A PRELIMINARY VALIDITY STUDY OF THE RATHUS ASSERTIVENESS SCHEDULE WITH A SAMPLE OF THE SOUTH AFRICAN UNIVERSITY POPULATION.

Dissertation

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To

JAMES CRICHTON,

for his love, encouragement and

the perspective of another discipline

and

my Parents,

ST. and ZB. DOBROWOLSKI,

without whose support this work

would not have been possible.

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ABSTRACT

The study investigated the validity of the Rathus Assertiveness Schedule (RAS) with a sample (N=168) of the white South African undergraduate students. In terms of criterion-related validity, results indicated that ratings of external judges, unaware of their subjects' self-evaluation, correlated significantly with the assertiveness scores of the male subjects only. Construct validation of the RAS with ten personality traits measured by the Howarth Personality Questionnaire yielded results consistent with Wolpe's hypothesis that assertiveness relates inversely to anxiety. In addition, evidence was found to support the contention that assertiveness correlates negatively with inferiority. A principal components analysis of the RAS revealed a potentially useful factor structure for both males and females. A number of factors including situation-specific assertive behavior as well as factors measuring aggressiveness were identified for both sexes.

INTRODUCTION.

> "The inability to stand up for one's self, to resist being "walked on" and to exercise one's rights without denying the rights of others are assertive behaviors which are often found lacking in our culture".[1]

Nonassertive habits are typically acquired in childhood. (Salter, 1949). Children quickly learn to avoid "talking back", to suppress their feelings, and, in general, to avoid direct confrontation with those more powerful. Efforts to suppress thoughts and emotions can be traced back to Judeo-Christian code, which postulates turning the other cheek whenever one is attacked. The socio-cultural code idealizes those who are best able to remain stoical in the face of frustration without displaying "childish" emotions.

Despite its early introduction (Salter, 1949), research pertaining to the concept of assertiveness and assertive training has been slow to emerge. The difficulty of the research on assertive behavior is related to the following issues:

i. An adequate definition of assertive behavior.
ii. The identification of the components of assertive behavior.
iii. Reliable and objective laboratory and real-life measures of assertive behavior.

[1]Shelton and Ackerman, 1976, p.22.

Recent research in the field of assertiveness focuses on the development of adequate instruments designed to identify assertive deficits and to evaluate assertiveness training.

The main purpose of the present study was to investigate the validity of one of the most widely used self-report inventories of assertiveness - the Rathus Assertiveness Schedule (RAS).

The principal questions of this research were: Does the concept of assertiveness measured by the RAS correspond to the contemporary definition of assertiveness? How is self-report assertiveness of a sample of South African students perceived and rated by external observers? What is the meaning of assertiveness and how can it be described in terms of other personality characteristics?

CHAPTER 1. CONCEPTUALIZATION AND MEASUREMENT OF ASSERTIVENESS: LITERATURE REVIEW.

1.1 What is Assertiveness ?

The early definitions of assertiveness are vague and general. Wolpe and Lazarus (1966) defined assertiveness as "all socially acceptable expressions of rights and feelings". This definition proved operationally inadequate and attempts were made to narrow down the concept of assertive behavior to specific response classes. Lazarus (1973) proposed that assertive behavior be viewed as four separate and specific response patterns:

i. The ability to say NO.
ii. The ability to ask for favours and to make requests.
iii. The ability to express positive and negative feelings.
iv. The ability to initiate, continue and terminate general conversations.

This definition of assertiveness proved to be too limited and further attempts were made to refine the concept. Additional behavior patterns, believed to be congruent with assertiveness, were generated. These included:

i. The ability to express opinions and disagree with opinions contrary to one's own. (Lawrence, 1970).
ii. The ability to initiate and maintain any social interaction. (O'Connor, 1969).
iii. The ability to make self-enhancing rather than self-denying responses and decisions in conflict situations. (Goldstein, 1973).

Such a collection of definitions proved too fragmented for research purposes and new attempts were made to provide a coherent and operationally viable definition of this relatively new concept. Heimberg et al (1977) suggested that assertiveness be defined as "effective social problem solving" and assertiveness training as a form of therapeutic intervention directed toward helping clients select the most "effective response" from their response repertoire. This definition, however, did not account for the so-called "positive assertiveness" (that is, expressing positive emotions, such as, responding to/delivering praise and compliments). Moreover, the authors omitted the importance of assertiveness training in teaching a novel set of skills to people with skill-deficits.

In an attempt to integrate the concept, Shelton and Ackerman (1976) summarized all common attributes of assertive responses. Assertive behavior is defined by the following key elements:

i. It is a social skill (that is, assertive behavior occurs in the context of interpersonal relationships).
ii. It is a skill to express all manner of emotions (both pleasant and unpleasant), opinions and preferences in an open, direct and honest way.
iii. It is the knowledge of and the ability to exercise one's rights without denying the rights of others.

iv. It is the confidence to stand up for oneself without undue anxiety.

v. It is the freedom of choice as to whether or not assertive behavior is appropriate under the circumstances.

An issue related to the definition of assertive behavior is whether assertiveness is a generalized response tendency (trait) or whether expression of the response has situational specificity.

Salter (1949) viewed assertiveness as a broad generalized trait. According to his position, the inhibitory tendencies of the nonassertive persons are learned through punishment early in childhood. If many social behaviors are punished, a child will develop a trait of inhibition that tends to remain stable in adulthood. Moreover, that trait generalizes to a wide variety of social behaviors and social situations.

The question of unidimensionality vs multidimensionality of assertiveness is especially relevant in assertiveness training. Does the assertive skill to cope with one type of situation generalize to different types of situations? For example, does the skill to assertively refuse a salesman's persuasive requests to buy an article generalize to refusing unreasonable requests made by one's superior at work?

Recent studies have proved that there are sound empirical and

theoretical grounds to consider assertiveness as a multi-dimensional concept. (Rich and Schroeder, 1976; Lange and Jakubowski, 1978; Cotler and Guerra, 1978). Available evidence suggests that the construct of assertiveness may best be viewed as a group of partially independant, situation-specific response classes.

Galassi and Galassi (1978) noted that in order to recognise, understand and measure assertiveness and assertive deficits, one needs to specify the context in which a particular response takes place. They suggested that assertiveness be viewed in terms of three dimensions:

i. A behavioral dimension (Behaviors or Responses).
ii. A personal dimension (Persons).
iii. A situational dimension (Situations) within a cultural or subcultural context.

This three-dimensional model of assertiveness has been recognized as a potential step toward the resolution of both the definitional issues and the problems of measurement. However, search of the literature revealed no attempts to systematize assertiveness data along the three components. FIGURE 1 presents an attempt to integrate the various theoretical concepts of assertiveness within the framework suggested by Galassi and Galassi (1978).

FIGURE 1

FRAMEWORK FOR THE ANALYSIS OF ASSERTIVENESS

BEHAVIORS :	Expresson of negative feelings (anger, irritation, annoyance, complaints) Expression of positive feelings (joy, praise, love, affection) Expression of rights (The Universal Declaration of Human Rights in Alberti and Emmons, 1978, p.184-187) Acting in one's best interest without anxiety Ability to ask for favours and make requests Ability to refuse unreasonable requests Expressing opinions and disagreeing with opinions of others Ability to initiate, maintain and terminate social interactions Self-enhancing decisions in conflictual situations Information seeking Accepting compliments
PERSONS :	Parents/Children/Relatives Intimate relations Friends/Peers Acquaintances Authority figures Business relations (including superior/subordinate) Institutions Strangers (individual/groups)
SITUATIONS :	Commercial Consumer-Service Job Interview and Promotion Achieving a Social Network Confrontations

1.2 Assertiveness, Nonassertiveness and Aggressiveness.

A variety of both verbal and nonverbal components have been identified to differentiate assertive from nonassertive and aggressive ways of interacting. (Lange and Jakubowski, 1978; Galassi and Galassi, 1974). These criteria include verbal content of responses, paralinguistic speech characteristics, eye contact, facial expressions, body posture, gestures and physical distance from the other person.

1.2.1 Verbal Components of Assertiveness, Nonassertiveness and Aggressiveness.

Search of the literature identified several criteria commonly used to differentiate assertive from nonassertive and aggressive behaviors. A framework for classifying and differentiating the three types of behaviors (illustrated in FIGURE 2) is based on the works of Alberti and Emmons (1978), Lange and Jakubowski (1978), Cotler and Guerra (1978).

The criteria used in differentiating assertiveness from nonassertiveness and aggression are: the general characteristics of the response, the intent of the behavior, self-feedback (that is, one's own feelings about the response), and the response elicited from the recipient.

FIGURE 2

A FRAMEWORK FOR CLASSIFYING THREE TYPES OF BEHAVIOR[1]

CRITERIA	ASSERTIVE	NONASSERTIVE	AGGRESSIVE
CHARACTERISTICS OF THE BEHAVIOR	(Appropriately) emotionally honest, direct response to situations, expressive, "I" messages, autonomous - makes own decisions.	Emotionally dishonest, indirect response to situations, inhibited, "anything you want is O.K. with me" messages, allows others to make decisions for himself/herself.	(Inappropriately) emotionally honest, direct response to situations, expressive, impersonal messages, makes choices for others.
INTENT	Express oneself, stand up for one's rights honestly and directly, achieve "mutuality".	Deny oneself by failing to express needs and wishes, avoid risks, stay out of trouble, avoid hurting others, be liked by everybody all the time at any cost, put oneself down.	Express oneself, dominate, win, disregard others (through humiliating, depreciating and denying others).
ONE'S OWN FEELINGS WHEN ENGAGED IN THIS BEHAVIOR	Confident, self-respecting (at the time and later)	Hurt, anxious at the time and possible angry later	Righteous, superior, depreciatory at the time and possibly guilty later.
RESPONSE FROM RECIPIENT	Generally respect	Guilt or superiority, irritation, lack of respect	Hurt, humiliation, fear, anger, dislike, avoidance or resistance and counter-aggression

[1] Based on Albert and Emmons (1978); Cotler and Guerra (1978); Lange and Jakubowski (1978).

Aggressive responses are defined as behavior designed to dominate others and "win" the situation at any cost. This goal is usually achieved by denying, humiliating and depreciating others. Even though aggression does involve a direct and true expression of one's feelings -such expression is directed against the rights of others. Consequently, exercising one's rights by denying the rights of others is considered as an aggressive rather than an assertive act. For instance, aggressive behavior would be characterized by aggressive dominance over others (such as making decision for others), negativism (usually directed against authority), resentment and irritability (feeling of anger at others over real or fantasized mistreatment), suspicion (projecting hostility unto others), verbal hostility in situations calling for self-protective and/or refusal responses. Aggressive behavior often elicits the feelings of hurt, humiliation and anger in others, and occasionally leads to resistance and counteraggression.

Conversely, nonassertive behavior is represented as the inability to express one's feelings, wishes, thoughts, or as denying oneself the right for their expression. (Cotler and Guerra, 1978). The intent of nonassertive behavior is to protect oneself against others and/or to be liked at all costs. Nonassertive behavior would include inability or failing to make own decisions and choices, expressing emotions (especially anger) indirectly, being overly apologetic, appeasing, self-effacing, and overridden by feelings of powerlessness, helplessness and anxiety. The

general message conveyed by nonassertiveness is that of inadequacy to cope with a situation and the lack of self-respect.

Clinical evidence suggests that nonassertiveness comprises a cluster of symptoms which are often interwoven with other disorders. It is not unusual to observe nonassertive individuals as being depressed, overly concerned with somatic complaints, phobic, anxious and sexually dysfunctional. (Shelton and Ackerman, 1976).

In contrast, assertive behavior is characterized by a capacity for independence, autonomy, self-expression, high self-regard and respect for others. Two types of respect are involved in assertive behavior: respect for oneself (by expressing one's needs and rights), and respect for the other person's needs and rights (such as, the other person's right to refuse a request and not fulfill one's needs). The intent of responsible assertive behavior is to express oneself clearly, directly and honestly rather than "to get what one wants" through either manipulation or force.

> ..."the goal of assertion is communication and 'mutuality'; that is, to get and give respect, to ask for fair play, and to leave room for compromise when the needs and rights of two people conflict. In such compromises neither person sacrifices basic integrity and both get some of their needs satisfied."[1]

[1]Lange and Jakubowski, 1978, p.8.

1.2.2. Nonverbal Components of Assertiveness, Nonassertiveness and Aggressiveness.

In assertive behavior, the nonverbal messages conveyed by appropriately loud voice, fluent and clear speech pattern, frequent eye contact and appropriate body gestures add strength and emphasis to what is being said.

In nonassertive behavior, the overly apologetic, appeasing and self-effacing verbal communication is usually reflected in evasive eye contact, hand wringing, nervous gestures. The tone of voice may be soft and the speech hesitant, filled with pauses or nervous giggling when expressing annoyance or refusal.

The nonverbal messages associated with aggressive behavior convey the desire to dominate or demean the other person. Such nonverbal behaviors include a stare-down eye contact, threatening gestures, overly loud voice, and sarcastic or condescending tone of voice.

Eisler et al (1973) have provided empirical evidence supporting the importance of nonverbal components in differentiating assertive from nonassertive and aggressive behaviors. An otherwise verbally assertive statement can become nonassertive or aggressive depending on the accompanying nonverbal message. Despite this empirically proved importance of nonverbal communication, little attempt has been made to incorporate the

nonverbal components in the standard assessment procedures of assertive deficits. Instead, the assessment of assertive behavior in research literature, has been predominantly based on the verbal components of responses.

1.3 Understanding Nonassertiveness.

Nonassertiveness is frequently attributed either to a deficiency in social skills or to an irrational cognitive belief system known as "social myths". (Cotler and Guerra, 1978).

A systematic list of factors believed to be responsible for nonassertive and aggressive behavior, (presented below and in the subsequent section) is based on the works of Lange and Jakubowski (1978), Ludwig and Lazarus (1972), Phelps and Austin (1976), Cotler and Guerra (1978) and Alberti and Emmons (1978).

1.3.1. Deficient Skills.

One of the major reasons for nonassertiveness is that some individuals do not have those skills in their repertoire of responses which would enable them to cope adequately with some social situations. For instance, some may have lacked opportunities to learn how to request service or refuse unreasonable demands. Some may simply not know how to express positive and negative emotions appropriately, ask for favours, make requests, initiate, maintain and terminate social interactions.

1.3.2. Unrealistic Approval Needs.

The desire to be liked by everybody at any cost frequently leads

to social interactions with so-called "hidden bargains". A hidden bargain occurs when one sacrifices some important rights or preferences, expecting (implicitly) some reward in return (usually approval and affection). Many act nonassertively under the mistaken belief that such behavior is "polite" and will earn them approval of others. Some comply with often unreasonable requests for the fear of hurting others, and consequently, being disliked. Others, who subscribe to the "myth of modesty", frequently deny their positive attributes, put themselves down and become exceedingly self-critical in the attempt to earn recognition. Others still mistake nonassertiveness for being "helpful" and become victims of other peoples' manipulations. The term "compassion trap" has been applied to those who believe that the only way to obtain recognition is through self-denial, humility, self-sacrifice and disregard of one's own needs.

1.3.3. Anxiety About Negative Consequences.

An important factor causing much nonassertiveness concerns the anticipatory anxiety about the consequences of standing up for oneself. Commonly, anxiety concerns two possible consequences of behaving assertively: The loss of approval and the fear of criticism. Such fears may not necessarily be groundless: stimulating individuals to behave more assertively has been found to elicit aversive social feedback and negative evaluation from others. Rathus (1973) found that "niceness" varies inversely with assertive ratings.

1.3.4. Failure to Accept Personal Rights.

One of the major reasons why some people act nonassertively is the belief that they have no rights to stand up for themselves, to express their reactions, to ask for favours and to take care of their needs. They may not fully accept their personal right to express such emotions as anger, hurt, disappointment. Some cultures or subcultures may neither encourage nor tolerate individuals' rights to express themselves. Some may perpetuate nonassertion by encouraging stereotypes and a host of constricting appelations. (Section 1.5)

1.3.5. Mistaking Assertion for Aggression.

Unrealistic labelling of assertiveness and the failure to distinguish it from aggressiveness may cause some to select the nonassertive option. By equating firm assertiveness with aggression, they mislabel their assertive tendencies as dangerous and attempt to control them. Such unrealistic labelling may also be encouraged by society. Women particularly may be vulnerable to such mistaken labelling. It is not infrequent that women who act assertively are perceived as aggressive and masculine. (The issue of sex-role stereotypes and assertiveness is discussed in Section 1.5).

1.4. Understanding Aggressiveness.

While most nonassertive behavior becomes apparent in social approach and request situations, aggressive acts are usually elicited in situations calling for protective or refusal responses. Both patterns of behavior seem to have similar underlying causes: the lack of skills to cope more adequately and successfully with a particular situation, or irrational cognitive-affective patterns which cause one to habitually select the nonassertive/aggressive options.

1.4.1. Skill Deficit.

Some individuals behave aggressively because they have not acquired other skills which would be more appropriate and effective in a particular situation.

1.4.2. Threat of Becoming Vulnerable.

A general cause of aggressive behavior is the threat of becoming vulnerable. Some may fear being vulnerable to an anticipated or actual attack by another person. Others may fear becoming vulnerable and losing control over their opponent. The resulting aggressive overreaction is instigated by threat, tendency to catastrophize and sense of powerlessness. This pattern is perpetuated by the society or culture which calls for submission to others, "not making waves", and "staying in one's place".

1.4.3. Prior Nonassertiveness.

When a number of nonassertive experiences accumulate, the individual may lose control, explode and victimize others. This is especially characteristic of those who, bound by the "myth of obligation", had complied with unreasonable requests and, consequently, felt abused, mistreated and manipulated.

1.4.4. Reinforcement.

Aggressive patterns may be perpetuated, if reinforced by the response of others, such as submission, withdrawal and acquiescence. Some individuals may perceive aggression as a prompt and effective way of obtaining the goal, that is, to dominate and win by forcing the opponent to lose. Although some of their needs may be met, the need-fulfillment takes place at the expense of someone else's dignity and self-respect. However, individuals involved in the vicious circle of aggressive behavior usually fail to perceive the long-term negative consequences of their behavior. Aggression does not ensure successful control over others but rather results in failure to develop a satisfactory social network.

1.5. Sex-Role Stereotypes and Assertiveness.

In addition to the irrational cognitive beliefs, assertive deficits may be perpetuated by certain stereotypic beliefs which suggest different behaviors for different ages and sexes as well as for different subcultures. Research on sex-role stereotypes, for example, suggests that assertive behavior may be a desirable characteristic for males but undesirable for females. (Broverman, 1970). In most cultures men are expected to be more adventurous and dominant than women. Women may be labelled as aggressive for the same responses that would produce a label of assertive for men. "Women, children, and members of ethnic minorities have been characteristically taught that assertive behavior is the province of the white male adult". (Alberti and Emmons, 1974).

Thought provoking findings pertaining to sex-role stereotypes and clinical judgments of mental health has been reported by Broverman et al (1970). Seventy-nine clinically trained psychologists, psychiatrists and social workers (46 men and 33 women) were given the Sex-Role Stereotype Questionnaire with one of the three sets of instructions:

i. To describe a healthy, mature, socially competent adult, sex unspecified.
ii. To describe a healthy, mature, socially competent man.
iii. To describe a healthy, mature, socially competent woman.

It was predicted that the clinical judgments about the characteristics of healthy individuals would differ as a function of the sex of the person judged and that these differences in clinical judgments would parallel stereotypic beliefs about the differing characteristics of men and women.

The results of the study were consistent with the hypothesis suggesting double standards of health for the sexes. The clinicians (both men and women) tended to describe the "healthy, mature, socially competent women" by a questionably appropriate constellation of characteristics. They suggested that healthy women differ from healthy men by being more submissive, less independant, less adventurous, more easily influenced, less aggressive, less competitive, more excitable in minor crises, more emotional, having their feelings more easily hurt, being more conceited about their appearance, less objective, and disliking maths and science.

Further analysis of the results revealed that the clinicians' concept of healthy adult (sex unspecified) correlated positively with the concept of a healthy man, and negatively with the concept of a healthy woman.

The authors concluded: "We are not suggesting that it is the clinicians who pose this dilemna for women. ...However, the present study does provide evidence that clinicians do accept these sex-role stereotypes, at least implicitly, and, by doing

so, help to perpetuate the stereotypes". (p.6).

This article would seem to suggest that women are placed in the conflicting position of having to decide whether to exhibit characteristics and engage in behavior considered desirable for men and adults (and having their femininity questioned), or to behave in the way which is consistent with "feminine manner" and accept second-class adult status.

It would therefore follow that women who favour the first option would find themselves under considerable social pressure and would experience more anxiety in assertive stimulus situations than men.

To counteract the unflattering stereotypic view of a "healthy" female, a new concept has arisen to describe those who have combined both masculine and feminine characteristics and who display these characteristics depending upon the situational appropriateness of these various behaviors.

Bem (1974, 1975) claims that there is a distinct class of people who could be termed "androgynous". The term implies the ability to display situationally effective behaviors without regard to situational sex stereotyping.

Androgynous females have been found to resist peer pressure for conformity and to use more direct (masculine) power strategies

than feminine-typed females. Androgynous males have exhibited higher levels of playful and nurturant (feminine) behaviors than masculine males. (Bem, 1975).

Orlofsky et al (1978) found that both androgynous and masculine females scored higher in assertiveness than feminine females. Masculine and androgynous males were also significantly higher in assertiveness than feminine males. Androgynous subjects (both sexes) displayed greater behavioral adaptability than sex-typed subjects (masculine and feminine). Androgynous subjects scored higher in assertiveness and affect cognition (emotional expressivity) than others. An androgynous sex-role orientation was found to lead not only to greater behavioral flexibility but was associated with high levels of self-esteem and personal adjustment.

1.6. Personality Correlates of Assertiveness.

The need to assess assertiveness in terms of its relationship with other personality characteristics has been recognized recently. (Averett et al, 1977; Green et al, 1979). The purpose of such attempts is to single out personality variables which could be used as potential moderators in the treatment of unassertive individuals. For instance, there are both theoretical and empirical grounds to implicate anxiety and self-esteem levels as potential moderator-variables in the treatment of assertive deficits. (Eisler et al, 1973).

1.6.1. Assertiveness and Anxiety.

Many researchers find anxiety the most significant obstacle to greater assertiveness. Wolpe (1969) suggested that many nonassertive individuals are prevented from engaging in assertive behavior by inhibitory anxiety. He maintained that assertive behavior and anxiety are incompatible and that one can be used to reciprocally inhibit the other. In conformity with this theory, assertive training has been frequently recommended as a therapeutic approach for those who are inhibited by anxiety in interpersonal situations. (Eisler et al, 1973).

The theoretical importance of anxiety in assertive deficits has been substantiated empirically. McFall and Marston (1970) reported decreased anxiety in assertive stimulus situations

following an assertive training workshop. Percell (1974) found substantial evidence of negative relationship between assertiveness and anxiety for women only. This finding is particularly interesting as it is directly opposite to cultural sex-role expectations postulated by many authors. One of the weaknesses of the study was due to the use of psychiatric subjects only. It has been suggested by the author that the relationship between assertiveness and anxiety be further explored with a larger non-clinical population.

Orenstein et al (1975) conducted an extensive correlational study to test Wolpe's contention that assertive responses are incompatible with anxiety. The results indicated that assertiveness (as measured by Rathus Assertiveness Schedule) related inversely and highly significantly with measures of neuroticism, trait anxiety and interpersonal anxiety for both males and females. Further analysis showed that the division of all subjects into three discrete categories based on the distribution of assertiveness scores (high, middle and low assertive) resulted in significant group differences on the measures of anxiety. As predicted, the low assertive subjects showed marked elevations of trait anxiety and specific interpersonal fears.

1.6.2. Assertiveness and Self-Esteem.

Many students of assertive training consider the enhancement of self-esteem as the major rationale of this particular form of therapeutic intervention. The enhancement of one's feelings about oneself as well as the increased ability for more rewarding social interaction are the primary targets of assertiveness training.

Jean Baer (Fensterheim and Baer, 1979) used self-esteem as the criterion for assertive behavior: "If you have doubts whether a specific act was assertive, ask yourself whether it increased your self-respect even slightly". (p.26).

The hypothesis that people who are assertive are also more self-accepting has been substantiated by research evidence. Percell et al (1974) found a significant positive correlation between assertiveness and self-acceptance in the study with one hundred psychiatric subjects. He also found some evidence of generalization from the modified behavior (a result of assertive training) to cognitive and attitudinal aspects. He concluded that assertiveness training resulted in increased assertiveness and substantially improved self-esteem.

Parmely (1979) reported significant behavioral and self-concept changes in women who participated in assertive training. They reported themselves to be less "modest", self-effacing and

conventional after treatment.

Conaway (1979) examined two correlates of assertiveness with college population. He hypothesized that assertiveness would correlate positively with the measures of self-esteem, and negatively with the measure of anxiety. In addition, the author predicted that the anxiety scores would correlate significantly negatively with self-esteem scores. The results clearly supported all experimental hypotheses.

1.6.3. Other Personality Correlates of Assertiveness.

With the exception of anxiety and self-esteem, the literature concerning the relationship between assertive behavior and other personality characteristics is meagre.

Averett et al (1977) incorporated the Eysenck Personality Inventory and the California Psychological Inventory in their investigation of the correlates of assertiveness. The results indicated a substantial positive relationship between assertiveness and extraversion (.46). A classification of subjects into three distinct categories along the two variables showed significant group differences with respect to a number of personality traits as measured by the California Psychological Inventory. The high assertiveness-high extraversion subjects scored significantly higher than the low assertiveness-low extraversion ones on scales measuring poise, ascendancy, self-

assurance and interpersonal adequacy. However, the low assertiveness-low extraversion subjects scored significantly higher on scales measuring socialization, maturity, responsibility and interpersonal structuring of values.

1.7. Ways of Quantifying Assertiveness.

A satisfactory assessment of assertive deficits and the evaluation of the efficacy of assertive training should theoretically include the following measures:

i. Global clinical judgments.
ii. Direct behavioral observations (real-life, contrived settings and role-playing).
iii. Physiological analysis.
iv. Self-report measures.

1.7.1. Global Clinical Judgments.

Prior to the McFall and Marston's (1970) report, assessment of assertive behavior consisted primarily of global clinical judgments. Since the definition of assertiveness was vague and general, the evaluation of assertive deficits relied on the measures of constructs which were only partly related to assertiveness (for example, anxiety, social fear). Evaluation of assertiveness in terms of clinical judgment exclusively, has been found insufficient.

1.7.2. Behavioral Observations.

Obtaining observations in naturalistic settings is both difficult and time consuming. Hedquist and Weinhold (1970) and Cotler and

Guerra (1976) developed a method whereby the participants of an assertive training group record their own behavior by means of a diary. The subjects record the day, place, persons and the type of interpersonal response made. Although a number of researchers have made validity checks for authenticity, this type of data was found difficult to evaluate for the quality and effectiveness of an assertive response.

A more reliable measure for assessing assertive behavior was suggested by McFall and Lillesand (1971). The method of contrived behavioral tasks was devised to elicit adequate samples of behavior necessary for comparison, standardization and control.

Weinman et al (1972) developed the Behavior in Critical Situations Scale (BCSS) to tap four different response classes:

i. Affiliation Tasks. The subject's behavior with a confederate in a waiting room is evaluated for social conversation and information seeking.

ii. Failure Tasks. The subject is critisized by the experimenter for failure to solve unsolvable puzzles. Persistence in the face of frustration and disapproval is considered a measure of social assertiveness.

iii. Disagreement Tasks. It reveals the subject's ability to defend his opinions in the face of disagreement by the experimenter.

iv. Default Tasks. The subject is shortchanged for participating in an experiment. His ability to assert his rights by insisting upon the full payment are assessed.

Another contrived behavioral task was developed by McFall and Marston (1970). The task involves a surreptitious telephone call to the subject by a confederate for a predetermined purpose. The subject may be requested to volunteer for various projects, buy subscriptions, help with course work, and so forth. These requests are supposed to tap the subject's response to unreasonable requests.

One of the most popular behavioral measures approximating real-life situations is role-playing. It readily lends itself to observations and quantifications. Real-life problematic situations are simulated under laboratory conditions, the subjects' responses are recorded and evaluated by independant judges. Eisler, Hersen and Agres (1975) found the reliability of videotape observations to be at least as high as that for real-life observations. Both verbal and nonverbal parameters of response can be observed and assessed. However, the method of role-playing has certain limitations. It may become biased when the subjects know they are being observed. The problem of bias can be controlled by keeping the subject ignorant as to the specific behaviors that are being assessed.

An additional problem in role-playing behavioral observation is

related to the fact that the subject may not be "in role". This means that they may not act as they would in the real-life situation.

The "rater bias" creates further problems in the objective assessment of the role-playing situation. The raters may be particularly perceptive of the behaviors which conform with the experimenter's expectations. Such problems can be controlled if the raters are blind to experimental hypotheses.

In spite of their reliability, behavioral measures of assertiveness are noticeably infrequent in the reviewed outcome studies. Ethical considerations concerning deception employed by such assessment procedures render most behavioral measures inadvisable for inclusion in assertiveness research.

1.7.3. Physiological Analyses.

Physiological measures have not proved useful as a standard assessment procedure in assertive training. McFall and Marston (1970) have used pulse rate as an index of autonomic arousal (anxiety). Pulse rate was assessed manually and was a crude measure under the circumstances. Borkovec et al (1974) reported some success with discriminating socially anxious and nonanxious subjects on the basis of heart rate arousal. However, it is highly unlikely that, with present methods, physiological assessment will be employed in identifying different complex

parameters of assertive behavior.

1.7.4. The Self-Report Measures of Assertiveness.

A search of the literature reveals over one dozen self-report measures of assertiveness. The most common and widely used are the following:

i. Wolpe-Lazarus Assertiveness Questionnaire (Wolpe and Lazarus, 1966).
ii. The Conflict Resolution Inventory (McFall and Lillesand, 1971).
iii. The College Self-Expression Scale (Galassi, Delo and Bastien, 1974).
iv. Adult Self-Expression Scale (Gay, Hollandsworth and Galassi, 1975).
v. The Rathus Assertiveness Schedule (Rathus, 1973).

The most widely cited of these instruments is the Wolpe-Lazarus Questionnaire. It consists of 30 items which apparently tap a variety of assertive behaviors, situations and persons. Unfortunately, the Questionnaire was developed for clinical rather than research purposes, and neither reliability nor normative data with the non-clinical population are available.

The Conflict Resolution Inventory taps a variety of situations. However, these were designed to measure only one behavioral

dimension of assertiveness - refusal.

The 50-item College Self-Expression Scale was designed to measure the degree of difficulty of engaging in a variety of assertive behaviors with a number of persons. The scale has reportedly adequate reliability, and the normative data has been compiled for a large number of college students.

The Adult Self-Expression Scale was devised to cater to the adult population. It consists of 4 original and 29 rewritten items of the College Self-Expression Scale. Findings comparable to those for the CSES were obtained.

The 30-item Rathus Assertiveness Schedule (RAS) spans a variety of behaviors, persons and situations. (A detailed discussion of research findings pertaining to the RAS is in Section 1.9).

1.8. A Note On Validity.

"The validity of a test concerns what the test measures and how well it does so".[1] The procedures for determining test validity are basically concerned with measuring the relationship between performance on the test and (independently assessed) facts about the behavior under consideration. Three general types of validity are commonly identified:

i. Content Validity.
ii. Criterion-related Validity.
iii. Construct Validity.

1.8.1. Content Validity.

Content validity of a test involves systematic examination of the test content to determine whether it covers a representative sample of the behavior it purports to measure. Not only should the test content include all major aspects of a behavior - it should also be free from the possible inclusion of irrelevant factors. Content validity is usually misleading for personality tests. The reason is that such tests bear less intrinsic resemblance to the behavior they are sampling than do other tests, such as achievement instruments. Validation of personality tests usually relies on empirical procedures described below.

[1]Anastasi, 1968, p.99.

1.8.2. Criterion - related Validity.

The criterion-related validity indicates the effectiveness of the test in predicting and/or assessing an individual's behavior in specific situations. The distinction between predictive and concurrent validity is made on the basis of the objectives of testing. Concurrent validity is relevant for diagnosis of the existing status, rather than predicting any future outcomes of the behavior. The difference between the two objectives is illustrated by two different questions of interest: "Is X assertive?" (concurrent validity) and "Is X likely to become assertive?" (predictive validity). Particularly useful criteria for criterion-related validity are the following:

i. Observer-ratings of the relevant behavior.
ii. Performance in real-life situations.

1.8.3. Construct Validity.

"The construct validity of a test is the extent to which the test may be said to measure a theoretical construct or trait".[1] Construct validation of a test is frequently equated with testing a theory about the behavior the test is supposed to measure. Construct validation involves the analysis of "any data throwing light on the nature of the trait under consideration and the

[1]Anastasi, 1968, p.114.

conditions affecting its development and manifestations...".[1] There are a number of specific techniques suitable for construct validation:

i. Correlations with other tests.

ii. Factor analysis

iii. Testing a hypothesis about the behavior in question.

Correlations with other tests (which have been empirically proved to measure the behavior) are employed for two purposes: To demonstrate that the test is relatively free from the influence of certain irrelevant factors, and to demonstrate that the test measures approximately the same general area of behavior as the other test.

The procedure of factor analysis is designed to identify any possible underlying patterns of relationships in a collection of data. Through factor-analyzing a test which consists of a number of items, one may identify clustering of some items into separate, clearly defined, components. Such exploratory use of factor analysis may produce new information about the behavior tested; the information otherwise lost in the interpretation of the global test score.

[1]Anastasi, 1968, p.115.

Testing a theory about the relevant behavior is another source of data for construct validity of a test. Experiments can be designed to test any hypothesis regarding a sample of behavior the test purports to measure. If the results of such experiment support the experimental hypothesis, the experiment has served two purposes: testing the theory and proving that the test scores do reflect the construct it is claimed to measure.

1.9. The Rathus Assertiveness Schedule (RAS).

The RAS (Rathus, 1973) is one of the most common self-report assertiveness measures used both for screening of potential assertiveness training participants and for research purposes. The RAS consists of a 30-item rating scale selected from Wolpe (1969). Respondents to the RAS are required to answer the 30 items by using a rating scale ranging from +3 ("very characteristic of me, extremely descriptive") to -3 ("very uncharacteristic of me, extremely nondescriptive"). Measure of assertiveness is represented by a single numerical index obtained by summing up the scores of all the individual questions after reversing the sign of the so-called "reversed items". (APPENDIX A).

1.9.1. The RAS Content.

The 30 RAS items cover an adequate spectrum of Behaviors, Persons and Situations. The RAS samples specific behaviors such as: expressing opinions contrary to one's own, initiating social interactions, making/accepting dates, expressing positive and negative emotions, responding to compliments, refusing unreasonable requests, information seeking.

The RAS includes items dealing with a wide range of Persons dimension: opposite sex and peers, relatives, acquaintances, authority figures, strangers (both groups and individuals) and

institutions.

The Situations dimension covered by the RAS includes: social approach and request situations, protective and refusal situations, commercial and consumer-service situations.

1.9.2. The RAS Reliability Studies.

The scope of this research does not include a reliability study of the RAS. However, a number of reliability studies concerning the RAS have been reviewed. The summary of the RAS reliability data has been compiled and illustrated in FIGURE 3.

In the process of the reliability assessment of the RAS, Rathus (1973) compared odd and even item scores of 67 undergraduate students. The resulting split-half reliability coefficient of .77 indicated high internal consistency of the test. The reliability of the instrument was verified in the same study by test-retest procedure, with the retest taking place after an 8-week interim. The resulting Pearson product-moment correlation coefficient of .78 supported the high internal consistency of the test.

Subsequent reliability studies performed with varied population groups (adult, adolescent, psychiatric, nonclinical and prison populations) yielded results which further substantiated the original findings reported by Rathus (1973).

FIGURE 3

RAS RELIABILITY STUDIES

Researchers	Population	N	Mean	SD	TYPE	R	P
Rathus, 1973	undergraduate students (both sexes)	N=68	0.29	29.1	test-retest (8 weeks interim)	.78	p .01
Rathus, 1973	general public age: 15-70	N=67	not reported		split-half	.77	p .01
Heimberg, 1980	prison inmates (males)	N=45	16.93	30.3	test-retest	.83	not reported
Heimberg, 1980	prisoners (males) age = 22	N=154	17.62	24.21	split-half reliability	.80	not reported
			M F	M F			
Rathus & Nevid, 1977	psychiatric population:	N=191	-5.4 -8.2	35.3 31.8	split-half	.86	p .001
	neurotics	N=58	5.9 -27.0	36.0 27.5		.84	p .001
	schizophrenics	N=35	-23.0 -12.3	4.5 34.7		.73	p .05
	personality	N=80	-6.4 8.1	39.5 28.0		.91	p .001
	others	N=18	-5.3 -5.5	33.0 15.9		.84	p .001
Mann & Flowers, 1978	volunteers (general public)	N=39	20.39	not reported	split-half	.60	p .001
Vaal & McCullagh, 1977	adolescents both sexes, age: 11-14	N=72	3.94 4.931	19.31 16.285	test-retest	.76	p .01
Vaal & McCullagh, 1977	high school st. age: 11-14	N=72	3.94	19.31	split-half	.77	p .01

1.9.3. RAS Item Analysis.

An item analysis of the RAS performed by Rathus (1973) showed that 19 out of the 30 items correlated significantly positively with external criteria of assertiveness, and 27 out of the 30 correlated significantly positively with external ratings including a constellation of characteristics such as: Boldness, Confidence, Assertiveness. Rathus found that none of the remaining three items (which did not produce significant correlations with the external criteria) detracted from the total score. It was therefore suggested that the three items (questions 1, 18, 21) be retained, as each of these contributed to the construct measured.

1.9.4. Criterion-related Validity of the RAS.

In the criterion-related validation procedure, Rathus (1973) compared the total RAS scores of 67 college students (both sexes) with adjective ratings of their assertiveness and related personality characteristics. The external ratings were provided by raters who "knew the subjects well". The 17 criteria consisted of the following, dichotomized personality characteristics:

bold _:_:_:_:_:_ timid

poor _:_:_:_:_:_ prosperous

quiet _:_:_:_:_:_ outspoken

intelligent _:_:_:_:_:_ stupid

assertive _:_:_:_:_:_ nonassertive

awful _:_:_:_:_:_ nice

unhealthy _:_:_:_:_:_ healthy

aggressive _:_:_:_:_:_ withdrawing

happy _:_:_:_:_:_ unhappy

satisfied _:_:_:_:_:_ dissatisfied

unfair _:_:_:_:_:_ fair

ill _:_:_:_:_:_ well

confident _:_:_:_:_:_ uncertain

smart _:_:_:_:_:_ dumb

strong-willed _:_:_:_:_:_ weak-willed

active _:_:_:_:_:_ inactive

discontent _:_:_:_:_:_ content

The modifiers "very" were attached to the extreme positions of each scale, "slightly" to the central positions, and "rather" or "quite" to the moderate positions.

The RAS correlated significantly positively with ratings of Outspokenness (.62), Boldness (.61), Aggressiveness (.54), Assertiveness (.33) and Confidence (.32). The RAS correlated significantly negatively with the ratings of Niceness (-.36).

In 1977, Rathus and Nevid carried out an extensive investigation of the RAS concurrent validity with a clinical population which included diagnostic groups such as: neurotics, schizophrenics,

and personality disorder. Subjects' RAS scores were correlated with therapists' ratings of their patients along seven dichotomized criteria:

bold - timid
quiet - outspoken
happy - unhappy
assertive - nonassertive
active - inactive
aggressive - withdrawing
nice - awful
confident - uncertain
weak-willed - strong-willed

The results of the investigation showed that the RAS scores were highly convergent with ratings of Assertiveness (.80), Boldness (.74), Outspokenness (.69), Aggressiveness (.72), Confidence (.80), Activity (.58), Happiness (.49) and Strength of will (.70). The RAS score correlated significantly positively with the ratings of Niceness for neurotics (.30), and significantly negatively for schizophrenics (-.52).

The findings of both validation studies reported by Rathus (1973, 1977) elicited major criticism from Galassi and Galassi (1975). It was suggested that the RAS score may be a measure of aggressiveness as well as the so-called "assertive construct" (including assertiveness, confidence, outspokenness, and social

boldness). The criticism that the RAS may confound aspects of assertiveness and aggressiveness was further supported by two other findings. Heimberg's (1980) reliability study of the RAS produced results indicating that prison inmates tended to report higher scores of assertiveness than college population in Rathus's (1973) investigation. The criticism of the RAS was further substantiated by the revision of the test content which revealed the somewhat vague formulation of the following items:

1. Most people seem to be more aggressive and assertive than I am.
7. There are times when I look for a good, vigorous argument.
24. I tend to bottle up my emotions rather than make a scene.
28. Anyone attempting to push ahead of me in a line is in for a good battle.

Galassi and Galassi's (1975) original criticism of the RAS was based specifically on the high positive correlation between the global RAS score and the external rating of aggressiveness reported by Rathus (1973, 1977) in two consecutive studies.

A revision of Rathus's investigations shows that a dichotomized rating "aggressive-withdrawing" was used in both cases. It would appear that "aggression" used in that context does not necessarily correspond to the definition of aggressiveness as conceptualized previously, that is, there is no implication of the aggressive intent to hurt, humiliate, or assert one's rights

at the expense of the rights of others. In fact, one would tend to interpret the dimension "aggressive-withdrawing" in terms of social boldness, initiative or courage to initiate social interactions. Therefore, taking into account the lack of specificity of the criterion (as used by Rathus), the supposition that the RAS is contaminated with measure of aggressiveness should be reviewed more rigorously.

The criticisms of the RAS based on Heimberg's (1980) findings that prison inmates achieved higher overall mean on the RAS than did college students, seems to be more valid.

Heimberg's findings cast serious doubts on the wisdom of using a single numerical index for a construct as complex as assertiveness. As suggested by Chandler et al (1978) "an overall assertiveness score may make little sense unless one can argue a strong case for a generalized trait".[1] No study successfully proving unidimensionality of assertiveness has yet been reported. To the contrary, there are solid theoretical and empirical grounds in favour of assertiveness as a complex multidimensional construct. Therefore, using the RAS global score as an index of general assertiveness may be both unjustified and incomplete.

[1]Chandler and Dugovic, 1978, p.396.

The above criticism points to the need for a more rigorous investigation of the structure of the inventory in order to reveal components reflecting situation-specific assertiveness as well as aggressiveness. In view of such a procedure, the fact that the RAS includes items dealing with aggressiveness as well as assertiveness would not detract from the value of the test. On the contrary, a construction of the RAS subscale clearly identifying aggressive behavior would contribute to the power of the instrument in discriminating between assertive, nonassertive and aggressive patterns. Such a study has not yet been reported.

1.9.5. Construct Validity of the RAS (Correlations with Other Tests).

Construct validation studies of the RAS have brought forth a new wealth of information pertaining to the construct of assertiveness as measured by the RAS. By correlating the RAS with other, well defined and standardized personality measures, significant relationships have been noted between self-reported assertiveness and other relevant personality characteristics. Unfortunately, most of the studies have used the global score of assertiveness in investigating personality correlates of assertive behavior.

In the process of relating the RAS with the Personality Research Form (PRF), Green et al (1979) found significant positive and negative correlations between assertiveness and several

personality traits. Subjects scoring high on assertiveness achieved high scores on the Dominance (.47), Change (.32) and General Assertiveness (.58) scales of the PRF. A significantly inverse relationship between the RAS and scales such as Abasement (-.38), Harm-avoidance (-.29) and Succorance (-.31) indicated that the subjects scoring high on assertiveness reported low scores on these PRF measures.

Orenstein et al (1975) validated the RAS against a battery of tests including the Maudsley Personality Inventory, the State-Trait Anxiety Inventory and the Wolpe-Lange Fear Survey Schedule. The experimental sample consisted of 250 male and 200 female North American undergraduate students. The results of the correlational analysis revealed a highly inverse relationship between assertiveness and specific interpersonal fears (-.78) for both males and females. Especially relevant was the negative correlation between assertiveness and both the fear of social interactions and the fear of negative evaluation. Furthermore, subsequent analysis of variance clearly demonstrated that low assertive subjects of either sex obtained higher scores of anxiety than the high assertive ones.

1.9.6. Construct Validity of the RAS (Factor Analytic Studies).

Three factor analytic studies of the RAS have been reported up to date (Law and Wilson, 1979; Heimberg, 1980, and Gritzmacher, 1978). The purpose of these studies was to investigate the

psychometric adequacy of the RAS and, more specifically, to establish the factors which define the assertiveness construct in the instrument.

A method of achieving that purpose was suggested by Law and Wilson (1979). It was predicted that the procedure of principal components analysis of the RAS would reveal several components reflecting situation-specific assertiveness rather than general assertiveness, involving all test items. The analysis of data, collected on a sample of North American undergraduates, revealed seven components assessing unique aspects of assertiveness. The results of the investigation are illustrated in FIGURE 4.

Heimberg's (1980) exploration of the utility of the Rathus Assertiveness Schedule with male offenders produced several valuable findings. The RAS was demonstrated to have reasonable reliability and a potentially useful factor structure. Yet, the author raised a question of the RAS utility with offenders on the basis of high positive correlation between the RAS global score and the external ratings of aggressiveness. Although the study identified four different components of assertiveness for the prison population, no attempt was made to investigate which of these, if any, reflected aggressiveness for that population. The summary of the RAS factors revealed in the study is illustrated in FIGURE 5.

FIGURE 4

RAS FACTORS
(derived by Principal Components Analysis for a sample of North American undergraduates)[1]

RAS factors	RAS items	Description of construct
Factor 1.	5, 12, 13, 14, 17.	Concerned with avoiding confrontations in commercial situations.
Factor 2.	3, 19, 25, 27, 28.	Reflects confrontations in the consumer service situations.
Factor 3.	2, 10, 11, 26, 30.	Concerned with expressing assertiveness in social and/or emotional relationships (including dating behavior).
Factor 4.	4, 15, 20, 24.	Concerned with expression of emotions.
Factor 5.	8, 21, 22, 27, 28.	Indicate an aggressive outgoing attitude typical of social extravert.
Factor 6.	7, 16, 18, 29.	Concerned with items indicating readiness to express opinions in public.
Factor 7.	1, 5, 9, 23.	Involves general items related to dominance and assertiveness and as such was considered as an index of general assertiveness.

[1]From H.G. Law and E. Wilson. A Principal Components Analysis of the Rathus Assertiveness Schedule. (J. of Consulting and Clinical Psychology, 1979, vol.47, no.3, 631-633).

FIGURE 5

SUMMARY OF FACTOR ANALYSIS OF RAS SCORES OF CRIMINAL OFFENDERS.[1]

FACTOR	LABEL	PCT OF COMMON VARIANCE	PCT OF TOTAL VARIANCE	RAS ITEMS
I.	Social Hesitation	36.3	17.5	2,11,12,13,14.
II.	Loss of Approval	16.3	8.8	1,5,9,14,16,17, 23,24,30.
III.	Self-Expression	11.7	6.7	21,22,29.
IV.	Assertion in Impersonal Situations	8.6	5.6	3,4,25,27,28.

Gritzmacher's (1978) study was designed to test the psychometric adequacy of three assertiveness inventories, including the RAS. The results of factor analysis indicated that the RAS was defined by two factors: Outspokenness and Positive Self-Image. Because the study was available in the abstract form only, it is not known which individual RAS items clustered together to form these two factors.

[1]Richard G. Heimberg. Use of the Rathus Assertiveness Schedule with offenders: A Question of Questions (Behavior Therapy, 1980, 11, 278-281).

1.9.7. RAS and Sex-Role Stereotypes.

A number of recent studies on assertiveness have raised a question of possible sex-differences in self-reported assertiveness. A related question of interest would concern possible differences in external ratings of male- and female-assertiveness.

The issue of sex-role stereotyping and the assumption that men are generally perceived as more assertive than women has been discussed previously (Section 1.5). Research evidence pertaining to the sex differences in self-reported assertiveness is less conclusive.

Examining research literature, it would appear that the RAS is one of the very few assertiveness instruments which have been used in systematic investigation of gender differences in both the perception and delivery of assertive behavior.

Mann and Flowers (1978) produced empirical evidence in support of the theory that, culturally, men are perceived as more assertive than women. This bias was reflected in the difference between external ratings of subjects' assertiveness and self-ratings (RAS) of men and women. While women's assertiveness was perceived almost identically by the women themselves and by the external judges, the latter perceived men as more assertive than the men reported themselves.

The differences between self- and external evaluations of assertiveness on the basis of sex was further substantiated by Hess et al (1980). Confederates engaging in assertive expression of negative feelings were described as Assertive, Aggressive and Masculine, and those who demonstrated assertive expression of positive feelings were rated by the subjects as Feminine. These results are especially relevant to assertiveness training. As noted by the authors:

> ..."regardless of gender, individuals are apt to be judged as masculine or feminine dependent upon the type of assertion situation with which they are confronted. Thus, practitioners may encounter particular resistance when training either female clients in the expression of negative feelings or male clients in the expression of positive feelings. In any case, resistance appears to be a direct reflection of sex-role stereotypes in assertive responding".[1]

Investigating sex-related differences in the level of self reported assertiveness, Hersen (1973) found that males tended to report higher levels of assertiveness than females. Since then, several other studies have provided empirical evidence in support of that finding. (Hollandsworth, 1976; Orenstein, 1975). Appelbaum (1976) and Quillin (1977) found no significant sex differences on the self-reported inventory of assertiveness. They suggested, therefore, that the RAS produces comparable results for both sexes.

[1]Hess et al, 1980, p.56.

More recently, Chandler et al (1978) suggested a novel approach to the issue of gender related differences. Having established that male subjects reported significantly higher global scores of assertiveness than females, the investigators proceeded to test possible gender influences on the individual items of the RAS. Two statistical procedures were carried out to examine sex-related patterns of responses. First, independant t-tests were calculated between the sexes by item. Following that, a stepwise multiple regression of sex with the 30 items identified the items showing significant sex differences. The results of both procedures indicated that 6 out of the 30 items showed statistically significant sex differences: 1,2,4,13,16,21. The analyses revealed that men in the study considered themselves more assertive than women in comparison to "most people" (item 1), reported greater assertiveness in defending their rights (item 4), coping with competitive situations (item 13), information-seeking (item 16) and emotional openness (item 21). Women reported greater assertiveness in dating situations.

Similar findings were reported by Nevid and Rathus (1978) with college population. Seven RAS items were found to elicit sex-related differences. Women reported themselves more assertive and less shy in dating situations (item 2) and more willing to disclose feelings (item 21). Men reported higher assertiveness in contradicting others (item 18), defending own rights (items: 4 and 28), withstanding interpersonal stress (item 17), and coping with competitive situations (item 13).

The results of both investigations seem to further support the view that any research based on the global RAS score exclusively, may produce incomplete and misleading results. It would appear that either an item analysis of the instrument or the analysis of the various assertiveness constructs inherent in the RAS would provide more insight into assertiveness measured by the test.

1.9.8. RAS Normative Data.

Two major efforts to provide normative data on the RAS were those of Quillin (1977) and Nevid and Rathus (1978). Quillin's normative data, based on a sample of North American psychology Undergraduates (N=133) is illustrated in FIGURE 6.

FIGURE 6
PERCENTILE RANKINGS FOR TOTAL RAS SCORES
(QUILLIN, 1977)

RAW SCORE	PERCENTILE
-35	5
-25	10
-20	15
-19	20
-14	25
-13	30
-9	35
-5	40
-4	45
0	50
2	55
6	60
10	65
11	70
15	75
20	80
21	85
25	90
35	95

Nevid and Rathus (1978) based their normative data on a large sample of university students from all regions of the United States (637 males and 764 females). The results are illustrated in FIGURE 7.

FIGURE 7
PERCENTILE RANKINGS FOR TOTAL RAS SCORES
N=1401
Female N= 764
Male N= 637
(Nevid and Rathus, 1978)

Women's Scores	PERCENTILE	Men's Scores
-48	1	-41
-34	5	-24
-24	10	-15
-17	15	-11
-13	20	-7
-8	25	-3
-4	30	1
-1	35	3
2	40	6
6	45	8
8	50	11
11	55	14
14	60	17
17	65	19
19	70	24
23	75	26
26	80	30
31	85	33
37	90	40
45	95	48
55	99	65

1.10. Summary of the Literature Review

Although the concept of assertiveness was introduced over 30 years ago (Salter, 1949), only recently has much effort been expanded in the investigation of the measurement of assertiveness. One factor that appears to have hampered a development of a well standardized instrument has been the lack of integration among the different definitions of assertiveness. As noted by Galassi and Galassi (1978), before a comprehensive model of assertiveness is accepted, the problem of measurement will not be resolved.

One of the aims of this study was to provide a clear framework for the analysis of assertiveness. That purpose was achieved by integrating the various theoretical concepts of assertiveness within the three-dimensional framework which specifies the assertive Behaviors, the Persons involved in a particular interaction and the Situations in which a response is taking place.

Understanding assertiveness involves more than the understanding of the operational definition of the construct. To identify an assertive act one needs to differentiate it from nonassertive and aggressive ways of interacting.

An attempt was made to provide a clear framework for differentiating assertive from nonassertive and aggressive

responses. In addition, a number of factors responsible for assertive deficits have been discussed.

A further purpose of the literature review was to provide a coherent picture of the nature of assertiveness in terms of its relationship to other personality characteristics: Research evidence exploring the relationship between assertiveness and self-esteem, anxiety and extraversion has been discussed.

Following the exposition of assertiveness, its definition, topography and relatedness to other personality characteristics, special attention has been focused on the self report instrument of assertiveness - the Rathus Assertiveness Schedule.

The Rathus Assertiveness Schedule (RAS) has been found to tap more dimensions of the assertiveness concept than other instruments. Apart from its brevity and convenience of administration, the RAS content includes a relatively broad spe t um of Behaviors, Persons and Situations.

Numerous validating studies of the RAS produced results indicating that self-report assertiveness correlates significantly positively with the external ratings of social boldness and confidence (Rathus, 1973, 1977). Others found that assertiveness as measured by the RAS relates inversely and highly significantly with measures of social anxiety (Orenstein, 1975).

The early validating studies of the RAS led to the identification of the most serious problem of quantifying assertiveness, that is, the problem of measuring assertiveness with a single index. Most recent findings have proved the limited utility of representing assertiveness with a single overall score (Galassi and Galassi, 1978).

Law and Wilson (1978) found that the RAS includes several components of situation-specific assertiveness and that reducing the psychometric potential of the test to a single index may be both unjustified and incomplete.

CHAPTER 2. METHOD

The literature reviewed in this study was aimed at providing a framework for both the analysis of assertiveness and evaluating the utility of the Rathus Assertiveness Schedule as a self-report measure of assertiveness. The reviewed research pertaining to both the definitional concept and the measurement of assertiveness was conducted on samples of the North American population. The purpose of the present study was to determine the psychometric adequacy of the RAS with a sample of the South African University undergraduates.

2.1. Subjects.

One hundred and sixty eight first year psychology students (92 females and 76 males) at Rhodes University in South Africa were employed as subjects. The subjects' age ranged between 17-29 years. The mean age for the total population was 18.5 years. All the subjects indicated English as their language of preference.

2.2. Procedure.

During their last tutorial meeting for the year, the subjects were asked by their respective tutors (who were previously briefed by the experimenter) to fill out a 4-page questionnaire consisting of personal data (name, sex, age, language of preference), the Rathus Assertiveness Schedule, and the Howarth Personality Questionnaire. Additional data (external ratings of the subjects along 6 dichotomized personality characteristics)

was subsequently provided by three male tutors on 79 subjects. (The tutors were unfamiliar with their subjects' test scores). The administration of the tests took place three weeks before the end-year examination.

2.3. Tools.

Three data-gathering instruments were used for the purpose of this study: the Rathus Assertiveness Schedule (RAS), the Howarth Personality Questionnaire (HPQ), and Observer Ratings. The instructions for administration and full copies of the RAS and HPQ are found in APPENDIX A and B, respectively.

2.3.1. The Rathus Assertiveness Schedule (RAS).

A detailed discussion of the RAS as well as the evaluation of the test in terms of reliability and validity is to be found in Section 1.9 of the Literature Review. (The 30-item RAS inventory includes 17 so-called "reversed items". The global index of assertiveness is computed after reversing the signs of these items. All statistical operations in this study were performed after the original scores were reversed on the 17 items).

2.3.2. The Howarth Personality Questionnaire (HPQ).

The Howarth Personality Questionnaire (Howarth, 1979) was selected for the purpose of construct validation study of the

RAS. The choice of the HPQ was based on the merits of the test. The test consists of ten well defined and comprehensive personality scales which provide a broad spectrum of personality characteristics.

The Howarth Personality Questionnaire was designed to measure personality traits which were developed from a large-scale factor analysis involving over 4000 items.

The HPQ consists of 120 items which comprise ten personality trait scales. The ten scales have been operationally defined as follows:

SOCIABILITY: (SY) This is a widely reported factor which embodies the American concept of extraversion and is traceable, in part, to the early works of Guilford and Eysenck. A person scoring high on this scale is described as having an active orientation to life, and needing people to relate to.

ANXIETY: (AE) This is a concise, though reliable, scale for trait anxiety. This scale originated from the work of Woodworth. (Howarth, 1979).

DOMINANCE: (AD) A person scoring high on this scale tends to be dominant in social interactions and to continually act as though under a drive to be dominant over others. (N.B.: It is dominance over people rather than things).

CONSCIENCE: (SG) The alternative name for this scale is "superego". This factor is the primary representation of a broad factor of social conscience which includes both this factor and the cooperativeness factor. A person scoring high on this scale is concerned with social rules, mores and expectations, objects to lax standards of dress, language and behavior.

HYPOCHONDRIAC-MEDICAL: (HM) This scale consists of hypochondriasis and medical items which are often anxiety manifestations. Together with Anxiety and Inferiority, this scale forms the "neurotic triad".

IMPULSIVE: (IP) This scale expresses uncontrolled, poorly inhibited actions, lack of control and failure to plan ahead.

COOPERATIVE-CONSIDERATE: (CC) This scale includes both cooperative and considerateness aspects of a person as well as the tendency to conform with social expectations. This factor overlaps, to some extent, with the concept of empathy.

INFERIORITY: (IF) This scale describes an attitude of being unable to "make the grade", failing in life, an unwillingness to stand out which overlaps with social shyness.

PERSISTENCE: (PS) This factor expresses the ability to persist in an activity, occupation, or intention.

SUSPICION VS. TRUST: (TS) A high score on this scale indicates suspiciousness of others' intentions.

Howarth reports moderate to high split-half reliabilities for the scales:

Sociability	.84
Anxiety	.80
Dominance	.72
Conscience	.72
Hypochondriac	.66
Impulsive	.78

Cooperative	.73
Inferiority	.78
Persistence	.68
Suspicion	.74

The normative data for the Howarth Personality Questionnaire is illustrated in Figure 8. (Howarth, 1980).

FIGURE 8

NORM TABLES - HPQ[1]

GROUP TESTED		SY	AE	AD	SG	HM	IP	CC	IF	PS	TS
N=631 Students	Mean	7.39	5.31	5.10	5.49	3.84	4.20	8.28	4.22	7.28	5.80
	S.D.	3.44	3.34	2.92	2.90	2.45	3.09	2.33	2.89	2.98	2.73
N=331 Female Students	Mean	7.29	5.71	4.34	5.94	3.99	4.07	8.55	4.72	7.19	5.36
	S.D.	3.48	3.28	2.71	2.94	2.45	3.10	2.20	2.80	2.67	2.66
N=300 Male Students	Mean	7.52	4.86	5.88	5.01	3.67	4.35	7.98	3.68	7.37	6.30
	S.D.	3.40	3.36	2.93	2.78	2.44	3.08	2.45	2.89	3.30	2.73
N=538 Francophone Students	Mean	7.00	4.86	6.14	5.01	3.22	4.14	7.87	3.61	8.05	6.22
	S.D.	3.23	3.12	2.61	2.27	2.60	2.86	2.32	2.37	2.78	2.67
N=188 Army Male Soldiers	Mean	8.85	3.84	5.33	7.49	3.37	4.26	9.13	2.65	8.53	6.76
	S.D.	2.75	2.95	2.87	2.11	2.52	2.89	2.18	2.33	2.49	2.54
N=110 Army Male Officers	Mean	8.26	3.19	7.16	6.62	1.95	4.38	8.87	2.55	9.11	6.06
	S.D.	3.26	2.80	2.38	2.18	1.74	2.82	1.94	2.66	2.30	2.74
Sample Reliabilities		.84	.80	.72	.72	.66	.78	.73	.78	.68	.74

[1]Howarth, E. Technical Background and User Information for Trait and State Inventories (HPQ Manual), 1979.

2.3.3. Observer-Ratings

The third data gathering source used in this study was based on Observer Ratings. External ratings involved the following, dichotomized personality characteristics:

bold _:_:_:_:_:_ timid

nice _:_:_:_:_:_ awful

confident _:_:_:_:_:_ uncertain

angry _:_:_:_:_:_ placid

assertive _:_:_:_:_:_ nonassertive

knowledgeable _:_:_:_:_:_ ignorant

The modifiers "very" were attached to the extreme positions, "quite" to the moderate positions, and "slightly" to the center positions.

The point values from 1 to 6 were ascribed to the ratings after the external judges completed their assessment of the subjects. (Lowest point, 1, was attached to the extreme position on the right and the highest point to the extreme position on the left).

2.4. Hypotheses, Experimental Design and Data Analysis.

2.4.1. Hypothesis 1: Sex Differences in Self-reported Assertiveness.

Based on sex-role expectations (Broverman, 1970 and Bem, 1974, 1975) and empirical evidence suggesting sex-differences in self-report assertiveness (Hersen, 1973; Hollandsworth, 1976; Orenstein, 1975) it was predicted that men in this study would report higher scores of assertiveness on the RAS than women.

To test this hypothesis, *t*-tests were conducted to evaluate mean differences on the RAS scores between the two sexes.

2.4.2. Hypothesis 2: Criterion-related Validity of the RAS.

In conformity with the reports suggesting high criterion-related validity of the RAS (Rathus, 1973, 1977), it was predicted that the RAS scores would correlate significantly positively with the external ratings of the subjects' assertiveness.

Correlational procedures (Pearson product-moment correlations) were used to test the relationship between self-reported (RAS) and observer-rated assertiveness.

2.4.3. Hypothesis 3: Construct Validity of the RAS.

Based on the theoretical conception of assertiveness as well as the empirical evidence elucidating the construct of assertiveness, (Ludwig, 1972; Averett, 1977; Green, 1979), it was predicted that the RAS scores of assertiveness will correlate significantly positively with the following HPQ scales:

Sociability (SY)
Dominance (AD)
Persistence (PS)

To test the theoretical and empirically substantiated assumptions that assertive responses are incompatible with anxiety, inferiority and somatic complaints (Wolpe, 1969; McFall, 1970; Eisler, 1973; Percell, 1974; Orenstein, 1975; Parmely, 1979), it was hypothesized that the RAS will correlate significantly negatively with the following HPQ scales:

Anxiety (AE)
Inferiority (IF)
Hypochondriasis (HM)

Correlational design (Pearson product-moment correlation) was used to test these relationships.

2.4.4. Hypothesis 4: Multidimensionality vs Unidimensionality of the RAS.

Based on the empirically proved contention that assertiveness is best viewed as a group of partially independant, situation-specific response classes (Rich, 1976; Galassi, 1978; Gritzmacher, 1978; Law, 1979; Heimberg, 1980), it was predicted that the RAS would yield a multidimensional rather than a unidimensional measure of assertiveness.

Factor analytic method (a principal components analysis with equimax rotation) was used to identify the components of assertiveness measured by the RAS.

CHAPTER 3. RESULTS AND DISCUSSION

3.1. Descriptive Statistical Analysis.

The first task of data analysis was to determine the distributional characteristics of both self-report tests: the HPQ and RAS

3.1.1. HPQ Normative Data.

TABLE 1 illustrates the means and standard deviations obtained by males and females on the 10 scales of the HPQ. It can be noted that the means and the standard deviations of the HPQ scales for the sample in this study correspond closely to the normative data obtained from a sample of the North American undergraduate population (Howarth, 1979) illustrated in FIGURE 8.

TABLE 1

Means and Standard Deviations on the Ten HPQ Scales for the Male and Female Samples.

HPQ	MALES			FEMALES		
SCALES	N	MEAN	SD	N	MEAN	SD
Sociability (SY)	76	7.7	3.3	92	7.5	3.6
Anxiety (AE)	76	5.5	3.4	92	6.9	2.9
Dominance (AD)	76	6.4	2.8	92	4.9	3.2
Conscience (SG)	76	5.5	2.5	92	5.4	2.4
Hypochondriasis (HM)	76	3.8	2.4	92	4.2	2.5
Impulsive (IP)	76	5.3	3.1	92	5.9	3.5
Cooperative (CC)	76	7.8	2.4	92	7.6	2.4
Inferiority (IF)	76	3.9	2.8	92	4.8	2.8
Persistence (PS)	76	7.0	2.8	92	7.0	3.1
Suspicion (TS)	76	7.7	2.4	92	7.2	2.7

3.1.2. The RAS (Total Sample).

Data pertaining to the distributional characteristics of the RAS are illustrated in TABLE 2 and 3, which contain the score range, absolute and relative frequencies, as well as the percentile rankings.

From the inspection of TABLE 2 and the normative RAS data obtained by Quillin (1979) and illustrated in FIGURE 6, it can be noted that the percentile rankings of the population under study are very similar to the percentile rankings of the North American psychology undergraduates.

TABLE 3 contains the summary of distributional statistics of the RAS for the total population in this study. The RAS scores for the total sample ranged from -62 to +72 (the highest possible range of the RAS scores is from -90 to +90). The **mean** for the total sample was 1.5. The value occurring most often (the **mode**) was the score of -7. The numerical value of the middle case, that is, the case lying exactly on the 50th percentile (the **median**), was 0.8. **Variance** (the measure of the dispersion of the data about the mean) was 628.6 and the **standard deviation** equaled 25.07. The measure of **Skewness** of the RAS distribution shows that the distribution approximates a normal curve. (The measure of skewness will have a value of zero when the distribution is completely symmetrical). A positive value indicates that the cases are clustered more to the left of the

mean. The measure of **Kurtosis** represents the relative peakedness or flatness of the curve. (A normal distribution will have a Kurtosis of zero). A positive value of Kurtosis indicates that the RAS distribution is more narrow (peaked) than a normal distribution.

TABLE 2

RAS Frequency Distribution for the Total Sample

SCORE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY	%ILE	SCORE	ABSOLUTE FREQUENCY	RELATIVE FREQUENCY	%ILE
-62	1	0.6	0.6	0	4	2.4	49.4
-54	1	0.6	1.2	1	3	1.8	51.2
-51	1	0.6	1.8	2	5	3.0	54.2
-49	1	0.6	2.4	3	1	0.6	54.8
-43	1	0.6	3.0	4	6	3.6	58.3
-41	1	0.6	3.6	5	3	1.8	60.1
-39	1	0.6	4.2	6	1	0.6	60.7
-38	1	0.6	4.8	7	2	1.2	61.9
-37	1	0.6	5.4	8	1	0.6	62.5
-35	1	0.6	6.0	9	1	0.6	63.1
-34	1	0.6	6.5	10	4	2.4	65.5
-32	4	2.4	8.9	11	1	0.6	66.1
-30	4	2.4	11.3	12	5	3.0	69.0
-28	1	0.6	11.9	13	2	1.2	70.2
-26	2	1.2	13.1	14	3	1.8	72.0
-24	3	1.8	14.9	15	4	2.4	74.4
-23	3	1.8	16.7	16	2	1.2	75.6
-22	2	1.2	17.9	18	2	1.2	76.8
-21	1	0.6	18.5	19	2	1.2	78.0
-20	1	0.6	19.0	20	1	0.6	78.6
-19	2	1.2	20.2	21	1	0.6	79.2
-18	2	1.2	21.4	22	4	2.4	81.5
-17	4	2.4	23.8	23	3	1.8	83.3
-16	1	0.6	24.4	24	1	0.6	83.9
-15	3	1.8	26.2	25	2	1.2	85.1
-14	4	2.4	28.6	27	2	1.2	86.3
-13	4	2.4	31.0	28	1	0.6	86.9
-12	2	1.2	32.1	29	2	1.2	88.1
-11	2	1.2	36.3	30	1	0.6	88.7
-10	1	0.6	33.9	31	1	0.6	89.3
-9	2	1.2	35.1	32	2	1.2	90.5
-8	2	1.2	36.3	34	1	0.6	91.1
-7	7	4.2	40.5	40	2	1.2	92.3
-6	2	1.2	41.7	41	1	0.6	92.9
-5	1	0.6	42.3	42	2	1.2	94.0
-4	2	1.2	43.5	46	1	0.6	94.6
-3	3	1.8	45.2	48	1	0.6	95.2
-2	3	1.8	47.0	49	1	0.6	95.8
0	4	2.4	49.4	53	1	0.6	96.4
				55	1	0.6	97.0
				56	1	0.6	97.6
				59	1	0.6	98.2
				64	1	0.6	98.8
				67	1	0.6	99.4
				72	1	0.6	99.9

TABLE 3

RAS Summary Statistics Table for the Total Sample

(N=168)

MEAN	1.518	STD ERR	1.934	MEDIAN	0.833
MODE	-7.000	STD DEV	25.073	RANGE	134.000
KURTOSIS	0.080	SKEWNESS	0.292		

Both self-report inventories (the RAS and the HPQ) yielded distributional data similar to the data reported for samples of the North American undergraduate students. The comparability of the results obtained by the sample in this study to samples on which both inventories had been standardized suggests the utility of the two tests to the sample of South African undergraduate students.

3.1.3. The RAS Distribution (for Sexes Separately).

The distributional characteristics of the RAS scores for males and females are illustrated in TABLE 4 and TABLE 5, respectively.

TABLE 4

RAS Summary Statistics Table for Males.
(N=76)

RAS SCORES	PERCENTILES	RAS SCORES	PERCENTILES
-51.	1.3	5.	53.9
-41.	2.6	6.	55.3
-38.	3.9	8.	56.6
-35.	5.3	9.	57.9
-32.	7.9	10.	59.2
-30.	9.2	11.	60.5
-28.	10.5	12.	64.5
-26.	11.8	15.	67.1
-24.	13.2	16.	69.7
-22.	14.5	18.	71.1
-19.	17.1	19.	72.4
-18.	19.7	20.	73.7
-16.	21.1	21.	75.0
-15.	22.4	22.	77.6
-14.	26.3	25.	80.3
-13.	27.6	27.	82.9
-12.	30.3	28.	84.2
-11.	31.6	29.	86.8
-10.	32.9	31.	88.2
-7.	36.8	32.	89.5
-6.	39.5	34.	90.8
-5.	40.8	48.	92.1
-4.	42.1	49.	93.4
-3.	43.4	53.	94.7
-2.	44.7	55.	96.1
0.	46.1	59.	97.4
1.	47.4	67.	98.7
2.	48.7	72.	100.0
4.	52.6		

MEAN	4.776
STD DEV	25.936

TABLE 5

RAS Summary Statistics Table for Females
(N=92)

RAS SCORES	PERCENTILES	RAS SCORES	PERCENTILES
-62.	1.1	0.	52.2
-54.	2.2	1.	54.3
-49.	3.3	2.	58.7
-43.	4.3	3.	59.8
-39.	5.4	4.	63.0
-37.	6.5	5.	65.2
-34.	7.6	7.	67.4
-32.	9.8	10.	70.7
-30.	13.0	12.	72.8
-26.	14.1	13.	75.0
-24.	16.3	14.	78.3
-23.	19.6	15.	80.4
-22.	20.7	18.	81.5
-21.	21.7	19.	82.6
-20.	22.8	22.	84.8
-17.	27.2	23.	88.0
-15.	29.3	24.	89.1
-14.	30.4	30.	90.2
-13.	33.7	32.	91.3
-11.	34.8	40.	93.5
-9.	37.0	41.	94.6
-8.	39.1	42.	96.7
-7.	43.5	46.	97.8
-4.	44.6	56.	98.9
-3.	46.7	64.	100.0
-2.	48.9		

MEAN	-1.174
STD DEV	24.147

3.2. Sex Differences in Self-Reported Assertiveness

To test Hypothesis 1 (predicted sex differences on the RAS), the t-test of mean differences between the two samples (females vs males) was conducted.

The results (illustrated in TABLE 6) indicated that although males tended to report higher scores of assertiveness than females, the mean difference on the global index scores of assertiveness was not statistically significant.

TABLE 6

The RAS Mean Difference Testing between Two Samples: Males and Females. (2-tail T-Test).

	MALES			FEMALES			T		2-tail
	N	MEAN	SD	N	MEAN	SD	VALUE	df	prob.
RAS	76	4.78	25.9	92	-1.17	24.1	1.54	166	0.13

This finding suggested that both males and females obtained statistically comparable global scores of assertiveness. Similar finding was reported by Appelbaum (1976).

It was decided that the item analysis for detecting possible sex differences on any of the individual RAS items be conducted.

Independant t-tests for possible sex differences were calculated for each RAS item. The RAS item analysis revealed 6 RAS questions with significant sex differences: 2, 4, 18, 20, 25, 30. (TABLE 7)

TABLE 7

T-Tests of Significant Sex Differences on the Individual RAS Items.[1]

RAS	MALES		FEMALES		T		2-TAIL
ITEMS	MEAN	SD	MEAN	SD	VALUE	DF	PROB.
2.	0.21	2.4	0.93	2.3	-2.01	166	.05
4.	-0.72	2.1	-1.32	1.6	2.09	166	.03
18.	-1.25	1.9	-2.10	1.3	3.48	166	.001
20.	0.64	1.8	-0.27	1.9	3.15	166	.002
25.	-0.01	2.0	-0.70	2.0	2.21	166	.02
30.	-0.14	2.2	-1.07	2.0	2.88	166	.004

N males = 76

N females = 92

[1]The t-test results of the remaining 24 RAS items are to be found in APPENDIX C.

Women in this study reported themselves significantly more assertive than men on one RAS item:

(2)* I have hesitated to make or accept dates because of shyness.

Men reported themselves significantly more assertive than women on the following RAS items:

(4)* I am careful to avoid hurting other people's feelings, even when I have been injured.

(18) If a famed and respected lecturer makes a statement which I think is incorrect, I will have the audience hear my point of view as well.

(20) When I have done something important and worthwhile, I manage to let others know about it.

(25) I complain about poor service in a restaurant and elsewhere.

(30)* There are times when I just can't say anything.

The content examination of the six RAS items suggested that women tended to report greater assertiveness in dating situations, whereas men reported greater assertiveness in defending their rights, publicising their achievements, responding adequately to any (unspecified) social situation, and the tendency to contradict

*Reversed RAS items.

an authority figure and expressing opinions contrary to one's own. These results are comparable to those reported by Nevid and Rathus (1977).

To recapitulate the findings pertaining to gender-related differences in assertiveness, several conclusions become apparent. Although both males and females obtained comparable overall scores on the RAS, the examination of the individual RAS items revealed small, but significant, gender-related differences. The finding suggests that the individual RAS items are measuring different aspects of assertiveness which may produce different responses from men and women. The finding supports Chandler's (1978) and Heimberg's (1980) suggestion that assertiveness be viewed as a group of situation-specific responses rather than a general trait.

These findings indicate that the exclusive use of the total assertiveness index may yield incomplete information and caution needs to be exercised in generalizing on the basis of the total RAS scores.

3.3. Criterion-Related Validity of the RAS.

It was hypothesized that the external ratings of subjects' assertiveness would correlate significantly positively with the subjects' self-rated assertiveness. Seventy-nine subjects (40 females and 39 males) were assessed by three male tutors along six criteria.

The comparison of the subjects' self-reported assertiveness with the external ratings of their assertiveness (and other personality characteristics) is illustrated in TABLE 8.

The results of the correlational procedure indicated statistically significant positive relationships between the subjects' self-reported assertiveness and the external ratings of Confidence, Assertiveness and Boldness. No significant relationships between self-reported assertiveness and the external ratings of Niceness, Anger, and Knowledgeability were noted for the total population.

Following the correlational procedure involving the mixed-sex population, it was decided that the relationship between self-reported assertiveness and the external ratings be analyzed separately for males and females. The results are shown in TABLE 9.

TABLE 8

Pearson product-moment correlations between self-reported assertiveness and external ratings (Total Sample).

EXTERNAL CRITERIA	r	p
BOLDNESS	.29	.004
NICENESS	.04	
CONFIDENCE	.38	.001
ANGER	.07	
ASSERTIVENESS	.29	.005
KNOWLEDGABILITY	.006	

N=79

TABLE 9

Comparison between Self-report Assertiveness (RAS) and the External Ratings of the Subjects (for Sexes Separately).

OBSERVER - RATINGS

RAS	BOLD		NICE		CONFIDENT		ANGRY		ASSERT.		KNOWLEDG.	
	r	p	r	p	r	p	r	p	r	p	r	p
Males	.36	.01	.11		.45	.002	-.25	.06	.34	.01	.06	
Females	.17		-.001		.23	.07	.14		.17		-.01	

Males = 39

Females = 40

The examination of TABLE 9 reveals significant relationships between men's self-reported assertiveness and external ratings of Boldness, Confidence and Assertiveness. Men who reported high scores of assertiveness on the RAS tended to be perceived by the external judges as confident, bold and assertive. No significant relationship between self-perceived assertiveness and the external ratings emerged for the female sample in this study.

The discrepancy between the external evaluation of male and female subjects (who, as noted previously, reported similar global scores of assertiveness) led to the next operation. It was decided that the scores obtained on all self-report measures used in this study (the RAS and the HPQ) be compared to the external ratings of men and women separately. The results of this procedure are shown in TABLE 10.

The examination of TABLE 10 reveals substantial gender differences between self-report and externally rated personality characteristics.

It appears that the external judges tended to rate as Bold those male subjects, who reported high scores on RAS and Dominance scales. For the female subjects, the external rating Bold correlated significantly positively with high scores on self-report measure of Impulsiveness.

TABLE 10

Comparison between Self-reported Personality Characteristics (as measured by RAS and HPQ) with the External Ratings for Males and Females separately.

Self-report Measures		OBSERVER - RATINGS											
		BOLD		NICE		CONFID.		ANGRY		ASSERT.		KNOWLEDG.	
		M	F	M	F	M	F	M	F	M	F	M	F
RAS	r	**.36**	.17	.11	-.001	**.45**	.23	-.25	.14	**.34**	.17	.06	-.01
	p	**.01**				**.002**	.07	.06		**.01**			
Sociability	r	.08	.22	.12	-.03	.17	.23	-.17	.11	.23	.06	-.05	-.20
	p		.08				.07			.07			
Anxiety	r	.02	.01	.06	**.37**	-.11	-.07	-.02	**-.37**	.01	-.01	.01	.02
	p				**.009**				**.009**				
Dominance	r	**.48**	.08	**.29**	-.12	**.29**	.19	.12	.05	**.31**	.09	.20	-.02
	p	**.001**		**.03**		**.03**				**.02**			
Conscience	r	.12	-.20	-.01	.22	.17	.10	-.20	-.009	.23	-.11	-.23	.17
	p		.10		.08			.10		.07		.07	
Hypochondriasis	r	.04	-.01	-.06	.09	-.16	-.01	-.08	-.07	-.04	-.06	-.11	-.12
	p												
Impulsiveness	r	-.01	**.36**	-.15	-.14	.15	**.37**	.25	**.37**	-.02	**.32**	-.13	-.01
	p		**.01**				**.01**	.06	.01		**.02**		
Cooperativeness	r	.12	.17	.23	-.002	.08	.05	**-.52**	-.07	.03	.09	-.13	-.07
	p			.07				**.001**					
Inferiority	r	-.21	-.02	**-.27**	**.29**	**-.37**	-.03	.17	-.13	**-.29**	-.02	-.01	-.08
	p	.09		**.04**	**.03**	**.01**				**.03**			
Persistence	r	.01	.20	**.36**	-.08	-.02	.16	-.13	-.03	.06	.17	.22	.11
	p		.10	**.01**								.08	
Suspicion	r	-.07	-.08	.10	.08	-.24	**-.26**	.12	-.14	-.19	-.09	.08	-.07
	p					.07	**.05**						

The external rating Nice correlated significantly positively with the men's ratings of Dominance and Persistence, and negatively with men's self-ratings of Inferiority. Females who obtained high scores on Anxiety and Inferiority tended to be perceived as Nice by the external judges.

The rating Confident correlated positively with the males self-rating of assertiveness (RAS) and Dominance and negatively with Inferiority. For the female subjects, the external rating Confidence correlated significantly positively with the self-reported Impulsiveness, and negatively with Suspicion.

The external rating Angry was correlated significantly negatively with men's scores of Cooperativeness. Females reporting low scores on Anxiety and high scores on Impulsiveness tended to be perceived as Angry.

The external rating Assertive correlated significantly with three self-report measures for males: positively with RAS and Dominance and inversely with Inferiority. Females who reported high scores on Impulsiveness tended to be perceived as Assertive by the external judges.

The external rating of Knowledgeability resulted in no significant correlations for either sex.

To recapitulate the findings, it would appear that the

investigation of the criterion-related validity of the RAS, and subsequently, the HPQ, produced some highly provocative results.

Although no mean differences by sex were demonstrated on the global RAS scores, substantial discrepancy in the external ratings of males and females were noted. Men reporting high scores of assertiveness tended to be rated as assertive, bold and confident by the external judges. However, no significant relationships resulted between women's self-reported assertiveness and the ratings by the external judges. It would appear that, for some reason, women's assertiveness had not been acknowledged by the three male observers.

This finding, suggesting a double standard of behavior applied to sexes, was further substantiated by comparing both self-report measures (RAS and HPQ) with the external ratings for men and women separately.

It appeared that different patterns of behavior produced the socially desirable labels of Confident, Nice, Bold and Assertive for both sexes. For the male sample in this study, self-report assertiveness seemed to produce the socially desirable labels, as did high scores of self-reported Dominance and Persistence. For the female sample, high scores of self-reported Impulsiveness seemed to earn the external rating of Assertiveness. However, women scoring high on Impulsiveness were simultaneously rated as Bold, Confident, Assertive and Angry. The desirable label of

Nice was reserved for women reporting high scores of Anxiety and Inferiority.

These results, indicative of double standards of socially desirable behavior applied to sexes, are in conformity with similar findings reported by Broverman (1970) and Bem (1974, 1975).

3.4. Construct Validation of the RAS: Comparison with the HPQ

The purpose of the present statistical operation was to evaluate the construct of assertiveness in terms of other, self-reported personality characteristics measured by the Howarth Personality Questionnaire.

On the basis of previously reported empirical studies of assertiveness, it was predicted that the RAS would correlate positively with the Sociability, Dominance and Persistence, and negatively with the Anxiety, Hypochondriasis and Inferiority scales of the HPQ.

Pearson product-moment correlation coefficients were computed between the RAS and the HPQ scales for the total sample and the sexes separately.

The results of the correlational procedure involving the total sample are reported in TABLE 11. As predicted, the RAS for the total population related significantly positively with the Dominance, Sociability and Persistence scales of the HPQ and significantly negatively with the HPQ measure of Inferiority. In addition, the RAS was found to correlate inversely with the Anxiety, Suspicion, Hypochondriasis and Cooperativeness scales of the HPQ. However, the strength of these relationships is questionable.

The next step in the investigation of construct validity of the RAS was designed to evaluate the construct of assertiveness for both sexes separately. The purpose of this procedure was to investigate whether the construct of assertiveness (as represented by the global RAS score) could be described similarly for both sexes. The results of the construct validating procedure are illustrated in TABLE 12.

Inspection of TABLE 12 reveals sex-differences in the patterns of correlations between the RAS and other, self-reported personality measures.

The RAS correlated significantly positively with three HPQ scales for the male sample. Men reporting high scores on the RAS tended to report high scores on Dominance and Sociability, and low scores on Inferiority.

A more substantial pattern of correlations emerged for the female sample. With the exception of the HPQ scale Conscience, significant relationships were noted between the RAS and all HPQ scales. Women reporting high scores on the RAS tended to obtain high scores on Dominance, Sociability, Persistence and Impulsiveness, and low scores on Inferiority, Suspicion, Anxiety, Hypochondriasis and Cooperativeness.

The results of the RAS construct validation procedure seem to indicate that somewhat different personality traits may covary

TABLE 11

Pearson product-moment correlations between the RAS and the HPQ (Total sample).

		SY	AE	AD	SG	HM	IP	CC	IF	PS	TS
RAS	r	**.37**	-.25	**.48**	-.04	-.19	.20	-.17	**-.45**	**.31**	-.24
	p	**.001**	.001	**.001**		.007	.005	.01	**.001**	**.001**	.001

TABLE 12

Pearson product-moment correlations between the RAS Scores and the HPQ Scales for Sexes Separately.

HPQ SCALES	RAS MALES (N=76)		RAS FEMALES (N=92)	
	r	p	r	p
Sociability (SY)	.30	**.004**	.42	.001
Anxiety (AE)	-.15	.09	-.32	.001
Dominance (AD)	.42	.001	.51	.001
Conscience (SG)	.03		-.11	
Hypochondriac (HM)	-.11		-.25	.008
Impulsive (IP)	.16	.08	.25	.008
Cooperative (CC)	-.13		-.21	.02
Inferiority (IF)	-.31	.004	-.56	.001
Persistence (PS)	.18	.06	.41	.001
Suspicion (TS)	-.12		-.36	.001

with the global RAS score of assertiveness across sexes. Similar results were reported by Percell et al (1974) and Orenstein et al (1975). Both studies yielded results suggesting that assertiveness, represented by the global score, cuts across different social behaviors for men and women. Especially relevant was Percell's finding of a substantial negative relationship between assertiveness and anxiety for women only. Orenstein replicated the study and reported that at comparable levels of assertiveness males tended to report higher levels of social fear and anxiety than females. The authors found this sex difference difficult to explain as it seemed to be contrary to sex-role expectations.

A tentative explanation would be that the global RAS scores may reflect a different type of situation-specific assertiveness for men and women. A thorough investigation of the Rathus Assertiveness Schedule aimed at investigating the relationship between these constructs and the global assertiveness scores would help in elucidating these unexpected findings.

3.5. Construct-Validation of the RAS: Factor Analysis

It was hypothesized that the Rathus Assertiveness Schedule is a multidimensional rather than a unidimensional measure of assertiveness. A Factor Analytic method (principal components analysis) was selected to detect any underlying patterns of assertiveness as measured by the RAS. For comparison purposes, separate principal components analyses were carried out for males and females.

3.5.1. Factor Analysis of the RAS for the Female Sample.

Factor analysis of the RAS for the female subjects revealed 10 components with eigenvalues greater than 1. The ten factors accounted for 67% of the total variance. (TABLE 13).

TABLE 13

Summary Statistics of the RAS Factors for Females

RAS		TOTAL VARIANCE		COMMON VARIANCE	
FACTORS	EIGENVALUE	PCT OF VAR	CUM PCT	PCT OF VAR	CUM PCT
1	5.55	18.5	18.5	32.5	32.5
2	3.00	10.0	28.5	16.3	48.8
3	2.17	7.2	35.7	11.1	59.9
4	1.79	6.0	41.7	8.6	68.5
5	1.63	5.4	47.1	7.6	76.2
6	1.50	5.0	52.1	6.6	82.8
7	1.25	4.2	56.3	5.0	87.8
8	1.13	3.8	60.1	4.6	92.4
9	1.07	3.6	63.6	3.9	96.3
10	1.02	3.4	67.0	3.7	100.0

The principal component loadings were rotated by the equimax procedure. Variables with loadings greater than .30 were illustrated in TABLE 14.

TABLE 14

Principal Components Analysis of the RAS (equimax rotated factor matrix) for the Female Sample (N=96).

RAS ITEMS	FACTORS 1	2	3	4	5	6	7	8	9	10
1								.64		
2										.56
3		.77								
4			.37		.32					
5										
	.59									
7						.60				
8	.65									
9								.43		
10						.35	.81			
11							.43			
12									.47	
13							.48		.67	
14		.43							.51	
15			.87							
16									.52	
17				.54						.39
18						.69				
19				.41						
20	.60									
21					.60					
22	.37			-.35	.34					
23			.35	.34						
24			.35		.59					
25		.71								
26					.42					
27										-.61
28								.58		
29	.48					.33				
30					.31				.30	

The selection of the individual RAS items forming the ten factors as well as the description of the factors are included in TABLE 15.

TABLE 15

Description of the Ten RAS Factors for Females

RAS FACTORS	RAS ITEMS	DESCRIPTION OF CONSTRUCT MEASURED	NAME
FACTOR 1	8, 20, 6, 29, 22	Concern with making self-enhancing decisions, being successful in life, and conveying this positive image of oneself to others.	FSUCC
FACTOR 2	3, 25, 14	Consumer-service situation (includes requesting proper service and returning unsuitable merchandise).	FCONSS
FACTOR 3	15, 4, 23, 24	Ability to express unpleasant emotions (especially to the "significant others") and concern with hurting others.	FHURTO
FACTOR 4	17, 19, -22, 23	Handling arguments and confrontations in general.	FCONFR
FACTOR 5	21, 24, 26, 22, 4, 30	Concerns expressing all manner of emotions, both positive and negative. Includes responding to compliments. Some concern about self-image and the ability to respond to any situation.	FEXPR
FACTOR 6	18, 7, 10, 29	Wilfully provoking arguments and confrontations. Includes confronting authority figures. Impulsivity in anxiety-provoking situations.	FPROV

TABLE 15

FACTOR 7	10, 13, 11	Social boldness and the ability to initiate social interactions in anxiety provoking situations. Includes items dealing with job interviews, initiating conversations with strangers and interaction with the opposite sex.	FBOLD
FACTOR 8	1, 28, 9	Includes aggressive element: evaluating oneself vs others and coping with others' aggressiveness through counteraggression.	FAGGR
FACTOR 9	13, 16, 14, 12, 30	Includes items dealing with information seeking and information giving. Concerns that type of assertive behavior which may cause one to be perceived as ignorant, stupid, inadequate.	FINFO
FACTOR 10	-27, 2, 17	Includes items dealing with open communication and boldness - shyness in dating situations (one's own and others').	FCOUP

3.5.2. Factor Analysis of the RAS for the Male Sample.

The RAS principal components analysis for the male sample revealed 9 factors with eigenvalues above 1.0. The nine factors accounted for 68.6% of the total variance. (TABLE 16).

TABLE 16

Summary Statistics of the RAS Factors for Males

RAS		TOTAL VARIANCE		COMMON VARIANCE	
FACTORS	EIGENVALUE	PCT OF VAR	CUM PCT	PCT OF VAR	CUM PCT
1	6.45	21.5	21.5	36.1	36.1
2	3.18	10.6	32.1	16.7	52.8
3	2.40	8.0	40.1	11.6	64.4
4	1.67	5.6	45.7	7.4	71.8
5	1.65	5.5	51.2	7.1	79.0
6	1.57	5.2	56.5	6.9	85.9
7	1.35	4.5	60.9	5.6	91.4
8	1.17	3.9	64.8	4.6	96.1
9	1.13	3.8	68.6	3.9	100.0

The RAS items which loaded higher than .30 on any on the 9 factors have been selected and illustrated in TABLE 17. The description of the RAS factors for the male sample is shown in TABLE 18.

TABLE 17

Principal Components Analysis of the RAS (equimax rotated factor matrix) for Males (N=76).

RAS ITEMS	FACTORS 1	2	3	4	5	6	7	8	9
1								.56	
2		.36						.47	
3	.68								
4			.30		-.32			.35	.53
5	.54			.37					
6				.61					
7									.53
8						.57			
9						.36			
10		.44			.45				
11		.37				.47			
12		.67							
13		.68							
14	.52	.47	.31						
15			.69						
16			.67		.54			.31	
17						.58			
18					.72				
19	.44		.36				.36		
20							-.92		
21				.65					
22		.44		.45					
23						.49		.41	
24			.48						
25	.78								
26		.31	.31				.40		
27	.65		.38						-.33
28	.49			.34					
29				.42					.43
30						.35			.32

TABLE 18

Description of the nine RAS Factors for Males

FACTORS	RAS ITEMS	DESCRIPTION OF CONSTRUCTS	NAME
FACTOR 1	25, 3, 27, 5, 14, 28, 19	Consumer-service situations and standing up for one's rights. (Assertion with individual strangers).	MCONSS
FACTOR 2	13, 12, 14, 10, 22, 11, 2, 26	Initiating personal interactions in situations such as: job interviews, establishing contacts with institutions, members of the opposite sex and starting conversations with strangers.	MPERS
FACTOR 3	15, 16, 24, 27, 19, 26, 14, 4	Concerns expressing negative emotions (annoyance, anger) to both significant others and strangers in public places. Also, concern with negative social feedback.	MNEM
FACTOR 4	21, 6, 22, 29, 28, 5	Concerns free expression of opinions and feelings and not being exploited.	MEXP
FACTOR 5	18, 16, 10, -4	Social boldness in anxiety provoking situations. Concern with not appearing stupid, inadequate, ignorant.	MSOCBO
FACTOR 6	17, 8, 23, 11, 9, 30	Involves the ability to promote one's welfare and assertiveness in potentially threatening situations.	MWELF

TABLE 18

FACTOR 7	-20, 26, 19	Items concerning self-image in potentially embarassing situations: letting others know about one's success, responding to compliments and petty arguments in consumer situations.	MSELFI
FACTOR 8	1, 2, 23, 4, 16	Rating self vs others along the dimensions of assertiveness and aggressiveness.	MRATES
FACTOR 9	4, 7, 29 -27, 30	Items dealing with aggressive/ impulsive aspects of behavior, such as, provoking arguments and counteraggression.	MAGG

3.5.3. Comparative Analysis of the RAS Factors for Males and Females.

The factor analysis of the Rathus Assertiveness Schedule resulted in a number of factors for both males and females. Ten RAS factors emerged for the female sample accounting for 67% of the total variance, and nine factors identified for the male sample accounted for about 69% of variance. The fact, that no single factor emerged to account for a significant proportion of the variance, clearly indicates that the RAS is not a unidimensional measure of assertiveness. Instead, the results indicate that self-report assertiveness measured by the RAS is multidimensional.

The resulting assertiveness factors were found to cut across different social behaviors for each sample - an indication of difficulty with different assertive situations for males and females. To consider the first four factors: In the female sample the first factor involved items concerned with making self-enhancing decisions, being successful and conveying this positive self-image of oneself to others. For the male sample, the first factor involved standing up for one's rights in general, and asserting oneself in consumer-service situations in particular.

The second factor for the female sample involved consumer service situations. (It was found to tap somewhat different types of

assertiveness than the male Factor 1, since it dealt with requesting proper service only and did not include items dealing with the expression of rights). The second factor for the male sample reflected assertiveness in initiating personal interactions and willingness to present oneself in person in competitive situations.

The third factor reflected the females' ability to express unpleasant emotions (expecially to the significant others) and concern with hurting others. The third factor for the male sample was found to resemble the female factor to some extent. It reflected the ability to express negative emotions with both significant others and strangers in public places. However, the factor included items indicating concern with negative social feedback.

The fourth factor for the women in this study seemed to be concerned with the ability to handle arguments and confrontations. For the male sample, the factor reflected free expression of opinions, willingness to disclose feelings, and the ability to defend one's rights.

The factors which resulted in the present study, though somewhat different for each sex, did resemble factors from other studies. (Law et al., 1979; Heimberg et al., 1980). The replicated factors concern assertiveness in consumer-service situations (FCONSS, MCONSS), free expression of negative emotions (FHURTO,

MNEM), readiness to express opinions and contradict authority figures (FPROV), free expression of opinions and feelings (MEXP), initiating personal interactions and presenting oneself in person in competitive situations.

3.6. Construct and Criterion-Related Validation of the RAS Factors

The 10 RAS factors for females and the 9 factors for males were validated against both the HPQ inventory and the 6 external ratings.

3.6.1. Construct and Criterion-related Validity of Assertiveness Factors for Females.

The results of the construct and criterion-related validation are shown in TABLE 19.

FACTOR 1 (FSUCC; reflects assertive behaviors concerned with making self-enhancing decisions and a desire to be successful) correlated significantly positively with Dominance, Sociability, Persistence and Impulsiveness. The factor correlated significantly negatively with Inferiority scale of the HPQ. A significant positive correlation was found between this factor and the external rating of Confidence.

FACTOR 2 (FCONSS; assertive behavior in consumer-service situations) correlated significantly negatively with Suspicion and Inferiority, and significantly positively with Persistence. No correlations between this RAS factor and the external ratings were noted.

FACTOR 3 (FHURTO; expressing negative emotions and the possibility of hurting others) correlated significantly positively with Dominance, Persistence and Sociability and negatively with Anxiety, Inferiority, Cooperativeness, Suspicion and Hypochondriasis. This factor correlated positively with the external rating Angry.

FACTOR 4 (FCONFR; assertive coping with arguments and confrontations) correlated positively with Persistence and negatively with Anxiety and Hypochondriasis. There were no significant correlations between this factor and the external ratings.

FACTOR 5 (FEXPR; reflects such behaviors as free expression of both positive and negative feelings) correlated significantly positively with Sociability, Dominance, Persistence and Impulsiveness. A substantial inverse correlation resulted between this factor and the measure of Inferiority. In addition, the factor correlated negatively with Suspicion, Anxiety, Hypochondriasis and Cooperativeness. This factor correlated significantly positively with the external ratings Confident and Angry.

FACTOR 6 (FPROV; provoking arguments and a tendency to confront authority figures) correlated positively with Sociability, Dominance, Impulsiveness, Persistence and negatively with Conscience, Inferiority and Suspicion. The factor correlated significantly positively with three external ratings: Bold, Confident and Assertive.

FACTOR 7 (FBOLD; social boldness and initiating personal contacts with strangers and institutions) correlated significantly positively with Sociability and significantly inversely with Anxiety and Inferiority. This factor correlated positively with the external rating Nice.

FACTOR 8 (FAGGR; evaluating oneself vs others and coping with others' aggressiveness) correlated significantly positively with Dominance, and negatively with Cooperativeness and Inferiority. No significant correlations were noted with the external ratings.

FACTOR 9 (FINFO; assertive information seeking and information giving) produced six substantial correlations with the HPQ scales. There were significant correlations with the scales: Sociability, Dominance, Persistence, and significantly inverse correlations with the scales: Anxiety, Inferiority and Suspicion.

FACTOR 10 (FCOUP; assertiveness in dating situations) correlated significantly positively with Sociability and negatively with Anxiety, Inferiority and Hypochondriasis. The factor correlated significantly positively with the external ratings of Boldness, Anger and Assertiveness.

TABLE 19

Summary Results of Construct and Criterion-Related Validation of the 10 RAS Factors for Females

RAS *FACTORS*		HPQ SCALES										OBSERVER - RATINGS						GLOBAL RAS		RAS *FACTORS*
		SY	AE	AD	SG	HM	IP	CC	IF	PS	TS	B	N	C	ANG	ASS	KN			
FSUCC	r	.36		.43			.22		-.34	.22				.30				.40	r	FSUCC
	p	.001		.001			.02		.001	.01				.03				.001	p	
FCONSS	r								-.27	.25	-.39							.58	r	FCONSS
	p								.005	.007	.001							.001	p	
FHURTO	r	.18	-.25	.41		-.18		-.20	-.28	.24	-.20				.26			.59	r	FHURTO
	p	.05	.008	.001		.04		.03	.004	.01	.02				.05			.001	p	
FCONFR	r		-.18			-.17				.21								.32	r	FCONFR
	p		.04			.05				.02								.001	p	
FEXPR	r	.41	-.28	.29		-.23	.23	-.18	-.46	.29	-.31			.32	.31			.66	r	FEXPR
	p	.001	.004	.003		.01	.01	.04	.001	.003	.002			.02	.02			.001	p	
FPROV	r	.45		.38	-.18		.39		-.28	.22	-.18	.40		.41		.30		.52	r	FPROV
	p	.001		.001	.05		.001		.003	.01	.04	.006		.004		.03		.001	p	
FBOLD	r	.48	-.36	.18			.18		-.42	.18	-.22		.27					.53	r	FBOLD
	p	.001	.001	.05			.05		-.001	.04	.01		.05					.001	p	
FAGGR	r			.39				-.31	-.29	.18								.56	r	FAGGR
	p			.001				.001	.002	.04								.001	p	
FINFO	r	.35	-.43	.40		-.26			-.50	.34	-.42							.74	r	FINFO
	p	.001	.001	.001		.006			.001	.001	.001							.001	p	
FCOUP	r	.31	-.34			-.28			-.30	.22		.34			.36	.26		.08	r	FCOUP
	p	.001	.001			.004			.002	.02		.02			.01	.05		.21	p	
		N=92										N=40						N=92		

SY: Sociability
AE: Anxiety
AD: Dominance
SG: Conscience
HM: Hypochondriasis
IM: Impulsiveness
CC: Cooperativeness
IF: Inferiority
PS: Persistence
TS: Suspicion
B: Bold
N: Nice
C: Confident
Ang: Angry
Ass: Assertive
Kn: Knowledgeable

produced results confirming the supposition. Whereas Factor 8 produced no significant correlations with the external ratings, Factor 6 was found to covary positively with the external ratings of Boldness, Confidence and Assertiveness.

3.6.2. Construct and Criterion-related Validity of Assertiveness Factors for Males.

The results of the construct and criterion-related validation are illustrated in TABLE 20.

FACTOR 1 (CONSS; assertive behavior in consumer-service situations correlated significantly positively with the external ratings of Confidence and Assertiveness and negatively with the self-report measure of Cooperativeness and the external rating of Anger.

FACTOR 2 (MPERS; assertive initiating of personal interactions) correlated significantly positively with Sociability and Dominance and negatively with Anxiety, Inferiority, Hypochondriasis and Suspicion. The factor correlated positively with the external ratings of Confidence, Assertiveness, Boldness, and negatively with the rating of Anger.

FACTOR 3 (MNEM; expressing negative emotions) correlated positively with Dominance, Impulsiveness and the external rating of Confidence. The factor correlated inversely with Cooperativeness.

FACTOR 4 (MEXP; free expression of opinions and feelings) correlated positively with Dominance, Confidence, Assertiveness and negatively with Cooperativeness.

FACTOR 5 (MSOCBO; social boldness and concern with not appearing as inadequate, ignorant) correlated positively with Cooperativeness, Boldness, Niceness, Confidence and Assertiveness. The factor correlated negatively with the external rating of Anger and self-report Inferiority.

FACTOR 6 (MWELF; ability to promote one's welfare in potentially threatening situations) correlated positively with Dominance and the external rating of Confidence. Substantial negative correlation was noted between this factor and Inferiority, Anxiety, Hypochondriasis.

FACTOR 7 (MSELFI; concern with self-image in potentially embarrassing situations) correlated negatively with Suspicion, Inferiority, Anxiety and the external rating of Anger.

FACTOR 8 (MRATES; rating self vs others along the dimension of assertiveness) correlated positively with Dominance, Sociability and the external rating Confident. The factor correlated significantly negatively with Inferiority, Anxiety and Hypochondriasis.

FACTOR 9 (MAGG; provoking arguments and reacting with counter-aggression) correlated significantly positively with Anxiety, Hypochondriasis, Inferiority and Suspicion. A high positive correlation of this factor with the self-report measure of Impulsiveness is especially significant. Noticeably high negative correlations with Cooperativeness and Persistence were obtained in the correlational procedure. In addition, the factor correlated positively with the external rating of Anger and negatively with the ratings of Niceness. This factor did not correlate with the global RAS score.

TABLE 20

Summary Results of Construct and Criterion-Related Validation of the 9 RAS Factors for Males

RAS *FACTORS*		********** HPQ SCALES **********										**** OBSERVER - RATINGS ***						GLOBAL	RAS *FACTORS*	
		SY	AE	AD	SG	HM	IP	CC	IF	PS	TS	B	N	C	ANG	ASS	KN	RAS		
MCONSS	r							-.22						.37	-.28	.29		.67	r	MCONSS
	p							.02						.01	.04	.04		.001	p	
MPERS	r	.37	-.30	.31		-.25			-.39		-.21	.21		.42	-.32	.33		.79	r	MPERS
	p	.001	.004	.004		.01			.001		.03	.04		.004	.02	.02		.001	p	
MNEM	r			.28			.26	-.25						.35				.73	r	MNEM
	p			.007			.01	.01						.01				.001	p	
MEXP	r			.20				-.25						.26		.27		.67	r	MEXP
	p			.04				.01						.05		.04		.001	p	
MSOCBO	r	.22		.20				.31	-.29	.22		.32	.34	.42	-.49	.43		.41	r	MSOCBO
	p	.03		.04				.004	.005	.03		.02	.02	.004	.001	.003		.001	p	
MWELF	r	.28	-.43	.31		-.40			-.48	.29	-.25			.32				.61	r	MWELF
	p	.008	.001	.003		.001			.001	.005	.01			.02				.001	p	
MSELFI	r		-.21						-.26		-.32				-.33			.41	r	MSELFI
	p		.04						.01		.003				.02			.001	p	
MRATES	r	.32	-.20	.35		-.20			-.31	.19				.27				.69	r	MRATES
	p	.003	.05	.001		.04			.003	.05				.05				.001	p	
MAGG	r		.31			.23	.79	-.58	.38	-.69	.23		-.35		.42			.04	r	MAGG
	p		.003			.02	.001	.001	.001	.001	.02		.01		.004			.35	p	
						N=76								N=39				N=92		

SY: Sociability
AE: Anxiety
AD: Dominance
SG: Conscience
HM: Hypochondriasis
IM: Impulsiveness
CC: Cooperativeness
IF: Inferiority
PS: Persistence
TS: Suspicion
B: Bold
N: Nice
C: Confident
Ang: Angry
Ass: Assertive
Kn: Knowledgeable

The construct and criterion-related validity of the RAS factors for the male sample yielded results indicative of the potential value of the factors in measuring several types of assertiveness and assertive deficits.

Especially significant is the finding of one RAS factor which emerged as a definite measure of aggressive dimension. Factor 9 (provoking arguments and tendency to react with counter-aggression) correlated significantly positively with the measures of Anxiety, Hypochondriasis, Inferiority and Suspicion. High significant positive correlation resulted between this factor and the measure of self-reported Impulsiveness (.79). The factor correlated negatively with Cooperativeness and Persistence. The external ratings of men scoring high on Factor 9 were described by the external raters as Angry and Awful. Finally, it should be noted that the factor produced no significant correlation with the total score of assertiveness. This result supports Chandler's (1978) suggestion that investigating assertiveness in terms of the global index may yield incomplete information.

Correlating the RAS factors with the global RAS scores revealed that different factors account for the variance in the men's and women's global RAS score.

High correlation between the global RAS score and Factor 9 for the female sample (.74) indicated that the global RAS score may be interpreted in terms of assertiveness measured by that factor.

Females who obtained a high overall RAS score would tend to display assertiveness in situations requiring information seeking and information giving.

Conversely, high correlations between the global RAS scores and Factor 2 (.79) and Factor 3 (.73) indicated that men who reported high global RAS scores would tend to be assertive in initiating personal interactions, coping with competitive situations, defending their rights and expressing unpleasant emotions (anger, annoyance) to strangers and significant others.

Defining the global assertiveness score in terms of its relationship to situation specific assertiveness factors throws a new light on the previously discussed findings pertaining to the external validity of the test.

CONCLUSIONS

Assertiveness is a set of learned social skills designed to successfully overcome problems of communication, increasing one's interpersonal effectiveness and enhancing rewarding personal relationships. It involves a direct, honest and appropriate expression of opinions, feelings, needs and personal rights in ways which do not violate another person's rights.

Although the concept of assertive personal behavior originated in North America, there is a growing interest in social skills training outside the American culture. (Furnham, 1979).

Recent research places increased emphasis on the psychometric issues of the concept of assertiveness and assertiveness training. The Rathus Assertiveness Schedule (RAS) is one of the most researched self-report measures of assertiveness.

This study was designed to evaluate the psychometric adequacy of the RAS with a sample of white South African university undergraduates.

The standard way of interpreting the RAS involves summing up the scores obtained on the 30 individual items and representing assertiveness by the global index. The wisdom of such a procedure has recently been questioned in view of the fact that a

total score on inventories such as the RAS represents a summed rating across a wide range of behavior, therefore representing assertiveness by a single numerical index may yield incomplete and, at times, misleading information. For instance, it is possible that an individual could obtain a moderately high global score despite a situation-specific behavior deficit.

The results of the present study substantiated this contention and proved conclusively that the RAS is a multi- rather than a uni-dimensional measure of assertiveness and that the inventory should be interpreted in terms of its individual items which cluster together to define a particular, situation-specific type of assertive behavior. For instance, although no significant sex-differences were found on the global RAS scores, significant gender-related differences were found on several individual RAS items measuring different types of assertive behavior. Men reported higher assertiveness in defending their rights, contradicting an authority figure, expressing opinions contrary to one's own, publicising their achievements and, in general, reported less shyness in dating situations. Similar results have been reported with North American undergraduate students. These findings suggest that the RAS:

i. yields information consistent with the definition of assertiveness as a multidimensional concept;

ii. is capable of detecting gender-related differences in assertiveness, differences presumably due to patterns of

socialisation and sex-role expectations;

iii. lends itself to being used as a self-report measure of assertiveness with white South African undergraduates.

These conclusions were further substantiated in the process of factor-analyzing the inventory. In the course of factor analysis, several different assertiveness factors emerged for the male and the female samples in this study. These results confirmed the multidimensionality theory of assertiveness and the presence of sex-differences, the latter being a clear indication of different patterns of assertive situations for men and women. The fact that similar findings were reported with North American samples again suggests the applicability of the RAS to the sample of the South African undergraduate students.

Research studies conducted in North America provided evidence suggesting that assertive skills are related to a constellation of personality characteristics. Individuals scoring high on assertiveness have been found to be characterized by high self-esteem, low anxiety, extraverted attitude, leadership qualities and persistence in exercising one's assertive rights. Similar findings were noted in this study. A number of assertiveness factors for both males and females were found to correlate negatively with the Inferiority and Anxiety measures and positively with the Sociability, Dominance and Persistence scales of the Howarth Personality Questionnaire. These results suggest that application of assertive training to individuals

characterized by low self-esteem and high social anxiety may be particularly appropriate. In addition, it seems that high scores of inferiority may provide a useful indication of low assertive skills. Introducing cognitive, affective and behavioral assertiveness training procedures might be expected to enhance one's self-esteem.

The effectiveness of assertiveness training would depend on the societal and/or cultural values determining the range of behavior considered acceptable. Rathus (1973) found that ratings of Assertiveness are related negatively with ratings of Niceness. Alberti and Emmons (1974) stated that in many societies assertive behavior is considered appropriate and desirable for men only.

The results of this study were in line with the North American findings. Men scoring high on assertiveness tended to be rated by three male judges as bold, assertive and confident. No relationship between self-reported and externally rated assertiveness emerged for the female sample. This finding might be interpreted as evidence of rater-bias. Subsequent analysis demonstrated a double standard of behavior applied to sexes. Different patterns of behavior produced the external ratings of Confidence, Niceness, Boldness and Assertiveness for males and females. Men who reported high scores of assertiveness (RAS), Dominance, Persistence and low scores of Inferiority tended to be rated highly in terms of socially desirable labels. Women who reported high Inferiority and Anxiety tended to be rated as Nice.

Those females who reported high scores of Impulsiveness tended to be perceived as Assertive. However, they were simultaneously rated as Bold, Assertive and Angry, which indicates some confusion on the part of the external judges in rating women along the criteria of assertiveness and aggressiveness.

The importance of differentiating assertive from aggressive ways of interacting has been stressed repeatedly in the research literature on assertiveness. Mislabelling assertive behavior and confusing it with aggressiveness is considered one of the main social factors causing and perpetuating assertive deficits. Although lip service has been paid to the necessity of identifying and differentiating assertiveness from nonassertiveness and aggressiveness, little attempt has been made to implement the idea empirically. The existing instruments for measuring assertiveness lack a clearly defined scale measuring the aggressive components of interpersonal behavior.

One of the most important findings of this study was the identification of the RAS factors measuring aggressive behavior. The aggressiveness factor for the male sample was found to have a moderate to high construct and external validity. Men who reported high scores on Factor MAGG tended to report high scores of Impulsiveness, Anxiety, Hypochondriasis, Inferiority and Suspicion, and low scores of Cooperativeness and Persistence. In terms of the external ratings, these men tended to be labelled as Angry and Awful.

Validation data pertaining to the aggressiveness factors for the female sample was less conclusive. Two factors appeared to have potential value for measuring the construct of aggressiveness. Females scoring high on Factor FAGGR tended to report low scores of Considerateness, and females scoring high on Factor FPROV tended to report high scores of Impulsiveness. However, the two factors did not show a satisfactory external validity.

It is suggested that future research into obtained RAS factors, in conjunction with well defined personality inventories and objective ratings of the external raters familiar with the subjects, might further establish the usefulness of the Rathus Assertiveness Schedule as a measure of assertive, nonassertive and aggressive behavior.

REFERENCES

Alberti, R.E. Comments on "Differentiating Assertion and Aggression: Some Behavioral Guidelines". Behavior Therapy, 1977 (June), 8 (3), 353-354.

Alberti, R.E. (Editor) Assertiveness: Innovations, Applications, Issues. San Luis Obispo, California: Impact Publishers, Inc., 1977.

Alberti, R.E. and Emmons, M.L. Your Perfect Right. San Luis Obispo, California: Impact Publishers, Inc., 1978.

Alden, L. and Safran, J. Irrational Beliefs and Nonassertive Behavior. Cognitive Therapy and Research, 1978, 2, 357-364.

Alden, L., Safran, J. and Weideman, R. A Comparison of Cognitive and Skills Training Stategies in the Treatment of Unassertive Clients. Behavior Therapy, 1979, 9, 843-846.

Anastasi, A. Psychological Testing. (3rd edition). New York: MacMillam Publishing Co., Inc., 1968.

Appelbaum, A.S. Rathus Assertiveness Schedule: Sex Differences and Correlation with Social Desirability. Behavior Therapy, 1976, 7, 699-700.

Appelbaum, A.S., Tuma, J.M. and Johnson, J.H. Internal-External Control and Assertiveness of Subjects High and Low in Social Desirability. Psychological Reports, 1975, 37, 319-322.

Ashton, N.L. Alternative Modes of Self-Enhancement. Diss. Abst. Int., 1977 (Apr), 37 (10-B), 5427.

Averett, M. and McManis, D.L. Relationship Between Extraversion and Assertiveness and Related Personality Characteristics. Psychological Reports, 1977 (Dec), 41 (3, Pt 2), 1187-1193.

Bander, R.S., Russell, R.K. and Weiskott, G.N. Effects of Varying Amounts of Assertiveness Training on the Level of Assertiveness and Anxiety Reduction in Women. Psychological Reports, 1978 (Aug), 43, 1, 144-146.

Barrett, D.E. Relations Between Aggressive and Prosocial Behaviors in Children. Journal of Genetic Psychology, 1979 (Jun), 134, 317-318.

Barrett, D.E. A Naturalistic Study of Sex Differences in Children's Aggression. Merrill-Palmer Quarterly, 1979 (Jul), 25 (3), 193-203.

Bean, L.D. Interpersonal Perception Among College Students as a Function of Sex and Level of Assertiveness. Diss. Abs. Int., 1977 (Sep), 38 (3-A), 1292.

Bem, S.L. The Measurement of Psychological Androgyny. Journal of Consulting and Clinical Psychology, 1974, 42, 155-162.

Bem, S.L. Sex Role Adaptibility: One Consequence of Psychological Androgyny. Journal of Personality and Social Psychology, 1975, 31, 634-643.

Bem, S.L. and Lenny, E. Sex Typing and the Avoidance of Cross-Sex Behavior. Journal of Personality and Social Psychology, 1976, 33, 48-54.

Bennett, E.M. and Cohen, L.R. Men and Women: Personality Patterns and Contrasts. Genetic Psychology Monographs, 1959, 59, 101-155.

Blanchard, E.B. A Note on the Clinical Utility of the Rathus Assertiveness Schedule. Behavior Therapy, 1979, 10 (4), 571-574.

Block, J.H. Conception of Sex Role: Some Cross-Cultural and Longitudinal Perspectives. American Psychologist, 1973, 28, 512-526.

Borkovec, T.D., Stone, N.M., O'Brien, G.T. and Kaloupek, D.G. Evaluation of a Clinically Relevant Target Behavior for Analog Outcome Research. Behavior Therapy, 1974, 5, 503-513.

Breindenbach, W.E. The Effects of Assertive Training on the Adolescent Self-Concept. Diss. Abst. Int., 1978 (Feb), 38 (8-A), 4671-4672.

Broverman, J.K. and Broverman, D.M. Sex-Role Stereotypes and Clinical Judgments of Mental Health. Journal of Consulting and Clinical Psychology, 1970, 34, 1-7.

Browne, J.A. and Howarth, E. A Comprehensive Factor Analysis of Personality Questionnaire Items. Multivariate Behavioral Research, 1977, 12, 399-427.

Buss, A. and Durkee, B. An Inventory for Assessing Different Kinds of Hostility. Journal of Consulting Psychology, 1957, 21 (4), 343-348.

Buss, A.H. The Psychology of Aggression. New York: Wiley, 1961.

Carlson, B.C. The Effects of an Assertion Training Group on the Assertiveness and the Self-Concept of Student Nurses. Diss. Abst. Int., 1976 (Sep), 37 (3-B), 1426-1427.

Chalus, G.A. The Mechanisms Underlying Attributive Projection. Journal of Personality, 1978 (Jun), 46 (2), 362-382.

Chandler, T.A., Cook, B. and Dugovics, D.A. Sex Differences in Self-Reported Assertiveness. Psychological Reports, 1978, 43, 395-402.

Cotler, S. and Guerra, J. Assertion Training: A Humanistic-Behavioral Guide to Self-Dignity. Champaigne: Research Press, 1976.

Cowen, E.L. The Social Desirability of Trait Descriptive Terms: Preliminary Norms and Sex Differences. Journal of Social Psychology, 1961, 53, 225-233.

DeGiovanni, I.S. and Epstein, N. Unbinding Assertion and Aggression in Research and Clinical Practise. Behavior Modification, 1978 (Apr), 2 (2), 173-192.

DiLeo, J.C. Influences on Women's Sex-Role Attitudes, Assertiveness, Modes of Interaction, Self-Concept, and Self-Esteem: Evaluation of a Training Program. Diss. Abst. Int., 1976 (Feb), 36 (8-B), 4225.

Edwards, A.L. The Social Desirability Variable in Personality Assessment and Research. New York: Dryden, 1957.

Edwards, A.L. Experimental Design in Psychological Research. New York: Holt, Rinehart and Winston, 1968.

Edwards, B.P. Assertiveness and Religious Practise. Diss. Abst. Int., 1978 (Dec), 39 (6-A), 3489-3490.

Eichenbaum, L.A. The Effects of Same Sex vs Mixed-Sex Assertion Training Groups on Assertiveness, Sex-Role Attitudes, and Locus of Control Beliefs of Women. Diss. Abst. Int., 1978 (Nov), 39 (5-B), 2493.

Eisler, R.M., Miller, P.M. and Agras, W.S. Videotape: A Method for Controlled Observation of Nonverbal Interpersonal Behaviors. Journal of Consulting and Clinical Psychology, 1975, 43, 330-340.

Eisler, R.M., Miller, P.M., Hersen, M. and Alford, H. Effects of Assertive Training on Marital Interaction. Archives of General Psychiatry, 1974, 30, 643-649.

Eisler, R.M., Miller, P.M. and Hersen, M. Components of Assertive Behavior. Journal of Clinical Psychology, 1973, 29, 295-299.

Eisler, R.M., Hersen, M., Miller, P.M. and Blanchard, E.B. Situational Determinants of Assertive Behaviors. Journal of Consulting and Clinical Psychology, 1975, 43, 330-340.

Ericson, R.C. The Effect of Assertion Training on Selected Psychological Components of Anxiety. Diss. Abst. Int., 1978 (Oct), 39 (4-A), 2062-2063.

Fagot, B.I. Sex-Related Stereotyping of Toddlers' Behaviors. Developmental Psychology, 1973, 9, 429-437.

Feigenbaum, J. Behavioral and Cognitive Changes in Assertion Training Participants. Diss. Abst. Int., 1978 (Feb), 38, (8-B), 3875.

Fensterheim, H. and Baer, J. Don't Say YES When You Want To Say NO. Dell Publishing Co., Inc., 1979.

Friedman, P.H. The Effects of Modeling and Role-Playing on Assertive Behavior. Diss. Abst. Int., 1969, 29, 3557B-4901B.

Frodi, A., Macaulay, J. and Thome, P.R. Are Women Always Less Aggressive than Men? A Review of the Experimental Literature. Psychological Bulletin, 1977, 84 (4), 634-660.

Furnham, A. Assertiveness in Three Cultures: Multidimensionality and Cultural Differences. Journal of Clinical Psychology, 1979 (Jul), 35, 522-527.

Galassi, J.P., DeLo, J.S., Galassi, M.D. and Bastien, S. The College Self-Expression Scale: A Measure of Assertiveness. Behavior Therapy, 1974, 5, 165-171.

Galassi, J.P. and Galassi, M.D. Validity of a Measure of Assertiveness. Journal of Counseling Psychology, 1974, 21, 248-250.

Galassi, J.P. and Galassi, M.D. Relationship Between Assertiveness and Aggressiveness. Psychological Reports, 1975, 36, 352-354.

Galassi, J.P., Hollandsworth, J.G., Radecki, J.C., Gay, M.L., Howe, M.R. and Evans, C.L. Behavioral Performance in the Validation of an Assertiveness Scale. Behavior Therapy, 1976, 7, 447-452.

Galassi, M.D. and Galassi, J.P. Assertion: A Critical Review. Psychotherapy: Theory, Research and Practise, 1978 (Spr), 15, (1), 16-29.

Gambrill, E.D. and Richey, C.A. An Assertion Inventory for Use in Assessment and Research. Behavior Therapy, 1975, 6, 550-561.

Gay, M.L., Hollandsworth, J.G. and Galassi, J.P. An Assertiveness Inventory for Adults. Journal of Counseling Psychology, 1975, 22, 340-344.

Goldstein, A.P., Martens, J., Hubben, J., van Belle, H.A., Schaaf, W., Weirsma, H. and Goedhart, A. The Use of Modeling to Increase Independant Behavior. Behavior Research and Therapy, 1973, 11, 31-42.

Green, S.B., Burkhart, B.R. and Harrison, W.H. Personality Correlates of Self-Report, Role-Playing, and In-Vivo Measures of Assertiveness. Journal of Consulting and Clinical Psychology, 1979 (Feb), 47 (1), 16-24.

Greenwald, D.P. Self-Report Assessment in High- and Low-Dating College Women. Behavior Therapy, 1978 (Mar), 9 (2), 297-299.

Gritzmacher, K.J. A Multivariate Investigation of Selected Assertiveness Instruments. Diss. Abst. Int., 1979 (Jan), 39 (7-B), 3587.

Groves, J.A. The Effects of Assertive Training on Self-Report Measures of Anxiety, Assertiveness, and Self-Concept in Male Alcoholics. Diss. Abst. Int., 1978 (May), 38 (11-B), 5570-5571.

Gulanick, N.A. A Group Program for Highly Feminine Women Aimed at Increasing Androgyny. Diss. Abst. Int., 1977 (Aug), 38 (2-B), 898.

Hall, J.R. and Beil-Warner, D. Ordinal Position, Family Size and Assertiveness. Psychological Reports, 1977 (Jun), 40 (3 Pt 2), 1083-1088.

Hamblin, D.K. The Relationship of Assertive Behavior to Social Anxiety and Fear of Negative Evaluation. Diss. Abst. Int., 1977 (Jun), 37, (12-B, Pt 1), 6325-6326.

Hedquist, F.J. and Weinhold, B.K. Behavioral Group Counselling with Socially Anxious and Unassertive College Students. Journal of Counseling Psychology, 1970, 17, 237-242.

Heffner, P.A. The Impact of Policewomen on Patrol: Contributions of Sex-Role Stereotypes to Behavior in an Astereotypic Setting. Diss. Abst. Int., 1977 (May), 37, (11-B), 5831.

Heimberg, R.G., Montgomery, D., Madsen, C.H. and Heimberg, J.S. Assertion Training: A Review of the Literature. Behavior Therapy, 1977 (Nov), 6 (5), 953-971.

Heimberg, R.G. and Harrison, D.F. The Use of the Rathus Assertiveness Schedule with Offenders: A Question of Questions. Behavior Therapy, 1980 (Mar), 11 (2), 278-281.

Hersen, M., Eisler, R.M. and Miller, P.M. Development of Assertive Responses: Clinical, Measurement and Research Considerations. Behavior Research and Therapy, 1973, 2, 505-521.

Hess, E.P., Bridgwater, C.A., Bornstein, P.H. and Sweeney, T.M. Situational Determinants in the Perception of Assertiveness: Gender-Related Influences. Behavior Therapy, 1980 (Jan), 11 (1), 49-58.

Hollandsworth, J.G., Galassi, J.P. and Gay, M.L. The Adult Self-Expression Scale: Validation Using the Multitrait - Multimethod Procedure. Journal of Clinical Psychology, 1977 (Apr), 33 (2), 407-415.

Hollandsworth, J.G. Further Investigation of the Relationship Between Expressed Social Fear and Assertiveness. Behavior Research and Therapy, 1976, 14, 85-87.

Hollandsworth, J.G. Differentiating Assertion and Aggression: Some Behavioral Guidelines. Behavior Therapy, 1977 (Jun), 8 (3), 347-352.

Hollandsworth, J.G. and Wall, K.E. Sex Differences in Assertive Behavior: An Empirical Investigation. Journal of Counseling Psychology, 1977, 24, 217-222.

Hollandsworth, J.G. and Cooley, M.L. Provoking Anger and Gaining Compliance with Assertive vs Aggressive Responses. Behavior Therapy, 1978 (Sep), 9 (4), 640-646.

Holmes, C.R. Comparison of Four Factor Analyses of the Fear Survey Schedule. Journal of Clinical Psychology, 1975, 31, 56-61.

Howarth, E. Factor Analysis Has Only Just Begun to Fight. Journal of Experimental Research in Personality, 1972, 6, 268-272.

Howarth, E. A Psychometric Investigation of Eysenck's Personality Inventory. Journal of Personality Assessment, 1976, 40, 173-185.

Howarth, E. Personality Characteristics of Volunteer. Psychological Reports, 1976, 38, 855-858.

Howarth, E. Psychoticism, Neuroticism and Control as Major Dimensions of Mood Variation. Psychological Reports, 1973, 44, 480-482.

Howarth, E. Technical Background and User Information for Trait and State Inventories (HPQ Manual), University of Alberta, Edmonton, 1979.

Howarth, E. Major Factors of Personality. Journal of Psychology, 1980, (2), 104, 171-183.

Howarth, E. and Braun, P.H. A Computer Program for Factor Analyzing up to 450 Variables. Educational and Psychological Measurement, 1972, 32, 175-177.

Howarth, E. and Browne, J.A. Marker Structure in Personality Questionnaire Items. Canadian Journal of Behavioral Sciences, 1971, 3, 161-173.

Hull, D.B. and Schroeder, H.E. Some Interpersonal Effects of Assertion, Nonassertion, and Aggression. Behavior Therapy, 1979, 10, 20-28.

Hung, J.H., Rozenthal, T.L. and Kelley, J.E. Social Comparison Standards Spur Immediate Assertion: "So You Think You're Submissive?" Cognitive Therapy and Research, 1980, 4 (2), 223-234.

Johnson, W.J. The Effect of Group Assertiveness, Self-Concept, and Sex-Role Stereotypy in Married Women. Diss. Abst. Int., 1976 (Nov), 37 (5-B), 2510-2511.

Johnson, P.A. The Relationships of Trait Anxiety, Personality Characteristics and Values to Assertiveness in the Adult Women. Diss. Abst. Int., 1977 (May), 37 (11-B), 5833.

Kay-Reczek, C.E. The Relationship Between Dominance and Sexuality in College Women. Diss. Abst. Int., 1977 (Sep), 38 (3-B), 1406.

Kirchner, E.P., Kennedy, R.E. and Draguns, J.G. Assertion and Aggression in Adult Offenders. Behavior Therapy, 1979 (Sep), 10 (4), 452-471.

Kirk, R.E. Experimental Design: Procedures for the Behavioral Sciences. Belmont, California: Brooks/Cole Publishing Company, 1968.

Lang, K.A. Suggestions for Counseling Women Who Want to Enter Nontraditional Occupation. Journal of Employment Counseling, 1978 (Dec), 15 (4), 180-187.

Lange, A.J. and Jakubowski, P. The Assertive Option: Your Rights and Responsibilities. Research Press Company: Champaign, Ill. 1979.

Law, H.G., Wilson, E. and Crassini, B. A Principal Components Analysis of the Rathus Assertiveness Schedule. Journal of Consulting and Clinical Psychology, 1979 (Jun), 47, (3), 631-633.

Lawrence, P.S. The Assessment and Modification of Assertive Behavior. Diss. Abst. Int., 1970, 31, (1-B), 1601.

Lazarus, A.A. On Assertive Behavior: A Brief Note. Behavior Therapy, 1973, 4, 697-699.

Lindquist, C.U., Lindsay, J.S. and White, G.D. Assessment of Assertiveness in Drug Abusers. Journal of Clinical Psychology, 1979 (Jul), 35 (3), 676-679.

Ludwig, L.D. and Lazarus, A.A. A Cognitive and Behavioral Approach to the Treatment of Social Inhibition. Psychotherapy: Theory, Research and Practise, 1972, 9, 204-206.

MacNeilage, L.A. and Adams, K.A. The Method of Contrasted Role Plays: An Insight Oriented Model for Role-Playing in Assertiveness Training Groups. Psychotherapy: Theory, Research and Practise, 1979, 16 (2), 158-169.

Manis, M. Social Interaction and the Self-Concept. Journal of Abnormal and Social Psychology, 1955, 62, 262-270.

Mann, R.J. and Flowers, J.V. An Investigation of the Validity and Reliability of the Rathus Assertiveness Schedule. Psychological Reports, 1978 (Apr), 42 (2), 632-634.

McFall, R.M. and Marston, A.R. An Experimental Investigation of Behavior Rehearsal in Assertive Training. Journal of Abnormal Psychology, 1970, 76, 295-303.

McFall, R.M. and Twentyman, C.T. Four Experiments on the Relative Contributions of Rehearsal, Modelling and Coaching to Assertion Training. Journal of Abnormal Psychology, 1973, 81, 199-218.

McFall, R.M. and Lillesand, D.B. Behavior Rehearsal with Modeling and Coaching in Assertion Training. Journal of Abnormal Psychology, 1971, 77, 313-323.

McNemar, Q. Psychological Statistics. New York: Wiley, 1962.

Moody, S.C. Factors Influencing Assertiveness in Adolescents. Diss. Abst. Int., 1979 (Jan), 39 (7-B), 3531.

Nevid, J.S. and Rathus, S.A. Multivariate and Normative Data Pertaining to the RAS with the College Population. Behavior Therapy, 1978, 9, 675.

Nichols, K.A. Severe Social Anxiety. British Journal of Medical Psychology, 1968, 47, 301-306.

Nie, N.H., Hull, C.H., Jenkins, J.C., Steinbrenner, K. and Bent, D.H. SPSS: Statistical Package for the Social Sciences (2nd edition). McGraw-Hill, Inc., 1975.

O'Connor, R.D. Modification of Social Withdrawal Through Symbolic Modeling. Journal of Applied Behavior Analysis, 1969, 2, 15-22.

Orlofsky, J.L. Sex-Role Orientation, Identity Formation, and Self-Esteem in College Men and Women. Sex Roles, 1977, 6, 561-575.

Orlofsky, J.L. and Windle, M.T. Sex-Role Orientation, Behavior Adaptibility and Personal Adjustment. Sex Roles, 1978, 4 (6), 801-811.

Orenstein, H., Orenstein, E. and Carr, J.E. Assertiveness and Anxiety: Correlational Study. Journal of Behavior Therapy and Experimental Psychiatry, 1975, 6, 203-207.

Pachman, J.S. and Foy, D.W. A Correlational Investigation of Anxiety, Self-Esteem and Depression: New Findings with Behavioral Measures of Assertiveness. Journal of Behavior Therapy and Experimental Psychiatry, 1979 (Jun), 9, (2), 97-101.

Parmely, C.A. Behavioral and Self-Concept Changes in Adult Women Resulting from an Assertive Training Program. Diss. Abst. Int., 1979 (Mar), 39 (9-B), 4592.

Pendleton, L.R. Interpersonal Attraction and Anxiety Responses to Female Assertiveness. Diss. Abst. Int., 1978 (Apr), 38 (10-B), 5099.

Percell, L.P., Berwick, P.T. and Beigel, A. The Effects of Assertive Training on Self-Concept and Anxiety. Archives of General Psychiatry, 1974, 31, 502-504.

Phelps, S. and Austin, N. The Assertive Woman. San Luis Obispo, California: Impact Publishers, 1975.

Phibbs, J.A. The Relationship Between Social Anxiety, Sub-assertiveness, and Depression in Low Frequency Dating Male and Female Undergraduates. Diss. Abst. Int., 1979 (May), 39, (11-B), 5577.

Phillips, D.R. and Groves, G.A. Assertive Training with Children. Psychotherapy: Theory, Research and Practise, 1979 (Sum), 16, (2), 171-177.

Quillin, J., Besing, S. and Dinning, D. Standardization of the Rathus Assertiveness Schedule. Journal of Clinical Psychology, 1977 (Apr), 33 (2), 418-422.

Rathus, S.A. A 30-Item Schedule for Assessing Assertive Behavior. Behavior Therapy, 1973, 4, 398-406.

Rathus, S.A. and Nevid, J.S. Concurrent Validity of the 30-Item Assertiveness Schedule with Psychiatric Population. Behavior Therapy, 1977 (Jun), 8, (3), 393-397.

Rehm, L.P. and Marston, A.R. Reduction of Social Anxiety Through Modification or Self-Reinforcement. Journal of Consulting and Clinical Psychology, 1968, 32, 565-574.

Rich, R.A. and Schroeder, H.E. Research Issues in Assertive Training. Psychological Bulletin, 1976, 83 (6), 1081-1096.

Ritchie, B.C. The Effect of Rational Emotive Education on Irrational Beliefs, Assertiveness, and/or Locus of Control in Fifth Grade Students. Diss. Abst. Int., 1978 (Oct), 39 (4-B), 2069-2070.

Rock, D. Interscale Variance Analysis of Three Assertiveness Measures. Perceptual and Motor Skills, 1977 (Aug), 45 (1), 246.

Safran, J.D., Alden, L.E. and Davidson, P.O. Client Anxiety Level as a Moderator Variable in Assertion Training. Cognitive Therapy and Research, 1980, 4 (2), 189-200.

Salter, A. Conditional Reflex Therapy. New York: Farrar, Strauss, 1949.

Sanchez, V. and Lewinson, P.M. Assertive Behavior and Depression. Journal of Counseling and Clinical Psychology, 1980, 48 (1), 119-120.

Shelton, J.K. and Ackerman, J.M. Homework in Counseling and Psychotherapy. Springfield, Ill.: Charles C. Thomas Publisher, 1976.

Shillings, R.E. Situational Determinants of Assertive Behaviors in College Females. Diss. Abst. Int., 1977 (Oct), 38, (4-B), 1905-1906.

Shopperson, V.L. The Behavioral and Self-Report Assessment of Assertive Behavior, Aggressive Behavior, and Family Coalition Structure in Disturbed and Normal Family Triads. Diss. Abst. Int., 1978 (Jan), 38 (7-B), 3415-3416.

Spielberger, C.D. (Editor) Anxiety: Current Trends in Theory and Research. New York: Academic Press, 1972.

Strumpfer, G.G. Autonomy and Relatedness: Requirements for Psychological Survival in the Future. Dialogue with the Future, Institute for Research Development, Pretoria, 1975, 1 (3), 3-19.

Swenson, G.G. The Effects of Attitude Pretraining on Assertion Training with Christian College Students. Diss. Abst. Int., 1977 (Oct), 38, (4-B), 1908.

Talbert, E.E. An Investigation of the Relationship Between Positive and Negative Assertive Behavior. Diss. Abst. Int., 1977 (Jun), 37 (12-B, Pt 1), 6354.

Tait, H.S. The Effects of Assertion Training on a Selected Personality Dimensions of Women. Diss. Abst. Int., 1977 (Aug), 38 (2-A), 642.

Turner, S.M. and Adams, H.E. Effects of Assertive Training on Three Dimensions of Assertiveness. Behavior Research and Therapy, 1977, 15 (6), 475-483.

Vaal, J.J. and McCullagh, J. The Rathus Assertiveness Schedule: Reliability at the Junior High School Level. Adolescence, 1977 (Fal), 12 (47), 411-419.

Valentich, M. and Gripton, J. Sex Differences in Work Assertiveness of Social Workers. Journal of Sociology and Social Welfare, 1977 (Jul), 4 (6), 922-926.

Videbeck, L. Self-Conception and the Reaction of Others. Sociometry, 1960, 23, 351-359.

Watson, D. and Friend, R. Measurement of Social Evaluative Anxiety. Journal of Consulting and Clinical Psychology, 1969, 23, 448-457.

Weber, S.M. Factors in Assertiveness in Catholic College Students. Diss. Abst. Int., 1977 (Sep), 38 (3-A), 1238.

Weinman, B., Gerbart, P., Wallace, H. and Post, M. Inducing Assertive Behavior in Chronic Schizophrenics: A Comparison of Socioenvironmental, Desensitization, and Relaxation Therapies. Journal of Consulting and Clinical Psychology, 1972, 39, 246-252.

Westefeld, J.S., Galassi, J.P. and Galassi, M.D. Effects of Role-Playing Instructions on Assertive Behavior: A Methodological Study. Behavior Therapy, 1980 (Mar), 11 (2), 271-277.

Wiggins, J.S. Social Desirability Estimation and "Faking Good" Well. Educational and Psychological Measurement, 1966, 26, 329-341.

Wiggins, N. Individual Viewpoint of Social Desirability. Psychological Bulletin, 1966, 66, 68-77.

Williams, D.W. The Effect of Group Assertiveness Training on Selected Cognitive Variables. Diss. Abst. Int., 1977 (May), 37, (11-A), 6964.

Wilson, E.R. Women and Assertive Training in the Australian Scene. Australian Psychologist, 1975 (Dec), 10 (3), 333-338.

Wolpe, J. The Practise of Behavior Therapy. New York: Pergamon Press, 1969.

Wolpe, J. and Lazarus, A.A. Behavior Therapy Techniques. New York: Pergamon Press, 1966.

Wood, G. Fundamental of Psychological Research. Boston: Little, Brown and Company, 1974.

Wyrick, L.C., Gentry, W.D. and Shows, W.D. Aggression, Assertion and Openness to Experience: A Comparison of Men and Women. Journal of Clinical Psychology, 1977 (Apr), 33 (2), 439-443.

APPENDIX A

The Rathus Assertiveness Schedule (RAS)[1]

Indicate how characteristic or descriptive each of the following statements is of you by using the code given below:

+3 very characteristic of me, extremely descriptive
+2 rather characteristic of me, quite descriptive
+1 somewhat characteristic of me, slightly descriptive
-1 somewhat uncharacteristic of me, slightly nondescriptive
-2 rather uncharacteristic of me, quite nondescriptive
-3 very uncharacteristic of me, extremely nondescriptive

___1. Most people seem to be more aggressive and assertive than I am.*
___2. I have hesitated to make or accept dates because of "shyness".*
___3. When the food served at a restaurant is not done to my satisfaction, I complain about it to the waiter or waitress.
___4. I am careful to avoid hurting other people's feelings, even when I have been injured.*
___5. If a salesman has gone to considerable trouble to show me merchandise which is not quite suitable, I have a difficult time in saying "No".*
___6. When I am asked to do something, I insist upon knowing why.
___7. There are times when I look for a good, vigorous argument.
___8. I strive to get ahead as well as most people in my position.
___9. To be honest, people often take advantage of me.*
___10. I enjoy starting conversations with new acquaintances and strangers.
___11. I often don't know what to say to attractive persons of the opposite sex.*
___12. I will hesitate to make phone calls to business establishments and institutions.*
___13. I would rather apply for a job or for admission to a college by writing letters than by going through with personal interviews.*
___14. I find it embarassing to return merchandise.*
___15. If a close and respected relative were annoying me, I would smother my feelings rather than express my annoyance.*

___16. I have avoided asking questions for the fear of sounding stupid.*
___17. During an argument I am sometimes afraid that I will get so upset, that I will shake all over.*
___18. If a famed and respected lecturer makes a statement which I think is incorrect, I will have the audience hear my point of view as well.
___19. I avoid arguing over prices with clerks and salesmen.*
___20. When I have done something important and worthwhile, I manage to let others know about it.
___21. I am open and frank about my feelings.
___22. If someone has been spreading false and bad stories about me, I see him (her) as soon as possible to "have a talk" about it.
___23. I often have a hard time saying "No".
___24. I tend to bottle up my emotions rather than make a scene.*
___25. I complain about poor service in a restaurant and elsewhere.
___26. When I am given a complement, I sometimes don't know what to say.*
___27. If a couple near me in a theatre or at a lecture were conversing rather loudly, I would ask them to be quiet or to take their conversation elsewhere.
___28. Anyone attempting to push ahead of me in a line is in for a good battle.
___29. I am quick to express an opinion.
___30. There are times when I just can't say anything.*

[1] Total score obtained by adding numerical responses to each item, after changing the signs of reversed items.

* Reversed item.

APPENDIX B

The Howarth Personality Questionnaire (HPQ)

Indicate how characteristic each of the following statements is of you by answering Y (Yes, True) or N (No, False). DO NOT OMIT ANY OF THE QUESTIONS.

___ 1. I prefer to holiday in quiet places.
___ 2. I find it easy to put my worries aside and relax.
___ 3. I am often inclined to go out of my way to win a point over someone.
___ 4. Individuals should always show respect for the law.
___ 5. I am inclined to be moody.
___ 6. I enjoy taking risks just for fun.
___ 7. I am a co-operative and helpful person.
___ 8. I feel that I am not a successful person.
___ 9. I am more persistent than most.
___ 10. I often wonder what hidden reasons another person may have for doing something nice for me.
___ 11. Do you find it hard to really enjoy yourself at a lively party?
___ 12. I sometimes feel that life is not worth living.
___ 13. When I work on a committee I like to take charge of things.
___ 14. Good manners are extremely important.
___ 15. You are troubled by unusual fears or distastes.
___ 16. I rarely act without careful consideration.
___ 17. I seldom get an unreasoning dislike for another person.
___ 18. I usually realize my personal expectations.
___ 19. I give up easily.
___ 20. Other people often take the credit for your achievements.
___ 21. Do you like going out a lot?
___ 22. People often say or do things which annoy me.
___ 23. I speak out in meetings to oppose those whom I feel sure are wrong.
___ 24. I admire my parents in all important matters.
___ 25. I seldom suffer from sleeplessness.
___ 26. I often act on suggestions quickly without stopping to think.
___ 27. I do what is necessary to keep harmony in a group meeting.
___ 28. At a social event people are usually glad to meet me.
___ 29. I believe that "if at first you don't succeed, try, try again".

___ 30. There are times when it seems everyone is against you.
___ 31. I like to attend lots of social functions.
___ 32. I often feel "just miserable" for no good reason.
___ 33. I almost always feel that my own plans are best.
___ 34. I prefer to go my own way rather than acting on approved rules.
___ 35. I sometimes get very bad headaches.
___ 36. Do people say you sometimes behave rashly?
___ 37. I always try to follow the golden rule.
___ 38. I am most often successful in dealing with people.
___ 39. My enthusiasm for a new project does not persist.
___ 40. Most people will tell a lie to keep out of trouble.
___ 41. I make new friendships easily.
___ 42. You feel lonesome even when you are with other people.
___ 43. I am usually right on important matters.
___ 44. I think strongly that churches deserve our financial support.
___ 45. I sometimes lack energy when I need it.
___ 46. I seldom make decisions on the spur of the moment.
___ 47. I soon forget if another person takes momentary advantage of my friendliness.
___ 48. Are you a self-confident person?
___ 49. I am inclined to take my work casually.
___ 50. Many people try to get more than they give.
___ 51. At a party I try to meet as many people as I can.
___ 52. I am easily "rattled" and upset.
___ 53. I like to "take command" by knowing what is best for my group.
___ 54. I think that moral standards are falling.
___ 55. I almost always feel well and strong.
___ 56. You are regarded as a controlled and cautious individual.
___ 57. I always try to do unto others as I would have them do to me.
___ 58. Are your feelings easily hurt?
___ 59. It is hard for me to work continuously on a scholarly problem.
___ 60. Most people respect the rights of others.
___ 61. It is easy for me to talk with other people.
___ 62. Sometimes quite trivial troubles keep going around in my head.
___ 63. I dominate many of my acquaintances of about my own age.
___ 64. This country needs higher standards of conduct.
___ 65. I often lose sleep over my worries.
___ 66. I believe in the saying "look before you leap".

___ 67. If asked to work on a charity drive I would politely say I was busy.
___ 68. I feel confident that I will succeed in life.
___ 69. I persist on a job until it is completed even when others have given up.
___ 70. I have been seriously slighted more than once.
___ 71. I am a good social mixer.
___ 72. I am frequently over-annoyed by quite small setbacks.
___ 73. People have told me I am a dominant person.
___ 74. I approve of contemporary sexual morality.
___ 75. Do ideas run through your head and prevent you from sleeping?
___ 76. On the whole I am rather an impulsive person.
___ 77. To be helpful, I don't mind tackling a dirty job that others will not perform.
___ 78. Are you troubled with feelings of inferiority?
___ 79. I am able to work long hours without rest.
___ 80. I distrust people I have just met until I get better acquainted.
___ 81. I enjoy parties where there are lots of people.
___ 82. I frequently worry about possible misfortunes.
___ 83. People say that I have leadership ability.
___ 84. I am greatly concerned over the morals of my generation.
___ 85. Do you often get heart thumping or palpitations?
___ 86. I often act on the first thought that comes into my head.
___ 87. If a person gets angry with me I try to calm them down.
___ 88. Very few events disturb my self-confidence.
___ 89. I find myself starting things and then losing interest in them.
___ 90. I sometimes suspect the motives of others.
___ 91. I am a sociable, outgoing person.
___ 92. Do you suffer from "nerves"?
___ 93. My opinion often sways others.
___ 94. The police can be trusted not to ill-treat innocent people.
___ 95. Do you worry about your health?
___ 96. Uncontrolled impulsiveness is not part of my makeup.
___ 97. I make a point of helping others.
___ 98. My life has been a disappointment so far.
___ 99. When perplexed by a difficult problem I keep trying to solve it.
___ 100. Most people cheat if they can get away with it.
___ 101. I generally keep in the background on social occasions.

___102. Have you often felt tired or listless for no good reason?
___103. People who argue with me generally come off worst.
___104. I have often gone against my parents wishes.
___105. Do you frequently have attacks of shaking and trembling?
___106. I usually say what I feel like saying at the moment.
___107. I easily become involved in straightening out other people's problems.
___108. Are you easily hurt when people find fault with you?
___109. Whatever the difficulties I stick to my original intentions.
___110. There are many unreasonable people about.
___111. I prefer to stay at home with a hobby rather than attend a lively party.
___112. I sometimes feel happy and sometimes depressed without any apparent reason.
___113. I am not satisfied, generally, to let someone else take the lead.
___114. I think I am more easygoing about right and wrong than most people.
___115. Are you troubled by aches and pains?
___116. I enjoy doing daring, foolhardy things.
___117. I refrain from criticizing other people.
___118. I usually succeed in anything that I attempt.
___119. I am regarded as a very energetic person.
___120. People pretend to care more about one another than they really do.

COMPOSITION OF THE HPQ SCALES

HPQ SCALES	HPQ ITEMS
Sociability (SY)	1,11,21,31,41,51,61,71,81,91,101,111.
Anxiety (AE)	2,12,22,32,42,52,62,72,82,92,102,112.
Dominance (AD)	3,13,23,33,43,53,63,73,83,93,103,113.
Conscience (SC)	4,14,24,34,44,54,64,74,84,94,104,114.
Hypochondriasis (HM)	5,15,25,35,45,55,65,75,85,95,105,115.
Impulsiveness (IP)	6,16,26,36,46,56,66,76,86,96,106,116.
Cooperativeness (CC)	7,17,27,37,47,57,67,77,87,97,107,117.
Inferiority (IF)	8,18,28,38,48,58,68,78,88,98,108,118.
Persistence (PS)	9,19,29,39,49,59,69,79,89,99,109,119.
Suspicion (TS)	10,20,30,40,50,60,70,80,90,100,110,120.

HPQ SCORING SHEET

	Y T	N F		Y T	N F		Y T	N F		Y T	N F		Y T	N F		Y T	N F
1	0	1	21	1	0	41	1	0	61	1	0	81	1	0	101	1	0
2	0	1	22	1	0	42	1	0	62	1	0	82	1	0	102	0	1
3	0	1	23	0	1	43	1	0	63	1	0	83	1	0	103	0	1
4	0	1	24	0	1	44	1	0	64	1	0	84	1	0	104	1	0
5	1	0	25	1	0	45	1	0	65	0	1	85	0	1	105	0	1
6	1	0	26	0	1	46	0	1	66	0	1	86	0	1	106	1	0
7	0	1	27	1	0	47	1	0	67	1	0	87	1	0	107	0	1
8	0	1	28	1	0	48	0	1	68	0	1	88	0	1	108	0	1
9	0	1	29	1	0	49	0	1	69	0	1	89	1	0	109	1	0
10	0	1	30	0	1	50	1	0	70	1	0	90	1	0	110	1	0
11	0	1	31	1	0	51	1	0	71	0	1	91	1	0	111	1	0
12	1	0	32	0	1	52	1	0	72	1	0	92	0	1	112	1	0
13	1	0	33	1	0	53	0	1	73	1	0	93	0	1	113	1	0
14	1	0	34	1	0	54	0	1	74	0	1	94	0	1	114	1	0
15	1	0	35	1	0	55	1	0	75	0	1	95	1	0	115	1	0
16	1	0	36	1	0	56	1	0	76	0	1	96	0	1	116	0	1
17	0	1	37	1	0	57	0	1	77	0	1	97	0	1	117	0	1
18	1	0	38	1	0	58	0	1	78	0	1	98	0	1	118	1	0
19	0	1	39	1	0	59	0	1	79	0	1	99	1	0	119	0	1
20	0	1	40	0	1	60	0	1	80	1	0	100	1	0	120	1	0

	Y T	N F		Y T	N F		Y T	N F		Y T	N F		Y T	N F		Y T	N F

APPENDIX C

RAS ITEMS	MALES MEAN	SD	FEMALES MEAN	SD	T VALUE
1	-0.51	1.8	-0.40	1.8	-0.39
3	-0.20	2.1	-0.49	2.1	0.88
5	-0.17	2.3	-0.47	2.0	0.90
6	1.80	1.4	1.78	1.5	0.09
7	1.11	1.9	0.68	2.2	1.29
8	1.74	1.3	1.83	1.3	-0.44
9	0.37	2.1	0.22	2.0	0.48
10	0.61	1.9	0.63	2.2	-0.08
11	0.16	2.0	-0.13	2.1	1.03
12	0.25	2.1	-0.09	2.1	1.03
13	0.41	2.2	-0.11	2.3	1.48
14	0.08	2.2	0.13	2.2	-0.15
15	-0.53	1.9	-0.37	2.1	-0.50
16	-0.82	2.0	-0.89	1.9	0.25
17	1.55	1.8	1.54	1.9	0.03
19	-0.30	2.0	-0.22	2.2	-0.26
21	0.91	2.0	0.96	2.0	-0.16
22	1.32	1.9	1.20	1.8	0.42
23	-0.57	2.2	-0.22	2.2	-1.03
24	-1.30	1.6	-1.08	1.9	-0.82
26	-1.07	1.8	-1.21	1.8	0.50
27	0.46	2.0	-0.26	2.0	1.34
28	0.08	2.0	-0.26	2.0	1.11
29	0.57	1.8	0.22	1.9	1.20

T-test results of the 24 RAS items which revealed no significant sex differences.