005 level. In addition, the correlation of Value 2+, courageous and independent, with assertiveness is statistically significant. Thus all except the fourth and fifth hypotheses are supported with hypothesis six being only partially supported for the college population.

Entering the assertiveness variable as the predicted variable and the remaining six variables as the independent variables, the data were then analyzed by a multiple linear regression. The results of this analysis are presented in Table 3.
### Table 3
Summary Table for Multiple Linear Regression:
Student Population

A. Including positive pole values  
B. Including negative pole values

#### A.

<table>
<thead>
<tr>
<th>Analysis of variance</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>6</td>
<td>23,905.20</td>
<td>3,984.20</td>
<td>14.44&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Residual</td>
<td>83</td>
<td>22,894.40</td>
<td>275.84</td>
<td></td>
</tr>
</tbody>
</table>

#### Independent variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta weight</th>
<th>Standardized beta weight</th>
<th>Standard error of beta</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anx</td>
<td>-.82</td>
<td>-.35</td>
<td>.26</td>
<td>9.58&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Value 1+</td>
<td>.45</td>
<td>.12</td>
<td>.30</td>
<td>2.38</td>
</tr>
<tr>
<td>Value 2+</td>
<td>-.42</td>
<td>-.12</td>
<td>.27</td>
<td>2.34&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>CPI 1</td>
<td>.69</td>
<td>.53</td>
<td>.13</td>
<td>27.38&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Wb</td>
<td>-.63</td>
<td>-.17</td>
<td>.40</td>
<td>2.49</td>
</tr>
<tr>
<td>Fe</td>
<td>.19</td>
<td>.02</td>
<td>.51</td>
<td>1.14</td>
</tr>
<tr>
<td>Constant</td>
<td>92.49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### B.

<table>
<thead>
<tr>
<th>Analysis of variance</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>6</td>
<td>24,439.60</td>
<td>4,073.27</td>
<td>15.12&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Residual</td>
<td>83</td>
<td>22,359.99</td>
<td>269.40</td>
<td></td>
</tr>
</tbody>
</table>

#### Independent variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta weight</th>
<th>Standardized beta weight</th>
<th>Standard error of beta</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anx</td>
<td>-.95</td>
<td>-.41</td>
<td>.26</td>
<td>13.26&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Value 1-</td>
<td>-.09</td>
<td>-.04</td>
<td>.22</td>
<td>.18</td>
</tr>
<tr>
<td>Value 2-</td>
<td>-1.02</td>
<td>-.17</td>
<td>.56</td>
<td>3.35&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>CPI 1</td>
<td>.71</td>
<td>.55</td>
<td>.13</td>
<td>31.01&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Wb</td>
<td>-.81</td>
<td>-.22</td>
<td>.38</td>
<td>4.52&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Fe</td>
<td>.24</td>
<td>.04</td>
<td>.51</td>
<td>.22</td>
</tr>
<tr>
<td>Constant</td>
<td>116.37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> <p> <.05  
<sup>b</sup> <p> <.001
In the two computations the overall regression equation produced a multiple $R = .71$ and $R^2 = .52$ which indicates a highly significant linear trend in the data. Using all six variables in the study to predict assertiveness, 52% of the variance of the assertiveness score is accounted for in each analysis.

The $F$ ratios computed on the individual beta weights of each variable indicate that in the regression equation using the positive pole values only the CPI factor Interpersonal Adequacy and the trait anxiety contribute significantly to the prediction of measured assertiveness. Thus, even though the first-order correlation of sense of well-being with assertiveness was statistically significant, it does not contribute significantly to the prediction of assertiveness when the contributions of the other independent variables are controlled for. This is also shown by the standardized beta weights which indicate that one standard deviation unit change of the CPI Interpersonal Adequacy score would introduce the greatest change in assertiveness and one unit change in anxiety, the next most change.

The $F$ ratios computed for the beta weights of each of the variables in the second regression equation including negative pole values show that for this data the sense of well-being score also attained significance as well as the CPI factor scores and anxiety scores, although only at the .05 level. The Value 2- factor also approaches significance. Again the standardized beta weights indicate that one unit change in the CPI factor score would introduce the greatest change in assertiveness, next the anxiety and then the sense of well-being score.
## Non-student population

Table 4 presents the correlation matrix for the scores of all variables for the non-student population. Again since the negative and positive value poles were not entered into the same data analysis, no correlation coefficients are available for those sets of scores.

<table>
<thead>
<tr>
<th>Assert</th>
<th>Anx</th>
<th>Value 1+</th>
<th>Value 1-</th>
<th>Value 2+</th>
<th>Value 2-</th>
<th>CPI 1</th>
<th>Wb</th>
<th>Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assert</td>
<td>1.00</td>
<td>-.50&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.07&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.22</td>
<td>-.42&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.34&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.61&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.34&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Anx</td>
<td>1.00</td>
<td>.48&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.18</td>
<td>.13</td>
<td>-.21</td>
<td>-.49&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.60&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.36&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Value 1+</td>
<td>1.00</td>
<td>----</td>
<td>.10</td>
<td>----</td>
<td>----</td>
<td>-.01</td>
<td>-.15</td>
<td>-.02</td>
</tr>
<tr>
<td>Value 1-</td>
<td>1.00</td>
<td>----</td>
<td>.69&lt;sup&gt;a&lt;/sup&gt;</td>
<td>----</td>
<td>-.36&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.23</td>
<td>-.19&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Value 2+</td>
<td>1.00</td>
<td>----</td>
<td>-.37&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.18&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.25&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.18&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Value 2-</td>
<td>1.00</td>
<td>----</td>
<td>.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.25&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.25&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>CPI 1</td>
<td>1.00</td>
<td>.25&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.00</td>
<td>.29&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wb</td>
<td>1.00</td>
<td>.29&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.25&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.00</td>
<td>-.24&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fe</td>
<td>1.00</td>
<td>.24&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.25&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.29&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.00</td>
<td>.22&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup><small>P < .05</small>

The highest correlations in this matrix, as was the case in the student population, are in the cluster of variables including assertiveness, anxiety, CPI Factor 1 and sense of well-being. Thus the interrelationships among these variables are quite similar between populations. However, for this population among the first-order correlations between assertiveness and each of the six independent variables, all coefficients are statistically significant except the two Value 1 with assertiveness correlations. Thus, for the non-student population all the basic hypotheses were supported except for hypothesis five.

The same data were analyzed using a multiple linear regression with assertiveness being the dependent variable and the other six variables as the independent variables. Results obtained from this analysis...
are presented in Table 5.

The significance tests carried out on the beta weights of the independent variables for the analysis including positive pole values indicate that three independent variables contributed significantly to the linear equation; these were the anxiety variable, the Value 2 factor and the CPI factor. It is important to keep in mind the fact that this \( F \) test gives credit to each variable only for its incremental contribution after all the other variables have been introduced into the equation. Thus even though the standardized beta weight indicates that one standard deviation unit change of anxiety would produce a greater change in assertiveness than one unit change of Value 2+, when the effect of all other variables is controlled the Value 2+ variable provides a greater increment of change in assertiveness than anxiety. This analysis shows also that although the first-order correlations of sense of well-being and femininity with assertiveness were statistically significant, the importance of these two variables in the linear equation predicting assertiveness is quite minor.

In computing the \( F \) ratios on the beta weights of the independent variables including the negative pole values, only two of the tests were significant: the Value 2- factor and the CPI Interpersonal Adequacy factor. The fact that the anxiety variable does not contribute significantly to the linear equation despite the fact that it has a first-order correlation of .50 with assertiveness can most likely be explained by its high correlation with many of the other variables. When these other variables have already been introduced into the equation, the anxiety variable no longer accounts for a significant incremental change. As in
Table 5

Summary Table for Multiple Linear Regression:  
Non-student Population

A. Including positive pole values
B. Including negative pole values

<table>
<thead>
<tr>
<th>A.</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis of variance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>6</td>
<td>18,410.37</td>
<td>3,068.39</td>
<td>13.54b</td>
</tr>
<tr>
<td>Residual</td>
<td>89</td>
<td>29,165.47</td>
<td>226.58</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Beta weight</th>
<th>Standardized beta weight</th>
<th>Standard error of beta</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anx</td>
<td>-.72</td>
<td>-.28</td>
<td>.29</td>
<td>6.40a</td>
</tr>
<tr>
<td>Value 1+</td>
<td>-.11</td>
<td>-.03</td>
<td>.29</td>
<td>.14</td>
</tr>
<tr>
<td>Value 2+</td>
<td>-.69</td>
<td>-.24</td>
<td>.25</td>
<td>7.80b</td>
</tr>
<tr>
<td>CPI 1</td>
<td>.52</td>
<td>.38</td>
<td>.13</td>
<td>16.69b</td>
</tr>
<tr>
<td>Wb</td>
<td>.08</td>
<td>.02</td>
<td>.42</td>
<td>.04</td>
</tr>
<tr>
<td>Fe</td>
<td>.12</td>
<td>.02</td>
<td>.60</td>
<td>.04</td>
</tr>
<tr>
<td>Constant</td>
<td>98.94</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B.</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis of variance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>6</td>
<td>17,962.10</td>
<td>2,993.68</td>
<td>12.93b</td>
</tr>
<tr>
<td>Residual</td>
<td>89</td>
<td>20,613.74</td>
<td>231.62</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Beta weight</th>
<th>Standardized beta weight</th>
<th>Standard error of beta</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anx</td>
<td>-.55</td>
<td>-.21</td>
<td>.29</td>
<td>3.76</td>
</tr>
<tr>
<td>Value 1-</td>
<td>-.47</td>
<td>-.18</td>
<td>.28</td>
<td>2.74a</td>
</tr>
<tr>
<td>Value 2-</td>
<td>1.35</td>
<td>.27</td>
<td>.55</td>
<td>6.08b</td>
</tr>
<tr>
<td>CPI 1</td>
<td>.63</td>
<td>.47</td>
<td>.13</td>
<td>24.32b</td>
</tr>
<tr>
<td>Wb</td>
<td>.18</td>
<td>.04</td>
<td>.42</td>
<td>.19</td>
</tr>
<tr>
<td>Fe</td>
<td>-.25</td>
<td>-.04</td>
<td>.59</td>
<td>.18</td>
</tr>
<tr>
<td>Constant</td>
<td>75.90</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( \text{a} \quad p < .025 \)

\( \text{b} \quad p < .001 \)
the first non-student population analysis, sense of well-being and femininity which had statistically significant first-order correlations with assertiveness do not contribute significantly to the linear equation.

In summary, let us look at the results of the analyses as they pertain to each of the experimental hypotheses. The first hypothesis, concerning the inverse relationship between assertiveness and trait anxiety, was supported for both populations since the correlation coefficients were statistically significant. When submitted to multiple linear regression, trait anxiety was also a statistically significant predictor variable in all analyses except the non-student regression equation which included the negative pole values.

The second hypothesis, that there would be a direct relationship between the CPI factor named Interpersonal Adequacy and assertiveness, was supported in all cases for both populations.

The third hypothesis, concerning the direct relationship between the CPI score sense of well-being and assertiveness, was supported because of the statistically significant correlation coefficients. However, this variable was a significant independent variable in only one regression equation, that for the student population data which included the negative pole values.

The fourth hypothesis was only partially supported in that the inverse correlation between the CPI score femininity and assertiveness was statistically significant for the non-student population. However, femininity was never a significant independent variable in the multiple linear regression equation.
The fifth hypothesis was not supported by any of the data. No significant relationship existed in this data between Value Factor 1 and assertiveness.

The sixth hypothesis, concerning the relationship between Value Factor 2 and assertiveness, was partially supported. In the student population only the positive pole of the factor was significantly correlated with assertiveness, but the Value 2 factor was not a significant variable in the multiple linear regression equations. In the non-student population the correlation coefficients were significant and the value factor was a significant independent variable in both multiple regression equations as well.
The analyses presented in Chapter IV were performed in order to consider the relationships of trait anxiety, personality characteristics and values to assertiveness in adult women. The concept adult woman was operationally defined by two different subject populations, college women at The Ohio State University enrolled in Psychology 100 and women between the ages of 22 and 40 who were members of First Community Church in Columbus, Ohio. Because the relationships considered varied significantly between these two subject groups, the results will first be considered separately by group. Following that the two subject groups will be compared for similarities and contrasts and possible reasons for these will be discussed. Finally limitations of this study and suggestions for future research will be presented.

**Student population**

The results of the correlational analyses for the student population support previous findings of studies concerning the relationships of personality characteristics and anxiety to assertiveness in college student populations.

Previous studies of the correlation between personality characteristics and assertiveness have used a number of different personality
assessment instruments: the EPI (Eysenck & Eysenck, 1968), ACL (Gough & Heilbrun, 1965), MAACL (Zuckerman & Lubin, 1965) and EPPS (Edwards, 1959). The intercorrelations among these different instruments and between each of the instruments with the CPI which was used in the present study, have not all been examined. However, the general personality descriptions derived from each of the studies do provide a fairly consistent description of the assertive person. The general description of people scoring high on the CPI scales grouped and named CPI 1 in this study has been variously given as well-adjusted, happy, outgoing, spontaneous, socially participative, good-natured but also assertive and ascendant in interpersonal relationships. This person is generally free from neurotic conflicts and anxieties (Megargee, 1972, p. 120). Another way of describing high scorers on this factor was to have a group of people who are acquainted with a high scoring individual check off all the descriptors they feel characterize him on the ACL (Gough & Heilbrun, 1965). Adjectives which are frequently checked are considered to be descriptive of him. Resulting descriptions show that the female high scorers are seen somewhat more negatively than male high scorers and are sometimes described as abrasive and conceited. This difference may be due to cultural expectations of sex roles which typically have defined women as more passive and accepting. Thus women who do not fit role expectations may be viewed negatively. It may also be due to the fact that first attempts at being assertive often end up being somewhat abrasive or aggressive. Since many women have only recently been developing skills in assertive behavior their attempts at it may still be somewhat lacking in polish. In general however, it would seem that the population
characteristics of high scorers on these CPI scales do support personality descriptions of assertive people in prior studies. Since this CPI factor correlates significantly with the assertiveness measure in the study, these traits can be seen as characteristic of assertive women in the college population.

The other personality scale which correlated significantly with assertiveness was sense of well-being (Wb). This scale was not as strongly correlated as the previous group of scales mentioned, however, and only accounts for roughly 10% of the variance of the assertive measure. Most studies of the Wb scale have shown it to be related to general adjustment; students who did not seek help from a university counseling center were found to have higher Wb scores than those who did (Goodstein, Crites, Heilbrun, & Rempel, 1961). This description is also supported by the high significant correlation between CPI 1 and the Wb scores in this study and the strong negative correlation between anxiety and Wb. This could be interpreted as substantiating some degree previous studies which showed negative correlations between EPI Neuroticism scores and assertiveness. The fact remains, however, that the relationship of Wb to assertiveness, although significant, does not provide much practical importance in predicting assertiveness.

The third personality scale, femininity (Fe), showed no correlation with assertiveness for the student population. The Fe scale was constructed "to define a psychological continuum which may be conceptualized as masculine versus feminine" (Gough, Chun, & Chung, 1968, p. 155). It is therefore very interesting to find that, at least for the college students--who had a modal age of 18--assertive behavior is not related
to a concept of masculine or feminine mindedness.

The negative correlation between anxiety and assertiveness was in support of almost all previous theory and research concerning assertive behavior. The only study discussed in Chapter II which did not find this relationship (Eisler, Miller, & Hersen, 1973) was one which used a psychiatric inpatient population with mixed diagnostic classifications; the personal situation of such subjects may well have confounded the otherwise expected relationship. It is important in considering this correlation to remember that the anxiety measure used here was a trait anxiety measure. Some studies have indicated a significant negative correlation between a more specific anxiety measure, social fear, and assertiveness. Still other theorists would insist that assertiveness, being situation-specific, can only be studied accurately by measuring anxiety level for each specific situation. This study would indicate that when combining a variety of specific situations in order to measure general assertiveness this measure is indeed significantly negatively correlated with a measure of general trait anxiety.

The only values score which was significantly correlated with assertiveness was the Value 2+ score, a factor score for the combined rankings of independent and courageous. However, this correlation is actually quite low and accounts for less than 6% of the variance in assertiveness, and therefore is of little predictive importance.

It seems that, in general, for the college student sample there is little correlation between the specific values considered in this study and their level of assertiveness. However, anxiety is negatively correlated with assertiveness and both the CPI 1 factor and the sense of
well-being score are positively correlated with assertiveness in the student sample.

Non-student population

Six of the eight independent variables were correlated significantly with assertiveness in the non-student population studied. Three of these—CPI 1, sense of well-being and anxiety—are the same three which were discussed as relevant descriptor variables for the college population. In addition to these, three other variables—the femininity (Fe) scale and both poles of the Value 2 grouping (independent and courageous vs. polite)—were significantly correlated with assertiveness. Only these three variables will be discussed in this section.

The femininity (Fe) variable, as discussed previously, was constructed to measure a psychological aspect of femininity-masculinity. The adjectives which have been found to be descriptive of high-scorers on the Fe scale include: conscientious, discreet, gentle, helpful, mature, self-controlled, sympathetic, tactful, warm (Megargee, 1972, p. 267). Since the Fe scale was negatively correlated with assertiveness in the non-student sample these descriptors would be appropriate for the subjects who scored low on the assertiveness instrument. The variance accounted for by the Fe scale is less than 6%, and therefore the practical meaning of this correlation is questionable. Still this result is different from that found for the student sample.

The bipolar Values 2 variable which was significantly correlated with assertiveness in the non-student group consisted of three values. These values and their descriptors are: courageous (standing up for your
beliefs) and independent (self-reliant, self-sufficient) versus polite (courteous, well-mannered). The positive pole (courageous and independent) was correlated $r = -0.42$, thus accounting for approximately 17% of the variance. Since this negative correlation indicates a positive covariance as noted previously, the women in this group can be said to have internalized these values to the extent that they are relevantly related to observable acts which the women claim to perform in various situations. The other pole of the value group, polite, was correlated $r = 0.34$. From these correlations, it might be concluded that at least to a certain degree assertive women in the non-student population can be said to value the act of standing up for and clearly stating their own beliefs and are not apt to forego that right even if it sets them apart from others around them.

The other values group was not a significant variable. These values and their descriptors included: broad-minded (open-minded) and capable (competent, effective) versus honest (sincere, truthful), obedient (dutiful, respectful), polite (courteous, well-mannered) and self-controlled (restrained, self-disciplined). The broad-minded and capable pole of this factor does indeed seem to be further removed from the theoretical concept of assertiveness than was the Value 2 group. This is substantiated by the very low correlation. The other pole—honest, obedient, polite and self-controlled—has more relevance for the theoretical description of the unassertive individual—restrained, controlled, courteous and respectful. However, the inclusion of the value honest may have been a major factor in preventing this value grouping from attaining significance. Honest was a very highly ranked value in most of the subjects' Value Surveys, regardless of level of assertiveness, and the
breadth of the meaning of this value may have overridden its more narrow usage as it relates to openness of expression. However, since it had been grouped with the other values in the factor analysis it was included in this study. It might have been helpful to do a factor analysis of the value surveys collected for this study in order to determine the relevant factor groups of this population.

Comparison of groups

The differences between the two subject populations which were apparent following the calculation of correlations between each independent variable and assertiveness have been mentioned earlier in this chapter. In order to study the relative importance of each of the independent variables as a potential predictor of assertiveness, a multiple linear regression was performed on the data from each sample population. The patterns of the relative importance of variables as predictors of assertiveness were also somewhat different between the two subject groups and will be discussed here.

The multiple linear regression analyses including the positive pole values resulted in two significant predictors of assertiveness for the student group and three for the non-student group. For the student group the two variables, anxiety and the CPI 1 groups, account for 45% of the predictable variance with the remaining four variables together only accounting for 7% of the total variance for assertiveness. For the adult group the three variables, anxiety, Values 2+ and CPI 1, account for 39% of the predictable variance with the other three variables together accounting for 9% of the predictable variance. According to the F tests, which calculate the incremental change in predictable variance due to a
variable when all other variables are controlled for, the CPI 1 factor of personality characteristics is the one most important predictor for both groups. At first glance this is somewhat surprising since anxiety has historically been considered the most relevant factor in determining level of assertiveness. Upon closer examination of the descriptions of these scales, however, it becomes apparent that these scales include items which measure anxiety as an element of the general personality description. Thus, much of the variance which would be due to anxiety level is already accounted for by the CPI variable in the predictor equation. The possible meaning of the difference in importance of the values in predicting assertiveness will be discussed further below.

In the multiple linear regression including the negative pole values the CPI 1 cluster of scales was again the most important predictor in both groups. There were three significant predictors in the student group--CPI 1, anxiety and sense of well-being--which accounted for 40% of the predictable variance of assertiveness. The other three variables accounted for a total of only 12% of the predictable variance. The analysis of data from the non-student group resulted in only two significant predictors, CPI 1 and Value 2—which together accounted for only 26% of the variance. In this case the anxiety variable approached significance and, when submitted to the equation first, provided an incremental change in predictable variance of 1%. However, when the contribution of the CPI 1 data was controlled for, the power of anxiety as a predictor was diminished enough to prevent it from attaining significance. Two differences between groups resulted from this analysis. First for students the sense of well-being score was a
significant predictor but not for the non-student group; secondly, only in the non-student group was the Value 2-factor significant. Actually the first-order correlations of Wb with assertiveness were nearly the same in both groups. The strength of the other predictors in the non-student group apparently diminished the impact of Wb in the predictor equation for the non-student group.

Thus it seems that the importance of the relationship of values to assertiveness is the major difference between the two groups. There are several possible explanations for this difference between the two groups. One of the explanations may be found in the theory of the development of value systems. Thornburg (1973) conceptualizes five steps of development as it concerns the internalization of values and thus the level of consistency between values and behavior. He hypothesizes that the time of greatest inconsistency between values and behavior as being during adolescence between the ages of 14 and 19. For the student group 64 of the 90 subjects fall within this range. Thus according to Thornburg's theory it is to be expected that at this time in their development when peers are having a major impact on their values, the students could be expected to have behaviors which are no longer consistent with values which they held at home. This may be particularly true of students who are enrolled in their first year or two of college since there may be a greater difference between the values of home and college than would be expected for an 18- to 19-year-old who is still at home. On the other hand two factors help explain the consistency between values and behavior in the non-student subjects. First of all, non-student subjects are representative of middle-class America which is often
seen as determining the values of our society. In addition to this 91 of the 96 non-student subjects were 27 years of age or older; this is an age at which, according to Thornburg, there is the greatest consistency between values and behavior.

Another characteristic of the non-student population may account for the stronger relationship between values and behavior. All the non-student subjects were members of First Community Church, a church which is known for its strong and active adult education department. Throughout the year many lectures and workshops are provided by the church concerning values clarification and the impact of values on lifestyle. Most of the subjects in this group came from various church organization membership lists. Thus it might be presumed that they are somewhat active church members and may have heard these lectures or participated in the workshops.

Another correlation was calculated which does not pertain directly to the hypotheses of the study and therefore was not reported in Chapter IV. This was a bivariate correlation between ASES scores and self-assessed assertiveness level as obtained from the biographical data sheet (see Appendix C). The correlation for student subjects was \( r = .091 \). This indicates there was practically no relationship whatsoever between the students' assessment of their assertiveness based on the generalized definition of assertiveness and the ASES score which was based on a description of specific behaviors they would perform under specific conditions. For the non-student women population, however, the correlation was a highly significant .714. This difference is similar to the pattern of inconsistency and consistency between values and
behaviors discussed in the last paragraph. Again there is little consistency between how the students believe they are and the way a behavioral analysis reports they are. Hersen, Eisler, & Miller (1973) report that there is often an attitude lag for people who have been in assertive training groups; their behaviors have changed but their self-assessment is still more consistent with behavior prior to the assertive training. No treatment was given this group, but perhaps the effect of the college environment can be compared to a treatment as to its impact on behaviors and values in the life of the college student. In this case then some students may have changed behaviors and be suffering from an "attitude lag"; others may be changing values and have a "behavior" lag. This is one way of accounting for the absolute lack of correlation between self-assessed assertiveness and ASES scores. The non-student population subjects have, on the other hand, been a part of their present environment for a considerably longer time and have had time to integrate self-perceptions with more objective forms of appraisal.

Another difference between groups which has not been pointed out previously is that whereas the mean assertiveness score for the student subjects was equivalent to that of the normal mean expected for the test, the non-student subjects' mean was one half of a standard deviation higher. This was apparently not due to greater actual participation in assertive training groups since 14 students had participated in a group and 16 non-students had participated in assertive training. It may be due to increased maturity or possibly also to the impact of the liberal, self-enhancing, growth-oriented atmosphere which seems to characterize First Community Church.
In summary it can be stated that for both groups the personality characteristic Interpersonal Adequacy (CPI scales dominance, capacity for status, sociability and self-acceptance) was the single most important predictor for level of assertiveness. Anxiety was the second most important factor for the student groups; however in the non-student groups the Value 2 factor replaced it for second most important factor. It was stated that this lessened importance of the anxiety level as a predictor was probably due to the amount of shared variance between the CPI 1 scales and the anxiety score. The importance of values as a predictor which was found in the older, non-student population was attributed to differences in developmental stages between the two groups and the probable difference in environmental impact on the two populations.

Several recommendations for future research on this topic can be made based on limitations of the present study and other research conducted thus far. First of all, whereas the relationship of personality characteristics to assertiveness seems to be fairly clear and consistent from study to study, the relationship between anxiety and assertiveness is not. One suggestion would be to consider the relationship between other types of anxiety measurement and assertiveness in a general, non-treatment population. This could include indices of social fear and also a measure of state anxiety. State anxiety measures may be very interesting to study in relationship to specific situations which have been identified for the situationally nonassertive individual. Another way of looking at this relationship may also be to take a measurement of concept-specific anxiety (Cole, Oetting, & Sharp, 1969).
and studying its relationship to specific situations which require assertive behavior. This would provide for a clear focus on the anxiety-assertiveness relationship in the situationally nonassertive person.

A second recommendation would be to study a broader spectrum of values for their relationship to assertive behavior. Perhaps all 36 of the values in the Rokeach Value Survey should be considered for their ability to discriminate between assertive and nonassertive people.

Finally, a broader population base still needs to be studied for a better understanding of non-student adults. The well-defined characteristics of the population used in this study prevent the generalization of results to adult females in general. It would be valuable to study several general non-student adult groups and compare results among groups in order to begin understanding relationships of anxiety, personality characteristics and values to assertiveness as they exist in the broader spectrum of our culture.
INSTRUCTIONS

In this packet you will find four separate questionnaires and a biographical data sheet. Please complete each one IN THE ORDER IN WHICH YOU FIND THEM.

Carefully read the instructions for each questionnaire before beginning to work on it. Mark your responses only on the answer sheet provided for you. Answer each and every item. DO NOT LEAVE OUT ANY QUESTION. Your first impressions are most important in answering these questions, so don't spend a great length of time thinking about any one question.

If you are interested in hearing about the purpose of this study, please remain after completing the questionnaires, and I will describe the study and answer any questions you may have.
APPENDIX B
INSTRUCTIONS

In this packet you will find four separate questionnaires and a biographical data sheet. Please complete each one IN THE ORDER IN WHICH YOU FIND THEM.

Carefully read the instructions for each questionnaire before beginning to work on it. Mark your responses only on the answer sheet provided for you. Answer each and every item. DO NOT LEAVE OUT ANY QUESTION. Your first impressions are most important in answering these questions, so don’t spend a great length of time thinking about any one question.

It most likely will not take 2 hours to complete this packet of questionnaires, and many of you will take considerably less time than that. If you are not able to complete all four questionnaires in one sitting, that is fine. However, if possible please don’t stop in the middle of any one questionnaire. It is requested that you try to finish the packet of questionnaires in one day.

If you wish to receive information about the results of this study, please write your name, address and telephone number on the biographical data sheet you find in this packet. I will provide you with a summary of the study as soon as it is available.

Experimenter:
Patricia A. Johnson
422-5303 or 299-5046
BIOGRAPHICAL DATA

Please provide the information requested below. All information will be used strictly for the purpose of this study and will be kept confidential.

Age:

Marital status:

Total number of years of education:

Occupation:

Total number of years of gainful employment:

Approximate income level of your family:

Number of people in your family:

Have you ever read any articles or books about assertiveness?  
YES  NO

Have you ever participated in an assertive training workshop or group?  YES  NO

In answering the last two questions, circle the number which appropriately describes you using a range from 1 = NOT AT ALL to 7 = EXTREMELY.

Assume that assertiveness is defined as "the expression of one's feelings, beliefs, opinions, and needs in a direct, honest, and appropriate manner":

1. In general, how assertive are you?

   1  2  3  4  5  6  7  
   (NOT AT ALL)  (EXTREMELY)

2. How much do you vary from one situation to another in how assertive you are?

   1  2  3  4  5  6  7  
   (NOT AT ALL)  (EXTREMELY)
LIST OF REFERENCES

REFERENCE NOTES


REFERENCES


Thornburg, H. Behavior and values: consistency or inconsistency. *Adolescence*, 1973, 8, 513-520.


