A CONSTRUCT VALIDATION STUDY: VERBAL, BEHAVIORAL AND PERSONALITY COMPONENTS OF ASSERTION AND AGGRESSION

by

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ABSTRACT

Within the theoretical and experimental literature, there is a lack of agreement among professionals as to how assertion should be conceptualized, defined, measured, and as to the actual components comprising assertion. The same is true for the construct of aggression.

This study addressed the issue of identification of the components of assertion and aggression in order to provide construct clarification. The first objective of the study was to identify the verbal, behavioral and personality components of each hypothetical construct. To address this, a sample of Canadian assertiveness trainers/researchers was first identified, then surveyed.

A scale was constructed which contained descriptors intended to represent assertion and aggression, presented without situational contexts. The final version of the scale consisted of 104 items clustered in four facets: Verbal Behavior, Behavioral Components, Personality Traits and Verbal Statements. Several unassertive items were added to each facet to serve as markers. Two hundred and ninety-three assertiveness trainers/researchers were sent the final scale, and asked to judge each descriptor as to its degree of construct representation.

The second objective of this study was to provide evidence of construct validity for assertion and aggression. Validity

evidence for the scale and the constructs was provided from several sources. First, items for the scale were derived from a review of the theoretical and experimental literature on assertion and aggression, providing necessary content validity. Second, a group of assertiveness trainers/researchers knowledgeable of the constructs, judged each scale item as to its degree of construct representation. Strong evidence of construct validity was provided by Hotellings T^2 statistics, which showed that 93 of 98 items functioned as expected and were significant at the .05 level of significance. The results of multidimensional scaling confirmed that items which differentiated assertion and aggression could also be meaningfully represented spatially.

The third objective of the study was to contribute information as to the nature of relationship between assertion and aggression. The Hotellings T^2 analysis indicated that trainers/researchers perceived the components comprising assertion very differently from those constituting aggression. That the items representing each construct clustered in meaningful groups within each facet leads to the conclusion that the constructs were perceived as being substantially different from each other. The results suggested that both constructs are seen as encompassing a variety of verbal and behavioral components, as well as associated personality traits. The constructs are not entirely independent, however, as indicated by the correlations between Assertion and Aggression dimensions derived from multidimensional scaling.

The fourth objective of the study concerned the validation of the operational definitions proposed for each construct. The obtained results provided strong validity evidence for these definitions.

The fifth objective concerned the development of a self-report scale based on those components which were shown to empirically distinguish the constructs. A stable and broad base for constructing such an instrument was provided.

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Supervisor

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CHAPTER I

THE PROBLEM AND RELATED RESEARCH

A recent and rapidly expanding area in the field of behavioral psychology is the study of assertion and assertion training techniques. In addition to a professional interest, there appears to be an increasing public demand as evidenced by the abundance of self-help books available on the topic, and the number of assertiveness workshops being conducted across Canada and the United States. Additionally, the pervasive cultural changes emphasizing self-growth, and rejection of traditional sex role stereotyping as reflected by the Women's Liberation, Gay Liberation and Equal Rights Movements have done much to popularize both the construct of assertion and assertiveness training (Flowers, Cooper & Whiteley, 1975).

The serious study of assertion has been (and is) hampered by several important and related factors. As an interest in assertion first grew from a therapeutic viewpoint, the emphasis in research has been directed towards the investigation of assertiveness training techniques rather than on what is being measured--assertion. At the present time, there is a lack of agreement among professionals as to how assertion should be conceptualized and defined, what the specific components comprising an assertive response are, and how it

should be measured. The same is true for the construct of aggression.

An additional related problem of great concern to both professionals and the public is the relationship between assertion and aggression: how do they differ? There is a growing tendency to see assertive training as "fostering abrasive, obnoxious or otherwise aggressive interpersonal behavior" (Harris, cited in Hollandsworth, 1975). The terms assertion and aggression have often been used synonomously (Bach & Goldberg, 1974). Several implications arising from this become apparent. Firstly, professional assertiveness training groups may be discredited by the suggestion that they are really teaching and sanctioning aggressive behavior. Secondly, recent research has shown that many people have difficulty discriminating between assertive and aggressive responses (Lange, Rimm & Loxley, 1975). If assertion is viewed by the potential client as equivalent to aggression, the acquisition of assertive responses or willingness to learn them may be inhibited. Thus, the more closely assertion is linked to aggression, the more likely an assertive response may be viewed as unreasonable and therefore rejected by the individual or potential client.

The purpose of this study was to identify the specific verbal, behavioral and personality components of assertion and aggression in order to provide construct clarification. The remainder of this chapter is devoted to a critical review of the

relevant literature on assertion and aggression. For the purpose of clarity, each construct will be reviewed separately.

ASSERTION

Theories, Models and Definitions

Historically, assertiveness training (AT) grew from the recognition of a need to treat social inhibition and/or anxiety. The genesis of assertiveness training began with Salter (1949, pp.99-101) who defined six "excitatory" behaviors: the use of "feeling talk," "facial talk," the ability to make "contradict and attack statements," the frequent use of "I" statements, the ability to live for the present and be spontaneous, and the expression of agreement when praised. These "excitatory responses" were seen as incompatible with "inhibitory responses" according to his adaptation of the Pavlovian learning model. Salter used these "rules" to treat a wide variety of clinical symptoms.

Whereas Salter applied these "rules" to almost all people in treatment, Wolpe (1958, p.114) considered assertion to be the outward expression of practically all feelings other than anxiety. While he felt that assertion was more or less aggressive behavior, it also included the expression of friendly, affectionate and other nonanxious feelings. Wolpe theorized that fear of social situations or conflicts could be reduced by teaching the individual to act assertively. He suggested

a person could not be both anxious and assertive at the same time as they were incompatible responses:

> If a response antagonistic to anxiety can be made to occur in the presence of anxiety evoking stimuli so that it is accompanied by a complete or partial repression of the anxiety responses, the bond between these stimuli and the anxiety responses will be weakened (p.71).

Wolpe found Salter's techniques to be of value only in assisting clients to overcome maladaptive anxiety.

In a later work (Wolpe & Lazarus, 1966, p.39) assertion was defined as "all socially acceptable expressions of rights and feelings." Although the authors did not provide criteria for assessing social appropriateness of assertion, they offer several examples of assertive behavior: a polite refusal to an unreasonable request; expressions of praise, endearment, appreciation or respect; and exclamations of joy, irritation or disgust.

Aside from the formal theoretical work by Salter and Wolpe, little attention has been paid to the importance of developing an adequate theoretical or conceptual basis for the construct of assertion. The majority of research literature focuses on assertion training techniques, rather than the actual behaviors comprising assertion. Information on components must often be extracted from these sources. With regard to theoretical issues, Rathus (1975) has argued "there is no need to see AT as being rooted theoretically in any particular school of personality or psychotherapy" (p.19). Although this

may be, there is, however, a need to devote more attention to adequate conceptualization and definition of the construct.

For many reasons, definition of assertion is a difficult task. Some researchers equate assertion with aggression, or identify it as a component of aggression; others consider the two constructs to be independent and unrelated. Contributing to the confusion is whether or not assertion is considered in terms of actual behavior, consequences of behavior, emotional concomitants, or social judgments of appropriateness.

Dawley and Wenrich (1976) consider assertion to be an adaptive behavior because it "represents a balance between the individual's needs and society's demands; it is functional and effective in a given context and does not result in discomfort to the individual or to others, and is in harmony with society's structure" (p.15). On the other hand, nonassertion (i.e. passivity and/or aggression) is viewed as unadaptive because it is "counter to the needs and goals of the individual and those of the society; it is dysfunctional and ineffective in a given context, causes discomfort and even distress to the individual and often to others and may be very disruptive to the society's structure" (p.15).

Dawley and Wenrich's model may be represented schematically as follows:

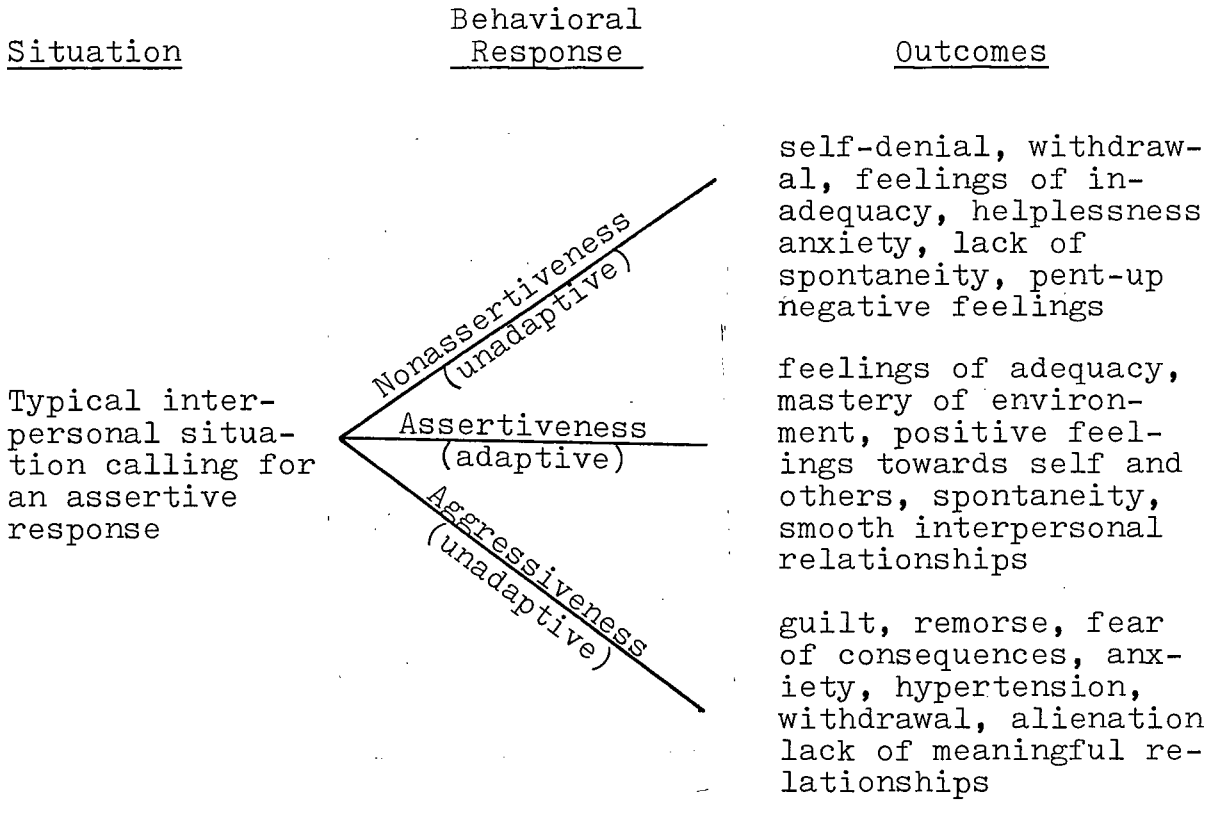

Figure 1. Assertion, nonassertion and aggression

(Dawley & Wenrich, 1976, p.19)

Alberti and Emmons (1970) viewed assertion as "behavior which enables a person to act in his own best interests, to stand up for himself without undue anxiety, to exercise his own rights without denying the rights of others" (p.2). They saw this type of person as being confident in interpersonal relations, able to spontaneously express feelings and emotions, and as highly regarded by others. Additionally, they focused on the concepts of "global" and "situational" assertiveness, implying trait and state personality dimensions. Their model representing the consequences of behaving in certain ways is

illustrated in Figure 2.

NONASSERTIVE BEHAVIOR	AGGRESSIVE BEHAVIOR	ASSERTIVE BEHAVIOR
As Actor	As Actor	As Actor
Self-denying	Self-enhancing at expense of another	Self-enhancing
Inhibited	Expressive	Expressive
Hurt, Anxious	Depreciates others	Feels good about self
Allows others to choose for him	Chooses for others	Chooses for self
Does not achieve desired goal	Achieves desired goal by hurting others	May achieve desired goal
As Acted Upon	As Acted Upon	As Acted Upon
Guilty or angry	Self-denying	Self-enhancing
Depreciates actor	Hurt, defensive, humiliated	Expressive
Achieves desired goal	Does not achieve desired goal	May achieve desired goal

Figure 2. Nonassertive, aggressive and assertive behavior (Alberti & Emmons, 1970, p.11)

In 1973, Jakubowski-Spector modified Alberti and Emmon's flow chart of the effects of behaving passively, aggressively or assertively:

Item	Passive Behavior	Assertive Behavior	Aggressive Behavior
Characteristics of the behavior	Emotionally dishonest, indirect, self-denying, inhibited	(Appropriately) emotionally honest, self-enhancing, expressive	(Inappropriately) emotionally honest, direct, self-enhancing at expense of another, expressive
Your feelings when you engage in this behavior	Hurt, anxious at the time, and possibly angry later	Confident, self-respecting at the time and later	Righteous, superior, deprecatory at the time and possibly guilty later
The other person's feelings about self when you engage in this behavior	Guilty or superior	Valued, respected	Hurt, humiliated
The other person's feelings toward you when you engage in this behavior	Irritation, pity, disgust	Generally respect	Angry, vengeful

Figure 3. A comparison of passive, assertive and aggressive behavior

(Jakubowski-Spector, cited in Olson, 1976, p.94)

Dawley and Wenrich, Alberti and Emmons, and Jakubowski-Spector have provided models which have facilitated clarification of the constructs of assertion and aggression. Their focus on behavior and consequences has allowed assertion to be evaluated against two alternate modes or sets of behavior

response (i.e. passivity and aggression).

Fensterheim (1971) viewed assertion as "the action of declaring oneself; of stating, This is who I am, what I think and feel ... an active rather than a passive approach to life" (p.233). In 1972, he modified his definition to include "an open and direct, honest and appropriate expression of what a person feels and thinks" (p.35). He elaborated his criteria of "appropriate" assertive behavior by stating that assertive behavior does not involve highly exploitative behavior towards others or allow such behavior towards the self (Fensterheim, 1972).

In 1971, Lazarus argued that assertion involves only the expression of legitimate rights. However, in 1973 he reversed his position and claimed, on the basis of his clinical experience, that assertion involves four distinct components: the expression of positive and negative feelings, refusal behavior, the acceptance of compliments and the ability to initiate and terminate conversations.

Jakubowski (1978) agreed with Lazarus (1971) that assertion should include only the expression of rights:

> Assertive behavior is that type of interpersonal behavior in which a person stands up for her legitimate rights in such a way that the rights of others are not violated. Assertive behavior is an honest, direct and appropriate expression of one's feelings, beliefs and opinions ... (p.75).

Bower and Bower (1976) defined assertion as "the ability to express your feelings, to choose how you will act, to speak up for your rights when it is appropriate, to enhance your self-esteem, to help yourself, develop self-confidence, to disagree when you think it is important, and to carry out plans for modifying your own behavior and asking others to change their offensive behavior" (p.4).

Lange, Rimm and Loxley (1975) have defined assertion as "the expression of one's feelings, beliefs, opinions and needs in a direct, honest, appropriate manner. Such assertive behavior will reflect a high regard for one's own personal rights and the rights of others" (p.37). It is unfortunate that the term "appropriate" in the preceding definition has not been explained: what factors or components comprise appropriate expression?

Bakker & Bakker-Rabdu (1973) reserve the term assertion for one type of specific response to aggression in which the person maintains control over all parts of his/her "territory." Assertion involves maintaining or regaining control over "lost territory" and forcing the aggressor to retreat from "occupied ground" (p.59).

Lowen (1967) agreed with using the term assertion to refer to behaviors involving opposition. However, he distinguished between two forms of assertion: reaching for what one wanted, and rejecting what one did not want.

Rathus (1975) defined assertion as including aggressive responses:

> Assertiveness is the expression of oneself in a positive, productive manner. While assertive behavior may include aggressive responses, it also includes smiling at others and engaging in small talk about the weather. Assertive behavior ... may best be viewed as the antithesis of inhibited behavior (p.9).

That he did not differentiate between the two constructs is evidenced when one examines the items and validity evidence on his Assertiveness Scale (Rathus, 1973).

Ellis felt that assertiveness was "perhaps the healthiest form of aggression" (cited in Osborn & Harris, 1975). Although he initially defined assertion as a component of aggression, he then stated that the key to differentiating the two was that in aggression, one <u>demanded</u> or <u>dictated</u> what s/he wanted or blamed others; whereas in assertion, the individual <u>sought</u> what s/he wanted without blaming or demanding.

May (1972) regarded assertion in terms of power. Assertion was seen as a holding fast stance: "Here I stand; you can come this far and no further" (p.148). May felt that when assertion is blocked over a period of time, aggression tends to develop (p.143).

The International Directory of Assertive Behavior Training (IDABT) in 1976 defined assertion as:

> Definition of Assertive Behavior
>
> For purposes of these principles and the ethical framework expressed herein, we define assertive

behavior as that complex of behaviors, emitted by a person in an interpersonal context, which express that person's feelings, attitudes, wishes, opinions or rights directly, firmly and honestly, while respecting the feelings, attitudes, wishes, opinions and rights of the other person(s). Such behavior may include the expression of such emotions as anger, fear, caring, hope, joy, despair, indignance, embarrassment, but in any event is expressed in a manner which does not violate the rights of others. Assertive behavior is differentiated from aggressive behavior which, while expressive of one person's feelings, attitudes, wishes, opinions or rights, does not respect those characteristics in others.

While this definition is intended to be comprehensive, it is recognized that any adequate definition of assertive behavior must consider several dimensions:

A. Intent: behavior classified as assertive is not intended by its author to be hurtful of others.

B. Behavior: behavior classified as assertive would be evaluated by an "objective observer" as itself honest, direct, expressive and nondestructive of others.

C. Effects: behavior classified as assertive has the effect upon the receiver of a direct and nondestructive message, by which a "reasonable person" would not be hurt.

D. Socio-cultural context: behavior classified as assertive is appropriate to the environment and culture in which it is exhibited, and may not be considered "assertive" in a different socio-cultural environment (p.3).

The definition is intended to be comprehensive in a global sense, however, it fails to identify or consider specific behaviors or components of assertion or of an assertive response.

In summary, the various ways in which assertion has been conceptualized and defined illustrates the lack of consensus among theorists and researchers as to what assertion actually

is. The most recent definitions provided by practitioners (Jakubowski, 1978; Bower & Bower, 1976; Dawley and Wenrich, 1976) actively engaged in teaching assertion indicate the necessity to distinguish the two constructs.

Components of Assertion

Related to the problems of conceptualization and definition of the construct of assertion is that of identifying the components of assertive behavior or of an assertive response. Among professionals engaged in the field, there is no general agreement on what behaviors are assertive or on whether these components are related or independent. Although a variety of well-researched techniques have been used to increase assertiveness, little attention has been devoted to the empirical study of behaviors comprising assertion.

According to Hall, the focus of much research has been directed to what Wolpe called "hostile" assertiveness, which refers to the "appropriate expression of demands and legitimate opposition" (cited in McReynolds, 1978, p.22). With regard to this, Cotler (1975) and Serber (1971) suggest it is important to study the more positive aspects of assertion such as the expression of feelings of tenderness and affection.

Although some components have already been stated or implied in the preceding section, a more thorough breakdown will be provided in the following sections. For the purpose of maintaining congruence of presentation, the specific

behaviors involved in nonverbal communication and nonspeech content will be dealt with in the following section (Measurement of Assertion).

Whitely and Flowers (1978) considered assertion to consist of three dimensions: making requests, making refusals, and expressions which involve sending positive and negative messages to others.

Rathus (1975) has dealt with the construct by dividing it into ten types of responses: assertive talk (e.g. speaking so you are not taken advantage of), feeling talk (e.g. spontaneous expression of likes and dislikes and the open sharing of feelings), greeting others, disagreeing (actively and passively), asking for a reason, talking about yourself, agreeing with compliments, avoiding justifying your opinions, maintaining good eye contact, and antiphobic responses (performance of anxiety-provoking activities which would be productive for the individual, but are neglected due to anxiety).

According to Osborn and Harris' summary of Rathus' work, assertive talk includes "demanding your rights and insisting on being treated with fairness and justice" (p.34). Rathus identifies two kinds of goal-oriented assertive talk: rectifying statements (which attempt to correct an injustice), and commendatory statements (intended to gain favor or to increase the frequency of a certain kind of response). Assertion does not and should not involve manipulation as implied by "demanding," "insisting" or "intended to gain favor."

Bower and Bower (1976) have suggested there are twelve components of assertion: using feeling talk, talking about yourself, greeting talk, accepting compliments, facial talk, disagreeing mildly, asking for clarification, expressing active disagreement, asking why, speaking up for your rights, being persistent, and avoiding justifying every position.

Dawley and Wenrich (1976, p.5) saw assertive behavior as encompassing sixteen separate components, adding little clarity to the already existing confusion. Their divisions included: initiating conversations, maintaining control of conversations, extemporaneous talking, expressing positive feelings (including compliments and affection), talking about oneself, using "I", accepting compliments, disagreeing actively and passively, asking why, making requests, saying no, terminating conversations, voice volume and speech fluency.

Lazarus (1973) has argued for four components on the basis of his clinical experience: the expression of both positive and negative feelings, refusal behavior, the ability to ask for favors and make demands, and the ability to terminate and initiate conversations.

Gambrill and Richey (1975, p.551) examined eight categories in their Assertion Inventory: turning down requests, expressing personal limitations such as admitting ignorance in some areas, initiating social contacts, expressing positive feelings, handling criticism, differing with others, assertion in service situations and giving negative feedback. They also

recognized that an assertive response could vary depending on such variables as the degree of acquaintance with a person or the situation.

More recently, there has been a trend to include empathetic responses as a component of assertion (Jakubowski, 1978; Lange, Rimm and Loxley, 1975; Warren & Gilner, 1978).

At this point, the reader has been familiarized with the equivocal nature of most definitions of assertion and how this has complicated identification and definition of the specific components of assertion. The components detailed above have been identified largely by logical analysis and clinical experience; fewer (e.g. voice volume, speech fluency) have been studied empirically. In attempting to manage the confusion created by ambiguous definitions by isolating components of assertion, it seems that to some extent, more confusion has resulted, or at least little headway has been made in clarification of the construct.

Measurement of Assertion

The insufficient theoretical basis, difficulty in definition of the construct, and divergence of opinion with regard to components of assertive behavior have all had interesting and direct implications for the measurement of assertion. As with many new constructs, the range of assessment procedures is extensive. Additionally, the problem of defining assertiveness as a personality trait or as situation-specific has

further diversified assessment strategies.

The impact of these factors on assessment issues has led to a number of approaches including clinical impression, standardized and unstandardized self-report inventories, behavioral observation, nonverbal and verbal communication analysis, and physiological measures. Each of these methods will be discussed in the following sections.

Global Clinical Impression

Assertion has often been assessed by means of clinical impression formed through structured interview techniques (Lazarus, 1966; Wolpe, 1970; Rimm, 1973; Fensterheim, 1972). Although forming clinical impressions involves subjective evaluation and is influenced by bias, this technique has done much to stimulate research into assertion, particularly with regard to training techniques.

Self-report Inventories

Although there are many unanswered questions relating to issues of validity, reliability, influence of social desirability and usefulness of self-report methods in general, paper and pencil self-report techniques have become a major approach to the measurement of assertion. This section will provide a comprehensive overview of the standardized and nonstandardized assertion scales available.

The Wolpe-Lazarus Assertiveness Questionnaire developed in 1966 was the first scale constructed to specifically measure assertion. It is nonstandardized and consists of 30 questions answered in a yes/no format. Wolpe and Lazarus considered their scale a useful method for facilitating the gathering of clinical information, and as a research tool. Sample questions from the scale include "Is it difficult for you to praise others?" and "Are you inclined to be overapologetic?" Evidence of its psychometric properties is lacking in that no direct studies for the purpose of obtaining this information are reported. Several studies, however, provide indirect evidence for its validity. McFall and Marston (1970) reported the test discriminated between assertive and randomly selected college students. Hersen, Miller and Eisler (1973) found that high and low assertives differed significantly in their responses to the questionnaire. In 1973, Young, Rimm and Kennedy found no significant difference between pre and post measures following assertion training, whereas Kazdin (1974) did.

An innovative approach to measurement by Lawrence (cited in Jakubowski, 1976) resulted in the Lawrence Assertive Inventory (unpublished). This inventory describes specific situations and offers various response options; the person is requested to choose the response which most closely matches what they think they would do in the situation. The response options represent assertive, aggressive and unassertive responses to a situation. Lacks and Connelly (1975) found the mean completion time to be 24.4 minutes (range: 13-48 minutes).

The scale was also found to be significantly correlated with the Marlowe-Crowne Social Desirability Scale ($r=.28$), and the scoring distribution was skewed towards the assertive range. Of the four scales considered in their study, the subjects' comments were most negative towards the Lawrence Assertive Inventory. Their criticisms included: too long, too specific, nonrepresentative response categories and easily faked (i.e. the "right" answers were usually evident). Jakubowski and Lacks (1975) reported the scale has low concurrent validity ($r=.30$). No additional psychometric data have been reported.

Another self-report inventory is the Bates-Zimmerman Constriction Scale (1971): a 41 item forced choice (Yes/No) scale which purports to sample overt and covert responses. Bates and Zimmerman (1971) report Spearman-Brown split-half reliabilities of .78 for men ($N=150$) and .77 for women ($N=150$). Kuder-Richardson internal consistency estimates are reported as .81 for males and .80 for females. One month test-retest reliability was .79 ($N=50$) for males and .91 ($N=150$) for females. As partial evidence for validity, constriction scores correlated positively with several Adjective Checklist Scales: Deference ($r=.20$ $p< .05$), Abasement ($r=.49$ $p< .01$) and negatively with Affiliation ($r=-.39$ $p < .01$), Dominance ($r=-.50$ $p< .001$) and Autonomy ($r=-.34$ $p< .05$). Only the results for males are reported above. Normative data is also available for the scale ($N=600$). Additional validity and normative data are required for this scale.

The Conflict Resolution Inventory (CRI) developed by McFall and Lillesand (1971) is unique in its focus on a homogenous class of assertive behavior. The scale deals with refusal behavior; specifically, the ability of college students to say "no" to unreasonable requests. An item pool was constructed by having college students describe situations in which they found it difficult to refuse requests. As a pilot, 82 items were administered to 60 college students. A five point scale ranging from A (I would refuse and feel comfortable doing so) to E (I would agree to do it because it seems to be a reasonable request) was used. In addition, eight global items were rated on a continuum from 0 (not much of a problem) to 100 (very significant problem). The 35 items maximally discriminating between high and low assertives were retained in the final scale. According to the developers of the scale, four measures of assertion can be obtained: a global rating of assertiveness, the total number of items responded to assertively, the total number of items answered unassertively and the difference between assertive and unassertive scores.

McFall and Lillesand (1971) report a strong positive correlation between the CRI and a behavioral measure of assertion. In a replication study, Loo (cited in Lange & Jakubowski, p.234) found a correlation of .82. Unfortunately, there was no control for aggression indicated in the behavioral measure. In another study, McFall and Twentyman (1973) found the scale to be insensitive across treatment conditions. According to Lacks and Connelly (1975) the mean completion time is 16.1

minutes (range: 10-30 minutes) and is not significantly related to the Marlowe-Crowne Desirability Scale ($r=.02$). Comments obtained from those completing the scale indicated the format facilitated more honesty in response.

In a recent study (Melnick and Stocker, 1977) the CRI was found to be insensitive across treatment conditions. The present author is unaware of any further research relating to other psychometric properties of the scale.

In 1973, Rathus developed a 30 item schedule for assessing assertive behavior which he called the Rathus Assertive Scale (RAS). Many items on his scale have been modified from the work of others (Wolpe, 1969; Alport, 1928; Guilford & Zimmerman, 1956). The scale points range from -3 (very uncharacteristic of me, extremely nondescriptive) to +3 (very characteristic of me, extremely descriptive); total scores can range in value from -90 to +90. To collect normative data, the scale was administered to 1401 college and university students. The mean score for men was 11.6 ($s=21.7$) and 7.1 ($s=23.3$) for women. Rathus suggests on the basis of his clinical experience that scores below -20.0 indicate significant assertion problems. The mean completion time is 6.6 minutes with a range from 3-15 minutes (Lacks and Connelly, 1975). Rathus (1973 b) reported a three week test-retest reliability coefficient on 68 undergraduate men and women (age 17-27) to be $r=.78$ ($p < .01$). The split half reliability between odd and even scale items was reported as $r=.77$ ($p < .01$).

Several studies provide validity evidence for the RAS. Rathus (1972, 1973), Flowers and Goldman (1976), Holmes and Horan (1976), and Neitzel and Bernstein (1976) have demonstrated significant change on the scale after assertiveness training. Validity evidence based on gain scores must be interpreted with some caution. Pre and post training differences may be due to actual behavior change or may reflect the influence of extraneous variables such as regression or faking the scale by learning how to describe oneself more assertively. In another study, Rathus and Nevid (1977) found psychiatric patients scored significantly lower than same sex college peers.

In 1973, Rathus obtained some evidence of validity by correlating RAS scores with two external measures of assertiveness: a 17 item semantic differential scale (Study 1) and a behavioral measure obtained by audiotaping subject's responses to questions (Study 2).

In Study 1, 18 college students administered the RAS to a total of 67 friends, and also rated them on the 17 item semantic differential schedule. The schedule was factor analyzed using a principal component procedure, followed by a varimax rotation of the raw factors. Four factors which accounted for 71.2% of the variance were obtained: assertiveness, contentment, intelligence and prosperity, and health. Pearson product moment correlation coefficients between the five scales comprising the assertiveness factor and the RAS

indicated the following significant correlations ($p < .01$): boldness ($r=.6124$), outspokenness ($r=.6163$), assertiveness ($r=.3424$), aggressiveness ($r=.5374$) and confidence ($r=.3294$). According to these results, the RAS is more highly correlated with aggression than assertion! It is interesting to note that (in line with the definition of assertion) Rathus used the significant correlation between the RAS and the aggressiveness subscale as evidence for construct validity of assertion. Examination of the scale items confirms the contamination of assertion by aggression: "Most people seem to be more aggressive and assertive than I am"; "There are times when I look for a good, vigorous argument" (p.399).

In Study 2, Rathus correlated RAS scores with ratings (1=very poor response to 5= very good response) made from audiotaped responses to 5 questions, each preceded by a description of a situation requiring an assertive response. A Pearson product moment correlation of .7049 ($p < .01$) was obtained. The choice of a second self-report technique was unfortunate in that the validity evidence for both methods is questionable. Additionally, his criteria for rating assertion were poorly defined.

In his summary of the study, Rathus stated the "failure of the RAS scores to covary with scores indicative of intelligence, happiness, fairness and so on is suggestive that RAS scores are not confounded by a desire on the part of respondents to answer items in the manner they feel is socially desirable" (p.403). Lacks and Connelly (1975) however, have

found the RAS to be significantly correlated with the Marlowe-Crowne Social Desirability Scale ($r=.27$ $p < .01$).

Rathus and Nevid (1977) correlated RAS scores with the factors defined in Study 1 above for a psychiatric sample ($r=.80$ $p < .01$). They stated the RAS is a "highly valid measure of assertiveness and social aggressiveness of psychiatric patients in terms of rating of therapists who had come to know them during clinical sessions" (p.395). Scores for diagnosed neurotics, schizophrenics and personality disorders (not defined) on the RAS and the semantic differential scales were significantly correlated with happiness, activity, and strength of will. In the neurotic sample, the RAS score was significantly related to niceness ($p < .05$). This may suggest the influence of social desirability.

Mann and Flowers (1978) conducted a study on the reliability and validity of the RAS. They found the uncorrected split-half reliability to be .595 ($p < .01$) compared to .7723 ($p < .01$) found by Rathus (1973 b). No data for test-retest reliability was reported. To assess the usefulness of the RAS as an external instrument (i.e. a friend completed the RAS for a person), a Spearman Brown correlation coefficient was calculated, yielding an r of .857 ($p < .001$). They then suggested: "Is it quite likely the external raters evaluated the subject's assertiveness as dispositional rather than situational, which would account for the greater internal consistency of the external raters' tests? ... In particular, is it possible that

the scale and other such instruments are situation tests when rated by external raters" (p.634)? This suggestion seems unwarranted due to the fact that external raters may not know how a person would respond in a given situation; scores would be influenced by the halo effect.

In summary, the RAS appear to be contaminated with aggression, influenced by social desirability, and in the present author's opinion, offers little good validity evidence. At the present time, the RAS would seem most useful as a research tool.

One of the most popular self-report scales is the College Self-Expression Scale (CSES) developed by Galassi, DeLo, Galassi and Bastien (1974). It consists of 50 items, some of which have been modified or rewritten from others' work. Items are rated on a frequency basis using a Likert format from 0-Almost Always or Always to 4-Never or Rarely; as the reader can see, the definitions of the scale points require some modification to avoid ambiguity in response. There are 21 positively worded items and 29 negatively worded ones. The CSES was developed according to the following rationale:

> In spite of both its early development and the fact that assertive training appears to be one of the most promising contributions by behavior therapy to date ... research on assertiveness has been slow to emerge. Perhaps one of the factors that has retarded its investigation is the absence of a standardized instrument which is designed to serve diagnostic purposes and to measure change. Previous research has relied on instruments which were unstandardized (e.g. Lazarus, 1966), which were not designed to measure the construct (Hedquist &

> Weinhold, 1970) or which tapped only limited aspects of assertiveness (e.g. McFall & Lillesand, 1971, p.165).

The authors claim the scale taps three dimensions of assertiveness:

> Positive assertiveness consists of expressing feelings of love, affection, admiration, approval and agreement. Negative assertions include justified feelings of anger, disagreement, dissatisfaction and annoyance; whereas, self-denial includes overapologizing, and exaggerated concern for the feelings of others (p.168).

The third dimension (self-denial) might be more appropriately called a passivity or unassertive factor rather than an assertiveness factor.

Assertion as operationally defined by the authors is assessed across a variety of role occupants: strangers, authority figures, business relations, family and relatives, like and opposite sex peers (p.168). There is no orderly breakdown of items across interpersonal situations. According to Lacks and Connelly (1975), the mean completion time is 8.1 minutes (range: 4-16 minutes). Apparently, the scale is not significantly influenced by social desirability as measured by the Marlowe-Crowne Social Desirability Scale (r=.18) and the scores are normally distributed.

Normative data has been supplied for four samples: two student samples (introductory psychology and graduate students) and two teacher samples (elementary and secondary schools). Two week test-retest reliabilities for the student samples were

reported as .89 and .90.

An attempt at providing evidence of construct validity was made by correlating CSES scores with several Adjective Checklist Scales (ACL). Unfortunately, the ACL has validity problems of its own, and is highly influenced by response style.

The authors found the CSES correlated positively and significantly with the following subscales: Number Checked ($r=.33$ $p<.005$), defensiveness ($r=.35$ $p<.001$), favorable ($r=.30$ $p<.005$), self-confidence ($r=.46$ $p<.001$), achievement ($r=.34$ $p<.001$), dominance ($r=.46$ $p<.001$), intraception ($r=.22$ $p<.05$), heterosexuality ($r=.46$ $p<.001$), exhibition ($r=.48$ $p<.001$), autonomy ($r=.24$ $p<.01$) and change ($r=.43$ $p<.001$). Significant negative correlations ($p<.05$) were obtained with unfavorable ($r=-.25$), succorance ($r=-.31$) abasement ($r=-.35$), deference ($r=-.29$) and counselling readiness ($r=-.43$).

A positive but nonsignificant correlation ($r=.17$) was found between the CSES and Aggression subscale. The authors stated "The confirmation of a nonsignificant correlation between aggression and the CSES is of especial importance since aggressiveness is often mistaken for assertiveness" (p.170).

A concurrent validity coefficient of .19 ($p<.05$) was obtained between supervisor and self-ratings of assertiveness. The authors suggest the correlation may have been attenuated due to the supervisor's lack of knowledge about the person

they were rating. Another study by Loo in 1972 (cited in Lange and Jakubowski, 1976) reported a concurrent correlation of $r=.30$. In a further study, Galassi and Galassi (1974) found a correlation of .33 ($p < .005$) between resident hall counsellor ratings and self-ratings of assertiveness.

Additional evidence of construct validity was provided in 1975 by Galassi and Galassi. CSES scores were correlated with the eight subscales of the Buss-Durkee Hostility Inventory, (BDI). The only significant correlation between the CSES and BDI aggression scale was for the verbal aggression subscale in the female sample ($r=.38$). At least one item on this subscale appears to be measuring assertion rather than aggression: "When I disapprove of my friends' behavior, I let them know it" (Buss, 1961, p.173). Other items require fine differentiation between aggression and assertion: "If somebody annoys me, I am apt to tell him what I think of him" (p.173). One plausible reason for this significant correlation may be the difficulty discriminating between assertiveness and agressiveness. The authors used the nonsignificant correlation as evidence for the uniqueness of the constructs.

The Adult Self-Expression Scale (ASES) was developed by Gay, Hollandsworth and Galassi (1975) to measure assertiveness in adults. The authors state:

> In spite of the pervasiveness and importance of assertiveness problems, no easily administered, reliable and validated instrument is available that is specifically designed to measure assertiveness for adults in general. Such an

> instrument is needed for three reasons. First, it could be used as an efficient means of sampling a client's behavior in a broad variety of interpersonal situations ... Second, such an instrument could be used as an efficient screening device for identification of clients who might benefit from assertive training procedures ... Third, such an instrument is needed as a research tool (p.340).

Although the authors claim the scale was validated on a general adult population, in reality, the 123 subjects were drawn from English classes at a large community college. They state:

> As Clark (1960) has pointed out, the community college strives to remove social, economic and academic barriers. The resulting "open door" policy has resulted in a diverse, unselected social base (Collins, 1966; Cross, Note 1; Koos, 1970, p.340).

Although community colleges may strive to create an open-door policy, whether or not this has been accomplished is doubtful (Cohen, 1975; Astin, 1977).

Additionally, although the average student age at the college is reported as 31 years, the mean age of Gay's et al. sample was 24.5 years (range: 18-54 years).

The scale itself consists of 48 items which are rated on a 5 point Likert scale from 0 (Almost Always or Always) to 4 (Never or Rarely). The scale points are not particularly well defined; for example, how does Almost Always differ from Usually (Scale point 1)? Of the 48 items, 33 are taken from the GSES: 29 have been very slightly modified and 4 are original. Fifteen new items were added, some of which were

taken or modified from other assertiveness scales. Not surprisingly, the ASES and CSES correlates .88.

The scale was built using a two-dimensional (6x7) multifaceted approach to item construction. The first dimension covered interpersonal situations in which assertive behavior might occur: interactions with parents, friends, intimate relations, public and authority figures. A sixth global situation (unspecified) was added to this dimension. The second dimension dealt with specific assertive behaviors occurring in the above situations: "expressing personal opinions, refusing unreasonable requests, taking the initiative in conversations and in dealings with others, expressing positive feelings, standing up for legitimate rights, expressing negative feelings, and asking favor of others" (p.341). After item analysis, the authors stated: "at least 1 item was retained in 40 of the 42 cells of the model" (p.341). Thus, there are too few items in the cells to allow for examination by area. The authors do not indicate which cells the items fall into or which cells are empty.

With regard to reliability data, two week test-retest correlations were obtained from two samples ($r=.88$ $N=60$, $r=.91$ $N=63$). In a recent study, Hollandsworth and Galassi (1977) reported one week stability coefficients of .87 ($p < .001$, $N=27$) for an avocational interest group (e.g. sewing, woodworking), .81 ($p < .001$, $N=34$) for a counselling theories class, and .89 ($p < .001$, $N=21$) for a psychiatric

inpatient sample. An adjusted split-half reliability (Spearman-Brown) of .92 ($p < .001$, N=64) was reported for a prison sample.

With regard to construct validity, correlations between the ASES and ACL subscales were obtained. The results indicated the ASES was positively correlated ($p < .001$) with the number of adjectives checked, self-confidence, lability, achievement, dominance, affiliation, hetereosexuality, exhibition, autonomy, aggression and change. Negative correlations ($p < .001$) were obtained with the succorance, abasement and deference scales of the ACL. A discriminant analysis procedure revealed that anxiety (as measured by the Taylor Manifest Anxiety Scale) and self-confidence (Self-Confidence Scale of the ACL), successfully discriminated between high and low assertive groups, whereas locus of control did not.

In a further validation study using the multitrait-multimethod approach (Hollandsworth & Galassi, 1977), correlations between peer and self-report assertion ranged from .41 ($p < .01$) to .61 ($p < .001$). The authors claim moderate convergent and divergent validity were obtained.

An innovative approach to the measurement of assertion is evidenced in the Assertion Inventory developed by Gambrill and Richey (1975). It is a 40-item inventory with a response format which provides a subjective measure of discomfort (1-none to 5-very much), as well as a self-report probability of a person's likelihood of engaging in a specified behavior

(1-always do it to 5-never do it). If desired, an indication of situations in which a person would like to be more assertive can be obtained by having the individual circle the relevant scale items.

The components of assertion as defined by Gambrill and Richey are: turning down requests, expressing personal limitations such as admitting ignorance in some areas, initiating social contacts, expressing positive feelings, handling criticism, differing with others, assertion in service situations and giving negative feedback. The authors attempted also to build in a dimension of familiarity, e.g. strangers, intimates and family.

Normative data is provided for four samples of university students and one group of women measured before and after an assertiveness training program.

Five week test-retest reliability is reported for one sample of college students as .87 (N=49) for discomfort and .81 for response probability. No evidence of item analysis or internal consistency is presented.

With regard to validity, the authors found a significant difference between the means of a clinical (i.e. assertive training participants) and an undergraduate college sample. A principal component factor analysis with varimax rotation (University of California PICKLE program) resulted in eleven factors accounting for 61% of the total variance; each factor included 3.9-7% of the variance. On the basis of the factor

analysis, the authors suggested the scale does not tap a homogeneous class of behavior. That many factors were identified is not surprising considering the rationale for scale development was not uni-dimensional. The purpose of the scale was to tap assertion across a number of situations and behaviors.

Bakker, Bakker-Rabdu and Stein (1976) have developed a scale which attempts to assess both assertiveness and aggressiveness. Contrary to most other researchers, they distinguish between assertion and aggression in terms of a territorial model. In their view, "a response is considered assertive when it is direct and specific to the area under attack. The purpose of the response must be to retain or regain control over a disputed area and effectively to rebuff the aggressor" (p.3). They define aggression as any act which results in the extension of the territory that the person holds.

The Bakker Assertiveness-Aggressiveness Inventory (BAAI) consists of 36 items divided into two 18 item subscales designed to measure assertion and aggression respectively. Each 18 item subscale contains 9 positively keyed items and 9 negatively keyed items. Based on Gambrill and Richey's (1975) factor analysis of the Assertion Inventory in terms of situation specificity of response, the developers of the BAAI have provided for each item a description of a specific situation followed by a response. For example, "You are a guest in the home of a new acquaintance. The dinner was so good you would like a second helping ... You go ahead and take a second

helping." In some cases it is difficult to rate items as the situation or response described is somewhat vague, leading to ambiguity in interpretation by the rater.

Normative data on seven samples is provided (N=8 to N=250). The sample groups included college students (N=250), x-ray technicians (male =26, female =37), Water Department employees (female =8, male =21), nurses (female =91) and city employees (male =17). The mean on the assertion subscale ranged from 43.85 to 48.78 with standard dèviations from 43.85 to 48.78 with standard deviations from 5.65 to 9.39 respectively. On the aggression subscale, the mean ranged from 47.88 to 51.83 with standard deviations of 6.65 to 9.93 respectively.

Test-retest reliabilities are provided for the college sample (N=250) who did not receive assertiveness training. Pearson product moment correlations were .75 for the Assertiveness subscale and .88 for the Aggressiveness subscale.

Correlations between the Assertiveness and Aggressiveness Scale ranged from .20 (N=8) to .59 (N=63) across the seven samples, sharing from 4 to 28% of the variance. The developers suggested these low correlations lended support to the notion that assertiveness and aggressiveness tap two dimensions of human behavior.

In summary, all self-report scales, with the exception of the CRI attempt to assess a global assertiveness factor as represented across a variety of situations and behaviors. Thus the problem of conceptualizing assertion as a personality trait

or as situationally exhibited still exists, at least within the realm of interpretation of scale results.[1] It is not surprising a global assertiveness factor has not been found when scales are constructed from a situationally dependent rationale.

The more recent scales demonstrate adequate reliability; more evidence of validity still needs to be demonstrated for most scales.

Normative data for the most part is provided for a white population only, using a relatively homogeneous subject pool (i.e. college and university students). None of the scales (with the exception of the BAAI) have a nonoverlapping scale or subscale to measure aggression, and their relationship to aggression remains unclear (only RAS, CSES, and ASES report relevant data). A major problem with the inventories is that the "right" answer is usually obvious, and could probably be easily faked. Less transparent items and/or the addition of lie scales would do much to improve them. Another problem concerns the emphasis on experiential components of assertion, rather than on the actual behaviors or components exhibited.

The preceding section has examined the most familiar assertion inventories. There are, however, several unpublished

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[1] Lange & Jakubowski (1976, p.276) cite a number of factor analytic studies revealing no global factors of assertiveness, e.g. RAS, CSES, Assertion Inventory, Lawrence Assertive Inventory. Eisler et al. (1975) support the view that an individual may be assertive in one situation and not in another.

and/or unstandardized scales which assertiveness trainers use. Among these are: the Assertive Self-Statement Test, Adolescent Assertion Discrimination Test (cited in Bodner, 1975, p.92), Assertive Behavior Assessment for Women (Osborn & Harris, 1975), Assertive Questionnaire (Phelps & Austin, 1975, p.5), Assertiveness Inventory (Fensterheim & Baer, 1975, pp.49-50), Discrimination Test on Assertiveness, Aggressive and Nonassertive Behavior (Lange & Jakubowski, 1976, pp.41-52).

Behavioral Measures of Assertion

Another approach to the measurement of assertion has been to attempt to empirically isolate the behavioral components of the assertive response. This section will examine the non=verbal and verbal characteristics of assertion as identified in the research literature.

Nonverbal components of assertion. Laws and Serber (1971) claim to have isolated facial expression, body movement, and head orientation as components of assertion. The frequency of smiling and duration of looking have been isolated by Eisler et al. (1974) but have not consistently discriminated across situations (Eisler, Miller & Hersen, 1973). Proximics has been isolated as a component (Bodner, Booraem & Flowers, 1972), and Serber (1972) has identified eye contact as a component of assertion.

The nonspeech characteristics which have been isolated as components in at least one experiment are loudness of

speech (Eisler, Miller & Hersen, 1973) and affect (Eisler, Miller, Hersen, 1973; Eisler, Hersen & Miller, 1973). Other characteristics which have been identified but do not discriminate consistently include response latency (Kazdin, 1974; Eisler, Miller & Hersen, 1973; McFall & Lillesand, 1971), speech fluency (Serber, 1971; Laws & Serber, 1971) and duration of speech/number of words (Eisler, Miller & Hersen, 1973; McFall & Lillesand, 1971; Rehm & Marston, 1968).

Role play has been used extensively in the behavioral measurement of assertion. One of the most standard situations involves providing an audiotaped or role model cue to which the subject responds. The response is then analyzed. McFall and Lillesand (1971) in an interesting study obtained a measure of the subject's ability to continue refusing requests, each successive response being rated for adequacy on a 5-point scale. The subject's final refusal then becomes his/her overall rating of assertiveness.

Bellack (1978) has recently questioned the validity of role play techniques with regard to the assessment of social skills. Most validity evidence concerning role play techniques rests on pre and post measures of assertion. Little evidence of external or divergent validity has been provided.

Verbal analysis. Other behavioral approaches have included the dichotomous scoring of whether an assertive response

occurred (Eisler, Miller & Hersen, 1973) or ratings on a Likert-type scale (McFall & Lillesand, 1971; Rathus, 1972; McFall, Galbraith & Twentyman, 1971; Eisler, Hersen & Miller, 1973). Unfortunately, none of the research studies have used a nonoverlapping scale to measure aggression, which creates the possibility of contamination of the rating scale by aggression. An exception to this is a study conducted by Lehman-Olson (Olson, 1976) who developed two behavioral measures: one for assertion and one for aggression. No psychometric data is reported in her study.

Using high-low or pre-post measures, the paralinguistic aspects of speech which have been isolated include making requests for a person to change their behavior (Eisler, Miller & Hersen, 1973) and an increase in the number of positive statements (Eisler, Miller, Hersen & Alford, 1974).

The criteria as to what constitutes an assertive response in most studies are poorly defined which make comparison among studies difficult at best. Also, the small sample sizes and lack of cross-validation make comparisons difficult.

Physiological Measures

Little attention has been paid to physiological measures of assertion. McFall and Marston (1970) have shown that

following a role play situation, assertive trainees have a lower pulse rate than a control group.

Generalization of Assertive Responses

While the above studies have focused primarily on the acquisition of assertive responses, less research has been devoted to the study of generalization of assertive responses outside the experimental setting or training group. The available research is contradictory, but overall suggests that generalization is most likely to take place in situations similar or identical to the one in which the individual was trained. Generalization is reduced across disssimilar situations. Within the experimental literature, for example, McFall and Lillesand (1971) found that transfer occurred for untrained refusal requests when the subject has been trained in refusal behavior, but that this did not generalize to other situations. Similarly, Lawrence (1970; cited in Lange & Jakubowski, 1976, p.290) found that training subjects to express disagreement with opinions did not generalize to other behaviors considered to be assertive (e.g. expressing honest agreement with others' opinions).

Using follow-up questionnaires, Mayo, Bloom and Pearlman (cited in Lange & Jakubowski, 1976, p.289) found that 95% of the graduates from an assertive training workshop were able to maintain their level of assertion 6-18 months later.

Lange & Jakubowski (1976, p.290) have offered four reasons

for the lack of transfer. First, they suggest that, as the studies are experimental, they may bear little resemblance to the group dynamics of an assertive workshop (e.g. group support, vicarious learning). No evidence is cited to support this hypothesis. Second, they suggest that many subjects enlisted for experimental studies may not be motivated to change their behavior. However, subjects are often volunteers in experimental studies and therefore may be motivated towards behavior change. Thirdly, they suggest that the behavioral measures used may be too crude to measure changes actually occurring. Considering the disproportionate amount of research on training versus isolation of components and the relative recency in recognition of the need to identify components, this may be true. Finally, Lange & Jakubowski suggest the subjects' experiences are of shorter duration than would actually occur in clinical assertion training. With the increase in the number of one day assertiveness workshops across the country, this may not be the case.

Another problem in interpreting results from behavioral research is how they correlate with self-report measures of assertion. Some researchers (Eisler, Miller & Hersen, 1973) have found positive correlations, and others have reported low but positive relationships (Lange & Jakubowski, 1976; Holmes & Horan, 1976). Significant change after assertion training has been reported on a measure of behavior, but not on a self-report measure (Hersen, Eisler, Miller, Johnson & Pinkston, 1973); whereas, sometimes just the reverse has occurred

(McFall & Marston, 1971).

Several sources may help to account for the contradictory results found. Some behavioral measures, particularly role play techniques, appear to be simply glorified self-report measures. As previously stated, validity evidence for some self-report inventories and many behavioral measures is lacking. Many studies have been conducted on small sample sizes, and little effort has been made to replicate them. Thus, the correlations obtained appear to depend in part on what measures have been used. Until additional refinements have been made in behavioral measures and cross-validation studies are conducted, the relationship between self-report techniques and behavioral measures will remain unresolved.

Personality Measures

Attitude change due to assertion training has been demonstrated on the following instruments: California Personality Inventory (Self-Acceptance Scale), Eynsenck Personality Inventory, Fear Survey Schedule, Bernreuter Self-Sufficiency Inventory (Hartsook, Olch & DeWolf, 1976), Social Anxiety and Distress Scale, S-R Inventory of Anxiousness (Christensen & Arkowitz, 1974), Taylor Manifest Anxiety Scale, Gough Adjective Checklist (Rehm & Marston, 1968), Temple Fear Survey Schedule (Rathus, 1972; 1973 a), Rosenweig Picture Frustration Test, Repression Sensitization Scale, Jacob's Survey of Mood and Effect (Synder, cited in Bodner, 1975), Willoughly

Personality Schedule (Kazdin, 1974), Minnesota Multi-phasic Personality Inventory and the Leary Interpersonal Checklist (Lomont, Gilner, Spector & Skinner, 1969).

With regard to the number of references to personality measures, Bodner (1975) states:

> the absence of reference to clinically accepted psychometric instruments such as the California Personality Inventory, Sixteen Personality Factors Questionnaire ... raises some questions as to their perceived usefulness by assertion researchers. While clinical researchers often use these instruments, their global approach to personality and psychopathology fails to focus on the behavioral components of assertion skills necessary in assertion training research (p.91).

Bodner's point is well taken: it is difficult to assess global changes when the specific components of assertion have not been isolated. It should be noted that many of the studies cited above have used gain score analysis, a procedure for which the validity and reliability are currently in question. Nevertheless, there is a growing body of literature which attributes certain personality characteristics to assertive individuals (Osborn & Harris, 1976; Alberti & Emmons, 1970; Hartsook et al., 1976). If these characteristics are evident in people considered to be assertive, these dimensions of personality should be able to be identified by global personality assessment techniques.

This section has examined the interplay between theoretical, conceptual and definitional issues with regard to their impact on measurement of assertion. It becomes evident that

more research needs to be devoted to identification of the actual components constituting assertion. By focusing on well defined specific components in future research, rather than on experiential aspects, a step towards construct clarification will be made.

AGGRESSION

The study of aggression shares many of the same types of problems encountered in research on assertion. Although there is a larger theoretical base (aggression is an older construct), there is lack of agreement as to which theory most adequately explains aggression/aggressive behavior. There are a number of equivocal definitions, and a variety of measurement techniques, which make interpretation of aggressive behaviors difficult, as will become clear in this section. It is not surprising the two constructs are often confused.

Theories, Models and Definitions

Early theorists viewed aggression as instinctual behavior; an unavoidable, violent and destructive drive which could be modified and controlled by the formation of emotional ties between people and by the available opportunity to outwardly discharge these innate aggressive impulses (Freud, 1920).

The frustration-aggression (F-A) hypothesis formulated by Dollard, Doob, Miller, Mowrer and Sears (1939) proposed a

one-to-one relationship between frustration and aggression: an unavoidable cause of aggression was frustration (p.1). Aggression, once aroused, could only be reduced by the infliction of injury. They defined aggression as "any sequence of behavior, the goal-response to which is the injury of the person towards whom it is directed" (p.9). Other theorists felt their definition did not take into account other types of behaviors which would commonly be judged as aggressive. To deal with this problem, some theorists have proposed different types of aggression.

Berkowitz (1962) re-evaluated the F-A hypothesis in terms of two variables he felt intervened in this relationship (interpretation and anger) and made the distinction between habitual aggression and anger produced aggression. He felt that frustration produced an emotional state of anger, which increased the probability of aggression. Interpretation was relevant to the habitually hostile person, who has learned to categorize or interpret a wide variety of events or people as threatening or frustrating to him. When such interpretations are made in the presence of relevant cues, aggressive behavior resulted.

Feshback (1964) argued for the inclusion of motivational factors in defining aggression. He felt that some knowledge of intent (to hurt) and expectation of outcome was necessary for an aggressive act to occur. He defined three types of aggressive acts: incidental aggression, where the behavior was

considered incidental and/or aimless; instrumental aggression, in which the aggressor held no particular feeling about the recipient, and hostile aggression, in which the aggressor intended to deliberately hurt the recipient.

Buss (1961) defined aggression as "a response that delivers a noxious stimuli to another organism" (p.3, 204). He attempted a behavioral definition of aggression in terms of antecedents, reinforcement history, social facilitation and temperament of the person. Buss thought that aggression and the habit of attacking were synonomous, and saw the inclusion of intent in the definition as unnecessary. One result of his work was the development of the Buss-Durkee Hostility Inventory which purports to measure 5 types of aggression and 2 types of hostility (Buss & Durkee, 1954).

From an ethological viewpoint, Lorenz (1966) viewed aggression as a self-generating fighting instinct. He believed aggression gradually builds up until it is relieved by an appropriate stimuli. He considered removal of aggression led to a state of nonmotivation. Lorenz linked hostility to affiliation and suggested there was no love without aggression.

Alberti and Emmons (1970) focussed on the consequences of aggression. They defined an aggressive person as "one who accomplishes his ends usually at the expense of others" (p.10). Aggressive behavior frequently resulted in derogation of the recipient, which in turn led to feelings of frustation and hatred for the aggressor. They distinguished between a

"generally aggressive person" who is aggressive in all types of situations, and a "situationally aggressive person" who responds aggressively only in certain situations.

From a social learning perspective, Bandura suggested differentiating aggressive behaviors in terms of their functional value. He defined aggression as that behavior which:

> ... results in personal injury and in destruction of property. The injury may be psychological (in the form of devaluation or degradation) as well as physical ... A full explanation of aggression must consider both social judgements that determine which injurious acts are labelled as aggressive (p.5).

He suggested the following factors determine whether a behavior will be defined as aggressive: judgements about the intensity of the response to the behavior, observations of expressions of pain and injury by the recipients; intentions attributed to the performer; the social context; the role status of the perpetrator; recent or remote antecedents; characteristics of the labellers such as socio-economic level, sex, ethnic background, education and occupational status; and characteristics of the aggressor such as whether or not that behavior is considered inappropriate for that particular person (p.5-8).

He then continued:

> physical assertiveness is more likely to be defined as aggressive if performed by a female than a male because such behavior departs more widely from common expectations of appropriate female conduct.

> Conversely, similar assertiveness by boys in a delinquent gang would in all probability be underrated with respect to aggressiveness (p.8).

Bach and Goldberg, authors of Creative Aggression--The Art of Assertive Living (1974) defined aggression as involving:

> verbal expressions of anger, resentment and rage; self-assertion; confrontation; active reaching out to situations and people; conflict expression and exploration; open manifestation of personal power strivings; identity protection and saying "No" (p.114).

From this behavioral definition, and the title of their book, it is obvious they have made no distinction between the two constructs. Such a definition does little to clarify the constructs, and may mislead the lay person for whom the book is primarily designed, into believing that inappropriate aggression is synonomous with assertion and therefore constructive.

May (1972) saw aggression "as a thrust toward the person or thing seen as the adversary. Its aim is to cause a shift in power for the interests of one's self or what one is devoted to" (p.148). Constructive forms of aggression included cutting through barriers to initiate a relationship; confronting others with the intent of penetrating into his consciousness, warding off powers that threaten one's integrity and self-actualization.

Ellis (cited in Osborn et al., 1975) believed there were ten types of aggressive behaviors: annoyance, argumentativeness, arrogance, assertiveness, domination, fury, hostility,

insults, opposition and violence. He felt that:

> Aggression can clearly vary from mild argumentativeness to severe oppositionalism; from healthy assertion to unhealthy domineering; from positive to negative defensiveness; from moderate combativeness to intense violence; from verbal arrogance or insult to murderous fury (p.32).

Healthy aggression was considered to be "consistent with the human goals of remaining alive, being relatively happy, living successfully in a social group and relating intimately to selected members of that group." Unhealthy aggression detracted from these goals.

In an earlier work, Ellis (cited in Olson, 1976) did distinguish between aggression and assertion:

> (1) assertive behavior occurs when an individual actively seeks to get what he wants
>
> (2) aggression occurs when the individual demands or dictates that he must absolutely get what he wants and/or blames other for his frustrations (p.105).

Ellis felt that assertion was a rational behavior and aggression was irrational, and that this differentiation provided the key to understanding them. Why he did not maintain this view in the 1973 reference is unknown.

Bakker and Bakker-Rabdau (1973) defined aggression as "any act which results in the extension no matter how temporary of the individual's territory. The term indicates growth rather than destruction. Any behavior, therefore, that leads to the enlargement of a person's territory can be described

as aggressive" (p.267). They also examined some of the problems encountered when sex roles are linked with aggression:

> Looking at aggression from this perspective, one can readily discern the tyranny of the social demand that a woman should not be aggressive. In fact, this seeks to deny a woman the right to extend her territory beyond the narrow confines of the areas allocated to her by society: the home, childcare, and other such functions. This confinement keeps her from entering the broader public arena of open competition. The linkage of the word aggression with hostility, anger and fighting has helped much in convincing women that behavior which hints of aggression is unfeminine and therefore most unbecoming (p.53).

According to Dawley et al. (1976) aggressiveness is "the tendency to display offensive, hostile behaviors against others without regard for their rights" (p.4).

Lange and Jakubowski (1976) stated that:

> Aggression involves directly standing up for personal rights and expressing thoughts, feelings and beliefs in a way which is usually dishonest, usually inappropriate and always violates the rights of others (p.10).

Jakubowski (1978) has recently revised this definition to include:

> The purpose of aggressive behavior is to humiliate, dominate or put the other person down rather than to simply express one's honest emotions or thoughts. It is an attack on the person rather than on the person's behavior (p.77).

In summary, aggression has been considered and defined in numerous ways. Variations have arisen because some theorists have focussed on the attributes of the behavior whereas others

have included assumptions: the instigator, emotional concomitants, intent or consequences. The trend in definition has shifted from a survival necessity, to focus on destructive or constructive components. Many involved in AT see aggression as destructive; this viewpoint is shared by the present author.

Measurement of Aggression

Assessment strategies for aggression are as diversified as those for the measurement of assertion. Measurement of aggression has been complicated by social inhibition and negative implications of acting aggressively.

This section will provide an overview of the common strategies employed in the assessment of aggression.

Projective Techniques

Until recently, the use of projective techniques has been the most popular method for the assessment of aggression. The underlying assumption in the use of projectives is that by presenting a relatively ambiguous stimuli, subjects' underlying dynamics and defenses can be assessed.

Two projective tests used frequently are the Rorschach and the Thematic Apperception Test (TAT). In a comprehensive review of the literature, Buss states:

> formal scoring on the Rorschach does not yield measures that are consistently related to aggression (p.137).

Hostile content on the Rorschach apparently is related to a variety of aggressive behaviors: as hostile content increases, the more aggressive the behavior.

The use of the Thematic Apperception Test (TAT) to investigate personality and situational aspects of aggression has led to a number of confusing results. Buss reports that clinical studies yield one clear finding: "TAT aggression is directly related to assaultiveness ... TAT aggression is not related to assertiveness, uncooperativeness and other behaviors peripherally associated with aggression" (p.153).

In conclusion, Buss suggests: "It would seem that projective techniques have little to offer concerning measurement of aggression that could not be supplied by self-report techniques like inventories" (p.155).

Self-report Inventories

As an introduction, most of the aggressive scales (or subscales) have been developed for use with mental patients or disturbed asolescents. Many can be used with "normals" but interpretation of the results has a clinical emphasis. The scales/inventories reviewed below are those which indicate they contain aggression/hostility scales. Others, such as the Minnesota Multi-phasic Personality Inventory (MMPI) and the

Sixteen Personaltiy Factor Questionnaire (16 PF) are used to measure aggression, but are not included in this review as they do not contain scales labelled as such. The information presented below, unless otherwise indicated, has been extracted from the Seventh Mental Measurements Yearbook (Buros, 1972).

The Adjective Checklist (Gough & Heilbrun, 1965) contains 24 scales, one of which is labelled aggression. Examples of adjectives from this scale are: aggressive, argumentative, bitter, blustry, impatient, tactless, unkind and vindictive. In Buros, no normative data is presented. A mean test-retest reliability of .54 (range: .01-.86) is given for a sample of 140 men. With regard to validity, the ACL is influenced by response style, and the scales intercorrelate more highly with themselves than with an external criterion such as the MMPI or the Edwards Personal Preference Schedule (EPPS).

The Clyde Mood Scale (out of print) has been used to assess changes in behavior which are drug induced. Aggressiveness is one of six scales. Only group scores (within institutions) can be obtained. No validity evidence, normative data or adequate reliabilities are reported.

The Dynamic Personality Inventory is for experimental and research use only (not stated as such in the Distributor's Catalogue). The inventory is psychoanalytically oriented: oral aggression is one of the 33 subscales. Norms are provided for male and female "general" population and neurotics.

No validity or reliability data are reported.

The Edwards Personal Preference Schedule (EPPS) contains an aggression scale (15 scales total). No normative or reliability data are cited in Buros. In his review of the schedule, Heilbrun states:

> While the scanty evidence of validity lends considerable scepticism to any recommendations of its use, neither is there hard evidence that it does not have some predictive validity (p.148).

The Guildford-Holley L Inventory (L for Leadership) is intended for use with college students and adults. Five scores can be calculated: aggression is one of them. An example of an aggressive item is "You prefer chewy types of candy such as taffy and caramel to other types" (p.181). No validity data is reported; the scale as seen by the example above may even have questionable face validity.

Internal consistency of the scales is adequate (.60 to .80) with low intercorrelations among the scales, suggesting they tap at least partially independent behaviors. Due to the lack of validity evidence, or adequate norms, it is suggested this inventory be used only as a research tool.

The Inpatient Multidimensional Psychiatric Scale is for use (as the title implies) with hospitalized psychiatric patients. Hostile Belligerence is one of the 10 subscales. The scale appears to have adequate validity, reliability and normative data.

The Hostility and Direction of Hostility Questionnaire; Personality and Personal Illness Questionnaires is for use with mental patients and normals. All 51 items on the scale are from the MMPI. Seven aggression scores are possible: intropunitive (self-criticism, guilt), extrapunitive (urge to act out of hostility, criticism of others, projected delusional hostility), total hostility and direction of hostility. Norms and reliability data (test-retest) are provided for small samples (e.g. reliability - 15 men and 15 women retested after one year). Validity evidence is based primarily on results of a factor analysis which partially support the rationale used in scale development; no further evidence (e.g. with an external criterion) is presented.

Other scales include the Personal Orientation Inventory (acceptance of aggression), Psychotic Impatient Profile (hostile belligerence), WIW Personal Attitude Inventory (Aggressiveness), and the Structured Clinical Interview (Anger-Hostility).

One of the most commonly used scales is the Buss-Durkee Hostility Inventory (BDHI; 1957) which purports to measure five types of aggression (assaultive, indirect hostility, irritability, negativism, verbal hostility) and two types of hostility (suspicion and resentment). Normative data is presented for 85 college men and 85 college women. The validity evidence rests primarily on the results of a factor analysis which yielded two factors: aggression and hostility. In

another study, the BDHI was not found to correlate with a behavioral measure of aggression (Leibowitz, 1968). No reliability data are reported. Unfortunately, the scale is correlated significantly with social desirability (scale not reported) (r=.27 for men and r=.30 for women).

Behavioral Measures of Aggression

Most behavioral research on aggression has occurred within a laboratory setting. This has been a difficult task for researchers. Firstly, aggressive behavior is considered socially undesirable, and obtaining a "true" measure of a subject's aggression has been difficult, due to artifacts such as acquiesence, social inhibition, desire to please the experimenter, and artificiality of the laboratory setting.

To minimize the influence of such artifacts, several approaches have been used. One such approach has been to make the laboratory situation as real, or as close to an everyday situation, as possible. Another has been to present a contrived or artificial situation and have the subject role play aggressive behavior. The assumption underlying this technique is that the subject will become involved in the situation and display his "true" aggression.

The most common laboratory technique in the behavioral measurement of aggression has been to elicit aggression through provocation by the experimenter or confederate. Provocations used have included verbal derogation, sneering, laughing at

subjects or frustrating the subject using techniques such as withholding a reinforcer or setting up a "no-win" situation. One problem encountered in comparing the efficacy of these techniques or the results of studies arises from variation in the type of provocation or in its intensity.

Another factor which makes comparisons among studies difficult is the type of opportunity for subject retaliation. A common method has been to provide an aggression instigating experience and allow the subject to retaliate via written or verbal statements or evaluations. Knutson (1977, p.5) has elaborated on the advantages of using this technique; minimal possibility of harm to participants, easily quantifiable dependent measures of aggression, and reducing the influence of social inhibition.

Other techniques have included providing subjects with an opportunity to release aggression towards inanimate objects, or persons.

Perhaps the most common approach to the behavioral assessment of aggression in the laboratory has been that of direct physical aggression. This method involves deceiving subjects into thinking they can physically harm another person in some way without fear of retaliation. This procedure has become a prominent method because it permits the direct investigation of physical assault; the form of aggression considered most dangerous by many researchers (Knutson, 1977, p.54).

The Buss Aggression Machine (BAM; Buss, 1961) is a free-response instrument which, as far as the subject is concerned, allows for delivery of a shock to another person. It is called free-response because the subject believes he is free to choose the level of shock intensity and the duration--thus two dependent measures of aggression are obtained.

Although many studies have used the BAM, few studies have concentrated specifically on the validity of this technique. According to Leibowitz (1968) "evidence deriving from a number of independent studies contributes to the formation of a network of construct validational evidence for the BAM as a measure of aggression in adults ..." (p.21). Wolfe and Baron (1971) found the BAM to discriminate between individuals known to be high and low on aggressive behavior. Similarly, Shemberg, Levinthal and Allman (cited in Baron, 1977, p.57) and Hartman (cited in Baron, 1977, p.57) found the BAM to discriminate between teen-agers judged to be high or low on aggression.

Taylor has developed an interesting variation of the use of shock machines in which the victim is able to retaliate against the aggressor. The subject and confederate are told they will be competing on a reaction-time task; the loser receives a shock, the intensity of which is set beforehand by the opponent. Unlike Buss, Taylor used real shocks in his experiments, and the victim is not "helpless"--he can retaliate!

Direct validity evidence on this technique has not been reported; however, some indirect evidence is available. For

example, when the confederate acts in a provocative manner (i.e. choosing a high shock level) the subject responds by setting higher shock levels (O'Leary & Dengerink, 1973). In the presence of a disapproving audience, the subjects set lower shock levels (Borden, 1975). No information on whether this technique provides a measure of competition or aggression was reported.

Field Studies

Other techniques are used which attempt to study aggression in an unobtrusive or naturalistic manner. These techniques have included horn honking in traffic situations to obtain unsuspecting motorists' reactions, performing offensive acts, such as bumping into people, butting in a line and rating the person (victim) on their response.

CONCLUSION

This chapter has provided the reader with an overview of the relevant literature on assertion and aggression. Although an attempt has been made to examine factors in isolation, the reader should realize their interrelationships: theoretical and conceptual difficulties relate to the problem of defining and isolating components of assertion and aggression, which in turn have implications for the measurement of these constructs.

CHAPTER II

PURPOSE OF THE STUDY

Chapter I discussed the background to the problem in terms of conceptualization, definition and measurement of the two constructs: assertion and aggression. Chapter II presents the rationale, purpose and objectives of the study, and provides operational definitions of terms used in text.

RATIONALE FOR THE STUDY

The need to differentiate assertion from aggression has been cited by prominent researchers. Jakubowski (1978) stated: "because aggression and assertion are often confused ..." (p.77); Dawley and Wenrich (1976) considered: "one of the most commonest misuses of the word [aggression] is as a synonym for assertiveness" (p.23). Neiger (1978) said: "as assertive behavior became more in vogue, it became more and more misunderstood" (p.3). The International Directory of Assertive Behavior Training (1976) stated:

> With the increasing popularity of assertive behavior training, a quality of "faddishness" has become evident, and there are frequent reports of ethically irresponsible practices (and practitioners). We hear of trainers who, for example do not adequately differentiate assertion and aggression (p.3).

It is unclear from this whether the trainers themselves were not able to differentiate assertion from aggression or whether

they failed to indicate the distinction to the clientele.

Other evidence suggests that even when the two constructs were differentiated, individuals enrolled in assertiveness training groups have difficulty discriminating between and expressing assertive and aggressive behaviors (Lange, Rimm, & Loxley, 1975; McFall & Lillesand, 1970). Lange and Jakubowski (1976) suggested that individuals act unassertively because they mistake firm assertion for aggression:

> The culture at large has not distinguished between assertion and aggression ... Thus, individuals mislabel their own assertive impulses as dangerous urges which are to be severely controlled. Women in particular may be told that their own natural assertive behavior is aggressive and masculine (p.21).

Osborn and Harris (1975) related their concerns:

> When women are initially exposed to assertive training, they evidence concern about learning to differentiate between assertion and aggression. Often they express the specific fear of becoming more violent, destructive, and hostile (p.25).

Although the authors very clearly indicated a need to differentiate between assertion and aggression, they went on to state:

> Recent theorists have adopted the position that aggression and assertion are both vital elements for survival ... These newer trends remove the stigma and fear associated with aggressive behavior and permit greater flexibility for women learning assertive skills. As healthy forms of aggression become more socially acceptable for women, they will have a wider repetoire of behaviors from which to choose (p.36).

This statement leads the present author to believe that Osborn and Harris consider assertion to be a form of aggression. If this is the case, what is the necessity of differentiating them?

As Jakubowski (1978) indicated, the culture at large has not distinguished between assertion and aggression, thus it seems unlikely that the stigma of aggressive behavior has been removed.

Popular magazines and books have also failed to distinguish the constructs. For example, Rathus (cited in Whitely & Flowers, 1978) quoted an introduction to an AT experiment he found in a popular journal:

> Learn to kick down doors when your knock isn't acknowledged immediately. Give waitresses an angry lecture when that second cup of coffee isn't there when you want it. If you hate the sight of your boss, don't hesitate to let him know. And when someone asks you to get off his foot, ask him why (p.48).

More recently, Playboy (February, 1979, p.183) illustrated an interaction between two men in a bar with the caption: "Oh, yeah? Well, <u>my</u> assertiveness seminar can lick <u>your</u> assertiveness seminar any day!"

Neiger (1978) commented on <u>When I Say No I Feel Guilty</u>, a book written by Manuel Smith:

> The culmination of this regrettable trend occurred in 1975 with the most unfortunate best seller "When I Say No I Feel Guilty" by Manuel Smith which is full of even cruder and more offensive techniques than the ones from the infancy of assertive training,

> and indeed appears to be a prescription, in many situations, on how to lose friends and get people's backs up against you (p.3).

Whitely and Flowers (1978) suggested that:

> Authors (of books on assertion) are capitalizing on the popularity of "being assertive," and yet are presenting techniques or behavioral responses which are highly manipulative in the negative sense of the word. The other person's personal rights are violated or he/she is embarassed or put down (p.4).

The popularization of assertive training seems to have resulted in some pressure to sanction interpersonal aggression as being assertion.

Several implications arise from failing to distinguish the two constructs. Firstly, professional AT groups may be discredited on the basis that they are designed to teach or increase aggressive behavior. As indicated in the IDABT, this may already be occurring.

Second, if a potential client views assertion and aggression synonmously, s/he may be more likely to think of assertion as unreasonable, and therefore be inhibited from participating in workshops or from acquiring assertive behaviors (Hollandsworth, 1977). Assertiveness workshops will be of little value if the client is afraid of becoming aggressive. This may be particularly true for women:

> ... if the therapist has failed to clearly distinguish between assertion and aggression, some of the women may reject this training because they associate both assertion and aggression with masculinity and they may greatly fear that

> AT will cause them to lose their femininity. In working with women it is extremely important that these distinctions be carefully drawn (Jakubowski, 1978, p.79).

Third, there is a growing body of which evidence suggests that AT is effective in the modification of aggressive behaviors (Rimm, Hill, Brown & Stuart, 1974; Foy, Eisler & Pinkston, 1975; Wallace, Teigen, Liberman & Baker, 1975; Walton & Mather, 1963). If the use of the two terms is confused, this could decrease the effectiveness of this treatment for reducing aggressive behavior.

The need to separate and clarify the two constructs has been clearly delineated. The process of accomplishing this, however, becomes somewhat more difficult. Galassi (1978) has recently made a comment which appropriately reflects this problem:

> Perhaps it is unfortunate the term assertiveness was ever introduced to behavior therapy ... When behavior therapists attempt to identify and to assess assertive behavior, they invoke subjective biases and value judgments more often than in any area of behavior therapy ... A great deal of effort is expended in determining whether a particular behavior is assertive and is therefore appropriate, aggressive and therefore socially inappropriate, or nonassertive and therefore socially adaptive but personally harmful (p.132).

Galassi offered three criteria for judging an assertive response:

> Criterion 1 "does a particular response in a given situation accomplish the client's goals?" (p.132)

Criterion 2 "assuming the client learns the response, how satisfied or comfortable is he/she with that particular behavior in the situation?" (p.132)

Criterion 3 "how would a group of observers evaluate the response in terms of its impact on others or as social adequacy?" (p.132)

Galassi's criteria unfortunately do not facilitate discrimination of assertion from aggression. With regard to Criterion 1, a given response may achieve an individual's goals but the process by which the goals are realized may be aggressive (e.g. blaming, demeaning) or unassertive (e.g. manipulation by withdrawal of a reinforcer).

With regard to Criterion 2, evidence has been presented previously in this chapter that nonassertive persons (i.e. aggressive and/or unassertive) have difficulty discriminating assertive and aggressive responses, persons and/or characteristics. If Criterion 2 is applied, and a person behaving aggressively thinks s/he is behaving assertively, why would the individual be uncomfortable. Similarly, when acquiring assertive skills, an unassertive individual is likely to feel somewhat uncomfortable until assertive behavior becomes more established in the individual's repetoire of behavior.

Galassi's third criterion accentuates one of the basic problems in differentiating the two constructs--judgment as to the social appropriateness of the response. With regard to this, Hollandsworth (1977) indicates "it is generally in this area of expressing conflicting or opposing needs that

assertiveness and aggressiveness are confused" (p.349). Although at some point, both constructs require evaluation within a social context, such judgments are based on actual behaviors or characteristics occurring singly or simultaneously in a situation.

Hall (cited in McReynolds, 1978) comments on this as well:

> A major problem in behavioral assessment of assertiveness has been that of developing a clear delineation of components of assertive behavior to allow observers to focus on its essential components. The problem is compounded by the influence of varying social contexts on the nature and appropriateness of assertive behavior and by varying types of behavioral expression that have been called assertive (p.339).

PURPOSE OF THE STUDY

The need to focus on definable and observable verbal and nonverbal behaviors in the study of assertion and aggression has been clearly delineated. Additionally, unresolved issues still exist with regard to personality components of each construct, and situation-specificity of response.

The purpose of this study was to identify the verbal, behavioral and personality components of assertion and aggression. A sample of Canadian assertiveness trainers/researchers was surveyed and asked to judge descriptors within a scale as to their degree of construct representation. Descriptors were intended to represent components of assertion and aggression, and were presented outside of a situational context.

OBJECTIVES OF THE STUDY

This study hoped to accomplish several objectives. First, that the verbal, behavioral and personality components of assertion and aggression would be identified and that this information would facilitate clarification of the two constructs. Second, that evidence of construct validity for assertion and aggression would be provided. Third, the obtained information would contribute new and valuable information as to the nature of the relationship between assertion and aggression. Fourthly, it was hoped that the operational definitions of assertion and aggression would be validated. Lastly, those components which empirically differentiated the constructs could be used to develop a self-report rating scale for clinical use.

OPERATIONAL DEFINITIONS OF TERMS

ASSERTION - refers to the direct, honest and open expression of feelings, opinions or rights while respecting the same in others. Assertive behavior does not involve manipulative or exploitative behavior, and is not intended to hurt the other person. Assertion involves a particular style of speech (e.g. direct, firm), and is associated with specific personality characteristics (e.g. self-confident, outgoing) and behavioral characteristics (e.g. relaxed body position, direct eye contact).

AGGRESSION - refers to expression of oneself in a way which disregards or violates the rights of others. This may include humiliating, blaming or "putting down" the other person. Aggression may be physical (e.g. fighting) or verbal: direct (aimed at a target) or indirect (e.g. gossiping, resentment). Aggression involves a particular style of speech (e.g. sarcasm, screaming), and is associated with specific behavioral components (e.g. rigid body posture, fist pounding) and personality characteristics (e.g. chronically angry, encroaching).

UNASSERTIVE - refers to a response, person or characteristic which is neither assertive or aggressive. The use of this term is synonomous in meaning with what other authors have called passive or submissive.

NONASSERTIVE - refers to both unassertive and aggressive responses, persons and characteristics.

BEHAVIORAL COMPONENTS - refers to nonverbal aspects of communication such as body posture, facial expression, and proximics.

VERBAL COMPONENTS - refers to nonspeech content of communication (e.g. affect, latency of response) and speech content (e.g. sending "I" messages) as well as style and type of speech used.

PERSONALITY TRAITS - refers to descriptors of personality components hypothesized to represent personality characteristics or traits associated with an assertive or aggressive individual.

VERBAL STATEMENTS - refer to actual verbal statements or comments considered to represent typical assertive or aggressive styles of speech or responses.

Chapter II has explained the rationale, purpose and objectives of the study. Operational definitions of terms used throughout the text have been provided. Chapter III is devoted to a detailed description of the procedures employed in the study.

CHAPTER III

PROCEDURES

Chapter III discusses the procedures used in identification of the population and in construction of an instrument to identify components of assertion and aggression. The final section of this chapter discusses the data analyses used in the study.

IDENTIFICATION OF THE POPULATION OF ASSERTIVENESS TRAINERS/RESEARCHERS

Assertiveness trainers/researchers are a 'population' considered to have knowledge of assertion and aggression, both from a theoretical and a clinical position. Part of many assertiveness workshops involves making distinctions between the constructs for clients. This statement is supported by previously cited research and informal discussion with local assertiveness trainers (Vancouver, B.C.). It was assumed that individuals who would identify themselves as trainers/researchers would have considerable expertise in differentiating the constructs.

Unlike the United States, a readily accessible 'population' of Canadian assertiveness trainers was unavailable. It was thus necessary to identify the 'population.'

This was accomplished using the 'key informant' approach to identifying and locating individual assertiveness trainers. This method involved several stages. First, an initial sample of 'key informants' was identified and contacted by mail. These 'key informants' were asked to assist by identifying themselves and/or others as assertiveness trainers. Those with no personal knowledge of trainers, were asked to pass the letter to other person(s) whom they believed would have such information. On the basis of information supplied by respondents, new individuals/centres were identified and contacted by mail. Finally, each individual identified as a member of the population of assertiveness trainers/researchers was sent a letter and questionnaire to verify his/her involvement.

The entire procedure was conducted in seven stages which are described below.

Stage 1

The first stage involved identifying a sample of key informants across Canada who would likely be assertiveness trainers/researchers or have personal knowledge of such individuals.

Several sources were used to construct the sample of key informants:

A. The Canadian Psychological Association Directory (1978). Individuals were selected by one or more of the following criteria:

(i) stated areas of professional interest--emphasis in selection was placed on those who stated one or more of the following areas of interest:

(a) interpersonal relations
(b) group counselling
(c) family counselling
(d) individual counselling
(e) psychology of women
(f) psychology of men
(g) communication

(ii) stated employment setting--emphasis in selection was placed on those working in:

(a) community colleges
(b) university counselling services
(c) private practice
(d) social services
(e) community settings

(iii) stated professional definition--emphasis in selection was placed on those who defined themselves professionally as:

(a) health professional,
(b) clinical psychologist, or
(c) counsellor.

(iv) all women who listed themselves in the Directory as Ms. and stated relevant interests or employment setting were also included in the sample.

B. Universities/Colleges

A sample of Canadian universities and colleges was selected from Universities and Colleges in Canada (1976) using one or more of the following criteria:

(a) proximity to major cities

(b) existence of Psychology Departments or related Departments (Clinical Psychology, Educational Psychology, or Counselling Psychology)

(c) existence of student counselling facility or equivalent service.

If (b) and (c) existed within the same institution, both Departments were contacted.

C. Women's Organizations--a sample of women's groups/organizations was selected from the Directory of Women's Groups (1977) on the basis of the description of services offered: e.g., courses, workshops, educational and consciousness raising groups. Both provincial and national groups were included in the sample.

D. Mental Health Centres (British Columbia only).

A roster of B.C. Mental Health Centres was obtained from the Ministry of Health in Victoria, B.C. All Mental Health Centres were included in the sample.

E. Additionally, any individuals known to the researcher to be involved in assertiveness training/research were included in the sample of key informants. This group included social workers, high school teachers, an industrial consultant, and psychologists not registered with the CPA.

Table 1 illustrates the sample composition of key informants by province and source.

Stage 2

When the list of key informants was completed, a letter was composed indicating that the goal was to build a Canadian population of assertiveness trainers/researchers (Appendix A). Key informants were asked to assist in this task by forwarding:

(i) the names of any individuals whom they knew to be engaged in assertiveness training/research,

(ii) the names of any centres sponsoring or conducting assertiveness workshops, and

(iii) any known lists of assertiveness trainers/researchers in their city, district or province.

Key informants with no knowledge of (i), (ii), or (iii) above were requested to pass the letter on to someone whom they believed would have such information. The number of untraceable returns (N=38) indicated that informants did in fact pass the letter on to others.

Table 1

Composition of Canadian Key Informant Sample

Province	Source						Total[b]
	CPA Directory	Universities/ Colleges[a]		Women's Groups	Mental Health Centres	Known Contacts	
British Columbia	21	6	(10)	27	32	9	99
Alberta	11	4	(9)	7		5	32
Saskatchewan	12	2	(4)	7			23
Manitoba	6	3	(7)	6			19
Ontario	56	21	(34)	39			129
Quebec	29	6	(12)	17			58
Newfoundland	6	1	(3)	5			14
New Brunswick	9	5	(10)	6			25
Nova Scotia	5	3	(6)	5			16
Prince Edward Island	2	1	(2)	2			6
Total	157	52[c]	97	121	32	14	421

[a] Numbers in parentheses refer to number of contacts made at the university/college. Numbers without parentheses indicate number of universities and colleges contacted.

[b] 'Total' column indicates total contacts made in each province.

[c] This column is not included in row total.

Each mail out to key informants consisted of a form letter and return envelope. As indicated in Table 1, 421 letters were mailed.

The remaining five stages of constructing the 'population' of assertiveness trainers/researchers were conducted on a sequential basis; that is, the next level of processing was determined by such factors as whether initial correspondence was returned, and the type of information provided in replies.

Stage 3

As correspondence was received, each reply was checked on the initial mail out list as having been received. Those returns considered untraceable (i.e. whose names did not appear on the initial mail out list), and letters returned were recorded separately.

All names of assertiveness trainers/researchers supplied by key informants were recorded by province and assigned a five digit identification number. These individuals then became part of the potential sample pool.

All centres identified in the first mail out were sent the initial key informant letter.

Stage 4

Approximately six weeks after the initial mailing, a follow-up letter with personalized salutation was sent to all

key informants on the initial list who had not responded (Appendix B). For convenience of reply, and to prompt a higher return rate, a stamped self-return envelope was included. As compared to the 24% return rate obtained from the initial mailing, the follow-up letter accounted for an additional 41%, bringing the overall useable return rate to 65%. Table 2 illustrates the number and percentage of useable returns by province. The return rate by sample source is presented in Appendix C.

Stage 5

All individuals identified by key informants as assertiveness trainers/researchers were then sent a questionnaire to verify their involvement.

Each mail out consisted of a personalized letter (Appendix D), a two-page 'Demographic Information Sheet' (Appendix E), and a stamped self-return envelope.

The letter explained that the purpose of the Demographic Information Sheet was to assist in building and stratifying the population of Canadian assertiveness trainers/researchers. Individuals were requested to complete the Information Sheet and return it so they could be included in this population. Additionally, they were asked to provide names of other trainers/researchers whom they knew to be involved, in order to build the population.

Table 2

Number of Returns and Percentage of Useable Returns by Province in Response to the Initial Key Informant Letter

Province	Total Sent Out	Total Responses	Total Returned Unopened	Useable Return Rate (%) [a]
British Columbia	99	64	5	68
Alberta	32	19	2	66
Saskatchewan	23	13	2	62
Manitoba	19	9	3	56
Ontario	129	75	13	65
Quebec	58	32	7	63
Newfoundland	14	8	0	57
New Brunswick	25	11	1	46
Nova Scotia	16	16	1	100
Prince Edward Island	6	4	0	67
Total Number of Letters	421	251	34	

[a] Useable return rate = $\frac{\text{Total Responses}}{\text{Total sent out - Returned unopened}} \times 100$

The Demographic Information Sheet consisted of two pages; its purpose was to examine variables relevant to stratification and to provide biodemographic information on the identified population. A summary of the resulting demographic survey is in Chapter IV.

Stage 6

Approximately two and one-half weeks after the letter and Information Sheets had been sent to trainers/researchers, a personalized follow-up letter with a stamped self-return envelope was sent to all nonrespondents (Appendix F).

Stage 7

Individuals identified by assertiveness trainers in response to the questionnaire were entered on the potential sample list and assigned a five-digit identification number. They were then sent a verification letter and Information Sheet. Approximately two and one-half weeks later, they were sent the follow-up letter (Stage 6).

The return rate of the questionnaire from the first mailing was 76%, and from the follow-up 9%, bringing the total useable return rate to 85%. Table 3 presents the number and proportion of useable returns by province.

Table 3

Number of Returns and Percentage of Useable Returns by Province in Response to Demographic Information Sheet

Province	Information Sheets Sent Out	Information Sheets Completed	Returned Unopened	Useable Return Rate (%) [a]
British Columbia	82	72		88
Alberta	24	22		92
Saskatchewan	24	21		88
Manitoba	20	15	2	83
Ontario	116	99		85
Quebec	38	28	3	80
Newfoundland	19	15		79
New Brunswick	11	8		73
Nova Scotia	18	15		83
Prince Edward Island	1	1		100
Total	353	296		

[a] Useable return rate = $\frac{\text{Information Sheets Completed}}{\text{Information Sheets Sent Out} - \text{Returned Unopened}} \times 100$

Summary of Population Identification

In response to letters sent to key informants, a useable return rate of 65% was obtained. Throughout this stage, 29 centres said to be sponsoring assertiveness training workshops were contacted; 14 replies were received (48%). The key informant mailing produced no known listing of assertiveness trainers anywhere in Canada.

With regard to the verification stages, an 85% overall useable return rate was obtained. The section provided in the Demographic Information Sheet for identifying other trainers/researchers yielded some interesting descriptive indications of 'completeness' of the 'population.'

These will be discussed in Chapter IV.

Final Sample

Due to the small number of trainers in some provinces (Table 4), and on the basis of questionnaire analysis (Chapter IV), a decision was made to distribute the final materials to all individuals identified.

With the exception of 11 trainers who participated in a pre-test (discussed in the following section), each person who reported involvement in assertiveness training or research on the questionnaire, and who did not miss the mailing deadline was included in the final mailing.

Table 4

Number of Individuals within Each Province

who were sent Final Data

Province	Total Indicated Involvement on Information Sheet	Total 'New'- Not Verified	Total Sent Out
British Columbia	61	4	65
Alberta	20	2	22
Saskatchewan	19		19
Manitoba	14	1	15
Ontario	89	8	97
Quebec	26	5	31
Newfoundland	15	1	16
New Brunswick	8	1	9
Nova Scotia	15	3	18
Prince Edward Island	1		1
Total	268	25	293

Additionally, 25 others whose names had been provided by trainers (on the Information Sheet) close to the final data mailing and who had not previously verified their involvement were included in the final mailing. A copy of the Information Sheet was sent with their data.

Each mail out consisted of a personalized explanatory letter, the scale and a stamped self-return envelope.

The return rate for final data is discussed in Chapter IV.

SCALE CONSTRUCTION

This section discusses methodology relevant to scale construction, including items and rating scale format, for both the pilot and final versions of the scale.

Pilot Scale

Items

The initial stages of building an item pool involved identification of the components of assertion and aggression. This was accomplished by perusal of the theoretical and experimental literature on the constructs.

Potential items came from several sources within the literature, including components identified by assertiveness trainers on logical and experiential bases, and on empirical bases by other behavioral researchers. Potential items were also extracted from scales purporting to measure the constructs, and from research cited in secondary sources such as reviews. At this preliminary stage, the intent was to define and operationalize a content domain to represent each construct.

The potential items for each construct were examined and classified into three categories: Verbal Behaviors, Behavioral Components and Personality Components (defined in Chapter II).

The items within each category were then selected for inclusion in the pilot scale according to several criteria. First, the items which were behaviorally defined were retained

for the Verbal Behavior and Behavioral Components facet; descriptors of personality characteristics were retained for the Personality Components facet. Second, any item which could be modified slightly so as to be behaviorally defined without changing its meaning or intent was retained. Those items which were felt to be extremely vague and could not be modified to form behavioral descriptors were excluded. Twelve potential items for the Verbal Behavior and Behavioral Components facets were eliminated at this stage.

Thus, the items within the Verbal and Behavioral facets each represented a hypothesized component of assertion or aggression, and were descriptors of verbal or nonverbal behaviors occurring within an interpersonal context. Items within the Personality Components facet consisted mostly of adjectives which were considered to be descriptive of personality characteristics of an assertive or aggressive person.

To further investigate the verbal aspects of assertion and aggression, a fourth facet called Verbal Statements (defined in Chapter II) was added to the scale.

Items for this facet were suggested by several sources: Assertion/Aggression discrimination tests provided in texts on assertion; examples of speech style and content provided in texts; and from items included within the other three scale facets. Each item was constructed to include speech style, and one or more hypothesized components of assertion or aggression.

To serve as anchor points, and checks on accuracy, several "unassertive" descriptors were added to each facet (defined in Chapter II).

The final pilot scale consisted of 179 items distributed over four facets: Verbal Behavior, Behavioral Components, Personality Components and Verbal Statements.

Each item within each facet was assigned a position by use of a table of random numbers. An attempt was made to balance the number of assertion and aggression items within each facet. Table 5 indicates the type and number of items within each facet.

Response Mode

A pilot study was conducted to examine the utility of two different response modes for rating pilot scale items. Fifty-two undergraduate students enrolled in a measurement course participated.

The two response modes examined were Classification Boxes and Likert-type format. These are illustrated in Figure 4.

Sixteen items were selected from the pilot scale. Each item was assigned a position within the mini-scale by a table of random numbers. Two forms of the mini-scale were devised, such that each person rated eight items using the Classification Boxes and eight items using the Likert-type format.

Table 5

Pilot Scale Composition

Item Type	Scale Facet				
	Verbal Behavior	Behavioral Components	Personality Components	Verbal Statements	Total Items
Assertion Items	29[a]	21	28	8	86
Aggression Items	19	22	27	8	76
Unassertive Items	3	4	6	4	17
Total Items	51	47	61	20	179

[a] Numbers in rows and columns refer to number of items within each item type and scale facet

Classification Boxes

	Assertion	Aggression	Both	Neither
Item _____				

Likert-type Format

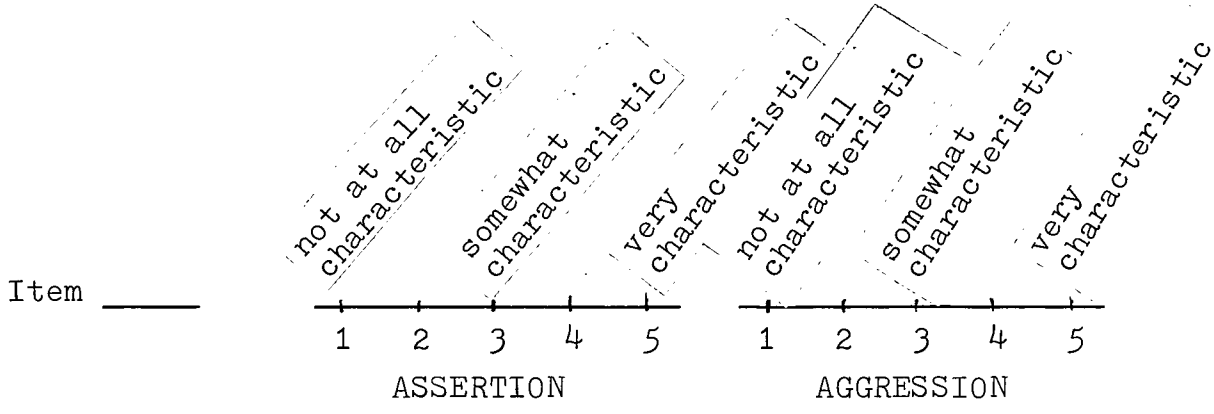

Figure 4. Response modes for pilot study

The order in which the response options occurred was randomized such that approximately 50% of the individuals rated items using Classification Boxes first, then the Likert-type format; 50% rated items using Likert-type format first, then Classification Boxes. Although the response mode order was counterbalanced, the item position remained fixed. Thus, each individual rated an item using only one response mode, but across the two forms of the mini-scale, each item was rated on both response modes.

Instructions for the Classification Boxes were to choose one of the four options (Assertion, Aggression, Both or Neither) according to which option most accurately represented the item. Instructions for the Likert-type format stated the items were to be rated according to how characteristic the item was of Assertion and Aggression on the 5-point Likert-type scale.

A Comment sheet was attached to the last page of the mini-scale. Students were asked to indicate which response mode they found clearest and allowed for most accuracy in response.

To determine whether there were significant differences for response mode, the data were analyzed by a repeated measures analysis of variance, using the BMD08V (Le, 1978) computer program. There was no significant different ($p < .05$) between Classification Boxes ($F_{1,25}=1.47$) or Likert-type format ($F_{1,25}=.01$).

A frequency count of responses to the Comment sheet indicated a preference for using the Likert-type format.

On the basis of students' responses to the Comment sheet, and the greater data analytic power permitted by use of a Likert-type format, this response mode was chosen for the pilot scale pre-test.

Pilot Scale Pre-Test

When the pilot scale was completed, it was pre-tested on individuals with knowledge of the constructs. The purposes of pre-testing were two-fold: first, to obtain feedback on the scale format, items and Likert-type format; and second, to determine whether the scale would serve its intended purpose of component identification, and thus facilitate construct clarification.

Eleven assertiveness trainers in or near Vancouver, three professors and five graduate students completed the pilot scale. Graduate students' and professors' scale results were only analyzed in terms of comments made.

Each scale consisted of a cover page explaining the purpose of the pre-test, an instruction page, the item content, and a "Comments" page (Appendix G).

The instructions requested that participants rate each item twice, once for assertion, and then for aggression on two 5-point Likert-type scales presented side by side. The beginning, middle and end points of the Likert rating scale were

labelled Not at All Characteristic, Somewhat Characteristic and Very Characteristic. Participants were asked to rate according to how characteristic an item was of assertion or aggression. The intermediate points were not given explicit labels.

On the "Comments" page, participants were asked to remark on different aspects of the scale: length of time necessary to complete the scale, clarity of instructions, organization, format, response mode, items, and overall impression of the scale. With regard to items, participants were asked to indicate which they felt were good (G-particularly descriptive) and which were ambiguous (A-ambiguous item; meaning unclear).

Results of Pre-Test

Scale data were analyzed for assertiveness trainers using the Laboratory of Educational Research Test Analysis Package (LERTAP) (Nelson, 1974). The means and standard deviations of each item for trainers are presented in Appendix H. Due to the small sample size, and the fact that items within each facet were not conceived as being a homogeneous set, internal consistency reliabilities and facet intercorrelations are not reported for the pilot scale.

On a descriptive level, the average completion time for the scale was 35-40 minutes. Comments from participants indicated that they experienced difficulty rating each item for

assertion and aggression simultaneously. All but one trainer marked items as Good or Ambiguous. Five trainers expressed difficulty in rating some unassertive items (e.g. quiet voice) as they felt these items could also represent passive/aggressive responses/characteristics.

Final Scale

Several criteria were employed in deciding which items to include in the final scale. First, all items which four or more trainers found to be ambiguous were excluded (22). Second, all items marked as Ambiguous by two or three trainers were examined; on the basis of trainers' comments, 12 items were dropped. Third, 41 items which trainers felt were redundant or overlapped were excluded or combined (e.g. expressing agreement when praised and accepting compliments). Fourth, 3 new items were suggested by trainers and included in the final scale. Fifth, other comments on items made by trainers were considered. Forty-five items were retained in the scale with slight modifications (e.g. speaking critically of another person was changed to speaking critically of another person behind their back).

As participants indicated difficulty rating each item on the Assertion and Aggression Likert-type rating scales simultaneously, a decision was made to include each item twice, once in each of the two rating contexts. Thus, all items within the four facets of the scale were rated in one context, and then rated again in the other rating context.

The final scale consisted of 104 items. As each item appeared twice, participants actually made 208 ratings. The final scale is included in Appendix I. Table 6 reports scale construction by item type, number of items within each facet and total number of items on the scale.

To counterbalance order effects, a Latin square design was used to determine facet placement and sequence of rating context (i.e. Assertion, Aggression).

This resulted in eight scale collation arrangements. These were:

(1) Facet order: Verbal Behavior, Behavioral Components, Personality Traits, Verbal Statements.

Rating context: All items rated on Assertion, then Aggression.

(2) Facet order: Verbal Behavior, Behavioral Components, Personality Traits, Verbal Statements.

Rating context: All items rated on Aggression, then Assertion.

(3) Facet order: Verbal Statements, Personality Traits, Verbal Behavior, Behavioral Components.

Rating context: All items rated on Assertion, then Aggression.

(4) Facet order: Verbal Statements, Personality Traits, Verbal Behavior, Behavioral Components.

Rating context: All items rated on Aggression, then Assertion.

(5) Facet order: Behavioral Components, Verbal Behavior, Verbal Statements, Personality Traits.

Rating context: All items rated on Assertion, then Aggression.

(6) Facet order: Behavioral Components, Verbal Behavior, Verbal Statements, Personality Traits.

Rating context: All items rated on Aggression, then Assertion

(7) Facet order: Personality Traits, Verbal Statements, Behavioral Components, Verbal Behavior.

Rating context: All items rated on Assertion, then Aggression.

(8) Facet order: Personality Traits, Verbal Statements, Behavioral Components, Verbal Behavior.

Rating context: All items rated on Aggression, then Assertion.

Table 6

Final Scale Composition

Item Type	Facet				
	Verbal Behavior	Behavioral Components	Personality Traits	Verbal Statements	Total Items
Assertive	14[a]	10	15	9	48
Aggressive	13	9	14	8	44
Unassertive	3	3	3	3	12
Total Items	30	22	32	20	104

[a] Numbers in rows and columns refer to numbers of items within each item type and facet

Items were assigned their position within each rating context by use of a random numbers table.

To facilitate item rating and to make data processing easier, each rating context was printed on a different color paper.

The complete scale consisted of nine pages: an Instruction Sheet, followed by 16 pages of items (printed back to back).

On the instruction page, a box was provided for a precoded five-digit subject identification number, and a two-digit coding number for facet and rating context order, which facilitated standardization of data collation on return, and permitted testing of order effects.

The Instruction Sheet provided raters with detailed information on how to use the Likert-type rating scales. Raters were asked to decide how characteristic an item was of assertion (or aggression), and to circle the appropriate rating scale point. The five points were defined as "not at all" (Point 1), "somewhat" (Point 3) and "very" (Point 5) characteristic. Points 2 and 4 were not given explicit labels.

When data was returned, each was marked as having been received, and re-collated into a standardized order for analyses.

DATA ANALYSES

Several types of analyses were conducted for various aspects of the study. Thus, this section is organized under two major headings: Questionnaire Analyses and Scale Analyses.

Questionnaire Analyses

Population Characteristics

To examine biodemographic characteristics of the identified population, all relevant questionnaire variables were analyzed using the Statistical Package for the Social Sciences (SPSS, Kita, 1977). As responses to some questions were contingent on responses to preceeding questions, it was necessary to analyze these variables separately. The variables Age, Occupation, Employment Agency, and Sex were analyzed for those individuals who indicated involvement in either training or research. If the respondent was involved in training, the following variables were analyzed: length of involvement, where information on teaching assertiveness was obtained, involvement as to sex of clientele, involvement on a group or individual basis, and whether clients are thought to have difficulty differentiating assertion from aggression. If trainers responded affirmatively to the last question, a frequency count was done on the proportion of clientele thought to experience such difficulty.

If respondents indicated involvement in research, the following variables were analyzed: length of involvement in

research, type of research and journal articles/books published.

The Sample

To determine whether differential bias existed between those who returned their completed final scales, and those who did not, each relevant questionnaire variable was compared to Return/Nonreturn. The SPSS Crosstab and Multiple Crosstab subroutines were used.

As some questionnaire variables were at the nominal level of measurement, and others at the ordinal level, appropriate statistics were calculated for each contingency table. 'Chi-squared' values were calculated and tested for nominal--nominal relationships; the statistic 'eta squared' was used to describe the relationship between ordinal and nominal variables.

Scale Analyses

Order Effects

A repeated measures analysis of variance (ANOVA) was used to test for the presence of order effects and influence of other factors. Each facet of the scale was analyzed separately. For each of the ANOVA's, there were five independent variables and one dependent variable. The independent variables were: Facet Order (the order of facet presentation); Scale Order (the order in which an individual received the rating context--Assertion first or Aggression); Items (differ-

ences among items within each facet); Scale (the rating scale used--Assertion vs. Aggression); and Person, which was nested under Facet and Scale Order.

Person was treated as a random factor; all other independent variables were considered as fixed factors. The dependent variable was person's scores on each facet. As the large number of degrees of freedom made the F tests extremely sensitive to differences, the results were discussed in terms of proportions of variability in the dependent variable accounted for by factors and their interaction.

Hotellings T^2

To examine item differences, a Hotellings T^2 was calculated for each facet using the Triangular Regression Package (TRP; Le & Tenisci, 1977). The means of each item on both assertion and aggression were then compared and tested for significance at the $\alpha = .05$ level of significance.

Reliability

To determine internal consistency reliabilities and item correlations, the scale data were analyzed using the Laboratory of Educational Research Test Analysis Package (LERTAP; Nelson, 1974). As items within each facet were not intended to be homogeneous, it was necessary to provide appropriate referents.

The items within each facet hypothesized to represent assertion were treated as separate subscales. Similarly, items within each facet hypothesized to represent aggression were treated as separate subscales. Thus, there were four assertion subscales (one for each facet) and four aggression subscales. For each item, correlations with its respective subscale and total scale (i.e. all four subscales) were calculated. Items intended to be unassertive were excluded from this analysis.

Multidimensional Scaling

To further explore the relationship between assertion and aggression, multidimensional scaling was performed using the Numerical Taxonomy System of Multivariate Statistical Programs (NTSVS; Rohlf et al.; 1978). The scaling program used performed nonmetric analysis, such that objects were represented geometrically by points in K-dimensional space in a monotone (or linear) manner to the observed distances between the objects in P-dimensional space ($P > K$). A maximum of 50 iterations was used with a minimum stress value of .001.

Each facet was analyzed twice, once for items when rated on Assertion, and again for the same items when rated on Aggression. Thus, 8 analyses were performed.

Distance matrices were generated using the mean for each item within a rating context (Assertion or Aggression).

Each of the eight distance matrices consisted of the absolute raw mean differences between items.

For all eight analyses, a linear solution was obtained. Results of the analyses are presented in tabular and graphical form.

CHAPTER IV

ANALYSES AND RESULTS

Chapter IV presents the results of analyses for the identified population, the sample, and scale data. As several levels of analyses were employed, the results have been organized into two major sections:

(A) The Population and the Sample

This section includes the return rate for final data, relationship between respondents and nonrespondents for final data, and biodemographic characteristics of the identified population.

(B) Scale Analyses

This section presents the results for scale analyses including testing for order effects, item differentiation and item analysis, estimates of internal consistency, item correlations, and multi-dimensional scaling.

THE POPULATION AND THE SAMPLE

Scales Mailed and Return Rate

Of the 296 questionnaires received at Stage 7, twelve indicated they were not involved in assertiveness training or research, and eleven were excluded because they had previously participated in the scale pre-test. Five others returned questionnaires, but missed the deadline for mailing of the scales.

Thus, scales were sent to 268 individuals who had returned questionnaires, verifying their involvement in either training or research. Additionally, 25 individuals whose names had been provided by others in response to the questionnaire, and who had not verified their involvement, were sent final scales and a questionnaire.

Of those individuals in the pre-verified group, 185/268 (69.5%) returned completed scales, as compared to 11/25 (48%) in the non-verified group. With the additional mailing of 25 questionnaires, the overall return rate for questionnaires was 81% (307/378).

The difference in return rate for the pre- and post-verification group warrants discussion. Those individuals in the pre-verification group had been contacted by the researcher at least once; some were contacted more than once because they identified themselves as trainers/researchers in the key informant mailing, then received a questionnaire. It is possible that because this group had already participated prior to

receiving the final scale, they felt more committed to the project.

Table 7 reports the number of returns and the return rates for pre- and post-verification groups.

Analysis of questionnaire data revealed some interesting descriptive information on the 'completeness' of the identified population. Of the 307 questionnaires received, 175 individuals provided no names of any other trainers/researchers known to them. A frequency count was made of 'new' names (i.e. had not been provided previously) and 'redundant' names (i.e. had been provided previously by at least one trainer/researcher). These two categories were not regarded as stable: names originally coded as 'new' became coded as 'redundant' as soon as at least one other individual identified them. Using these categories as a basis for comparison, only 42 'new' names were provided on questionnaires; 105 names were mentioned more than once, many several times.

Biodemographic Characteristics of the Identified Population

This section summarizes the information obtained from returned Demographic Information Sheets. The complete results are presented in Appendix J.

Of the 307 questionnaires returned, 288 (94%) individuals are currently (or have been) involved in assertiveness training. Seventy-four trainers (26%) are involved in both research

Table 7

Returns by Province for Pre- and Post-Verification Groups

Province	Pre-Verification			Post-Verification				Total Scales Received
	Data Sent	Data Received	Return Rate (%)	Data Sent	Data Received	Returned Unopened	Useable Return Rate (%)[a]	
British Columbia	61	44	72.1	4	3	1	100	47
Alberta	20	15	75.0	2	1		50	16
Saskatchewan	19	10	52.6					10
Manitoba	14	11	78.5	1	1		100	12
Ontario	89	62	69.6	8	4	1	57	66
Quebec	26	17	65.3	4			0	17
Newfoundland	15	7	46.7	1			0	7
New Brunswick	8	6	75.0	2	2		100	8
Nova Scotia	15	12	80.0	3			0	12
Prince Edward Island	1	1	100.00					1
Total Scales Received	268	185		25	11			196

[a] Useable return rate = $\frac{\text{Data Received}}{\text{Data Sent-Returned Unopened}} \times 100$

and training. Seven (2%) individuals are engaged in research only. Only 12 respondents indicated they were not involved in either training or research (4%).

Of those involved in training or research, 30% are employed at universities. Twenty percent are employees of provincial governments, and 15% are college employees. Another 12% work through private counselling agencies. Of the 16% who checked the "other" category, most are employed in hospital settings or are in private practices.

With regard to occupation, 32% work professionally as psychologists and 25% as counsellors. Another 10% are social workers; 8% are professors. Twenty percent of those involved in research or training checked the "other" category; most of these individuals defined themselves professionally as assertiveness trainers, psychotherapists, or nurses.

Fifty percent of the identified population possess Master's degrees (or equivalent), and 25% have Doctoral degrees (or equivalent). Another 12% have Bachelor's degrees (or equivalent), and only a few individuals stated that they had no degrees (4%).

Most individuals (50.8%) in the identified population are between 30-40 years of age. Approximately 25% are 20-30 years old, and 17% are 40-50 years old. Five percent are over 50 years of age.

Those involved in the field are predominantly female (65%); 35% of those involved are men.

Assertiveness Trainers

A total of 288 individuals from the identified population are involved in assertiveness training. Most have been involved for 1-3 years (55%), and many have been involved for 4-6 years (28%). Only 4% have been involved over 6 years.

The majority of trainers learned about teaching assertiveness from several sources which included reading books on the subject (47%), being taught by an "AT" expert (21%), or being instructed by a professor (12%). Twenty percent indicated several other sources, including involvement in assertiveness training workshops as a participant or co-leader.

Since learning to teach assertiveness workshops, 66% have provided 1-14 workshops. Sixteen percent have given between 15-25 workshops. Thirteen percent have conducted over 25 workshops.

Trainers' involvement has been predominantly with females (61%), although a substantial number work with an equal proportion of men and women (29%). Only 7% work predominantly with men. An overwhelming majority indicated their involvement is predominantly with groups (74%) rather than on an individual basis (7%). Eighteen percent work equally with groups and individuals.

Most trainers indicated that clients have difficulty differentiating between assertion and aggression (68%). Of this 68%, 26% felt that 40-60% of the clientele had such difficulty. Eight percent felt 80-100% had difficulty differ-

entiating them. The remaining categories (0-20%; 20-40%; and 60-80%) each contained approximately 20 percent. Twenty-seven percent of the assertiveness trainers felt that clients had no difficulty differentiating the constructs.

Research

Of the identified population, a total of 81 individuals are involved in research on assertion. Of those engaged, 74 are also involved in assertiveness training. Seven are involved only in research. Most have been engaged in research for 1-3 years (63%), and 24% for less than 1 year. Fourteen percent have been involved for 4-6 years.

The nature of research appears to be quite diversified, ranging from treatment of alcoholism to informal evaluation of assertiveness workshops. Additionally, many researchers have written or submitted journal articles for publication (28%); four have published books.

Summary

The identified population of assertiveness trainers/researchers appears to include well-educated individuals employed in professional capacities. The majority of trainers are female, between 30-40 years of age, and possess at least a Master's degree or equivalent.

Most individuals are involved in training, although a

substantial proportion are also involved in research. Few are involved only in research. Their length of involvement in the field is likely to be between 1-3 years; trainers on the average have conducted 1-14 workshops. Involvement appears to be predominantly with females in a group setting. Most trainers indicated that clients have difficulty differentiating assertion and aggression. Approximately 40-60% of clients are said to have such difficulty, with approximately equal numbers in three other categories (0-20%, 20-40%, 60-80%).

Those individuals engaged in research have been so involved for 1-3 years. Research interests appear quite diversified. Additionally, a substantial number of researchers have published journal articles.

Comparison of Sample Respondents and Nonrespondents on Questionnaire Variables

Responses to questionnaires were used as a basis for comparison in determining whether differential bias existed between that portion of the sample who returned their data, and that portion who did not.

Contingency tables were constructed such that each relevant questionnaire variable was compared to two levels of 'Return' (returned completed scale or did not). Complete tables are included in Appendix K.

Table 8 summarizes the results of the analysis in terms of the relevant questionnaire variables and the test statistic

Table 8

Summary of Biodemographic Differences between Sample Respondents and Nonrespondents

Questionnaire Variable	Test Statistic	Difference ($p < .05$)
Degree	$\chi^2_{(3)} = .397$	nsd
Age	$Eta^2 = .026$	nsd
Occupation	$\chi^2_{(6)} = .944$	nsd
Employment	$\chi^2_{(6)} = 10.840$	nsd
Sex	* $\chi^2_{(1)} = .127$	nsd
Involvement in training	* $\chi^2_{(1)} = 2.140$	nsd
Length of involvement in training	$Eta^2 = .040$	nsd
Where did you learn about teaching AT?	$\chi^2_{(3)} = .816$	nsd
Number of workshops conducted	$Eta^2 = .005$	nsd
Involvement: Males/Females/ Equal proportion	$\chi^2_{(2)} = .490$	nsd
Involvement: Groups/Individuals/ Equal proportion	$\chi^2_{(2)} = 1.144$	nsd
Do clients have difficulty differentiating assertion from aggression?	* $\chi^2_{(1)} = 0$	nsd
What proportion of clientele have this difficulty?	$Eta^2 = .019$	nsd
Involvement in research	* $\chi^2_{(1)} = .138$	nsd
Length of involvement in research	$Eta^2 = .083$	nsd
Type of research (specified/ not specified)	* $\chi^2_{(1)} = .250$	nsd

* Yates corrected Chi-square for 2x2 tables

employed. Missing data (no response to question) were not included in calculations of the statistics. At the $\alpha = .05$ level of significance, there were no significant differences on any questionnaire variable between that portion of the sample who returned their scale and that portion who did not. Thus, using questionnaire variables as a basis for comparison, no differential bias was evident.

SCALE ANALYSES

Analysis of Variance

As described in Chapter III, a Latin square design was used in scale construction to counterbalance order effects. To test for the presence of order effects, and examine the influence of various other factors, a repeated measures analysis of variance was conducted, using the BMD08V analysis of variance computer program (Le, 1977). A separate analysis was performed for each scale facet. There were five independent variables:

(1) Facet order (F) - refers to the four orders of facet arrangement. These were:

(a) Verbal Behavior, Behavioral Components, Personality Traits, Verbal Statements.

(b) Behavioral Components, Personality Traits, Verbal Statements, Verbal Behavior.

(c) Personality Traits, Verbal Statements, Verbal Behavior, Behavioral Components.

(d) Verbal Statements, Verbal Behavior, Behavioral Components, Personality Traits.

(2) Scale order (S) - refers to the order in which a person received the actual Likert-type rating scales: Assertion scale first across four facets, then Aggression; or Aggression scale first across the four facets, then Assertion.

(3) Item (I) - refers to differences among items within each facet.

(4) Rating Context (A) - refers to the actual Likert-type rating scale: Assertion or Aggression.

(5) Person (P) - refers to individuals nested under Facet order and Scale order (FS).

There were four facet orders (F), two scale orders (S), and two rating contexts (A); 'F,' 'S,' and 'A' were treated as fixed factors. 'I' referred to differences among item within

each facet; this was also treated as a fixed factor.[1] Person (P) was treated as a random factor. The dependent variable was individual's scores on each facet.

As the BMD08V program requires equal cell sizes, cases from within Facet and Scale order arrangements were randomly deleted until all cells were equal (N=19). Approximately six cases were deleted from 7 facet and scale arrangements; all 19 were included from the eighth facet and scale arrangement.

The complete ANOVA results are presented in Appendix L. Due to the large number of degrees of freedom in the numerator and denominator, the F tests were extremely sensitive to testing procedures. Thus, for discussion purposes, it is more meaningful to analyze the results in terms of the proportion of variability explained by factors and their interactions.[2] Figures 5 through Figure 8 summarize the proportions of variability explained by components across the four scale facets. In order to examine all factors and their interactions within the same figure, it was necessary to use logarithmic scale for the ordinal axis.

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1 Due to the procedures involved in item selection and screening, items were regarded as representing a finite rather than an infinite population.

2 Proportion of variability refers to that amount of variance accounted for in the dependent variable. Proportion of variability was calculated by summing the estimated variance components (not including the mean) then calculating the percentage of variability accounted for by each factor or interaction.

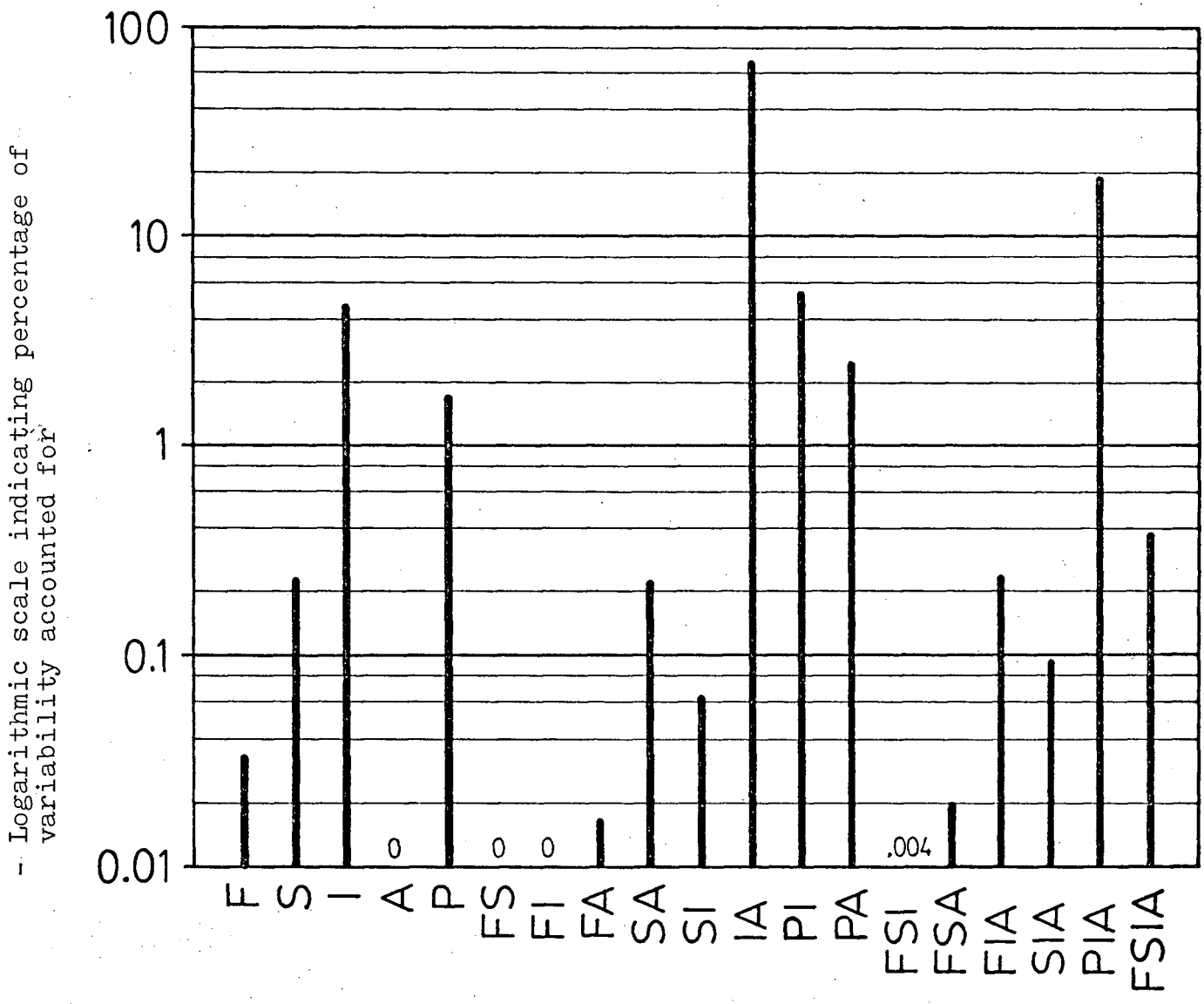

Figure 5. Verbal behavior facet: proportions of variance accounted for by factors and their interactions

Verbal Behavior Facet

As Figure 5 illustrates, a negligible amount of variability is accounted for by the factors Facet Order (F), Scale Order (S) or Rating Scale (A) and their interactions. Items contributed 5% to the total variability indicating that, averaged over people, items were rated consistently by individuals. Person (P) accounted for 1.8% of the total variability.

Items (I) were expected to function differently when rated in different rating contexts (A). Sixty-five percent of the variability is explained by this interaction (IA). The Person x Item x Scale interaction accounted for an additional 19%. Thus, items when rated in different contexts by persons explain 84% of the total variability.

Variations among people rating the items (PI) accounted for only 5% of the variability; whereas, the person by scale (PA) interaction explained only 2.4 percent.

Behavioral Components Facet

As Figure 6 illustrates, within this facet, most of the variability is accounted for by how items functioned when rated on the Assertion/Aggression Scales (67%) and by the Person x Item x Rating Scale (PIA) interaction (15%).

As in the Verbal Behavior facet, the factors Facet Order (F), Scale Order (S), Rating Scale (A), and their interactions

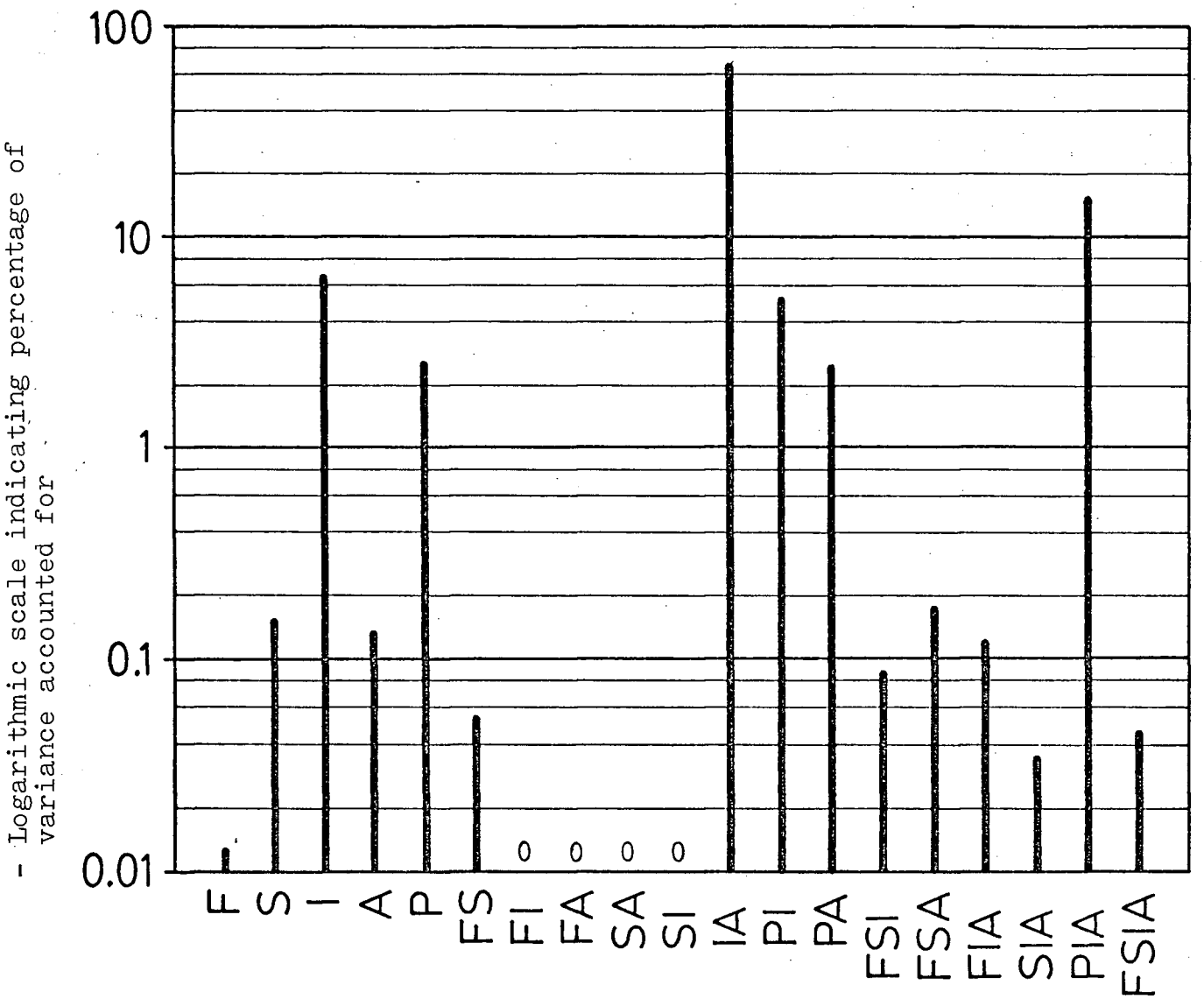

Figure 6. Behavioral components facet: proportions of variance accounted for by factors and their interactions

account for a negligible proportion of variability. Items (I) account for 6.4% of the variability, and Persons (P) explain only 2.6%.

Variations among people rating the items (PI) explained only 5% of the variability, indicating consistency of rating patterns over persons.

Within this facet, a total of 82% of the total variability is explained by how items functioned when rated across Assertion and Aggression.

Personality Traits Facet

Figure 7 illustrates the greatest proportion of variability within this facet is due to the differential item effect across the rating scales (IA) (76%) and the PIA interaction (12.3%).

Variations among individuals rating items explains only 4% of the variability, indicating that across people, items were rated consistently. This is also indicated by the Item (I) factor which explained 4.4% of the variability.

The main factors Facet Order (F), Scale Order (S), Rating Scale (A), and their interactions, accounted for a negligible amount of variability. Persons (P) explained 1% of the variability.

Thus, within this facet, over 88% of the variability is explained by how items function when rated on Assertion and Aggression.

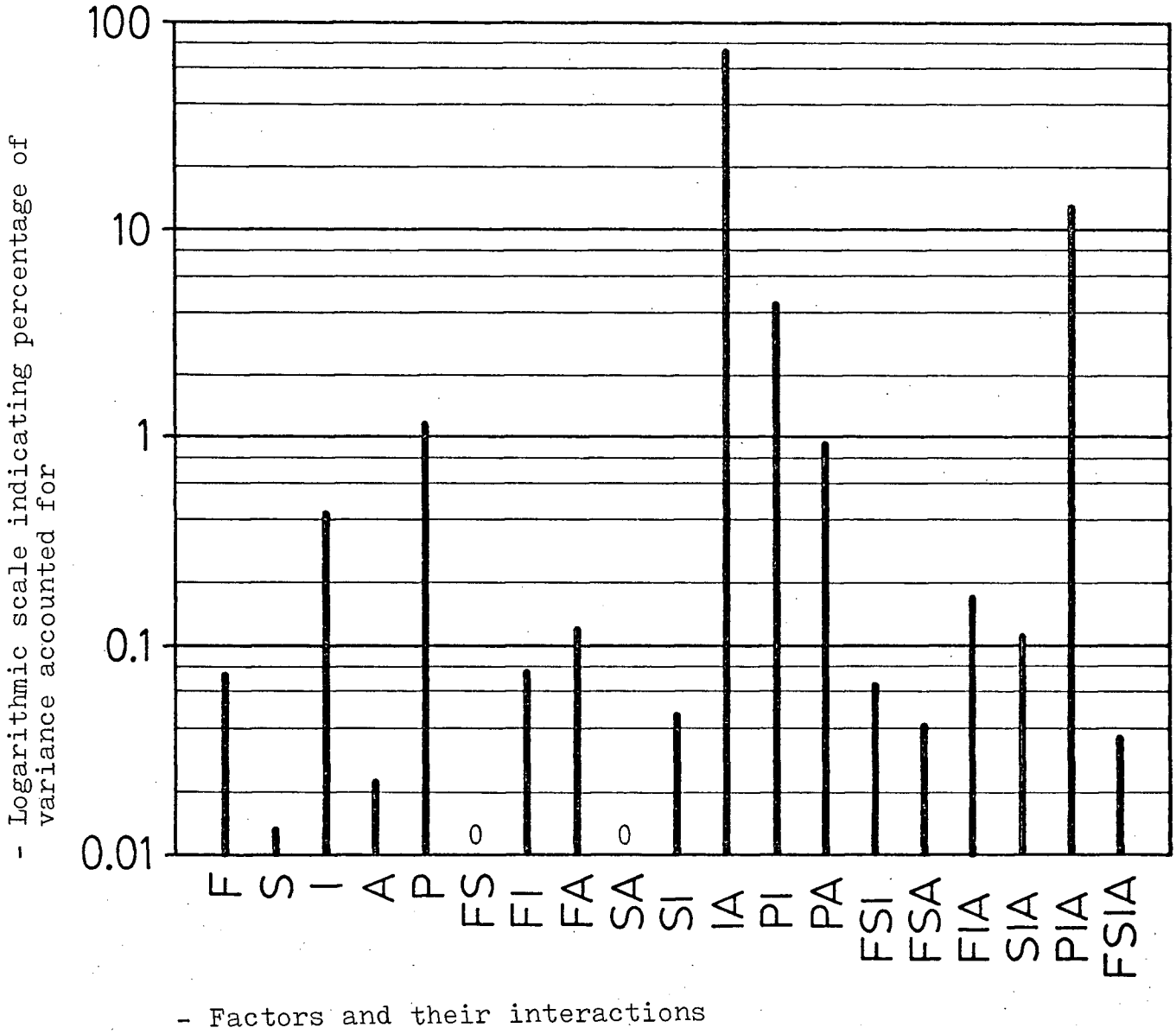

Figure 7. Personality traits facet: proportions of variance accounted for by factors and their interactions

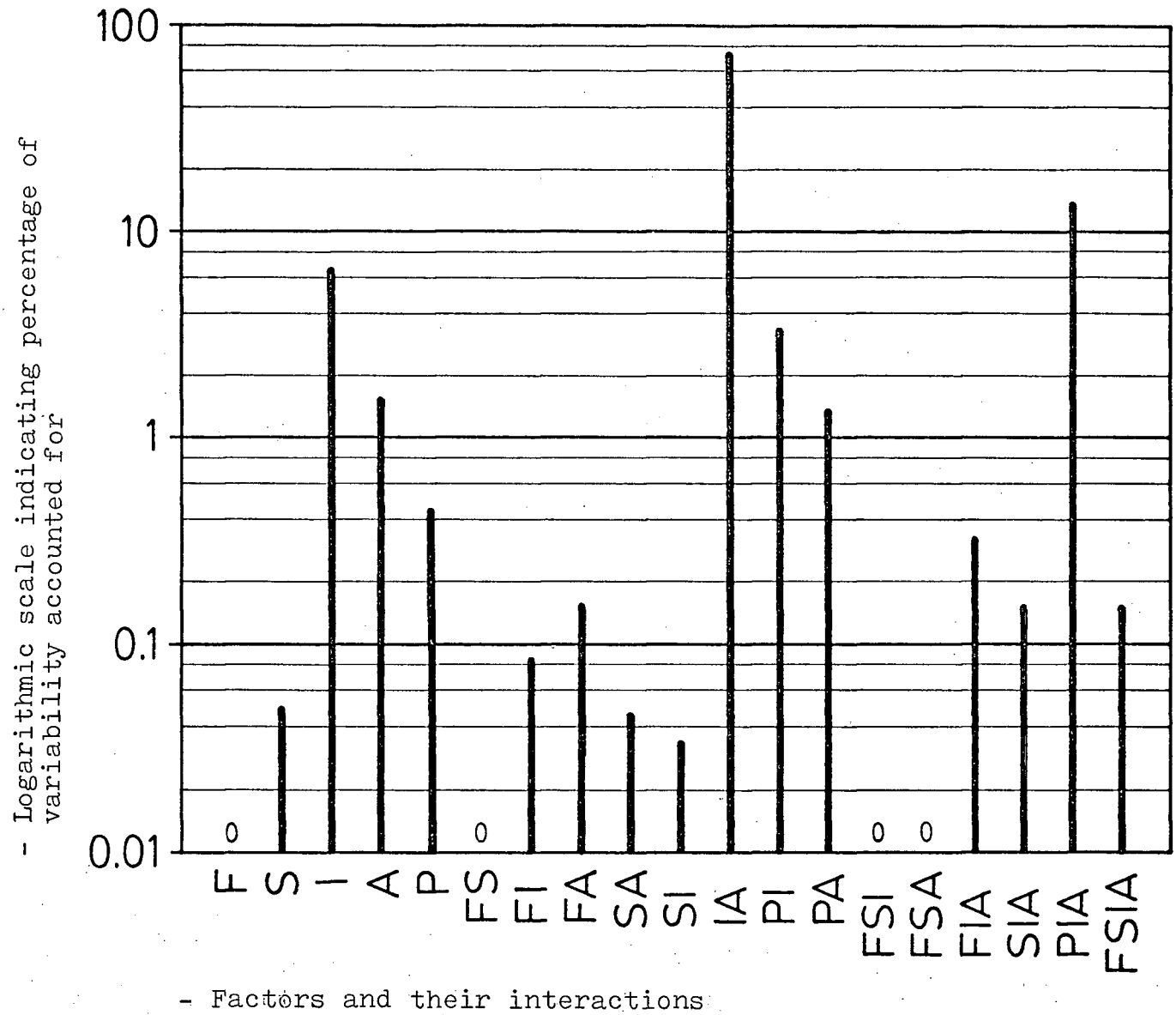

Figure 8. Verbal statement facet: proportions of variance accounted for by factors and their interactions

Verbal Statements Facet

Within this facet, 72% of the variability is due to the Item and Scale (IA) interaction; 13.5% is accounted for by the Person x Item x Scale (PIA) interaction. Thus, over 85% of the total variability is accounted for by items behaving differently when rated on Assertion and Aggression. Items (I) accounted for 6% of the variability, whereas variation in how people rated items explained only 3%. The main factors Facet Order (F), Scale Order (S), Rating Scale (A), and their interactions explained a negligible amount of variability.

Summary

Consistently across the four scale facets, the greatest proportion of variability was explained by how items functioned when rated on Assertion and Aggression.

The minimal amount of variability explained by how individuals rated items indicates that items were rated fairly consistently across individuals.

With regard to order effects, the proportion of variability explained by Facet Order (F), Scale Order (S) and their interactions, indicates that there was little difference in scores regardless of what facet or scale order an individual received.

Item and Scale Effects

To further investigate the large proportion of variability accounted for by how items functioned when rated in two contexts (IA, PIA interactions), a Hotellings T^2 was performed for each facet of the scale, using the Triangular Regression Package (TRP; Le & Tenisci, 1977). The hypothesis tested was that the mean of each item was the same when rated on Assertion and on Aggression.

Table 9 reports the Hotellings T^2 and associated F values for each facet of the scale.

As described previously, each item occurred twice on the scale, rated once for assertion and once for aggression. As significant T^2 values were obtained for all facets, each item within each facet was then tested for significance. To do this, the mean of each item rated on Assertion was compared to the mean of the same item rated on Aggression.

Throughout Table 10 to 13, differences between means of items preceeded by a negative sign (-) indicate the mean of that item was higher on Assertion than Aggression. Conversely, positive mean differences indicate the mean for that item was higher on Aggression than Assertion. Each table reports the means for each item on Aggression and Assertion, differences in means, simultaneous confidence intervals and significance at the .05 level. All items are rank ordered within item type from the largest to the smallest difference.

Table 9

Hotellings T^2 and F's for Each Scale Facet

Facet	T^2	F *	df
Verbal Behavior	13430.0	413.9	30,357
Behavior Components	8093.0	347.8	22,364
Personality Traits	13580.0	390.5	32,356
Verbal Statements	10370.0	493.1	20,368

* The F value was significant ($p < .05$) for every facet

Verbal Behavior Facet

Table 10 indicates that, of the 30 items in this facet, 27 functioned as expected. Thirteen of 14 items hypothesized to represent assertion were significant in the assertion direction. Item 30 (spontaneous exclamations of irritation and disgust at another person) was also significant, but rather than functioning as an assertion item, functioned as an aggression item.

Similarly, 12 of 13 items hypothesized to represent aggression were significant in the correct direction. Item 18 (using the word "I" very frequently) functioned as a significant assertive item. Of the three items hypothesized to be unassertive, two behaved as expected and were not significant. Item 1 (speaker makes derogatory statements about self) functioned significantly as an aggressive item.

Behavioral Components Facet

Of the 22 items in this facet, 10 were hypothesized to represent assertion, and 9 to represent aggression. Three unassertive items were expected to be nonsignificant.

Table 11 indicates that all items intended to represent assertion functioned in the correct direction. All items achieved significance at the .05 level, with the exception of Item 17 (expansive gestures) which did not reach significance. Similarly, all items expected to have a higher mean on Aggression than Assertion functioned in this manner. All aggression

Table 10

Means, Confidence Intervals and Ranked Mean Differences of Items within Verbal Behavior Facet

Type of Item	Means		Confidence Interval		Difference Between Means
	Aggression	Assertion	Lower Limit	Upper Limit	
Assertion					
(29) giving and accepting sincere compliments	1.23	4.86	-3.97	-3.30	-3.64
(21) stating feelings honestly	1.57	4.74	-3.76	-2.59	-3.17
(7) speaking voice puts others at ease	1.14	4.22	-3.63	-2.53	-3.08
(9) sending "I" messages	1.57	4.52	-3.60	-2.30	-2.95
(24) well modulated voice	1.32	4.24	-3.52	-2.33	-2.93
(27) direct expression of feelings	1.87	4.77	-3.54	-2.27	-2.90
(16) able to say 'no' without feeling guilty	1.93	4.59	-3.46	-1.86	-2.66
(13) making direct statements	2.17	4.64	-3.19	-1.73	-2.46
(26) direct statement of wants	2.27	4.66	-3.12	-1.66	-2.39
(11) making objective statements about anger	1.73	3.95	-3.02	-1.43	-2.22
(17) directly asking others to change behavior which you find offensive	2.32	4.37	-2.84	-1.25	-2.05
(5) speaking without filler words or pauses	2.09	3.70	-2.50	- .720	-1.61
(8) asking "why" for clarification	2.22	3.73	-2.37	- .658	-1.51
(30) spontaneous exclamations of irritation and disgust at another person	4.21	1.99	2.94	1.49	2.22[a]
Aggression					
(12) name calling	4.77	1.08	3.35	4.03	3.69
(10) speaking with disregard for others rights	4.64	1.11	3.03	4.03	3.53
(19) verbally discounting another person	4.57	1.21	2.87	3.85	3.36
(22) using words which blame another	4.48	1.18	2.86	3.75	3.30
(28) making verbal accusations	4.50	1.25	2.78	3.73	3.26

Table 10 (continued)

Means, Confidence Intervals and Ranked Mean Differences

of Items within Verbal Behavior Facet

Type of Item	Means		Confidence Interval		Difference Between Means
	Aggression	Assertion	Lower Limit	Upper Limit	
(2) answering for another person	3.98	1.23	2.21	3.29	2.75
(23) speaking critically of another person when they are not present	3.99	1.27	2.13	3.30	2.72
(14) responding with a clever put down when someone insults you	4.00	1.72	1.54	3.01	2.28
(25) loud voice	3.81	2.11	.991	2.42	1.70
(6) frequently using the word "you"	3.58	1.89	.847	2.54	1.69
(15) expressing hostility	4.05	2.60	.558	2.35	1.46
(3) making demands of others	3.69	2.40	.319	2.19	1.29
(18) using the word "I" very frequently	2.10	3.97	-2.69	-1.05	-1.87[a]
Neutral					
(1) speaker makes derogatory statements about self	1.90	1.10	.159	1.44	.799[a]
(4) unable to say 'no' without feeling guilty	1.72	1.34	- .363	1.12	.380*
(20) frequently using pauses or filler words (e.g. um, ah)	1.71	1.63	- .526	.675	.074*

* not significant ($p < .05$); non-asterisked items differentiate significantly in the direction intended

[a] item did not behave as expected

Table 11

Means, Confidence Intervals and Ranked Mean Differences of Items within the Behavioral Components Facet

Type of Item	Means		Confidence Interval		Difference Between Means
	Aggression	Assertion	Lower Limit	Upper Limit	
Assertion					
(6) attentive listening	1.130	4.680	-3.890	-3.200	-3.550
(13) allows others to finish talking	1.210	4.470	-3.720	-2.810	-3.270
(9) smiling warmly	1.140	4.180	-3.510	-2.560	-3.040
(16) relaxed posture	1.270	4.280	-3.450	-2.580	-3.020
(15) assured composure	1.710	4.710	-3.500	-2.500	-3.000
(21) relaxed hand motions	1.270	4.260	-3.480	-2.500	-2.990
(12) direct eye contact with other person	1.990	4.750	-3.340	-2.180	-2.760
(10) directly faces the person being spoken to	2.300	4.740	-3.070	-1.790	-2.430
(11) standing erect with feet apart	2.730	3.680	-1.680	- .214	- .948
(17) expansive gestures	2.510	3.080	-1.260	.121	- .568*
Aggression					
(22) sneering	4.460	1.090	3.000	3.750	3.370
(8) fist pounding	4.450	1.370	2.590	3.570	3.080
(3) sarcastic smiling	4.120	1.130	2.580	3.390	2.980
(4) finger pointing	4.220	1.330	2.380	3.400	2.890
(19) narrowed eyes	3.990	1.280	2.210	3.210	2.710
(20) stiff body posture	3.260	1.340	1.350	2.490	1.920
(1) abrupt gestures	3.450	1.740	1.110	2.290	1.700
(5) erect stance with hands on hips	3.520	2.060	.797	2.130	1.460
(14) prolonged eye contact	3.250	2.910	- .416	1.110	.345*

Table 11 (continued)

Means, Confidence Intervals and Ranked Mean Differences

of Items within the Behavioral Components Facet

Type of Item	Means		Confidence Interval		Difference Between Means
	Aggression	Assertion	Lower Limit	Upper Limit	
Neutral					
(18) nervous mannerisms	2.150	1.260	.349	1.420	.884[a]
(2) minimal eye contact with other person	1.910	1.220	.146	1.250	.697[a]
(7) standing or sitting with stooped shoulders	1.330	1.300	- .362	.431	.034*

* not significant ($p < .05$); non-asterisked items differentiate significantly in the direction intended

[a] item did not behave as expected

items were significant with the exception of Item 14 (prolonged eye contact). One unassertive item was not significant as expected; however, Items 2 (minimal eye contact with other person) and 18 (nervous mannerisms) behaved as significant aggressive items.

Personality Traits Facet

As indicated in Table 12, all 15 items within this facet hypothesized to represent assertion behaved as expected and were significant. All 14 items keyed to represent aggression functioned in the correct direction; however, Items 10 (authoritative) and 26 (forceful) failed to reach significance.

As expected, two of the three items hypothesized to be unassertive were not significant. Item 7 (anxious) functioned as a significant aggressive item.

Verbal Statements Facet

As Table 13 illustrates, all 20 items within this facet functioned in their intended directions. All nine items hypothesized to represent assertion functioned properly and achieved significance. All eight aggressive items functioned as expected; however, Item 4 ("I want another steak ...) failed to reach significance. As expected, all three unassertive items failed to reach significance.

Table 12

Means, Confidence Intervals and Ranked Mean Differences of Items within the Personality Trait Facet

Type of Item	Means		Confidence Interval		Difference Between Means
	Aggression	Assertion	Lower Limit	Upper Limit	
Assertion					
(4) appreciative	1.300	4.590	-3.740	2.830	-3.290
(5) integrated	1.420	4.700	-3.810	-2.750	-3.280
(23) open-minded	1.240	4.510	-3.770	-2.770	-3.270
(9) secure	1.450	4.680	-3.730	-2.740	-3.240
(15) supportive	1.220	4.300	-3.600	-2.560	-3.080
(22) self-respecting	1.700	4.770	-3.630	-2.500	-3.070
(25) caring	1.300	4.310	-3.580	-2.440	-3.010
(31) responsible	1.710	4.670	-3.530	-2.390	-2.960
(3) self-confident	1.870	4.820	-3.560	-2.350	-2.950
(21) self-disclosing	1.600	4.370	-3.360	-2.180	-2.770
(29) intimate	1.320	4.010	-3.280	-2.090	-2.690
(17) tolerant	1.260	3.890	-3.190	-2.060	-2.620
(8) forgiving	1.340	3.720	-3.020	-1.760	-2.390
(11) spontaneous	2.520	4.100	-2.410	- .762	-1.590
(6) yielding	1.350	2.630	-1.920	- .650	-1.290
Aggression					
(2) abusive	4.820	1.070	3.430	4.080	3.750
(12) destructive	4.770	1.130	3.260	4.020	3.640
(32) punitive	4.730	1.160	3.170	3.970	3.570
(30) blaming	4.690	1.190	3.090	3.900	3.490
(13) chronically angry	4.520	1.080	3.000	3.870	3.430
(19) belittling	4.480	1.080	2.920	3.890	3.410
(1) offensive	4.680	1.280	2.920	3.860	3.400
(14) encroaching	4.160	1.250	2.310	3.520	2.920
(16) self-righteous	4.290	1.420	2.290	3.450	2.870
(20) tactless	4.090	1.230	2.220	3.490	2.860
(28) imposing	4.470	1.720	2.090	3.410	2.750

Table 12 (continued)

Means, Confidence Intervals and Ranked Mean Differences

of Items within the Personality Trait Facet

Type of Item	Means		Confidence Interval		Difference Between Means
	Aggression	Assertion	Lower Limit	Upper Limit	
(24) argumentative	4.230	1.720	1.900	3.120	2.510
(10) authoritative	3.590	2.810	- .116	1.680	.781*
(26) forceful	3.860	3.170	- .175	1.540	.682*
Neutral					
(7) anxious	2.940	1.610	.565	2.110	1.340[a]
(27) helpless	1.730	1.080	.094	1.210	.650*
(18) submissive	1.340	1.190	- .299	.588	.145*

* not significant ($p < .05$); non-asterisked items differentiate significantly in the direction intended

[a] item did not behave as expected

Table 13

Means, Confidence Intervals and Ranked Mean Differences of Items within the Verbal Statements Facet

	Type of Item	Means		Confidence Interval		Difference Between Means
		Aggression	Assertion	Lower Limit	Upper Limit	
	Assertion					
(19)	"I would prefer going to the movies tonight rather than to the concert."	1.180	4.730	-3.880	-3.230	-3.560
(5)	"I understand how you feel but I don't feel like that."	1.140	4.660	-3.840	-3.210	-3.520
(8)	"You did a fantastic job at the meeting."	1.150	4.590	-3.790	-3.100	-3.440
(7)	"I don't really know enough about that to comment right now."	1.120	4.530	-3.780	-3.040	-3.410
(1)	"I don't understand why you would say that. I feel that I have been doing as much work as you ... ."	1.250	4.610	-3.760	-2.960	-3.360
(16)	"I see your point, but there are other solutions to the problem."	1.280	4.520	-3.660	-2.830	-3.240
(3)	"Excuse me; I have to go now."	1.210	4.220	-3.470	-2.550	-3.010
(11)	"I get very angry when you leave your clothes all over the place."	1.560	4.460	-3.400	-2.420	-2.910
(13)	"I really like your shoes. Where did you get them?"	1.270	4.170	-3.370	-2.420	-2.900
	Aggression					
(6)	"You're the problem--you need to see a psychiatrist."	4.630	1.210	3.060	3.790	3.420
(17)	"You shouldn't have called me stupid. If anyone's stupid, it's you."	4.550	1.340	2.760	3.660	3.210
(18)	"You're never around when I need you. All you ever think about is yourself.	4.290	1.350	2.440	3.420	2.930
(20)	"I want to go shopping right now. I don't care if you're busy."	4.440	1.540	2.400	3.390	2.900
(10)	"Just because I'm smarter than you doesn't mean you can't ask me a question."	4.060	1.380	2.150	3.200	2.680

Table 13 (continued)

Means, Confidence Intervals and Ranked Mean Differences

of Items within the Verbal Statements Facet

Type of Item	Means		Confidence Interval		Difference Between Means
	Aggression	Assertion	Lower Limit	Upper Limit	
(2) "I think you don't know what's good for you."	4.040	1.670	1.810	2.930	2.370
(14) "If you think I'm going to give up this promotion to make you happy, you're wrong."	3.990	1.920	1.440	2.700	2.070
(4) "I want another steak right now. I ordered it rare and it's well done."	3.470	2.810	- .049	1.380	.664*
Neutral					
(15) "I guess I'm just stupid. I never seem to do anything right."	1.440	1.120	- .138	.771	.316*
(12) "I'm really too tired to go out tonight. Well ... I'll go."	1.280	1.200	- .282	.444	.081*
(9) "I better not go shopping with you ... Well, you know how upset my friend gets when I spend my money."	1.390	1.390	- .423	.417	.003*

* not significant ($p < .05$); non-asterisked items differentiate significantly in the direction intended

Reliability Estimates

The next level of scale analyses involved determining estimates of internal consistency reliabilities and information on how each item functioned within its respective subscales.

To obtain meaningful internal consistency estimates, and item correlations, it was first necessary to provide appropriate referents. This was done by defining subsets of items according to hypothetical constructs and rating contexts. Thus, ratings on the Assertion rating scale of all items hypothesized to represent assertion were grouped into four subscales--one for each of the four facets. Similarly, ratings on the Aggression rating scale of all items hypothesized to represent aggression were grouped into four subscales. Items hypothesized to be 'unassertive' were excluded from this analysis.

Responses to items were analyzed using the LERTAP (Nelson, 1974) item analysis computer program.

The results are summarized in the following sections.

Assertion Subscales/Assertion Ratings

Table 14 reports the number of items, internal consistency reliability estimates, standard deviation, and standard error of measurement for each of the four assertion subscales. The reliability for the composite (all assertion items within the entire scale) is .81 as estimated by Cronbach's Alpha technique.

Table 14

Assertion Subscale Reliability and

Standard Error of Measurement

Assertion Subscale within Facet	Number of Items within Subscale	Reliability Estimate [a]	Standard Deviation	Standard Error of Measurement
Verbal Behavior	14	.72	6.10	3.14
Behavioral Components	10	.86	6.08	2.18
Personality Traits	15	.89	7.82	2.55
Verbal Statements	9	.74	4.11	1.98

[a] Reliability estimate is calculated using Hoyt's ANOVA approach

These reliability estimates are high, considering the limited number of items within each 'subscale.' This indicates that the items were rated consistently by individuals.

The mean and standard deviation of each item, and the item correlations with subscale and the 'total assertion scale' are given in Appendix M.

Within the Verbal Behavior subscale, all but three items (8, 17, 30) had biserial correlations greater than .25 with the subscale and the 'total scale' (see Table M.1.). Within the Behavior Components and Personality Traits facet, all items had correlations greater than .25 with their respective subscales and the 'total scale' (see Tables M.2. and M.3.). Two items within the Verbal Statements subscale had biserial correlations less than .25 with the subscale and the 'total scale' (see Table M.4.). No negative correlations were obtained.

The high reliabilities of the subscales, and the generally high item-scale correlations indicate that items were rated quite consistently by individuals, and that items hypothesized to represent assertion are relatively homogeneous.

Aggression Subscales/Aggression Ratings

Table 15 indicates the internal consistency reliability estimates, standard deviation, and standard error of measurement for each of the four aggression subscales. The overall reliability for the composite is .81 as estimated by Cronbach's alpha.

Table 15

Aggression Subscale Reliabilities and

Standard Error of Measurement

Aggression Subscale within Facet	Number of Items within Subscale	Reliability Estimate[a]	Standard Deviation	Standard Error of Measurement
Verbal Behavior	13	.85	8.13	3.06
Behavioral Components	9	.84	6.37	2.38
Personality Traits	14	.82	6.98	2.86
Verbal Statements	8	.77	4.62	2.06

[a] Reliability estimate calculated using Hoyt's ANOVA approach

Considering the relatively small number of items within each subscale, the internal consistency estimates are very high. This indicates that items within each subscale were rated consistently by individuals.

Appendix N includes the mean and standard deviation for each item, as well as item correlations within subscale and 'total aggression scale.'

All items within the Behavioral Components, Personality Traits and Verbal Statements subscales have correlations greater than .25 with their respective subscales and the 'total aggression scale.' Item 2 (using the word "I" very frequently) in the Verbal Behavior subscale correlated .22 with its respective subscale. No negative correlations were obtained.

Summary

All assertion and aggression subscales have high internal consistency reliabilities, even though the number of items within each subscale is small. Items within subscales had moderate to high correlations with their respective subscales and 'total scales.' Of the 48 item-subscale correlations within the assertion total scale, only five were lower than .25. Only one of the 44 item-subscale correlations in the 'aggression total scales' was less than .25. No negative correlations were obtained.

This indicates that, overall, items were rated consistently by individuals and each was rated in the 'direction'

hypothesized; items within their respective subscales can be considered homogeneous.

Multidimensional Scaling

Scale responses were analyzed using the multidimensional scaling program of the NTSYS program (Rohlf, 1978). This particular program performs nonmetric scaling analysis with monotonic or linear regression models.

The purpose of using multidimensional scaling was to investigate the underlying relationship between assertion and aggression. The term multidimensional scaling actually refers to a group of techniques, using as input to the program a matrix proximitres among objects. The primary result is a spatial representation of points; each point reflecting the "underlying structure" of the data base.

"Stress" is the extent to which these points vary from the obtained fitted function. Stress can range from 0 to +1.0. The closer the stress value approaches 0, the better the "goodness of fit" of the model to the data.

Each facet was analyzed twice, once for all items rated on Assertion, and again for the same items when rated on Aggression. Thus, in all, eight analyses were performed.

Proximity matrices were generated using the absolute differences of means between each item in a facet and rating context. As the matrices were symetric, only the lower half, including the diagonals, was used as input to the program.

For each analysis, a maximum of 50 iterations was used (the program limitation); a minimum stress value of .001 was specified in the event that 50 iterations were not required. For all analyses, a linear regression model provided the best fit to the data. A summary for each facet and rating context in terms of the number of dimensions providing the best "fit," number of iterations required, and the stress value is presented in Table 16.

The following sections summarize the results of multidimensional scaling for each facet. The projected item values for each dimension are located in Appendix O. These values, in and of themselves, have no meaning; they represent the relationship between distances and proximities and are used as coordinates for plotting each item.

Appendix P contains scattergrams of Aggression dimension 1 vs. Aggression dimension 2, and Assertion dimension 1 vs. Assertion dimension 2 for each relevant facet.

Appendix Q includes the mean, standard deviation for each obtained dimension, as well as the correlations between dimensions for each facet. The results of multidimensional scaling for each facet are discussed in the following sections.

Verbal Behavior Facet

This facet contains 30 items. Thus, two lower triangular matrices (30 x 30) were generated; one for items when rated on Assertion, and one for items rated on Aggression.

Table 16

Summary Table for Multidimensional Scaling:

Linear Solutions

Facet and Rating Context	Dimension Obtained	Number of Iterations	Stress Value
Verbal Behavior Assertion	1	10	0.000
Verbal Behavior Aggression	2	50	.001
Behavioral Components Assertion	2	50	.002
Behavioral Components Aggression	2	50	.004
Personality Traits Assertion	2	50	.001
Personality Traits Aggression	2	21	.001
Verbal Statements Assertion	1	12	.000
Verbal Statements Aggression	1	10	.000

For items rated on Assertion, a one dimensional linear solution was obtained. After 10 iterations, the stress value was 0.0, indicating the data fit the model perfectly. For the same items rated on Aggression, a two dimensional solution was obtained after 50 iterations. The resulting stress value was .001.

Figure P.1. in Appendix P illustrates the relationship between the two aggression dimensions. The scatter diagram indicates that although the relationship appears to be linear, it is discontinuous, with assertion and aggression items clustering at opposite "poles." This indicates that items were either rated high on assertion and low on aggression or vice versa.

Figure 9 illustrates the scatter diagram of the Assertion dimension plotted against the most dominant (defined by largest standard deviation) Aggression dimension. To interpret the scatterplot correctly, positive numbers on the Aggression dimension indicate higher values on aggression, whereas a negative number on the ordinal axis indicates a higher value on the Assertion dimension.

The aggression items clustered in the top right hand corner of the scatterplot, indicating high values on aggression and low values on assertion. The items falling in this "cluster" are listed below with their respective coordinates:

- name calling	1.229	1.140
- speaking with disregard for others rights	1.208	1.061
- using words which blame another	1.160	.962
- verbally discounting another person	1.140	1.012
- answering for another person	1.126	.692

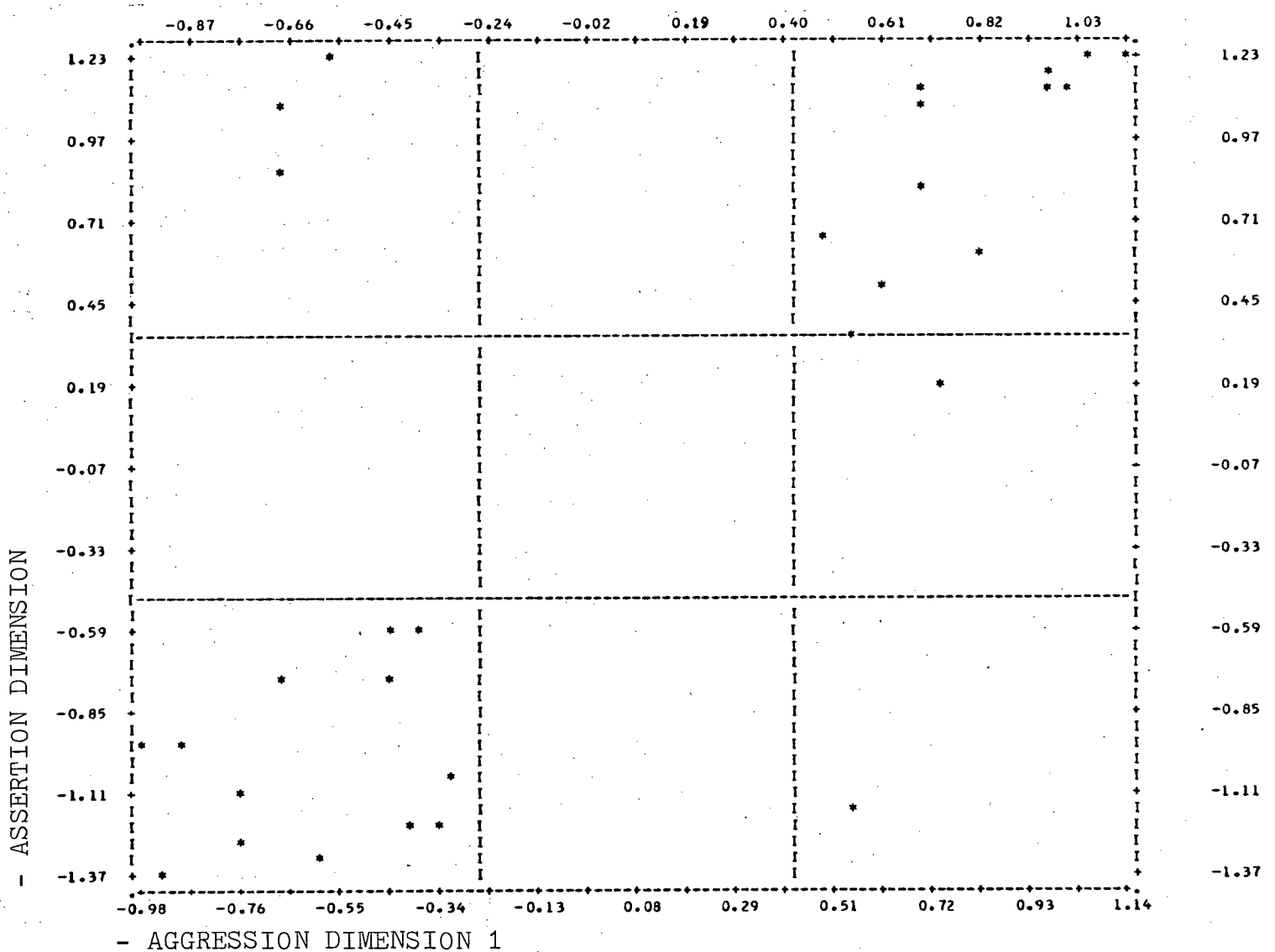

Figure 9. Scatter diagram of assertion dimension and aggression dimension 1: verbal behavior facet

- making verbal accusations	1.112	.972
- speaking critically of another person when they are not present	1.099	.697
- responding with a clever put down when someone insults you	.789	.702
- frequently using the word "you"	.673	.476
- loud voice	.522	.605

Additionally, one item originally keyed as assertion, but perceived and rated by trainers as aggressive, is located within this "cluster" as well. The item "expressing hostility" (.185, .735) falls somewhat away from the main cluster, but still quite high on aggression.

Conversely, the assertion items tend to cluster in the lower left hand corner. These items with their respective coordinates are as follows:

- speaking without pauses or filler words	-.571	-.457
- asking "why?" for clarification	-.592	-.378
- making objective statements about anger	-.743	-.670
- speaking voice puts others at ease	-.928	-.976
- well modulated voice	-.942	-.889
- directly asking others to change behavior which you find offensive	-1.031	-.315
- sending "I" messages	-1.134	-.761
- making direct statements	-1.217	-.409
- direct statement of wants	-1.230	-.348
- stating feelings honestly	-1.285	-.761
- direct expression of feelings	-1.306	-.595
- giving and accepting sincere compliments	-1.368	-.929

The item 'using the word "I" very frequently' (-.757, -.449) originally hypothesized to be aggressive, was perceived by trainers as assertive, and clustered with the assertion items. Interestingly, the item 'able to say "no" without feeling guilty" (-1.182, .522) which is described in the research literature as a major component of assertive behavior, had a very high value on assertion, but surprisingly, also a relatively high value on aggression.

All three unassertive items clustered together in the top left corner of the scatter diagram. These items were:

- speaker makes derogatory statements about self	1.229	1.140
- unable to say "no" without feeling guilty	1.050	-.674
- frequently using pauses or filler words	.852	-.679

The fact that the items hypothesized to represent assertion, aggression and 'unassertion' clustered tightly within meaningful contexts lends strong construct validity for each hypothetical construct.

Behavioral Components Facet

The Behavioral Components facet has 22 items. Two 22 x 22 lower triangular matrices were generated; one for items when rated on Assertion and one for items when rated on Aggression.

For items rated on Assertion, a two dimensional linear solution was obtained after 50 iterations. The resulting stress value was .002 (Table 16). When the same items were rated on Aggression, a stress value of .004 was obtained with a two dimensional linear solution. Fifty iterations were required to obtain this stress value.

Figure P.2. in Appendix P shows that when the two Aggression dimensions are plotted together, the items are fairly evenly distributed along the fitted function. In contrast, Figure P.3. in the same Appendix, illustrates that when the two Assertion dimensions are plotted together, the assertion and aggression items tend to cluster together at the "poles" of the function, rather than being as evenly distributed.

Figure 10 illustrates the relationship between items when the dominant Assertion and the dominant Aggression dimension are plotted against each other.

Most aggression items cluster in the top right hand corner of the scatter diagram. However, unlike the other facets, the spread among points representing aggression items is considerable.

Aggression items tended to group together in the top right hand corner. These were:

sneering	1.066	1.490
sarcastic smiling	1.043	1.197
narrowed eyes	.945	1.087
finger pointing	.915	1.283

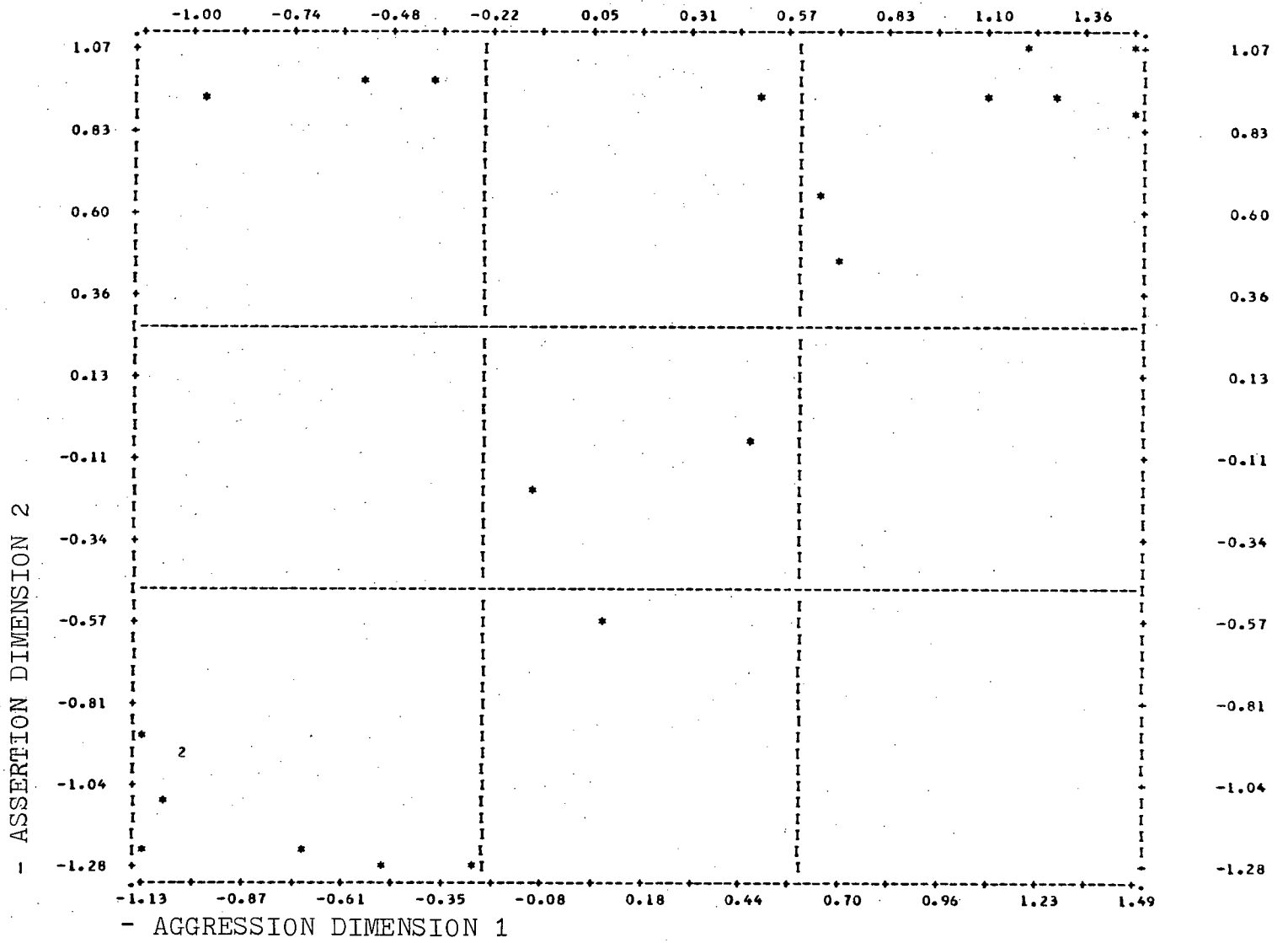

Figure 10. Scatter diagram of assertion dimension 2 and aggression dimension 1: behavioral components facet

fist pounding	.892	1.482
abrupt gestures	.662	.639
erect stance with hands on hips	.462	.695

'Stiff body posture' (.909, .484) was somewhat further from those clustered items mentioned above. The item 'prolonged eye contact' (-.070, .477) was also an outlier from the main cluster of aggression items.

Assertion items were grouped in the lower left corner of the scatter diagram. Items in this cluster were:

smiling warmly	-.900	-1.128
relaxed hand motions	-.951	-1.036
relaxed posutre	-.964	-1.036
allows others to finish talking	-1.094	-1.079
attentive listening	-1.234	-1.135
assured composure	-1.253	-.705
direct eye contact with other person	-1.277	-.496
directly faces the person being spoken to	-1.271	-.263

'Standing erect with feet apart' (-.568, .067) and 'expansive gestures' (-.179, -.103) also hypothesized to be assertive were outliers from the main cluster.

All three 'unassertive' items clustered in the upper left hand corner:

nervous mannerisms	.956	.360
minimal eye contact with other person	.981	-.561
standing or sitting with stooped shoulders	.932	-.989

Although, there was somewhat more "spread" among items in this facet, the items hypothesized to represent assertion, aggression, and 'unassertion' for the most part do cluster together.

Personality Traits Facet

This facet contains 32 items. Two lower triangular matrices (32 x 32) were generated; one for items rated on Assertion, and one for items rated on Aggression.

When items were rated on Assertion, a two dimensional linear solution fit the data well, after 50 iterations. The resulting stress value was .001. For items rated on Aggression, a two dimensional model provided the best fit, with 21 iterations and stress of .001.

Figure P.4. and P.5. in Appendix P illustrate the relationship between the two assertion dimensions and the two aggression dimensions. Examination of the items within each "cluster" indicates that aggression items cluster in the top left hand corner; the assertion items cluster in the lower right hand corner.

Figure 11 illustrates the relationship between the most dominant assertion and most dominant aggression dimension (defined) by their standard deviations).

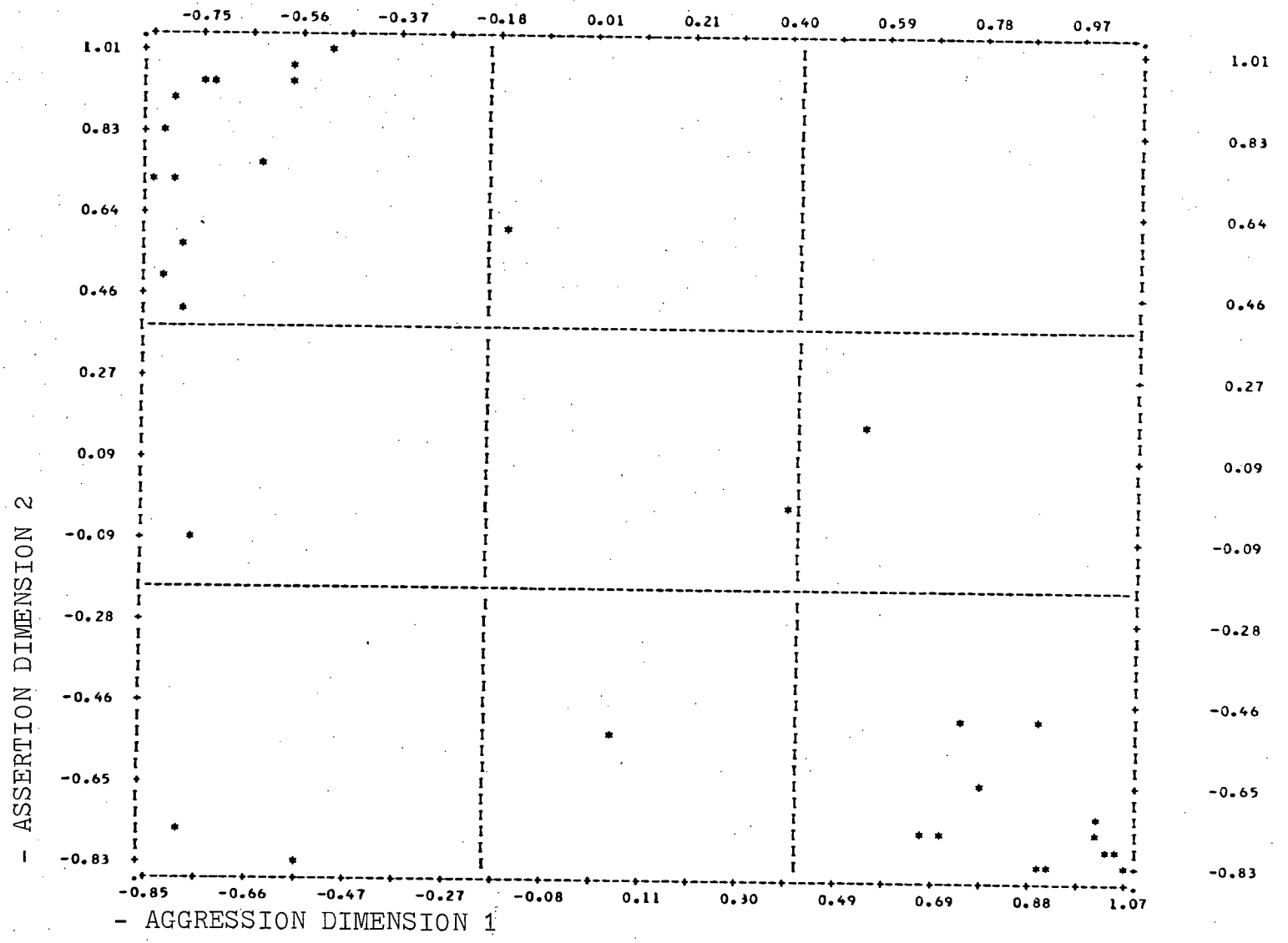

Figure 11. Scatter diagram of assertion dimension 2 and aggression dimension 1: personality traits facet

The assertion items tend to cluster in the top left hand corner of the scatterplot, with high values on the assertion dimension and low values on the aggression dimension. They are listed as follows with their respective coordinates:

forgiving	.423	-.791
tolerant	.508	-.830
intimate	.575	-.801
supportive	.733	-.856
caring	.739	-.812
self-disclosing	.774	-.648
open-minded	.849	-.846
appreciative	.895	-.812
responsible	.931	-.587
secure	.937	-.737
integrated	.949	-.754
self-respecting	.985	-.595
self-confident	1.017	-.502

The items 'spontaneous' (.622, -.157) and 'yielding' (-.113, -.787) were outliers from the main cluster of assertion items. 'Yielding' received a low value on assertion as well as aggression, suggesting that it may have been perceived as an 'unassertive' item.

Conversely, aggression items clustered in the lower right hand corner of the scatterplot. Items which were located in this section are listed below with their coordinates:

abusive	-.838	1.072
chronically angry	-.834	.919
belittling	-.834	.900
destructive	-.807	1.053

punitive	-.791	1.036
blaming	-.779	1.022
tactless	-.762	.674
encroaching	-.752	.719
offensive	-.734	1.022
self-righteous	-.668	.788
argumentative	-.499	.759
imposing	-.499	.891

Items 'authoritative' (-.010, .407) and 'forceful' (.156, .553) also hypothesized to be aggressive, although still within the 'aggression cluster' had higher means on assertion.

The items hypothesized to be 'unassertive' tended to cluster towards the lower left hand corner of the scatterplot:

anxious	-.559	.068
helpless	-.834	-.572
submissive	-.779	-.791

Verbal Statements Facet

This facet has 20 items. Two 20 x 20 lower triangular matrices were generated, one for items when rated on Assertion, and one for items rated on Aggression.

When the items were rated on Assertion, a one dimensional linear solution was obtained. After 12 iterations, the stress value was 0.0. Similarly, for items rated on Aggression a one dimensional linear solution with stress of 0.0 was achieved after only 10 iterations. This indicates the models fit the data perfectly.

Figure 12 illustrates the patterning of items relative to the two dimensions. Assertion items cluster in the upper right hand corner, 'unassertive' items in the lower right hand corner, and aggression items in the lower left hand corner. To interpret the scatterplot correctly, descending values on the abscissa refer to increasing values of 'aggression.' Those items which cluster together in the top right corner of the scattergram are:

"I would prefer going to the movies tonight rather than to the concert."	1.226	.868
"I understand how you feel, but I don't feel like that."	1.180	.897
"I don't understand why you would say that. I feel that I have been doing as much work as you. Can you explain how you feel?"	1.147	.820
"You did a fantastic job at the meeting."	1.134	.890
"I really don't know enough to comment on that right now."	1.095	.910
"I see your point, but there are other solutions to the problem."	1.088	.800
"I get very angry when you leave your clothes all over the place."	1.049	.606
"Excuse me; I have to go now."	.890	.848
"I really like your shoes. Where did you get them?"	.857	.806

Similarly, all but one item hypothesized to represent aggression clustered together in the lower left corner of the scatter diagram. The items and their coordinates are:

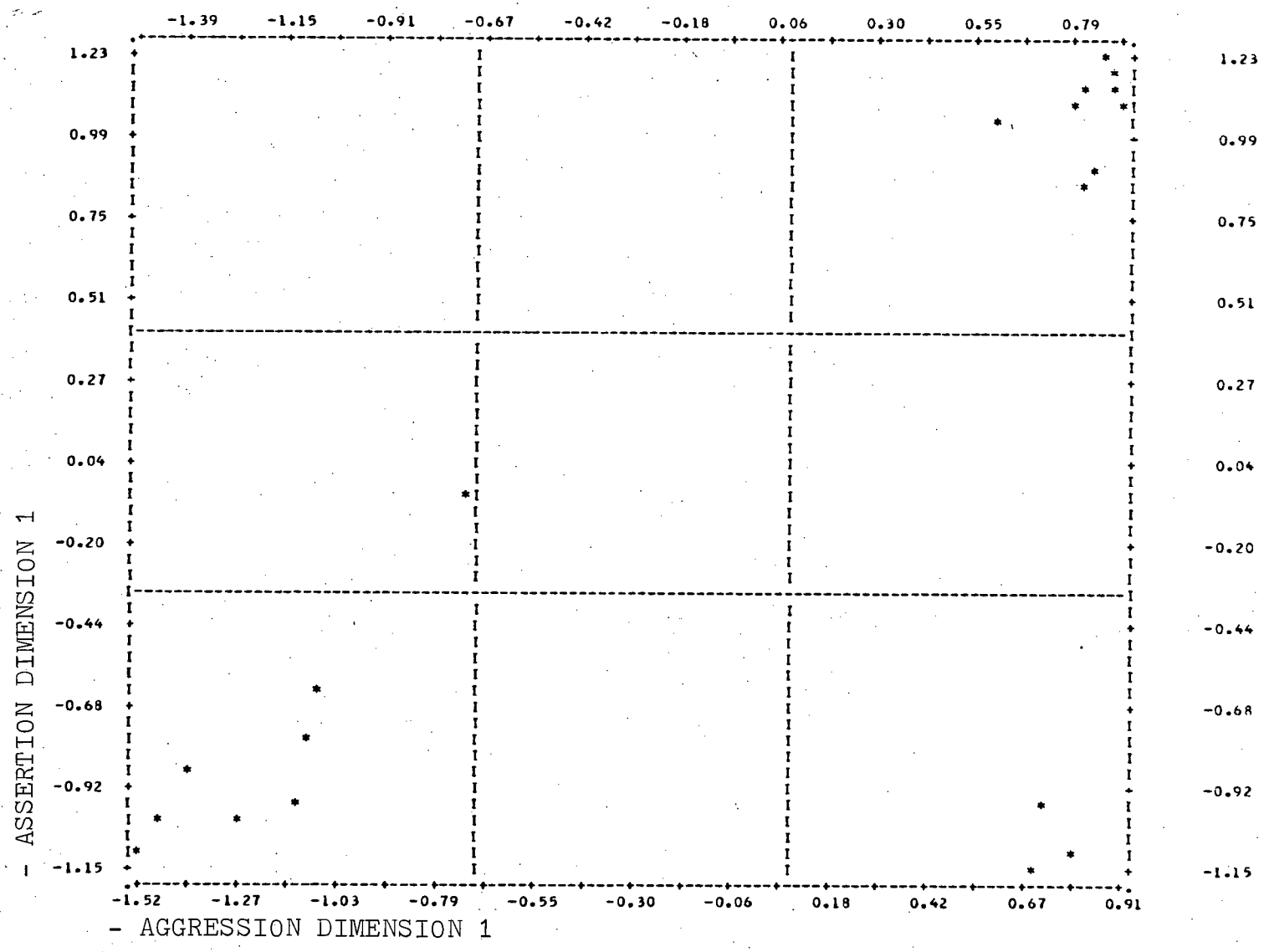

Figure 12. Scatter diagram of assertion and aggression dimensions: verbal statements facet

"If you think I'm going to give up this promotion to make you happy, you're crazy."	-.627	-1.073
"I think you don't know whats' good for you."	-.792	-1.108
"I want to go shopping right now. I don't care if you're busy."	-.878	-1.384
"Just because I'm smarter than you doesn't mean you can't ask me a question."	-.984	-1.122
"You're never around when I need you. All you ever think about is yourself."	-1.003	-1.281
"You shouldn't have called me stupid. If anyone's stupid, it's you."	-1.010	-1.460
"You're the problem--you need to see a psychiatrist."	-1.096	-1.516

The item "I want another steak right now ..." (-.040, -.714) was hypothesized to represent aggression, because of the "demand" component included. However, in the Hotellings T^2 analysis, the mean difference when rated on Assertion or Aggression was not significant. In multidimensional scaling however, the item became an outlier.

All three 'unassertive' items were grouped in the lower right hand corner of the scatter diagram:

"I better not go shopping with you...Well, you know how upset my friend gets when I spend my money..."	-.977	.724
"I'm really too tired to go out tonight. Well...I can watch you eat, I guess...Alright... I'll go."	-1.102	.800
"I guess I'm just stupid. I never seem to do anything right."	-1.155	.689

Thus, the linear model used fit the data exceedingly well.

Summary

The results across all facets indicated that items representing assertion, aggression and 'unassertion' can be meaningfully represented in spatial configurations. Thus, strong evidence of construct validity has been provided with regard to components within each hypothetical construct and the differentiation of the constructs as perceived by assertiveness trainers/researchers.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Summary of Procedures

The purpose of this study was to identify the verbal, behavioral and personality characteristics of assertion and aggression. To address this, a 'population' of Canadian assertiveness trainers/researchers was first identified, then surveyed.

A scale was constructed which contained descriptors selected to represent the hypothetical constructs of assertion and aggression, presented without situational contexts. The pilot version was pre-tested on local (Vancouver, B.C.) assertiveness trainers. The final version of the scale consisted of 104 items across four facets. Verbal Behaviors, Behavioral Components, Personality Traits and Verbal Statements. Several unassertive items were included as markers in each facet. To counterbalance order effects, a Latin square design was used in scale construction.

The final scale was sent to 268 verified trainers (who had previously indicated involvement on a questionnaire) and 25 non-verified trainers (who had not received the initial questionnaire before receiving the final scale). The useable return rate for the groups was 69.5% and 48% respectively; the overall useable return rate was 66%.

Summary of Results

The Demographic Information Sheet questionnaire provided a basis for summarizing the biodemographic characteristics of the identified population (N=307). According to responses to questionnaire variables, Canadian assertiveness trainers appear to be a well-educated group employed in professional capacities. Those involved in the field are predominantly female, working mostly with women in a group setting. A substantial number of trainers are also involved in research. Most trainers learned to teach assertiveness workshops from several sources including reading relevant books, and being taught by an "AT" expert or professor. Many also learned through involvement in assertiveness workshops, either as a co-leader or as a participant.

The results of this analysis suggest that the 'population' of trainers is knowledgeable in the field of assertion and in differentiating assertion and aggression. From reading books on the subject, trainers are aware of conceptual and definitional difficulties; from participation in research, they are familiarized with behavioral components and experimental research. The majority of trainers also indicated clients have difficulty differentiating assertion from aggression; thus, there appears to be an awareness of this as an issue in teaching assertion.

Analyses of the returned scales (N=196) indicated that, with few exceptions, the items accomplished their intended

purpose of component identification. Ninety-eight of the 104 items differentiated in the intended direction. Of the 98 properly functioning items, 93 were significant at the $\alpha = .05$ level of significance in Hotelling T^2 analyses.

Examination of those items not functioning as expected shows that four marker items intended to be unassertive were rated as aggressive: 'speaker makes derogatory statements about self,' 'minimal eye contact with another person,' 'nervous mannerisms' and 'anxious.' This suggests that these were perceived by raters as passive/aggressive characteristics. Another possibility is the influence of a 'response set' when rating on Assertion and Aggression.

Only two items within the scale reversed directions: 'using the word "I" very frequently' was intended to represent aggression, but had a higher mean on assertion; similarly 'spontaneous exclamations of irritation and disgust at another person' was hypothesized to represent assertion, but had a higher mean on aggression. These items may have been perceived as ambiguous items, or as items requiring a context.

Analysis of variance for each of the four facets indicated that the greatest proportion of variability within each facet was attributable to differential ratings of items when rated in different contexts, i.e. on Assertion or on Aggression. The order in which an individual received a scale facet or rating context accounted for a negligible proportion of variability in the dependent variable.

To obtain meaningful internal consistency reliability estimates, it was necessary to first define 'subscales' in each facet, and to provide appropriate referents in terms of rating context. All four assertion 'subscales,' and all four aggression 'subscales' had good internal consistency reliability estimates, even though the number of items in each subscale was small. The high reliabilities indicated that items were rated fairly consistently across facets. Of the 48 item-subscale correlations in the assertion 'total scale,' only five were less than .25. Only one of the 44 item-subscale correlations in the aggression 'total scale' was less than .25. No negative correlations were obtained.

The multidimensional scaling analyses showed that a linear scaling model fit the data extremely well, and that components of assertion and aggression can be meaningfully represented using this technique.

Conclusions

The conclusions arising from this project are presented in terms of the objectives of the study.

The first objective of this study was to identify the verbal, behavioral and personality components of assertion and aggression. Using the scale which was constructed, a consensus among a sample of Canadian assertiveness trainers/researchers resulted in descriptions of these components.

Ninety-eight of 104 items functioned as expected. Ninety-three of the 98 items which functioned properly were also significant at the α =.05 level of significance. The extremely good discrimination seen and the consistency in ratings indicates clear differentiation between components comprising assertion and those comprising aggression.

The second objective of this study was to provide evidence of construct validity for assertion and aggression. Validity evidence for the scale and the constructs was furnished from several sources. First, items within the scale were derived from a review of the theoretical and experimental literature on assertion and aggression. This provided necessary content validity. Second, a group of AT "experts" judged each item in the scale as to its degree of construct representation. Other evidence of construct validity was demonstrated as a result of scale analysis. Strong evidence of construct validity was shown by the fact that 98 of 104 items functioned in their intended directions. Additionally, at the .05 significance level, 93 of the 98 items which functioned as expected were significant. Additionally, the high internal consistency reliabilities and the item-subtest correlations indicated the items within defined 'subscales' could be conceived of as homogeneous. Lastly, the results of multidimensional scaling provided another source of strong construct validity, confirming that items which meaningfully differentiated assertion from aggression in the Hotellings T^2 analysis, could also be represented spatially.

The third objective of this study was to contribute information as to the nature of relationship between the constructs, assertion and aggression. The Hotellings T^2 analysis indicated that assertiveness trainers/researchers perceived the components comprising assertion very differently from those constituting aggression. That the items representing each construct tended to "cluster" in meaningful groups in each of the four facets, leads to the conclusion that the constructs are perceived by assertiveness trainers as being substantively different from each other.

The results obtained suggest that both constructs are seen as encompassing a variety of verbal and behavioral components as well as associated personality traits. However, the constructs are not entirely independent, as evidenced by the correlations between Assertion and Aggression dimensions in all four facets.

The fourth objective of the study concerned the validation of the operational definitions proposed for each construct in Chapter II. Based on the consensus provided by trainers on descriptors, strong validity evidence has been demonstrated. Both assertion and aggression were perceived by trainers as encompassing a wide variety of verbal behaviors, behavioral components and personality traits.

The fifth objective of this study concerned the development of a self-report scale based on those components which

were shown empirically to distinguish the constructs. The results of this study have isolated many of the components of assertion and aggression. Construction of a self-report scale is discussed in Recommendations for Future Research.

Limitations of the Study

This research was conducted using a 'known group' technique in establishing validity for items and constructs. The sample was identified using the 'key informant' approach to locating and identifying individuals involved in training/research. Several safeguards were employed to make the 'population' as complete as possible: repeated mailings, verification of involvement, requesting trainers/researchers to identify others known to them. Although questionnaire analysis revealed no significant differences between that group which returned their completed scale, and that which did not, the possibility of sampling bias must be considered. If sampling or differential bias was present, this bias may have influenced the results to an unknown extent. Thus, the results of this study are generalizable at most to the population of Canadian assertiveness trainers/researchers.

The intent of this study was not to isolate <u>every</u> component of assertion and aggression. Rather, it has provided a first step in construct clarification and in establishing an empirical basis for further research.

The focus of this research has been on an expert groups' perceptions of items and their degree of construct representation. The 'individual differences' issue was not considered of primary importance within the scope of the present study.

Two other possible sources of bias which must be considered are 'response set' and 'social desirability'; factors commonly encountered when engaged in this type of research. The items within the scale were intended to be clear descriptors of assertion and aggression components; the extent to which 'response set' or 'social desirability' may have influenced the results cannot be estimated.

Recommendations for Future Research

The results of this study have provided a stable and broad base for many future research directions. According to assertiveness trainers/researchers who are knowledgeable of the constructs from theoretical, experimental and clinical perspectives, the differential verbal, behavioral and personality characteristics of the constructs of assertion and aggression have been identified. On the basis of responses to the scale items, assertion and aggression are seen as encompassing a wide variety of behaviors and personality characteristics. Additionally, this research has shown that, contrary to other findings (Eisler, Hersen & Miller, 1975; Gambrill & Richey, 1975), it is possible to study assertion and aggression outside of a situational context.

Given the consensus provided by the trainers who participated in this study, researchers can now devote effort to replicating these components in behavioral research. As indicated in Chapter I, the criteria used in much behavioral research in terms of defining, isolating or judging presence/absence or degree of behavior have been poorly defined. This study, then, has provided a new direction for behavioral research.

A valuable research contribution would be to extend this study in order to explore the relationship among 'unassertion,' assertion and aggression using multidimensional scaling procedures or cluster analysis. This would facilitate further clarification of the underlying relationships among these three commonly related hypothetical constructs.

As previously indicated, components of assertion and aggression are meaningful in the absence of a situational context. A valuable study--which would assist in clarification of the 'situational context' issue--would be to construct scale items consisting of one component identified in this study and a situational context (similar to the Verbal Statements facet). "Experts" could then be asked to judge the degree of construct representation of each item to determine whether ratings change as a function of introducing a situational context. A follow-up to this would be to systematically vary the situational context or component to study how ratings change across situational contexts.

Another fruitful avenue for research would be to study the social desirability aspects of assertion and aggression based on the components isolated in this research. Osborn and Harris (1975) have suggested that the social stigma of aggressive behavior is changing. Using components from the scale, various samples could be asked to judge descriptors on the social desirability of behaving/speaking in certain ways, or of possessing ascribed personality traits.

Components identified by this research could be used to develop a self-report scale for clinical use. Two measures could be obtained by summing respective subscale scores; one assertion score and one aggression score would be provided. Although the items within this study have been shown to possess high validity, it would be necessary to establish validity, reliability and norms for a self-report scale.

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APPENDIX A

INITIAL LETTER TO KEY INFORMANTS

APPENDIX B

FOLLOW-UP LETTER TO KEY INFORMANTS WHO DID NOT REPLY TO THE INITIAL LETTER

APPENDIX C

USEABLE RETURN RATE FROM INITIAL KEY INFORMANT LETTER BY SAMPLE SOURCE

Table C.1.

Useable Return Rate from Sample of Key Informants

Selected from the

Canadian Psychological Association Directory

Province	Total Letters Sent Out	Total Responses	Returned Unopened	Useable Return Rate (%)[a]
British Columbia	21	14	1	70
Alberta	11	5		45
Saskatchewan	12	7		58
Manitoba	6	2	1	40
Ontario	56	27		48
Quebec	29	15	1	54
Newfoundland	6	4		67
New Brunswick	5	6	1	75
Nova Scotia	9	3	1	75
Prince Edward Island	2	2		100
Total Letters	157	85	5	

[a] Useable return rate = $\frac{\text{Total Responses}}{\text{Total Sent Out-Returned Unopened}}$ x100

Table C.2.

Useable Return Rate from Sample of Key Informants

Selected from the

Directory of Women's Groups

Province	Total Letters Sent Out	Total Responses	Returned Unopened	Useable Return Rate (%)[a]
British Columbia	27	15	4	65
Alberta	7	3	2	60
Saskatchewan	7	3	2	60
Manitoba	6	4	2	100
Ontario	39	26	13	100
Quebec	17	8	6	73
Newfoundland	5	1		20
New Brunswick	5	3		50
Nova Scotia	6	3		60
Prince Edward Island	2	0		0
Total Letters	121	66	29	

[a] Useable return rate = $\frac{\text{Total Responses}}{\text{Total Sent Out - Returned Unopened}}$ x100

Table C.3

Return Rate from Sample of Key Informants

at Colleges/Universities

Province	Total Letters Sent Out	Total Responses	Return Rate (%)
British Columbia	10	5	50
Alberta	9	9	100
Saskatchewan	4	3	75
Manitoba	7	3	43
Ontario	34	22	65
Quebec	12	9	75
Newfoundland	3	3	100
New Brunswick	10	7	70
Nova Scotia	6	5	83
Prince Edward Island	2	2	100
Total Letters	97	68	

APPENDIX D

VERIFICATION LETTER SENT TO ASSERTIVENESS TRAINERS/RESEARCHERS IDENTIFIED BY KEY INFORMANTS

APPENDIX E

DEMOGRAPHIC INFORMATION SHEET SENT TO INDIVIDUALS IDENTIFIED BY KEY INFORMANTS AS ASSERTIVENESS TRAINERS/RESEARCHERS TO VERIFY THEIR INVOLVEMENT

INFORMATION SHEET

(1) Name _____

(2) Mailing Address _____

Province _____ Postal Code _____

(3) Highest Degree Held _____

(4) Age Bracket:
Below 20 ____ 40-50 ____
20-30 ____ 50-60 ____
30-40 ____ over 60 ____

(5) Major Occupation:

Psychologist _____ Psychiatrist _____
Doctor _____ Social worker _____
Counsellor _____ Professor _____
Private Practice: Other:
specify _____ specify _____

(6) Major Employment Agency:
University _____ College _____
School Board _____ Provincial Gov't ____
Federal Gov't _____ Private Counselling Agency _____
Other: specify
_____

(7) Gender: Male _____ Female _____

(8) Are you (have you been) involved in teaching assertiveness?
Yes _____ No _____

If yes, please answer questions 9-13.
If no, go to question 14.

(9) How long have you been involved in assertiveness training?

less than 1 year _____
1-3 years _____
4-6 years _____
over 6 years _____

(10) Where did you learn about teaching assertiveness?

by reading books _____
a professor taught me _____
an "AT" expert taught me _____
other: specify _____

(11) Approximate number of workshops conducted:

less than 5 _____
5-14 _____
15-25 _____
25-40 _____
over 40 _____

(12) Most of my involvement as a trainer has been with:

female _____ male _____

(13) Most of my involvement as a trainer has been with:

groups _____
individual _____
equal proportion _____
(groups & individuals)

(14) In your experience, have you found that clients have difficulty differentiating assertion from aggression?

Yes _____ No _____

If yes, what proportion?
0 - 20% _____ 60-80% _____
20-40% _____ 80-100% _____
40-60% _____

(15) Are you (have you been) involved in research on assertion?

Yes _____ No _____

(16) How long have you been involved in research on assertion?

less than 1 year _____ 4 - 6 years _____
1 - 3 years _____ over 6 years _____

(17) What type? _____

(18) Book or journal articles: _____

_____

As you know, we are trying to build a Canadian population of assertiveness trainers and/or researchers. To help us, please include the names and addresses of individuals you know to be (or have been) involved in assertiveness training and/or research. (For those who replied to the first letter, include any names and addresses you may have forgotten).

Thank you very much for your co-operation. To facilitate data collection, please place this information sheet in the stamped self return envelope and mail today!

APPENDIX F

FOLLOW-UP LETTER TO INDIVIDUALS WHO DID NOT COMPLETE THE DEMOGRAPHIC INFORMATION SHEET

APPENDIX G

-- PILOT SCALE --

PRETESTED ON ELEVEN LOCAL ASSERTIVENESS TRAINERS

PILOT STUDY

This scale represents the first draft of a final scale which will be sent to a sample of assertiveness trainers across Canada as part of a nation-wide research project. The study involves consulting with individuals engaged in the field to obtain a consensus on components of assertion and aggression. This is necessitated by the existing confusion within the literature as to what the actual components of assertion and aggression are. This scale represents an innovative approach to defining and measur ing assertion and aggression.

The scale will be revised on the basis of feedback from those involved in this pilot study. The following page provides instructions for rating the items within the scale. As it is a somewhat unusual rating procedure, please read the instructions carefully before beginning.

As this is a pilot study, we would like to obtain any suggestions, feedback, comments you may have on any aspect of this scale. Please feel free to comment on your copy of the scale. Additionally, the last page offers a format for response.

Additionally, we would like to know:

(a) how long it took you to complete the scale

(b) how you felt about the items on the scale. For this purpose, please place one of the following symbols in the margin beside each item:

G- good item,particularly descriptive

A-ambiguous item, meaning is unclear

To our knowledge, a project of this magnitude has not been attempted before. When completed, it will provide valuable information to the field. Your contribution will help to ensure the project's success.

Please complete the scale as soon as possible and return to either:

Sharon Kahn - Counselling Psychology Dept.

Helen Mac Isaac - c/o Education Clinic-Faculty of Education

INSTRUCTIONS FOR USING THE RATING SCALE

PLEASE READ THIS PAGE CAREFULLY BEFORE BEGINNING TO RATE ITEMS.

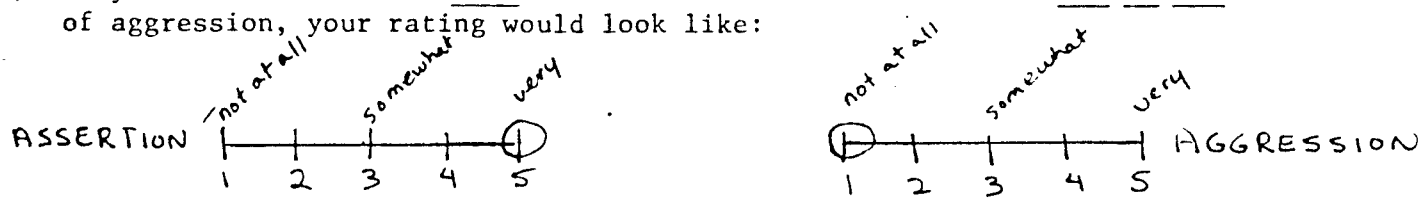
The rating procedure involves making a decision as to how characteristic an item is of assertion and/or aggression, and then placing a circle around the appropriate scale point.

EACH ITEM IS RATED TWICE-ONCE ON THE ASSERTION SCALE AND THEN AGAIN ON THE AGGRESSION SCALE.

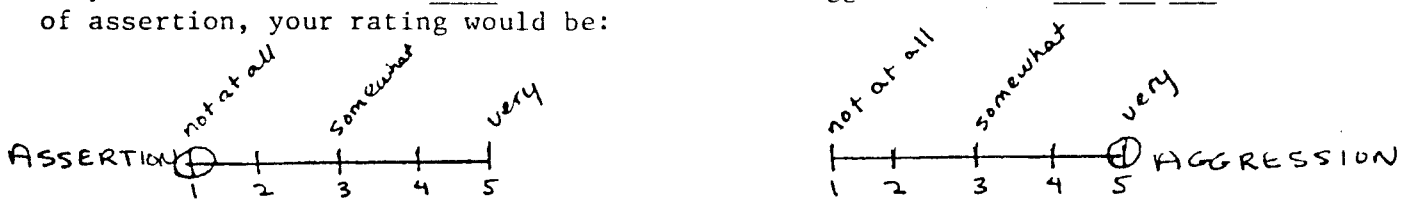
It is important to rate each item TWO TIMES- the computer will reject a single response!

HOW TO USE THE SCALES:

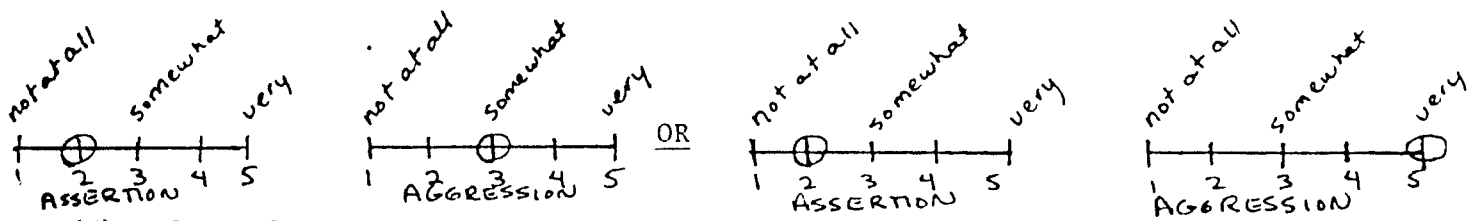
(A) If you feel the item is VERY characteristic of assertion and NOT AT ALL characteristic of aggression, your rating would look like:



(B) If you feel the item is VERY characteristic of aggression and NOT AT ALL characteristic of assertion, your rating would be:



(C) If you feel the item is characteristic of BOTH assertion and aggression, your response would look like (depending on how characteristic you feel the item is):



(d) If you feel the item is NOT characteristic of assertion OR aggression, your rating would be:

You will notice that the items are not presented in a situational context, but rather are simply descriptors of personality characteristics, behavioral components, verbal statements and verbal behaviors. Thus, your rating should be based on HOW CHARACTERISTIC you feel each item is of assertion and/or aggression.

Part of our data analysis involves determining the proportion of response to each scale point; therefore it is important that all items in the scale be rated.

VERBAL BEHAVIORS	ASSERTION (not at all characteristic 1 – somewhat characteristic 3 – very characteristic 5)	AGGRESSION (not at all characteristic 1 – somewhat characteristic 3 – very characteristic 5)
(1) giving negative feedback verbally	1 2 3 4 5	1 2 3 4 5
(2) verbally insulting another	1 2 3 4 5	1 2 3 4 5
(3) using words which convey superiority	1 2 3 4 5	1 2 3 4 5
(4) frequently using the word "You"	1 2 3 4 5	1 2 3 4 5
(5) expressing hostility	1 2 3 4 5	1 2 3 4 5
(6) stating feelings honestly	1 2 3 4 5	1 2 3 4 5
(7) using "loaded" or "blaming" words	1 2 3 4 5	1 2 3 4 5
(8) sending "I" messages	1 2 3 4 5	1 2 3 4 5
(9) making angry demands	1 2 3 4 5	1 2 3 4 5
(10) directly asking others to change behavior which you find offensive	1 2 3 4 5	1 2 3 4 5
(11) answering for another person	1 2 3 4 5	1 2 3 4 5
(12) disagreeing actively	1 2 3 4 5	1 2 3 4 5
(13) not able to maintain control of a conversation	1 2 3 4 5	1 2 3 4 5
(14) asking for favors	1 2 3 4 5	1 2 3 4 5
(15) making direct statements	1 2 3 4 5	1 2 3 4 5
(16) asking open-ended questions	1 2 3 4 5	1 2 3 4 5
(17) verbally discounting another person	1 2 3 4 5	1 2 3 4 5
(18) speaking with disregard for others rights	1 2 3 4 5	1 2 3 4 5
(19) able to say 'no' without feeling guilty	1 2 3 4 5	1 2 3 4 5
(20) expressing agreement when praised	1 2 3 4 5	1 2 3 4 5
(21) making verbal accusations	1 2 3 4 5	1 2 3 4 5
(22) asking "why?" for clarification	1 2 3 4 5	1 2 3 4 5
(23) exclamations of irritation and disgust	1 2 3 4 5	1 2 3 4 5
(24) speaking without pauses or filler words (e.g. um, ah)	1 2 3 4 5	1 2 3 4 5
(25) direct statement of wants	1 2 3 4 5	1 2 3 4 5
(26) speaking critically of another person	1 2 3 4 5	1 2 3 4 5

VERBAL BEHAVIORS	ASSERTION (not at all characteristic 1 – somewhat characteristic 3 – very characteristic 5)	AGGRESSION (not at all characteristic 1 – somewhat characteristic 3 – very characteristic 5)
(27) using the word "I" frequently	1 2 3 4 5	1 2 3 4 5
(28) direct expression of feelings	1 2 3 4 5	1 2 3 4 5
(29) standing up for rights dishonestly	1 2 3 4 5	1 2 3 4 5
(30) saying "you're wrong" frequently	1 2 3 4 5	1 2 3 4 5
(31) accepting compliments	1 2 3 4 5	1 2 3 4 5
(32) verbal derogation of another person	1 2 3 4 5	1 2 3 4 5
(33) giving compliments	1 2 3 4 5	1 2 3 4 5
(34) expressing negative feelings	1 2 3 4 5	1 2 3 4 5
(35) name calling	1 2 3 4 5	1 2 3 4 5
(36) talking about yourself	1 2 3 4 5	1 2 3 4 5
(37) making commendatory statements	1 2 3 4 5	1 2 3 4 5
(38) terminating conversations	1 2 3 4 5	1 2 3 4 5
(39) disagreeing passively	1 2 3 4 5	1 2 3 4 5
(40) not able to say no without feeling guilty	1 2 3 4 5	1 2 3 4 5
(41) asking for a reason	1 2 3 4 5	1 2 3 4 5
(42) justifying your opinion	1 2 3 4 5	1 2 3 4 5
(43) making requests of others	1 2 3 4 5	1 2 3 4 5
(44) maintaining control of conversations	1 2 3 4 5	1 2 3 4 5
(45) statements intended to rectify a situation	1 2 3 4 5	1 2 3 4 5
(46) saying "no" and offering no reasons for refusal when the situation requires this	1 2 3 4 5	1 2 3 4 5
(47) frequently using pauses or 'filler words' (e.g. um, ah)	1 2 3 4 5	1 2 3 4 5
(48) making statements of anger	1 2 3 4 5	1 2 3 4 5
(49) expressing negative feelings	1 2 3 4 5	1 2 3 4 5
(50) using words which convey inferiority	1 2 3 4 5	1 2 3 4 5
(51) using objective words	1 2 3 4 5	1 2 3 4 5
(52) flippant speech style	1 2 3 4 5	1 2 3 4 5

BEHAVIORAL COMPONENTS	ASSERTION: not at all characteristic	ASSERTION: somewhat characteristic	ASSERTION: very characteristic	AGGRESSION: not at all characteristic	AGGRESSION: somewhat characteristic	AGGRESSION: very characteristic
(1) directly faces the person being spoken to	1	2	3	4	5	
(2) asymetrical body position	1	2	3	4	5	
(3) allows others to finish talking	1	2	3	4	5	
(4) sneering	1	2	3	4	5	
(5) 'staring' eyes	1	2	3	4	5	
(6) expressionless eyes	1	2	3	4	5	
(7) relaxed voice	1	2	3	4	5	
(8) standing erect with feet apart	1	2	3	4	5	
(9) stiff body posture	1	2	3	4	5	
(10) assured composure	1	2	3	4	5	
(11) quiet voice	1	2	3	4	5	
(12) standing 1½-3 feet from another person while talking	1	2	3	4	5	
(13) sarcastic smiling	1	2	3	4	5	
(14) loud voice	1	2	3	4	5	
(15) evenly paced rate of speech	1	2	3	4	5	
(16) speaking voice puts the other person at ease	1	2	3	4	5	
(17) abrupt gestures	1	2	3	4	5	
(18) erect posture	1	2	3	4	5	
(19) relaxed hand motions	1	2	3	4	5	
(20) well balanced posture	1	2	3	4	5	
(21) fist pounding	1	2	3	4	5	
(22) well modulated voice	1	2	3	4	5	
(23) holding self while speaking	1	2	3	4	5	
(24) prolonged eye contact	1	2	3	4	5	
(25) minimal eye contact while talking with the other person	1	2	3	4	5	
(26) expansive gestures	1	2	3	4	5	

BEHAVIORAL COMPONENTS	ASSERTION (not at all characteristic 1 – somewhat characteristic 3 – very characteristic 5)	AGGRESSION (not at all characteristic 1 – somewhat characteristic 3 – very cha... 5)
(27) finger pointing	1 2 3 4 5	1 2 3 4 5
(28) medium latency in response	1 2 3 4 5	1 2 3 4 5
(29) nervous mannerisms	1 2 3 4 5	1 2 3 4 5
(30) standing less than 1½ feet away from another person while talking	1 2 3 4 5	1 2 3 4 5
(31) large gestures above one's shoulders	1 2 3 4 5	1 2 3 4 5
(32) erect stance with hands on hips	1 2 3 4 5	1 2 3 4 5
(33) firm voice	1 2 3 4 5	1 2 3 4 5
(34) shrill voice	1 2 3 4 5	1 2 3 4 5
(35) direct eye contact	1 2 3 4 5	1 2 3 4 5
(36) symetrical body position	1 2 3 4 5	1 2 3 4 5
(37) flat affect of voice	1 2 3 4 5	1 2 3 4 5
(38) relaxed posture	1 2 3 4 5	1 2 3 4 5
(39) overmodulation in voice	1 2 3 4 5	1 2 3 4 5
(40) attentive listening	1 2 3 4 5	1 2 3 4 5
(41) smiling warmly	1 2 3 4 5	1 2 3 4 5
(42) cold voice	1 2 3 4 5	1 2 3 4 5
(43) short latency in response	1 2 3 4 5	1 2 3 4 5
(44) looking down or away from the person you are talking to	1 2 3 4 5	1 2 3 4 5
(45) warm voice	1 2 3 4 5	1 2 3 4 5
(46) narrowed eyes	1 2 3 4 5	1 2 3 4 5
(47) tense voice	1 2 3 4 5	1 2 3 4 5

PERSONALITY COMPONENTS	ASSERTION (not at all characteristic 1 – somewhat characteristic 3 – very characteristic 5)	AGGRESSION (not at all characteristic 1 – somewhat characteristic 3 – very characteristic 5)
(1) overpowering	1 2 3 4 5	1 2 3 4 5
(2) forgiving	1 2 3 4 5	1 2 3 4 5
(3) supportive	1 2 3 4 5	1 2 3 4 5
(4) argumentative	1 2 3 4 5	1 2 3 4 5
(5) oppositional	1 2 3 4 5	1 2 3 4 5
(6) secure	1 2 3 4 5	1 2 3 4 5
(7) yielding	1 2 3 4 5	1 2 3 4 5
(8) self enhancing	1 2 3 4 5	1 2 3 4 5
(9) self righteous	1 2 3 4 5	1 2 3 4 5
(10) punitive	1 2 3 4 5	1 2 3 4 5
(11) responsible	1 2 3 4 5	1 2 3 4 5
(12) spontanaiety	1 2 3 4 5	1 2 3 4 5
(13) feelings of adequacy	1 2 3 4 5	1 2 3 4 5
(14) offensive	1 2 3 4 5	1 2 3 4 5
(15) alienates others	1 2 3 4 5	1 2 3 4 5
(16) gets what s/he wants	1 2 3 4 5	1 2 3 4 5
(17) confrontive	1 2 3 4 5	1 2 3 4 5
(18) caring	1 2 3 4 5	1 2 3 4 5
(19) abusive	1 2 3 4 5	1 2 3 4 5
(20) destructive	1 2 3 4 5	1 2 3 4 5
(21) ingratiating	1 2 3 4 5	1 2 3 4 5
(22) self disclosing	1 2 3 4 5	1 2 3 4 5
(23) dictatorial	1 2 3 4 5	1 2 3 4 5
(24) capable	1 2 3 4 5	1 2 3 4 5
(25) smooth interpersonal relations	1 2 3 4 5	1 2 3 4 5
(26) sarcastic	1 2 3 4 5	1 2 3 4 5
(27) self confident	1 2 3 4 5	1 2 3 4 5

PERSONALITY COMPONENTS	ASSERTION (not at all characteristic 1 – 2 – 3 – 4 – 5 very characteristic)	AGGRESSION (not at all characteristic 1 – 2 – 3 – 4 – 5 very characteristic)
(28) self respecting	1 2 3 4 5	1 2 3 4 5
(29) imposing	1 2 3 4 5	1 2 3 4 5
(30) helpless	1 2 3 4 5	1 2 3 4 5
(31) self fulfilling	1 2 3 4 5	1 2 3 4 5
(32) open-minded	1 2 3 4 5	1 2 3 4 5
(32) intimate	1 2 3 4 5	1 2 3 4 5
(33) tactless	1 2 3 4 5	1 2 3 4 5
(34) blaming	1 2 3 4 5	1 2 3 4 5
(35) vigorous	1 2 3 4 5	1 2 3 4 5
(36) integrated	1 2 3 4 5	1 2 3 4 5
(37) strained interpersonal relations	1 2 3 4 5	1 2 3 4 5
(38) determined	1 2 3 4 5	1 2 3 4 5
(39) self centered	1 2 3 4 5	1 2 3 4 5
(40) generates guilt feelings in others	1 2 3 4 5	1 2 3 4 5
(41) submissive	1 2 3 4 5	1 2 3 4 5
(42) appreciative	1 2 3 4 5	1 2 3 4 5
(43) authentic	1 2 3 4 5	1 2 3 4 5
(44) belittling	1 2 3 4 5	1 2 3 4 5
(45) dishonest	1 2 3 4 5	1 2 3 4 5
(46) creative	1 2 3 4 5	1 2 3 4 5
(47) truthful	1 2 3 4 5	1 2 3 4 5
(48) hostile	1 2 3 4 5	1 2 3 4 5
(49) encroaching	1 2 3 4 5	1 2 3 4 5
(50) anxious	1 2 3 4 5	1 2 3 4 5
(51) feels vulnerable	1 2 3 4 5	1 2 3 4 5
(52) authoritarian	1 2 3 4 5	1 2 3 4 5
(53) self reliant	1 2 3 4 5	1 2 3 4 5
(54) generates guilt feelings in others	1 2 3 4 5	1 2 3 4 5

PERSONALITY COMPONENTS

		ASSERTION	AGGRESSION
		not at all characteristic / somewhat characteristic / very characteristic	not at all characteristic / somewhat characteristic / very characteristic
(55)	self-conscious	1 2 3 4 5	1 2 3 4 5
(56)	contradicting	1 2 3 4 5	1 2 3 4 5
(57)	congruent	1 2 3 4 5	1 2 3 4 5
(58)	outgoing	1 2 3 4 5	1 2 3 4 5
(59)	angry	1 2 3 4 5	1 2 3 4 5
(60)	tolerant	1 2 3 4 5	1 2 3 4 5

RATING VERBAL STATEMENTS

THE FOLLOWING SECTION INVOLVES RATING VERBAL STATEMENTS. THEY ARE NOT PRESENTED WITHIN A SITUATIONAL CONTEXT NOR IS ANY DEGREE OF AFFECT OR EMOTIONALITY IMPLIED. RATHER, WE ARE INTERESTED IN YOUR JUDGMENT BASED ON THE ACTUAL WORDS USED IN THE SENTENCE OR THE CONTEXT OF MEANING WITHIN THE SENTENCE.

VERBAL STATEMENTS	ASSERTION (not at all characteristic 1 – 2 – 3 – 4 – 5 very characteristic)	AGGRESSION (not at all characteristic 1 – 2 – 3 – 4 – 5 very characteristic)
(1) "When I get angry, I tell the other person about his/her behavior."	1 2 3 4 5	1 2 3 4 5
(2) "Just because I'm smarter than you, doesn't mean you can't ask me a question."	1 2 3 4 5	1 2 3 4 5
(3) "I understand how you feel, but I don't feel like that."	1 2 3 4 5	1 2 3 4 5
(4) "I was going to go away this weekend, but I guess I can look after your kids."	1 2 3 4 5	1 2 3 4 5
(5) "I think you don't know what's good for you."	1 2 3 4 5	1 2 3 4 5
(6) "I see your point, but there are other solutions to this problem."	1 2 3 4 5	1 2 3 4 5
(7) "When I get angry, I tell the other person what I think of him/her."	1 2 3 4 5	1 2 3 4 5
(8) "Well, I guess that's fine. I won't be able to come to many meetings, but it fits everyone else's schedule."	1 2 3 4 5	1 2 3 4 5
(9) "Excuse me; I have to be somewhere is 15 minutes."	1 2 3 4 5	1 2 3 4 5
(10) "You really make me sick. You're the problem- you should see a psychiatrist."	1 2 3 4 5	1 2 3 4 5
(11) "I really like your shoes. Where did you get them?"	1 2 3 4 5	1 2 3 4 5
(12) "I get very angry when you leave your clothes all over the place."	1 2 3 4 5	1 2 3 4 5
(13) "I want another steak right now. I ordered it rare and it's well done."	1 2 3 4 5	1 2 3 4 5
(14) "I guess I'm just stupid. I can't figure out how to do this puzzle."	1 2 3 4 5	1 2 3 4 5
(15) "I don't really know enough to comment on that right now."	1 2 3 4 5	1 2 3 4 5
(16) "You're never around when I need you. All you think about is yourself."	1 2 3 4 5	1 2 3 4 5

VERBAL STATEMENTS	ASSERTION (Not at all characteristic 1 – Somewhat characteristic 3 – very characteristic 5)	AGGRESSION (Not at all characteristic 1 – Somewhat characteristic 3 – very characteristic 5)
(17) "If you go back to work, I'll leave you for good."	1 2 3 4 5	1 2 3 4 5
(18) "I don't really care to go out this evening. I'm too tired. Well...I can watch you eat, I guess. Alright, I'll go....."	1 2 3 4 5	1 2 3 4 5
(19) "I don't understand why you would say that. I feel that I have been doing my share of the work. Could you explain how you feel?"	1 2 3 4 5	1 2 3 4 5
(20) "If you think I'm going to give up this promotion to make you happy, you're crazy."	1 2 3 4 5	1 2 3 4 5

COMMENTS ON SCALE

(1) Items:

(2) Scale Points:

(3) Additions:

(4) Deletions:

(5) Organization of Scale:

(6) Other comments: (e.g. instructions, etc.)

DID YOU MARK G (Good Items) AND A (Ambiguous Items)?

TIME YOU TOOK TO COMPLETE THE SCALE: _____

APPENDIX H

MEANS AND STANDARD DEVIATIONS FOR PILOT SCALE ITEMS FOR ASSERTIVENESS TRAINERS PARTICIPATING IN THE PRE-TEST

FACET ONE - VERBAL BEHAVIOR

Means and Standard Deviations for Ratings on Assertion and Aggression: Verbal Behavior

Item	Assertion Mean	Aggression Mean	Assertion Standard Deviation	Aggression Standard Deviation
(1) giving negative feedback	4.07	4.13	1.28	1.25
(2) verbally insulting another	1.00	5.00	0	0
(3) using words which convey superiority	1.20	4.53	.41	.74
(4) frequently using the word 'You'	1.60	4.47	.91	.64
(5) expressing hostility	1.67	4.80	.98	.56
(6) stating feelings honestly	4.80	2.47	.56	.92
(7) using 'loaded' or 'blaming' words	1.07	5.00	.26	0
(8) sending 'I' messages	4.73	2.40	1.03	1.12
(9) making angry demand	1.47	4.80	1.13	.56
(10) directly asking others to change behavior which you find offensive	4.00	2.67	1.78	1.40
(11) answering for another person	1.20	3.80	.41	1.20
(12) disagreeing actively	4.47	3.93	.83	1.28
(13) not able to maintain control of a conversation	1.40	2.13	.83	1.06
(14) asking for favors	3.33	2.93	1.40	1.40
(15) making direct statements	5.00	2.67	0	1.30
(16) asking open-ended questions	3.33	2.26	1.68	1.22

FACET ONE - VERBAL BEHAVIOR (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(17) verbally discounting another person	1.00	5.00	0	0
(18) speaking with disregard for others rights	4.20	3.13	1.42	1.13
(19) able to say 'no' without feeling guilty	4.20	3.13	1.42	1.13
(20) expressing agreement when praised	3.93	3.13	1.43	1.19
(21) making verbal accusations	1.13	4.86	.35	.35
(22) asking "why?" for clarification	2.60	3.07	1.80	1.49
(23) exclamations of irritation and disgust	1.73	4.87	.80	.35
(24) speaking without pauses or filler words (e.g. um, ah)	4.07	3.27	1.33	1.34
(25) direct statement of wants	4.73	2.93	.59	1.10
(26) speaking critically of another person	1.73	4.67	.89	.49
(27) using the word 'I' frequently	4.27	2.67	.96	.82
(28) direct expressional feelings	4.60	2.33	.91	1.05
(29) standing up for rights dishonestly	1.00	4.47	0	.83
(30) saying "you're wrong" frequently	1.00	4.87	0	.35
(31) accepting compliments	4.93	2.60	.26	.91

FACET ONE - VERBAL BEHAVIOR (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(32) verbal derogation of another person	1.00	4.93	0	.26
(33) giving compliments	4.53	1.73	.92	.80
(34) expressing negative feelings	4.20	4.73	1.21	.59
(35) name calling	1.27	5.00	1.03	0
(36) talking about yourself	3.73	3.27	1.03	.96
(37) making commendatory statements	4.20	1.93	1.27	1.16
(38) terminating conversations	4.20	4.07	.86	.88
(39) disagreeing passively	1.07	2.67	.26	1.80
(40) not able to say 'no' without feeling guilty	1.40	2.80	1.06	1.47
(41) asking for a reason	4.00	3.33	1.31	1.18
(42) justifying your opinion	2.33	3.27	1.35	1.39
(43) making requests of others	4.53	2.80	.64	1.21
(44) maintaining control of conversations	2.87	4.00	1.41	1.20
(45) statements intended to rectify a situation	3.07	2.20	1.28	1.52
(46) saying "no" and offering no reasons for refusal when the situation requires this	2.40	4.40	1.81	1.06
(47) frequently using pauses or filler words (e.g. um, ah)	1.60	2.20	1.06	1.27

FACET ONE - VERBAL BEHAVIOR (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(48) making statements of anger	4.13	3.73	1.06	1.49
(49) expressing negative feelings	4.33	4.40	1.18	.83
(50) using words which convey inferiority	1.07	3.80	.26	1.70
(51) using objective words	4.00	2.13	1.31	1.55
(52) flippant speech style	1.40	3.73	1.12	1.28

FACET TWO - BEHAVIORAL COMPONENTS

Means and Standard Deviations for Ratings on Assertion and Aggression: Behavioral Components

Item	Assertion Mean	Aggression Mean	Assertion Standard Deviation	Aggression Standard Deviation
(1) directly faces the person being spoken to	5.00	3.80	0	1.21
(2) asymetrical body position	1.93	3.27	1.39	1.33
(3) allows others to finish talking	4.53	1.13	.64	.35
(4) sneering	1.00	4.87	0	.35
(5) 'staring' eyes	1.13	4.60	.35	.74
(6) expressionless eyes	1.13	2.47	.35	1.69
(7) relaxed voice	4.73	1.27	.59	.80
(8) standing erect with feet apart	3.93	3.13	1.49	1.46
(9) stiff body posture	1.13	4.13	.35	.92
(10) assured composure	4.87	2.40	.35	1.40
(11) quiet voice	2.33	1.73	1.54	.80
(12) standing 1½-3 feet from another person while talking	3.60	2.53	1.30	1.06
(13) sarcastic smiling	1.20	4.26	.78	1.16
(14) loud voice	2.00	4.20	1.25	1.42
(15) evenly paced rate of speech	4.53	1.87	.74	1.13
(16) speaking voice puts the other person at ease	4.13	1.53	1.30	1.25
(17) abrupt gestures	1.60	3.67	1.40	1.68

FACET TWO - BEHAVIORAL COMPONENTS (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(18) erect posture	4.53	2.73	.64	1.22
(19) relaxed hand motions	4.67	1.67	.72	1.18
(20) well balanced posture	4.40	1.93	1.40	1.39
(21) fist pounding	1.40	4.13	1.12	1.55
(22) well modulated voice	4.53	1.40	1.13	1.06
(23) 'holding self' while speaking	1.33	2.40	.90	1.40
(24) prolonged eye contact	2.80	3.53	1.42	1.46
(25) minimal eye contact while talking with the other person	1.40	3.20	.91	1.42
(26) expansive gestures	2.27	3.60	1.22	1.40
(27) finger pointing	1.53	4.47	1.40	1.25
(28) medium latency in voice	3.40	1.47	1.60	1.00
(29) nervous mannerisms	1.07	3.27	.26	1.16
(30) standing less than 1½ feet away from another person while talking	1.73	3.93	.88	1.28
(31) large gestures above one's shoulders	1.73	3.47	1.10	1.46
(32) erect stance with hands on hips	1.80	4.20	1.42	1.15
(33) firm voice	4.73	3.07	1.03	1.16
(34) shrill voice	1.33	4.60	1.18	1.06
(35) direct eye contact	4.93	3.13	.26	1.36
(36) symetrical body position	4.07	2.20	1.34	.94
(37) flat affect of voice	1.27	2.53	1.03	1.13

FACET TWO - BEHAVIORAL COMPONENTS (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(38) relaxed posture	4.47	1.60	1.25	1.18
(39) overmodulation in voice	1.53	4.33	1.41	.98
(40) attentive listening	4.40	1.00	1.18	0
(41) smiling warmly	3.73	1.40	1.71	.83
(42) cold voice	1.40	4.40	.63	.91
(43) short latency in response	2.40	3.93	1.45	1.53
(44) looking down or away from the person you are talking to	1.47	2.60	1.25	1.35
(45) warm voice	4.33	1.33	1.11	1.11
(46) narrowed eyes	1.07	4.60	.26	.63
(47) tense voice	1.07	4.13	.46	1.36

FACET THREE - PERSONALITY COMPONENTS

Means and Standard Deviations for Ratings on
Assertion and Aggression: Personality Components

Item	Assertion Mean	Aggression Mean	Assertion Standard Deviation	Aggression Standard Deviation
(1) overpowering	1.00	4.93	0	.26
(2) forgiving	3.87	1.20	1.13	.56
(3) supportive	4.07	1.07	1.03	.26
(4) argumentative	1.20	4.53	.56	1.13
(5) oppositional	1.80	4.40	.94	1.60
(6) secure	4.53	1.73	.74	.88
(7) yielding	2.53	1.20	1.19	.78
(8) self-enhancing	3.60	3.20	1.45	1.57
(9) self-righteous	1.33	4.80	.35	.56
(10) punitive	1.27	4.60	1.03	1.21
(11) responsible	5.00	1.67	0	.82
(12) spontaneity	4.60	3.47	.63	1.30
(13) feelings of adequacy	4.80	1.67	.41	.90
(14) offensive	1.07	4.93	.26	.26
(15) alienates others	1.53	5.00	.74	0
(16) gets what he/she wants	3.33	3.47	1.29	1.41
(17) confrontive	3.07	4.53	1.16	.83
(18) caring	4.47	1.60	.83	1.18

FACET THREE - PERSONALITY COMPONENTS (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(19) abusive	1.00	4.87	0	.35
(20) destructive	1.13	4.87	.35	.35
(21) ingratiating	1.40	1.67	1.06	.90
(22) self-disclosing	4.20	2.13	1.15	1.25
(23) dictatorial	1.00	4.80	0	.56
(24) capable	4.60	2.87	.83	.83
(25) smooth interpersonal relations	4.47	1.33	.74	.62
(26) sarcastic	1.20	4.67	.41	.72
(27) self-confident	4.87	2.27	.35	1.03
(28) self-respecting	4.87	2.07	.35	1.10
(29) imposing	1.53	4.80	.74	.41
(30) helpless	1.00	1.67	0	.72
(31) self-fulfilling	4.60	2.33	.63	1.18
(32) open-minded	4.80	1.20	.41	.41
(33) intimate	3.93	1.40	1.49	1.06
(34) tactless	1.13	4.93	.35	.26
(35) blaming	1.00	5.00	0	0
(36) vigorous	3.87	4.07	.83	.88
(37) integrated	4.93	1.47	.26	.64
(38) strained interpersonal relations	1.27	4.93	.59	.26
(39) determined	4.20	4.07	.78	1.16

FACET THREE - PERSONALITY COMPONENTS (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(40) self-centered	2.27	4.80	1.44	.56
(41) generates guilt feelings in others	1.20	4.80	.56	.78
(42) submissive	1.00	1.20	0	.56
(43) appreciative	4.53	1.27	.64	.46
(44) authentic	4.93	1.80	.26	1.08
(45) belittling	1.00	4.87	0	.35
(46) dishonest	1.13	3.40	.35	1.24
(47) creative	3.53	2.60	1.19	.91
(48) truthful	4.33	2.47	1.11	1.06
(49) hostile	1.07	4.93	.26	.26
(50) encroaching	1.07	5.00	.26	0
(51) anxious	1.40	3.60	.51	.99
(52) feels vulnerable	2.40	3.53	.99	1.25
(53) authoritarian	1.00	4.93	0	.26
(54) self-reliant	4.93	2.67	.26	1.18
(55) generates guilt feelings in others	1.00	4.33	.38	1.40
(56) self-conscious	1.73	2.67	.96	.82
(57) contradicting	1.13	4.13	.52	1.13
(58) congruent	4.87	1.73	.35	.80

FACET THREE - PERSONALITY COMPONENTS (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(59) outgoing	4.07	3.60	.88	.91
(60) angry	1.87	4.80	.92	.56
(61) tolerant	4.27	1.47	1.22	1.06

FACET FOUR - VERBAL STATEMENTS

Means and Standard Deviations for Ratings on Assertion and Aggression: Verbal Statements

Item		Assertion Mean	Aggression Mean	Assertion Standard Deviation	Aggression Standard Deviation
(1)	"When I get angry, I tell the other person about his/her behavior"	3.73	3.93	1.68	1.33
(2)	"Just because I'm smarter than you, doesn't mean you can't ask me a question"	1.07	4.20	.46	1.32
(3)	"I understand how you feel, but I don't feel like that"	4.93	1.27	.26	.80
(4)	"I was going to go away this weekend, but I guess I can look after your kids"	1.13	1.87	.35	1.36
(5)	"I think you don't know what's good for you"	1.53	4.33	1.13	1.11
(6)	"I see your point, but there are other solutions to this problem"	4.33	1.47	1.11	.74
(7)	"When I get angry, I tell the other person what I think of him/her"	1.73	4.53	1.16	1.06
(8)	"Well, I guess that's fine. I won't be able to come to many meetings, but it fits everyone else's schedule"	1.67	1.93	1.23	1.22
(9)	"Excuse me; I have to be somewhere in 10 minutes	4.53	1.60	1.06	.74

FACET FOUR - VERBAL STATEMENTS (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(10) "You really make me sick - you're the problem - you should see a psychiatrist"	1.00	4.73	0	1.03
(11) "I really like your shoes. Where did you get them?"	4.27	1.67	.88	.82
(12) "I get very angry when you leave your clothes all over the place"	4.60	1.73	.63	1.03
(13) "I want another steak right now. I ordered it rare and it's well done"	2.33	4.13	1.23	.99
(14) "I guess I'm just stupid. I can't figure out how to do this puzzle"	1.20	1.33	.56	.72
(15) "I don't really know enough to comment on that right now"	4.80	1.20	.41	.41
(16) "You're never around when I need you. All you think about is yourself"	1.13	4.73	.52	.70
(17) "If you go back to work, I'll leave you for good"	1.40	4.87	.83	.35
(18) "I don't really care to go out this evening. I'm too tired. Well .. I can watch you eat, I guess. Alright, I'll go ... "	1.00	1.60	0	1.18
(19) "I don't understand why you would say that, I feel that I have been doing my share of the work. Could you explain how you feel"	4.53	1.40	.83	.91

FACET FOUR - VERBAL STATEMENTS (continued)

Item	Assertion Mean	Aggression Mean	Assertion S.D.	Aggression S.D.
(20) "If you think I'm going to give up this promotion to make you happy, you're crazy"	1.00	5.00	0	0

APPENDIX I

-- FINAL SCALE --

SENT TO

ASSERTIVENESS TRAINERS/RESEARCHERS

IDENTIFICATION NUMBER

4G

INSTRUCTIONS FOR USING THE RATING SCALE

PLEASE READ THIS PAGE CAREFULLY BEFORE BEGINNING TO RATE ITEMS

The rating procedure involves making a decision as to how characteristic an item is of assertion (or aggression) , and then placing a circle around the appropriate scale point. In our data analysis, your responses to the same item on both the ASSERTION and AGGRESSION scales will be compared. Thus, it is important that each item on the scale be rated.

HOW TO USE THE SCALES:

ASSERTION

	not at all		somewhat		very
(A) if you think the item is VERY CHARACTERISTIC of ASSERTION, your rating would be:	1	2	3	4	(5)
(B) if you think the item is NOT AT ALL CHARACTERISTIC of ASSERTION , your rating would be:	(1)	2	3	4	5
(C) if you feel the item is SOMEWHAT CHARACTERISTIC of ASSERTION , your rating would be:	1	2	(3)	4	5

(D) if you feel the item deserves a 2 or a 4 , you would circle the appropriate scale point.

THE SAME PROCEDURE IS USED FOR RATING ITEMS ON THE AGGRESSION SCALE.

You will notice the items are not presented in a situational context, but are rather descriptors of personality, behavioral and verbal characteristics. Thus, your rating for each item should be based on HOW CHARACTERISTIC you feel each item is of assertion or aggression.

WHEN BEGINNING A NEW PAGE, PLEASE CHECK TO SEE WHICH SCALE IS BEING USED TO RATE ITEMS (ASSERTION OR AGGRESSION).

ON THIS PAGE, PLEASE RATE VERBAL BEHAVIORS FOR:

	ASSERTION				
	not at all		somewhat		very
(1) speaker makes derogatory statements about self	1	2	3	4	5
(2) answering for another person	1	2	3	4	5
(3) making demands of others	1	2	3	4	5
(4) unable to say 'no' without feeling guilty	1	2	3	4	5
(5) speaking without pauses or filler words (e.g. um, ah)	1	2	3	4	5
(6) frequently using the word "you"	1	2	3	4	5
(7) speaking voice puts others at ease	1	2	3	4	5
(8) asking "why?" for clarification	1	2	3	4	5
(9) sending "I" messages	1	2	3	4	5
(10) speaking with disregard for others' rights	1	2	3	4	5
(11) making objective statements about anger	1	2	3	4	5
(12) name calling	1	2	3	4	5
(13) making direct statements	1	2	3	4	5
(14) responding with a clever put down when someone insults you	1	2	3	4	5
(15) expressing hostility	1	2	3	4	5
(16) able to say 'no' without feeling guilty	1	2	3	4	5

ON THIS PAGE, PLEASE RATE VERBAL BEHAVIORS FOR:

	ASSERTION				
	not at all		somewhat		very
(17) directly asking others to change behavior which you find offensive	1	2	3	4	5
(18) using the word "I" very frequently	1	2	3	4	5
(19) verbally discounting another person	1	2	3	4	5
(20) frequently using pauses or filler words (e.g. um, ah)	1	2	3	4	5
(21) stating feelings honestly	1	2	3	4	5
(22) using words which blame another	1	2	3	4	5
(23) speaking critically of another person when they are not present	1	2	3	4	5
(24) well modulated voice	1	2	3	4	5
(25) loud voice	1	2	3	4	5
(26) direct statement of wants	1	2	3	4	5
(27) direct expression of feelings	1	2	3	4	5
(28) making verbal accusations	1	2	3	4	5
(29) giving and accepting sincere compliments	1	2	3	4	5
(30) spontaneous exclamations of irritation and disgust at another person	1	2	3	4	5

ON THIS PAGE, PLEASE RATE BEHAVIORAL COMPONENTS FOR:

ASSERTION

	not at all		somewhat		very
(1) abrupt gestures	1	2	3	4	5
(2) minimal eye contact with other person	1	2	3	4	5
(3) sarcastic smiling	1	2	3	4	5
(4) finger pointing	1	2	3	4	5
(5) erect stance with hands on hips	1	2	3	4	5
(6) attentive listening	1	2	3	4	5
(7) standing or sitting with stooped shoulders	1	2	3	4	5
(8) fist pounding	1	2	3	4	5
(9) smiling warmly	1	2	3	4	5
(10) directly faces the person being spoken to	1	2	3	4	5
(11) standing erect with feet apart	1	2	3	4	5
(12) direct eye contact with other person	1	2	3	4	5
(13) allows others to finish talking	1	2	3	4	5

ON THIS PAGE, PLEASE RATE BEHAVIORAL COMPONENTS FOR:

ASSERTION

	not at all		somewhat		very
(14) prolonged eye contact	1	2	3	4	5
(15) assured composure	1	2	3	4	5
(16) relaxed posture	1	2	3	4	5
(17) expansive gestures	1	2	3	4	5
(18) nervous mannerisms	1	2	3	4	5
(19) narrowed eyes	1	2	3	4	5
(20) stiff body posture	1	2	3	4	5
(21) relaxed hand motions	1	2	3	4	5
(22) sneering	1	2	3	4	5

ON THIS PAGE, PLEASE RATE PERSONALITY TRAITS FOR:

ASSERTION

	not at all		somewhat		very
(1) offensive	1	2	3	4	5
(2) abusive	1	2	3	4	5
(3) self-confident	1	2	3	4	5
(4) appreciative	1	2	3	4	5
(5) integrated	1	2	3	4	5
(6) yielding	1	2	3	4	5
(7) anxious	1	2	3	4	5
(8) forgiving	1	2	3	4	5
(9) secure	1	2	3	4	5
(10) authoritative	1	2	3	4	5
(11) spontaneous	1	2	3	4	5
(12) destructive	1	2	3	4	5
(13) chronically angry	1	2	3	4	5
(14) encroaching	1	2	3	4	5
(15) supportive	1	2	3	4	5
(16) self-righteous	1	2	3	4	5

ON THIS PAGE, PLEASE RATE PERSONALITY TRAITS FOR:

ASSERTION

	not at all		somewhat		very
(17) tolerant	1	2	3	4	5
(18) submissive	1	2	3	4	5
(19) belittling	1	2	3	4	5
(20) tactless	1	2	3	4	5
(21) self-disclosing	1	2	3	4	5
(22) self-respecting	1	2	3	4	5
(23) open-minded	1	2	3	4	5
(24) argumentative	1	2	3	4	5
(25) caring	1	2	3	4	5
(26) forceful	1	2	3	4	5
(27) helpless	1	2	3	4	5
(28) imposing	1	2	3	4	5
(29) intimate	1	2	3	4	5
(30) blaming	1	2	3	4	5
(31) responsible	1	2	3	4	5
(32) punitive	1	2	3	4	5

VERBAL STATEMENTS

THIS SECTION INVOLVES RATING VERBAL STATEMENTS. THEY ARE NOT PRESENTED WITHIN A SITUATIONAL CONTEXT, NOR IS ANY DEGREE OF AFFECT OR EMOTIONALITY IMPLIED. RATHER, WE ARE INTERESTED IN YOUR JUDGMENT BASED ON THE ACTUAL WORDS USED IN THE SENTENCE AND THE CONTEXT OF MEANING WITHIN THE SENTENCE.

	ASSERTION				
	not at all		somewhat		very
(1) "I don't understand why you would say that. I feel that I have been doing as much work as you. Can you explain how you feel?"	1	2	3	4	5
(2) "I think you don't know what's good for you."	1	2	3	4	5
(3) "Excuse me; I have to go now."	1	2	3	4	5
(4) "I want another steak right now. I ordered it rare and it's well done."	1	2	3	4	5
(5) "I understand how you feel, but I don't feel like that."	1	2	3	4	5
(6) "You're the problem--you need to see a psychiatrist."	1	2	3	4	5
(7) "I don't really know enough about that to comment right now."	1	2	3	4	5
(8) "You did a fantastic job at the meeting."	1	2	3	4	5
(9) "I better not go shopping with you...Well, you know how upset my friend gets when I spend my money..."	1	2	3	4	5
(10) "Just because I'm smarter than you doesn't mean you can't ask me a question."	1	2	3	4	5

VERBAL STATEMENTS

		ASSERTION				
		not at all		somewhat		very
(11)	"I get very angry when you leave your clothes all over the place."	1	2	3	4	5
(12)	"I'm really too tired to go out tonight. Well... I can watch you eat, I guess...Alright...I'll go."	1	2	3	4	5
(13)	"I really like your shoes. Where did you get them?	1	2	3	4	5
(14)	"If you think I'm going to give up this promotion to make you happy, you're wrong."	1	2	3	4	5
(15)	"I guess I'm just stupid. I never seem to do anything right."	1	2	3	4	5
(16)	"I see your point, but there are other solutions to the problem."	1	2	3	4	5
(17)	"You shouldn't have called me stupid. If anyone's stupid, it's you."	1	2	3	4	5
(18)	"You're never around when I need you. All you ever think about is yourself."	1	2	3	4	5
(19)	"I would prefer going to the movies tonight rather than to the concert."	1	2	3	4	5
(20)	"I want to go shopping right now. I don't care if you're busy."	1	2	3	4	5

ON THIS PAGE, PLEASE RATE VERBAL BEHAVIORS FOR:

AGGRESSION

	not at all		somewhat		very
(1) directly asking others to change behavior which you find offensive	1	2	3	4	5
(2) using the word "I" very frequently	1	2	3	4	5
(3) verbally discounting another person	1	2	3	4	5
(4) able to say 'no' without feeling guilty	1	2	3	4	5
(5) making demands of others	1	2	3	4	5
(6) speaking voice puts others at ease	1	2	3	4	5
(7) well modulated voice	1	2	3	4	5
(8) speaking with disregard for others' rights	1	2	3	4	5
(9) frequently using pauses or filler words (e.g. um, ah)	1	2	3	4	5
(10) answering for another person	1	2	3	4	5
(11) name calling	1	2	3	4	5
(12) expressing hostility	1	2	3	4	5
(13) responding with a clever put down when someone insults you	1	2	3	4	5
(14) unalbe to say 'no' without feeling guilty	1	2	3	4	5
(15) using words which blame another	1	2	3	4	5
(16) making direct statements	1	2	3	4	5
(17) loud voice	1	2	3	4	5

ON THIS PAGE, PLEASE RATE VERBAL BEHAVIORS FOR:

AGGRESSION

	not at all		somewhat		very
(18) direct statement of wants	1	2	3	4	5
(19) making objective statements about anger	1	2	3	4	5
(20) direct expression of feelings	1	2	3	4	5
(21) speaking without pauses or filler words (e.g. um, ah)	1	2	3	4	5
(22) stating feelings honestly	1	2	3	4	5
(23) giving and accepting sincere compliments	1	2	3	4	5
(24) speaker makes derogatory statements about self	1	2	3	4	5
(25) making verbal accusations	1	2	3	4	5
(26) asking "why?" for clarification	1	2	3	4	5
(27) speaking critically of another person when they are not present	1	2	3	4	5
(28) sending "I" messages	1	2	3	4	5
(29) frequently using the word "you"	1	2	3	4	5
(30) spontaneous exclamations of irritation and disgust at another person	1	2	3	4	5

ON THIS PAGE, PLEASE RATE BEHAVIORAL COMPONENTS FOR:

AGGRESSION

	not at all		somewhat		very
(1) fist pounding	1	2	3	4	5
(2) allows others to finish talking	1	2	3	4	5
(3) sarcastic smiling	1	2	3	4	5
(4) attentive listening	1	2	3	4	5
(5) erect stance with hands on hips	1	2	3	4	5
(6) stiff body posture	1	2	3	4	5
(7) assured composure	1	2	3	4	5
(8) prolonged eye contact	1	2	3	4	5
(9) direct eye contact with other person	1	2	3	4	5
(10) minimal eye contact with other person	1	2	3	4	5
(11) standing erect with feet apart	1	2	3	4	5
(12) standing or sitting with stooped shoulders	1	2	3	4	5
(13) relaxed posture	1	2	3	4	5
(14) expansive gestures	1	2	3	4	5

ON THIS PAGE, PLEASE RATE BEHAVIORAL COMPONENTS FOR:

AGGRESSION

	not at all		somewhat		very
(15) finger pointing	1	2	3	4	5
(16) nervous mannerisms	1	2	3	4	5
(17) directly faces the person being spoken to	1	2	3	4	5
(18) relaxed hand motions	1	2	3	4	5
(19) smiling warmly	1	2	3	4	5
(20) abrupt gestures	1	2	3	4	5
(21) sneering	1	2	3	4	5
(22) narrowed eyes	1	2	3	4	5

ON THIS PAGE, PLEASE RATE PERSONALITY TRAITS FOR:

AGGRESSION

	not at all		somewhat		very
(1) caring	1	2	3	4	5
(2) punitive	1	2	3	4	5
(3) self-righteous	1	2	3	4	5
(4) supportive	1	2	3	4	5
(5) abusive	1	2	3	4	5
(6) imposing	1	2	3	4	5
(7) destructive	1	2	3	4	5
(8) blaming	1	2	3	4	5
(9) intimate	1	2	3	4	5
(10) forgiving	1	2	3	4	5
(11) integrated	1	2	3	4	5
(12) open-minded	1	2	3	4	5
(13) self-disclosing	1	2	3	4	5
(14) spontaneous	1	2	3	4	5
(15) yielding	1	2	3	4	5
(16) secure	1	2	3	4	5

ON THIS PAGE, PLEASE RATE PERSONALITY TRAITS FOR:

AGGRESSION

	not at all		somewhat		very
(17) argumentative	1	2	3	4	5
(18) responsible	1	2	3	4	5
(19) tactless	1	2	3	4	5
(20) chronically angry	1	2	3	4	5
(21) anxious	1	2	3	4	5
(22) appreciative	1	2	3	4	5
(23) self-confident	1	2	3	4	5
(24) belittling	1	2	3	4	5
(25) offensive	1	2	3	4	5
(26) forceful	1	2	3	4	5
(27) submissive	1	2	3	4	5
(28) encroaching	1	2	3	4	5
(29) self-respecting	1	2	3	4	5
(30) authoritative	1	2	3	4	5
(31) helpless	1	2	3	4	5
(32) tolerant	1	2	3	4	5

VERBAL STATEMENTS

THIS SECTION INVOLVES RATING VERBAL STATEMENTS. THEY ARE NOT PRESENTED WITHIN A SITUATIONAL CONTEXT, NOR IS ANY DEGREE OF AFFECT OR EMOTIONALITY IMPLIED. RATHER, WE ARE INTERESTED IN YOUR JUDGMENT BASED ON THE ACTUAL WORDS USED IN THE SENTENCE AND THE CONTEXT OF MEANING WITHIN THE SENTENCE.

AGGRESSION

	not at all		somewhat		very
(1) "I want another steak right now. I ordered it rare and it's well done."	1	2	3	4	5
(2) "I guess I'm just stupid. I never seem to do anything right."	1	2	3	4	5
(3) "I better not go shopping with you...Well, you know how upset my friend gets when I spend my money..."	1	2	3	4	5
(4) "If you think I'm going to give up this promotion to make you happy, you're wrong."	1	2	3	4	5
(5) "I think you don't know what's good for you."	1	2	3	4	5
(6) "Just because I'm smarter than you doesn't mean you can't ask me a question."	1	2	3	4	5
(7) "You did a fantastic job at the meeting."	1	2	3	4	5
(8) "I understand how you feel, but I don't feel like that."	1	2	3	4	5
(9) "I see your point, but there are other solutions to the problem."	1	2	3	4	5
(10) "You shouldn't have called me stupid. If anyone is stupid, it's you."	1	2	3	4	5

VERBAL STATEMENTS

		AGGRESSION				
		not at all		somewhat		very
(11)	"I don't understand why you would say that. I feel that I have been doing as much work as you. Can you explain how you feel?"	1	2	3	4	5
(12)	"Excuse me; I have to go now."	1	2	3	4	5
(13)	"You're never around when I need you. All you think about is yourself."	1	2	3	4	5
(14)	"I really like your shoes. Where did you get them?"	1	2	3	4	5
(15)	"I would prefer going to the movies tonight rather than to the concert."	1	2	3	4	5
(16)	"I don't really know enough about that to comment right now."	1	2	3	4	5
(17)	"You're the problem--you need to see a psychiatrist."	1	2	3	4	5
(18)	"I want to go shopping right now. I don't care if you're busy."	1	2	3	4	5
(19)	"I'm really too tired to go out tonight. Well...I can watch you eat, I guess... Alright...I'll go."	1	2	3	4	5
(20)	"I get very angry when you leave your clothes all over the place."	1	2	3	4	5

APPENDIX J

BIODEMOGRAPHIC CHARACTERISTICS OF THE IDENTIFIED POPULATION

(Provided by Those Who Completed and Returned the Demographic Information Sheet)

BIODEMOGRAPHIC CHARACTERISTICS OF THE IDENTIFIED POPULATION

The following information was provided by those who completed and returned the Demographic Information Sheet (Appendix E).

Question 3 Highest Degree Held

	Count	Relative Frequency (%)
None	13	4.4
B.A. or equivalent	38	12.9
M.A. or equivalent	149	50.5
Ph.D. or equivalent	74	25.1
No response	21	7.1
	295*	100

* Number of individuals involved in training or research

Question 4 Age Bracket

	Count	Relative Frequency (%)
Below 20	0	0
20-30	73	24.7
30-40	150	50.8
40-50	51	17.3
50-60	14	4.7
Over 60	1	0.3
No response	6	2.0
	295	100

Question 5 Major Occupation

	Count	Relative Frequency (%)
Psychologist	101	32.2
Doctor	0	0
Counsellor	81	25.8
Private Practice	10	3.2
Psychiatrist	4	1.3
Social Worker	32	10.2
Professor	25	8.0
Other:[a]	61	19.4
	314*	100

* Multiple response question

[a] Content categories of "other"; only those categories with $n \geq 2$ are included

	Count
Other:	
Consultant/trainer	20
Nurse	7
Physiotherapist	6
Teacher	6
Educational Administrator	5
Industrial Consultant	2

Question 6 Major Employment Agency

	Count	Relative Frequency (%)
University	97	29.7
School Board	12	3.7
Federal Government	12	3.7
Other:[a]	52	15.9
College	49	15.0
Provincial Government	66	20.2
Private Counselling Agency	39	11.9
	327*	100

* Multiple response question

[a] Content categories of "other"; only those categories with $n \geq 2$ are included

	Count
Hospital	29
Private Practice	14
YWCA	6

Question 7 Sex

	Count	Relative Frequency (%)
Male	102	34.6
Female	193	65.4
	295	100

Question 8 Are you (have you been) involved in assertiveness training?

	Count	Relative Frequency (%)
Yes	288	34.4
No	19	65.6
	307	100

Question 9 If yes to Question 8, how long have you been involved?

	Count	Relative Frequency (%)
Less than 1 year	35	12.2
1-3 years	160	55.6
4-6 years	81	28.1
Over 6 years	10	3.5
No response	2	0.7
	288	100

Question 10 If yes to Question 8, where did you learn about teaching assertiveness?

	Count	Relative Frequency (%)
By reading books	252	47.0
A professor taught me	65	12.1
An "AT" expert taught me	111	20.7
Other:[a]	108	20.1
	536*	100

* Multiple response question

[a] Content categories of "other"; only those categories with n ≥ 2 are included

	Count
Workshop participant	34
Assertiveness trainers workshop	10
Colleague	8
Co-leader of workshops	7
Courses	7

Question 11 If yes to Question 8, approximate number of workshops conducted.

	Count	Relative Frequency (%)
Less than 5	94	32.6
5-14	97	33.7
15-25	46	16.0
25-40	26	9.0
Over 40	14	4.9
No response	11	3.8
	288	100

Question 12 If yes to Question 8, most of my involvement as a trainer has been with:

	Count	Relative Frequency (%)
Female	176	61.1
Male	21	7.3
Equal Proportion	82	28.5
No response	9	3.1
	288	100

Question 13 — If yes to Question 8, most of my involvement as a trainer has been with:

	Count	Relative Frequency (%)
Groups	214	74.3
Individuals	19	6.6
Equal Proportion	52	18.1
No response	3	1.0
	288	100

Question 14(a) — If yes to Question 8, have you found that clients have difficulty differentiating assertion from aggression?

	Count	Relative Frequency (%)
Yes	196	68.1
No	78	27.1
No response	14	4.9
	288	100

Question 14(b) — If yes to Question 14(a), what proportion of clients have difficulty?

	Count	Relative Frequency (%)
0-20%	38	19.4
20-40%	46	23.5
40-60%	51	26.0
60-80%	40	20.4
80-100%	15	7.7
No response	6	3.1
	196	100

Question 15 Are you (have you been) involved in research on assertion?

	Count	Relative Frequency (%)
Yes	81*	27.5
No	214	72.5
	295	100

* 74/81 individuals are involved in training and research; 7 are involved in research only.

Question 16 If yes to Question 15, how long have you been involved in research on assertion?

	Count	Relative Frequency (%)
Less than 1 year	19	23.5
1-3 years	51	62.9
4-6 years	11	13.6
Over 6 years	0	0
	81	100

Question 17 What type of research have you been involved in?

As the type of research was highly diversified, a content analysis was conducted to form the following categories. Many respondents did not explicitly state the specific type of research, and were thus not categorized.

	Count
Research methods and outcomes	5
Evaluation of assertiveness training programs	12
Psychometric	4
Uncategorized	60
	81

Question 18 Book or journal articles published or unpublished

	Count
Journal Articles	23
Books	4
Thesis	5
Teaching Manual	1

APPENDIX K

RESULTS OF CROSSTABULATIONS BETWEEN RESPONDENTS AND NONRESPONDENTS TO SCALE ON INFORMATION SHEET VARIABLES

Table K.1.

Return by Highest Degree Held

Returned Data		Highest Degree Held					
		No Degree	B.A.	M.A.	PhD.	No Response	Total n
No	f	3	10	43	22	4	82
	%	3.7	12.2	52.4	26.8	4.9	
Yes	f	10	25	96	50	15	196
	%	5.1	12.8	49.0	25.5	7.7	
Total	f	13	35	139	72	19	278
	%	4.7	12.6	50.0	25.9	6.8	

Table K.2.

Return by Age

Returned Data		Age						
		20-30	30-40	40-50	50-60	Over 60	No Response	Total
No	f	16	48	11	3	1	3	82
	%	19.5	58.5	13.4	3.7	1.2	3.7	
Yes	f	53	95	36	9	0	3	196
	%	27.0	48.5	18.4	4.6	0.0	1.5	
Total	f	69	143	47	12	1	6	278
	%	24.8	51.4	16.9	4.3	0.4	2.2	

Table K.3.

Return by Major Occupation

Returned Data		Major Occupation								
		Psychol-ogist	Counsellor	Private Practice	Psychi-atrist	Social Worker	Professor	Other	No Response	Total
No	f	27	25	2	1	3 8	7	16	78	164
	%	16.5	15.2	1.2	0.6	4.9	4.3	9.8	47.6	
Yes	f	68	48	7	3	24	18	45	179	392
	%	17.3	12.2	1.8	0.8	6.1	4.6	11.5	45.7	
Total	f	95	73	9	4	32	25	61	257	556
	%	17.1	13.1	1.6	0.7	5.8	4.5	11.0	46.2	

Table K.4.

Return by Major Employment Agency

Returned Data		Major Employment Agency								
		University	School Board	Federal Government	Other	College	Provincial Government	Private Counselling Agency	No Response	Total
No	f	29	4	0	18	13	12	11	77	164
	%	17.7	2.4	0.0	11.0	7.9	7.3	6.7	47.0	
Yes	f	63	7	12	31	31	54	24	170	392
	%	16.1	1.8	3.1	7.9	7.9	13.8	6.1	43.4	
Total	f	92	11	12	49	44	66	35	247	556
	%	16.5	2.0	2.2	8.8	7.9	11.9	6.3	44.4	

Table K.5.

Return by Sex of Assertiveness Trainer

Returned Data		Sex of Trainer		
		Male	Female	Total
No	f	31	51	82
	%	37.8	62.2	
Yes	f	68	128	196
	%	34.7	65.3	
Total	f	99	179	278
	%	35.6	64.4	

Table K.6.

Return by Involvement in Assertiveness Training

Returned Data		Involvement		
		Yes	No	Total
No	f	82	0	82
	%	100.0	0.0	
Yes	f	188	8	196
	%	95.9	4.1	
Total	f	270	8	278
	%	97.1	2.9	

Table K.7.

Return by Length of Involvement in Assertiveness Training

Returned Data		Length of Involvement					
		Less than a year	1-3 years	4-6 years	Over 6 years	No Response	Total
No	f	8	51	23	0	0	82
	%	9.8	62.2	28.0	0.0	0.0	
Yes	f	25	102	53	9	7	196
	%	12.8	52.0	27.0	4.6	3.6	
Total	f	33	153	76	9	7	278
	%	11.9	55.0	27.3	3.2	2.5	

Table K.8.

Return by Source of Information on Teaching Assertiveness

Returned Data		Source of Information: By Reading Books	A Professor Taught Me	An "AT" Expert Taught Me	Other	No Response	Total
No	f	75	22	34	31	84	246
	%	30.5	8.9	13.8	12.6	34.1	
Yes	f	164	37	70	71	246	588
	%	27.9	6.3	11.9	12.1	41.8	
Total	f	239	59	104	102	330	834
	%	28.7	7.1	12.5	12.2	39.6	

Table K.9.

Return by Number of Assertiveness Workshops Conducted

Returned Data		Number of Workshops Conducted						
		Less than 5	5-14	15-25	25-50	Over 40	No Response	Total
No	f	25	29	14	8	3	3	82
	%	30.5	35.4	17.1	9.8	3.7	3.7	
Yes	f	62	65	28	17	10	14	196
	%	31.6	33.2	14.3	8.7	5.1	7.1	
Total	f	87	94	42	25	13	17	278
	%	31.3	33.8	15.1	9.0	4.7	6.1	

Table K.10.

Return by Sex of Clientele

Returned Data		Sex of Clientele				
		Female	Male	Equal Proportion	No Response	Total
No	f	49	5	25	3	82
	%	59.8	6.1	30.5	3.7	
Yes	f	116	16	54	10	196
	%	59.2	8.2	27.6	5.1	
Total	f	165	21	79	13	278
	%	59.4	7.6	28.4	4.7	

Table K.11.

Return by Type of Involvement

Returned Data		Type of Involvement				
		Groups	Individuals	Equal Proportion	No Response	Total
No	f	62	7	13	0	82
	%	75.6	8.5	15.9	0.0	
Yes	f	137	12	39	8	196
	%	69.9	6.1	19.9	4.1	
Total	f	199	19	52	8	278
	%	71.6	6.8	18.7	2.9	

Table K.12.

Return by Client Difficulty Differentiating Assertion from Aggression

Returned Data		Difficulty in Differentiation			
		Yes	No	No Response	Total
No	f	54	23	5	82
	%	65.9	28.0	6.1	
Yes	f	127	57	12	196
	%	64.8	29.1	6.1	
Total	f	181	80	17	278
	%	65.1	28.8	6.1	

Table K.13.

Return by Proportion of Clientele with Difficulty Differentiating Assertion and Aggression

Returned Data		Proportion of Clientele with Difficulty Differentiating Assertion and Aggression						
		0-20%	20-40%	40-60%	60-80%	80-100%	No Response	Total
No	f	10	13	19	7	4	29	82
	%	12.2	15.9	23.2	8.5	4.9	35.4	
Yes	f	26	33	26	31	9	71	196
	%	13.3	16.8	13.3	15.8	4.6	36.2	
Total	f	36	46	45	38	13	100	278
	%	12.9	16.5	16.2	13.7	4.7	36.0	

Table K.14.

Return by Involvement in Research

Returned Data		Involvement in Research			
		Yes	No	No Response	Total
No	f	21	60	1	82
	%	25.6	73.2	1.2	
Yes	f	54	132	10	196
	%	27.6	67.3	5.1	
Total	f	75	192	11	278
	%	27.0	69.1	4.0	

Total K.15.

Return by Length of Involvement

Returned Data		Length of Involvement: Less than 1 year	1-3 years	4-6 years	No Response	Total
No	f	5	13	4	60	82
	%	6.1	15.9	4.9	73.2	
Yes	f	14	31	6	145	196
	%	7.1	15.8	3.1	74.0	
Total	f	19	44	10	205	278
	%	6.8	15.8	3.6	73.7	

APPENDIX L

REPEATED MEASURES ANALYSIS OF VARIANCE FOR EACH SCALE FACET

Table L.1.

Results of ANOVA for Verbal Behavior

Source	Variance Estimate	Proportion of Variance (%)	F	df
Facet order (F)	.0017	.033	1.72	3,144
Scale order (S)	.0013	.222	10.42*	1,144
Item (I)	.2384	4.689	136.86*	29,4176
Rating Context (A)	0	0	.26	1,144
Person ** (P)	.0914	1.800		144
FS	0	0	.74	3,144
FI	.0010	0	1.14	29,4176
FA	.0006	.017	1.19	3,144
SA	.0107	.210	7.47*	1,144
SI	.0031	.061	1.88*	29,4176
IA	3.3275	65.417	521.21*	29,4176
PI **	.2667	5.243		4176
PA **	.1253	2.463		144
FSI	.0002	.004	1.02	87,4176
FSA	.0010	.020	1.16	3,144
FIA	.0117	.230	1.46*	87,4176
SIA	.0048	.094	1.37	29,4176
PIA **	.9723	19.114		87,4176
FSIA	.0193	.379	1.38*	4176
Total Variance	5.0866	100.00		

* $p < .05$

** Terms nested under FS

Table L.2.

Results of ANOVA for Behavioral Components

Source	Variance Estimate	Proportion of Variance (%)	F	df
Facet order (F)	.0006	.013	1.18	3,144
Scale order (S)	.0075	.161	5.77*	1,144
Item (I)	.2993	6.418	192.22*	21,3024
Rating Context (A)	.0064	.137	9.93*	1,144
Person ** (P)	.1194	2.560		144
FS	.0025	.053	1.40	3,144
FI	0	0	.92	63,3024
FA	0	0	.71	3,144
SA	0	0	.95	1,144
IA	3.141	67.346	668.66*	21,3024
PI **	.2379	5.100		3024
PA **	.1095	2.348		144
FSI	.0041	.088	1.33*	63,3024
FSA	.0089	.191	2.54	3,144
FIA	.0057	.122	1.30	63,3024
SIA	.0017	.036	1.18	21,3024
PIA **	.7150	15.331		3024
FSIA	.0022	.047	1.06	63,3024
Total Variance	4.6637	100.000		

* $p < .05$

** Terms nested under FS

Table L.3.

Results of ANOVA for Personality Traits

Source	Variance Estimate	Proportion of Variance (%)	F	df
Facet order (F)	.0041	.077	3.69*	3,144
Scale order (S)	.0007	.013	1.93	1,144
Item (I)	.2327	4.393	154.50*	31,4464
Rating Context (A)	.0007	.013	3.02	1,144
Person ** (P)	.0576	1.087		144
FS	0	0	.73	3,144
FI	.0041	.077	1.67*	93,4464
FA	.0070	.132	6.27*	3.144
SA	0	0	.06	1,144
SI	.0026	.049	1.85*	31,4464
IA	4.0288	76.054	935.59*	31,4464
PI **	.2305	4.351		4464
PA **	.0501	.946		144
FSI	.0035	.066	1.29*	93,4464
FSA	.0022	.041	1.83	3.144
FIA	.0095	.179	1.55*	93,4464
SIA	.0060	.113	1.69*	31,4464
PIA **	.6552	12.368		4464
FSIA	.0020	.038	1.06	93,4464
Total Variance	5.2973	99.99		

* $p < .05$

** Terms nested under FS

Table L.4.

Results of ANOVA for Verbal Statements

Source	Variance Estimate	Proportion of Variance (%)	F	df
Facet order (F)	0	0	.64	3,144
Scale order (S)	.0027	.050	6.78*	1,144
Item (I)	.3485	6.415	290.40*	19,2736
Rating Context (A)	.0830	1.528	168.43*	1,144
Person ** (P)	.0355	.653		144
FS	0	0	.52	3,144
FI	.0047	.086	1.98*	57,2736
FA	.0086	.158	5.34*	3,144
SA	.0026	.048	3.62	1,144
SI	.0018	.033	1.74*	19,2736
IA	3.9163	72.092	809.73*	19,2736
PI **	.1830	3.368		2736
PA **	.0753	1.386		144
FSI	0	0	.86	57,2736
FSA	0	0	.53	3,144
FIA	.0177	.326	1.92*	57,2736
SIA	.0085	.156	1.88*	19,2736
PIA **	.7361	13.550		2736
FSIA	.0080	.147	1.21	57,2736
Total Variance	5.4323	100.000		

* $p < .05$

** Terms nested under FS

APPENDIX M

FINAL SCALE DATA

MEAN, STANDARD DEVIATION, CORRELATION WITH SUBSCALE AND TOTAL SCALE FOR EACH ITEM HYPOTHESIZED TO REPRESENT ASSERTION AND RATED ON ASSERTION ACROSS THE FOUR SCALE FACETS

Table M.1.

VERBAL BEHAVIOR ASSERTION/RATED ON ASSERTION

	Item	Mean	S.D.	ST	TT
(5)	speaking without pauses or filler (e.g. um, ah)	3.684	1.274	0.373	0.388
(7)	speaking voice puts others at ease	4.219	1.012	0.415	0.674
(8)	asking "why" for clarification	3.730	1.200	0.150	0.218
(9)	sending "I" messages	4.474	1.005	0.417	0.567
(11)	making objective statements about anger	3.929	1.251	0.337	0.344
(13)	making direct statements	4.638	0.684	0.506	0.542
(16)	able to say "no" without feeling guilty	4.587	0.882	0.259	0.360
(17)	directly asking others to change behavior which you find offensive	4.372	0.960	0.174	0.140
(21)	stating feelings honestly	4.740	0.722	0.453	0.527
(24)	well modulated voice	4.245	0.988	0.618	0.725
(26)	direct statement of wants	4.638	0.684	0.392	0.332
(27)	direct expression of feelings	4.770	0.567	0.470	0.467
(29)	giving and accepting sincere compliments	4.862	0.388	0.473	0.574
(30)	spontaneous exclamations of irritation and disgust at another person	1.974	1.107	0.046	0.064

Table M.2.

BEHAVIORAL COMPONENTS ASSERTION/RATED ON ASSERTION

	Item	Mean	S.D.	ST	TT
(6)	attentive listening	4.628	0.828	0.708	0.666
(9)	smiling warmly	4.158	1.053	0.534	0.600
(10)	directly faces the person being spoken to	4.714	0.632	0.683	0.646
(11)	standing erect with feet apart	3.638	1.218	0.398	0.473
(12)	direct eye contact with other person	4.724	0.629	0.721	0.695
(13)	allows others to finish talking	4.474	0.880	0.641	0.651
(15)	assured composure	4.709	0.566	0.687	0.663
(16)	relaxed posture	4.240	0.933	0.684	0.606
(17)	expansive gestures	3.000	1.137	0.276	0.269
(21)	relaxed hand motions	4.214	1.055	0.733	0.715

Table M.3.

PERSONALITY TRAITS ASSERTION/RATED ON ASSERTION

Item	Mean	S.D.	ST	TT
(3) self-confident	4.821	0.434	0.352	0.462
(4) appreciative	4.587	0.714	0.525	0.467
(5) integrated	4.704	0.660	0.511	0.515
(6) yielding	2.633	1.066	0.334	0.346
(8) forgiving	3.684	1.092	0.465	0.470
(9) secure	4.684	0.642	0.602	0.586
(11) spontaneous	4.061	0.985	0.632	0.551
(15) supportive	4.255	0.937	0.650	0.579
(17) tolerant	3.867	0.989	0.588	0.604
(21) self-disclosing	4.367	0.722	0.427	0.479
(22) self-respecting	4.770	0.567	0.622	0.624
(23) open-minded	4.505	0.788	0.743	0.696
(25) caring	4.291	0.967	0.770	0.712
(29) intimate	4.010	0.971	0.580	0.535
(31) responsible	4.673	0.727	0.645	0.590

Table M.4.

VERBAL STATEMENTS ASSERTION/RATED ON ASSERTION

	Item	Mean	S.D.	ST	TT
(1)	"I don't understand why you would say that. I feel that I have been doing as much work as you. Can you explain how you feel?"	4.582	0.828	0.211	0.237
(3)	"Excuse me; I have to go now."	4.219	0.927	0.415	0.360
(5)	"I understand how you feel, but I don't feel like that."	4.638	0.742	0.490	0.368
(7)	"I don't really know enough about that to comment right now."	4.531	0.719	0.458	0.518
(8)	"You did a fantastic job at the meeting."	4.592	0.728	0.545	0.414
(11)	"I get very angry when you leave your clothes all over the place."	4.464	0.856	0.242	0.176
(13)	"I really like your shoes. Where did you get them?"	4.148	0.994	0.461	0.404
(16)	"I see your point, but there are other solutions to the problem."	4.520	0.734	0.536	0.412
(19)	"I would prefer going to the movies tonight rather than to the concert."	4.735	0.625	0.485	0.436

APPENDIX N

FINAL SCALE DATA

MEAN, STANDARD DEVIATION, CORRELATION WITH SUBSCALE AND TOTAL SCALE FOR EACH ITEM HYPOTHESIZED TO REPRESENT AGGRESSION AND RATED ON AGGRESSION ACROSS THE FOUR SCALE FACETS

Table N.1.

VERBAL BEHAVIORS AGGRESSION/RATED ON AGGRESSION

	Item	Mean	S.D.	ST	TT
(2)	using the word "I" very frequently	2.092	1.190	0.224	0.210
(3)	verbally discounting another person	4.546	0.806	0.542	0.509
(5)	making demands of others	3.653	1.341	0.612	0.581
(8)	speaking with disregard for others' rights	4.617	0.929	0.408	0.336
(10)	answering for another person	3.959	1.002	0.564	0.610
(11)	name calling	4.745	0.661	0.483	0.469
(12)	expressing hostility	4.031	1.248	0.408	0.421
(13)	responding with a clever put down when someone insults you	3.980	1.062	0.495	0.513
(15)	using words which blame another	4.459	0.793	0.628	0.575
(17)	loud voice	3.791	1.106	0.671	0.711
(25)	making verbal accusations	4.480	0.807	0.572	0.542
(27)	speaking critically of another person when they are not present	3.969	1.057	0.575	0.618
(29)	frequently using the word "you"	3.566	1.396	0.544	0.646

Table N.2.

BEHAVIOR COMPONENTS AGGRESSION/RATED ON AGGRESSION

Item	Mean	S.D.	ST	TT
(1) fist pounding	4.408	0.964	0.347	0.322
(3) sarcastic smiling	4.117	0.836	0.500	0.529
(5) erect stance with hands on hips	3.505	1.102	0.574	0.578
(6) stiff body posture	3.255	1.149	0.550	0.592
(8) prolonged eye contact	3.219	1.284	0.510	0.538
(15) finger pointing	4.219	0.943	0.690	0.669
(20) abrupt gestures	3.393	1.183	0.697	0.720
(21) sneering	4.413	0.916	0.569	0.597
(22) narrowed eyes	3.949	1.099	0.623	0.668

Table N.3.

PERSONALITY TRAITS AGGRESSION/RATED ON AGGRESSION

Item	Mean	S.D.	ST	TT
(2) punitive	4.704	0.683	0.410	0.330
(3) self-righteous	4.265	0.901	0.514	0.551
(5) abusive	4.796	0.648	0.405	0.266
(6) imposing	4.403	0.969	0.287	0.361
(7) destructive	4.750	0.675	0.441	0.345
(8) blaming	4.663	0.686	0.576	0.527
(17) argumentative	4.230	0.867	0.550	0.552
(19) tactless	4.066	1.114	0.570	0.569
(20) chronically angry	4.515	0.747	0.289	0.273
(24) belittling	4.485	0.850	0.555	0.566
(25) offensive	4.653	0.779	0.548	0.528
(26) forceful	3.816	1.247	0.429	0.533
(28) encroaching	4.143	1.043	0.513	0.557
(30) authoritative	3.577	1.261	0.351	0.440

Table N.4.

VERBAL STATEMENTS AGGRESSION/RATED ON AGGRESSION

	Item	Mean	S.D.	ST	TT
(1)	"I want another steak right now. I ordered it rare and it's well done."	3.474	1.130	0.269	0.251
(4)	"If you think I'm going to give up this promotion to make you happy, you're wrong."	3.990	0.997	0.515	0.532
(5)	"I think you don't know what's good for you."	4.020	0.971	0.450	0.434
(6)	"Just because I'm smarter than you doesn't mean you can't ask me a question."	4.061	1.011	0.494	0.333
(10)	"You shouldn't have called me stupid. If anyone is stupid, it's you."	4.531	0.781	0.501	0.345
(13)	"You're never around when I need you. All you ever think about is yourself."	4.265	0.929	0.586	0.439
(17)	"You're the problem--you need to see a psychiatrist."	4.602	0.668	0.502	0.471
(18)	"I want to go shopping right now. I don't care if your busy."	4.413	0.882	0.569	0.276

APPENDIX O

ITEM VALUES ON ASSERTION AND AGGRESSION DIMENSIONS ACROSS THE FOUR SCALE FACETS

Table 0.1.

Item Values on Assertion and Aggression Dimensions:

Verbal Behavior Facet

	Item	Assertion Dimension 1	Aggression Dimension 1	Aggression Dimension 2
(12)	name calling	1.229	1.140	-1.092
(1)	speaker makes derogatory statements about self	1.215	-.573	.509
(10)	speaking with disregard for others rights	1.208	1.061	-1.021
(22)	using words which blame another	1.160	.962	-.935
(19)	verbally discounting another person	1.140	1.012	-.990
(2)	answering for another person	1.126	.692	-.628
(28)	making verbal accusations	1.112	.972	-.948
(23)	speaking critically of another person when they are not present	1.099	.697	-.634
(4)	unable to say 'no' without feeling guilty	1.050	-.674	.617
(20)	frequently using pauses or filler words (e.g. um, ah)	.852	-.679	.624
(14)	responding with a clever put down when someone insults you	.789	.702	-.640
(6)	frequently using the word "you"	.673	.476	-.379
(30)	spontaneous exclamations of irritation and disgust at another person	.604	.814	-.771

Table 0.1.

Item Values on Assertion and Aggression Dimensions:

Verbal Behavior Facet

	Item	Assertion Dimension 1	Aggression Dimension 1	Aggression Dimension 2
(25)	loud voice	.522	.605	-.518
(3)	making demands of others	.322	.546	-.437
(15)	expressing hostility	.185	.735	-.666
(5)	speaking without pauses or filler words	-.571	-.457	.406
(8)	asking "why?" for clarification	-.592	-.378	.335
(11)	making objective statements about anger	-.743	-.670	.609
(18)	using the word "I" very frequently	-.757	-.449	.403
(7)	speaking voice puts others at ease	-.928	-.976	.985
(24)	well modulated voice	-.942	-.889	.865
(17)	directly asking others to change behavior which you find offensive	-1.031	-.315	.283
(9)	sending "I" messages	-1.134	-.761	.704
(16)	able to say "no" without feeling guilty	-1.182	.552	.497
(13)	making direct statements	-1.217	-.409	.362
(26)	direct statement of wants	-1.230	-.348	.307
(21)	stating feelings honestly	-1.285	-.761	.704
(27)	direct expression of feelings	-1.306	-.595	.523
(29)	giving and accepting sincere compliments	-1.368	-.929	.928

Table 0.2.

Item Values on Assertion and Aggression Dimensions:

Behavioral Components Facet

Item	Assertion		Aggression	
	Dimension 1	Dimension 2	Dimension 1	Dimension 2
(22) sneering	.398	1.066	1.490	.574
(3) sarcastic smiling	.380	1.043	1.197	.522
(2) minimal eye contact with other person	.371	.981	-.561	-.223
(18) nervous mannerisms	.360	.956	-.372	-.138
(19) narrowed eyes	.353	.945	1.087	.494
(7) standing or sitting with stooped shoulders	.347	.932	-.989	-.487
(4) finger pointing	.338	.915	1.283	.537
(20) stiff body posture	.334	.909	.484	.297
(8) fist pounding	.322	.892	1.482	.571
(1) abrupt gestures	.220	.662	.639	.355
(5) erect stance with hands on hips	.135	.462	.695	.378
(14) prolonged eye contact	-.093	-.070	.477	.293

Table 0.2. (continued)

Item Values on Assertion and Aggression Dimensions:

Behavioral Components Facet

Item	Assertion		Aggression	
	Dimension 1	Dimension 2	Dimension 1	Dimension 2
(17) expansive gestures	-.113	-.179	-.103	.019
(11) standing erect with feet apart	-.257	-.568	.067	.105
(9) smiling armly	-.333	-.900	-1.128	-.574
(21) relaxed hand motions	-.353	-.951	-1.036	-.509
(16) relaxed posture	-.356	-.964	-1.036	-.509
(13) allows others to finish talking	-.373	-1.094	-1.079	-.539
(6) attentive listening	-.402	-1.234	-1.135	-.580
(15) assured composure	-.411	-1.253	-.705	-.321
(10) directly faces person being spoken to	-.421	-1.271	-2.63	-.066
(12) direct eye contact with other person	-4.23	-1.277	-.496	-.200

Table 0.3.

Item Values on Assertion and Aggression Dimensions:

Personality Traits Facet

Item	Assertion		Aggression	
	Dimension 1	Dimension 2	Dimension 1	Dimension 2
(2) abusive	.777	-.838	1.072	-.881
(13) chronically angry	.771	-.834	.919	-.741
(27) helpless	.771	-.834	-.572	.482
(19) belittling	.771	-.834	.900	-.721
(12) destructive	.751	-.807	1.053	-.851
(32) punitive	.739	-.791	1.036	-.828
(18) submissive	.723	-.779	-.791	.641
(30) blaming	.723	-.779	1.022	-.801
(20) tactless	.702	-.762	.674	-.573
(14) encroaching	.693	-.752	.719	-.594
(1) offensive	.683	-.734	1.022	-.793
(16) self-righteous	.618	-.668	.788	-.651
(7) anxious	.550	-.559	.068	-.057
(24) argumentative	.508	-.499	.759	-.621
(28) imposing	.508	-.499	.891	-.721
(6) yielding	.035	-.113	-.787	.634
(10) authoritative	-.031	-.010	.407	-.352

Table 0.3. (continued)

Item Values on Assertion and Aggression Dimensions:

Personality Traits Facet

Item	Assertion		Aggression	
	Dimension 1	Dimension 2	Dimension 1	Dimension 2
(26) forceful	-.204	.156	.553	-.469
(8) forgiving	-.454	.423	-.791	.640
(17) tolerant	-.530	.508	-.830	.680
(29) intimate	-.574	.575	-.801	.650
(11) spontaneous	-.612	.622	-.57	.127
(15) supportive	-.686	.733	-.856	.693
(25) caring	-.689	.739	-.812	.658
(21) self-disclosing	-.710	.774	-.648	.532
(23) open minded	-.765	.849	-.846	.682
(4) appreciative	-.794	.895	-.812	.659
(31) responsible	-.833	.931	-.587	.486
(9) secure	-.837	.937	-.737	.586
(5) integrated	-.843	.949	-.754	.598
(22) self-respecting	-.873	.985	-.595	.487
(3) self-confident	-.886	1.017	-.502	.415

Table 0.4.

Item Values on Assertion and Aggression Dimensions:

Verbal Statements Facet

	Item	Assertion Dimension 1	Aggression Dimension 1
(49)	"I would prefer going to the movies tonight rather than to the concert."	1.226	.868
(5)	"I understand how you feel, but I don't feel like that."	1.180	.897
(1)	"I don't understand why you would say that. I feel that I have been doing as much work as you. Can you explain how you feel?"	1.147	.820
(8)	"You did a fantastic job at the meeting."	1.134	.890
(7)	"I really don't know enough to comment on that right now."	1.095	.910
(16)	"I see your point, but there are other solutions to the problem."	1.088	.800
(11)	"I get very angry when you leave your clothes all over the place."	1.049	.606
(3)	"Excuse me; I have to go now."	.890	.848
(13)	"I really like your shoes. Where did you get them?"	.857	.806
(4)	"I want another steak right now. I ordered it rare and it's well done."	-.040	-.714
(14)	"If you think I'm going to give up this promotion to make you happy ..."	-.627	-1.073

Table 0.4. (continued)

Item Values on Assertion and Aggression Dimensions:

Verbal Statements Facet

Item	Assertion Dimension 1	Aggression Dimension 1
(2) "I think you don't know what's good for you."	-.792	-1.108
(20) "I want to go shopping right now. I don't care if you're busy."	-.878	-1.384
(9) "I better not go shopping with you ... Well, you know how upset my friend gets when I spend my money ..."	-.977	.724
(10) "Just because I'm smarter than you doesn't mean you can't ask me a question."	-.984	-1.122
(18) "You're never around when I need you. All you ever think about is yourself."	-1.003	-1.281
(17) "You shouldn't have called me stupid. If anyone's stupid, it's you."	-1.010	-1.460
(6) "You're the problem--you need to see a psychiatrist."	-1.096	-1.516
(12) "I'm really too tired to go out tonight. Well... I can watch you eat, I guess. .. Alright ... I'll go."	-1.102	.800
(15) "I guess I'm just stupid. I never seem to do anything right."	-1.155	.689

APPENDIX P

SCATTER DIAGRAMS OF ASSERTION - ASSERTION AND AGGRESSION - AGGRESSION ITEM VALUES ON DIMENSIONS ACROSS THE FOUR SCALE FACETS

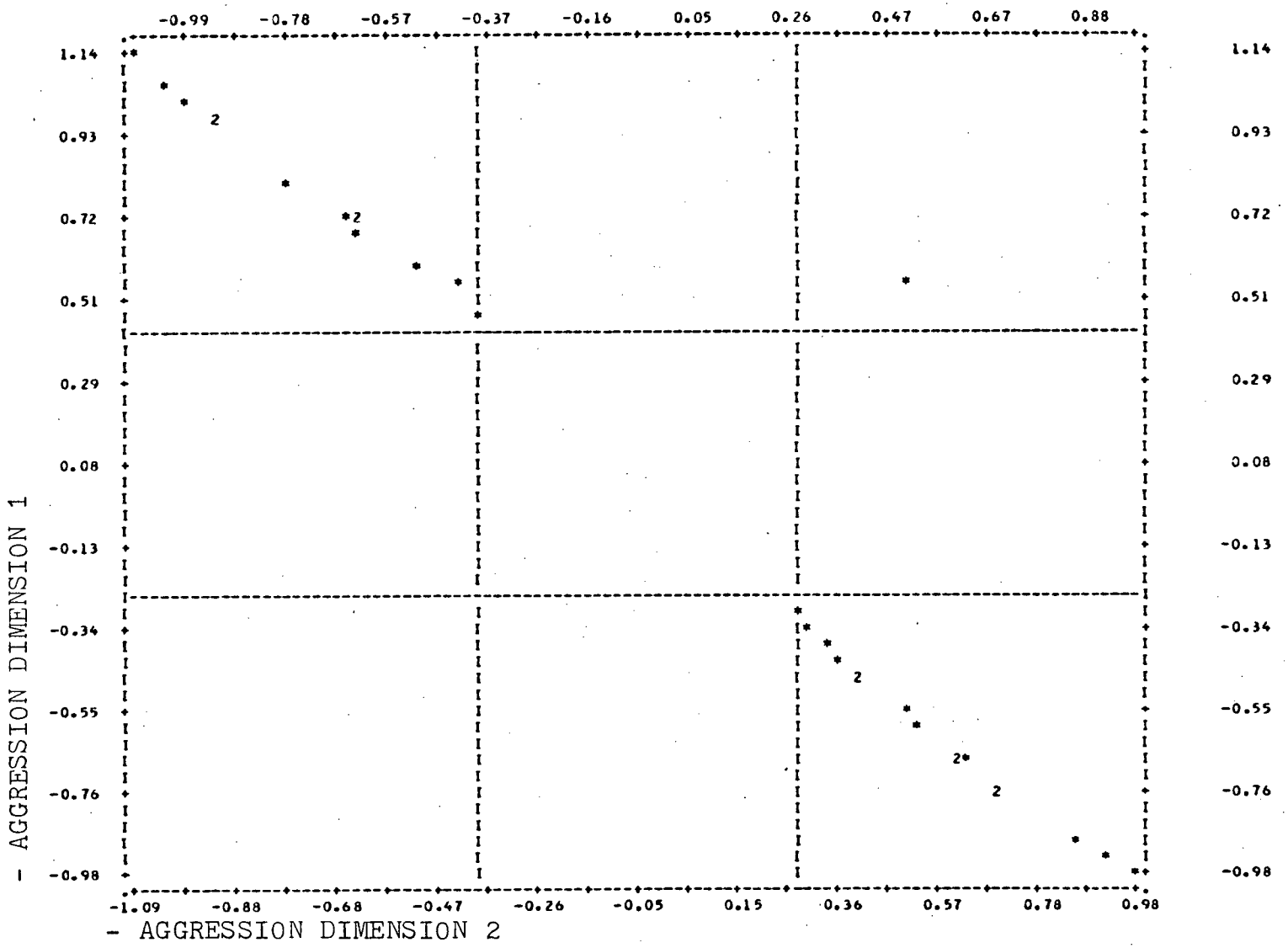


Figure P.1. Scatter diagram of aggression dimension 1 and aggression dimension 2: verbal behavior facet

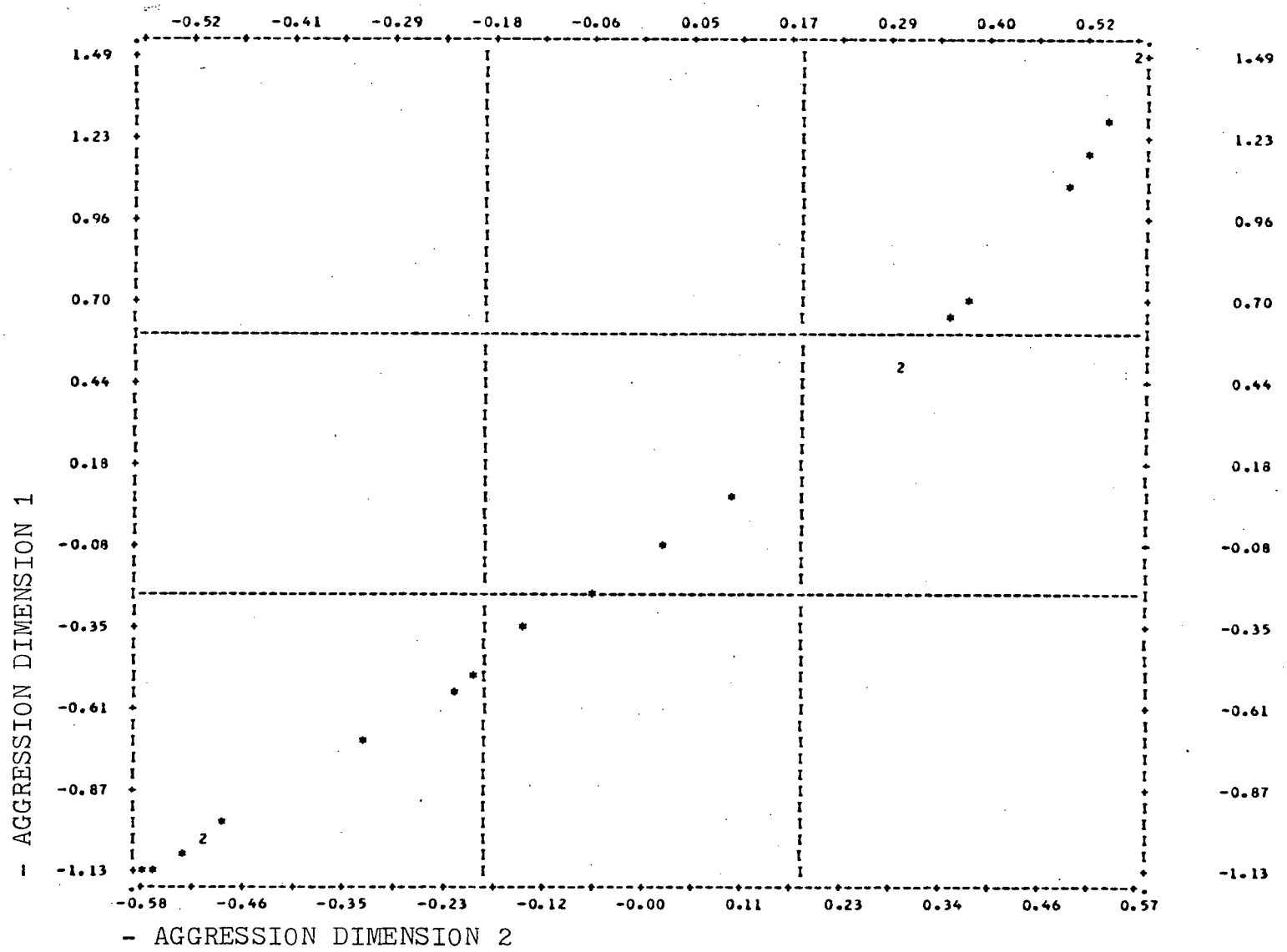


Figure P.2. Scatter diagram of aggression dimension 1 and aggression dimension 2: behavioral components facet

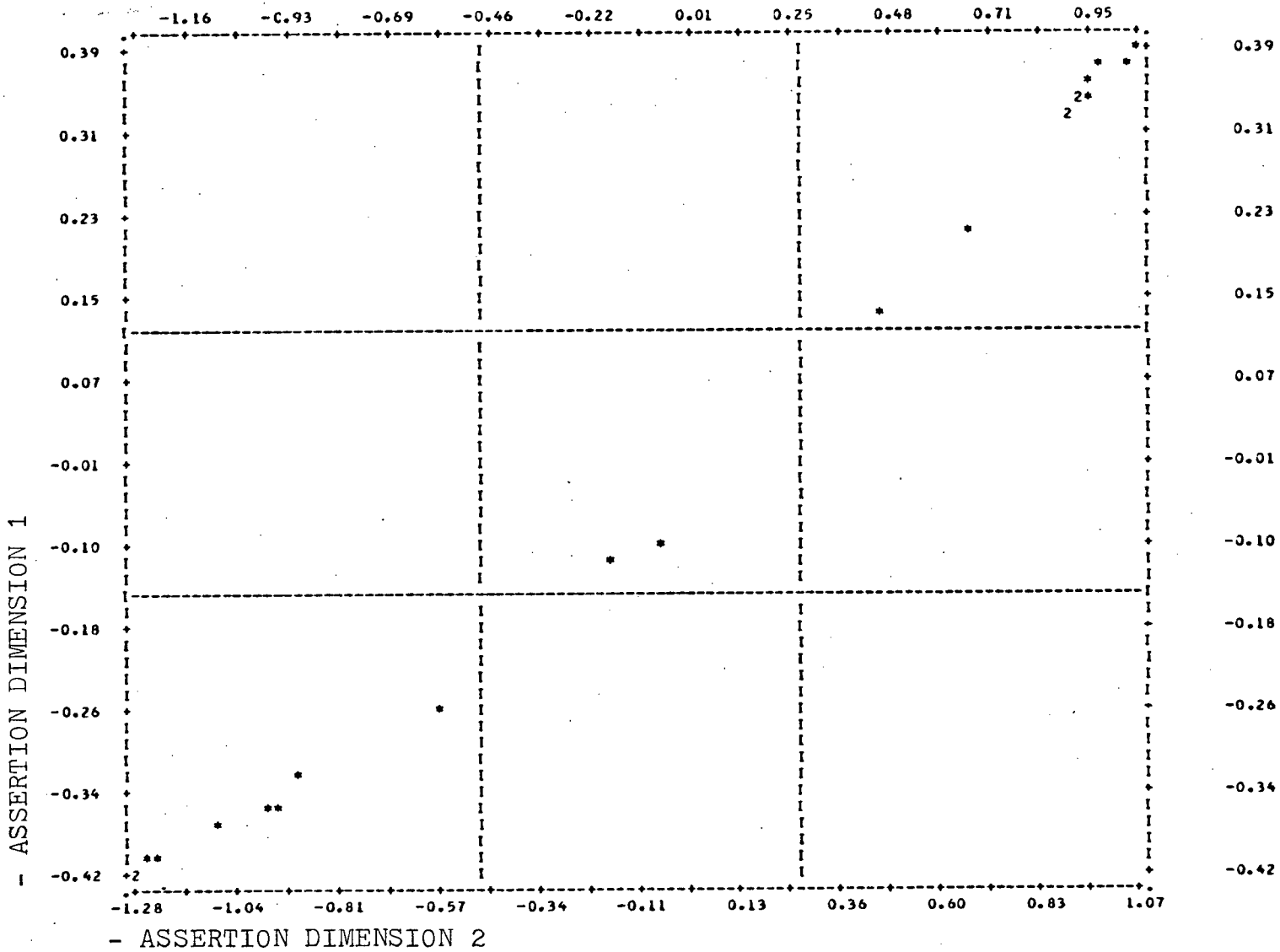


Figure P.3. Scatter diagram of assertion dimension 1 and assertion dimension 2: behavioral components facet

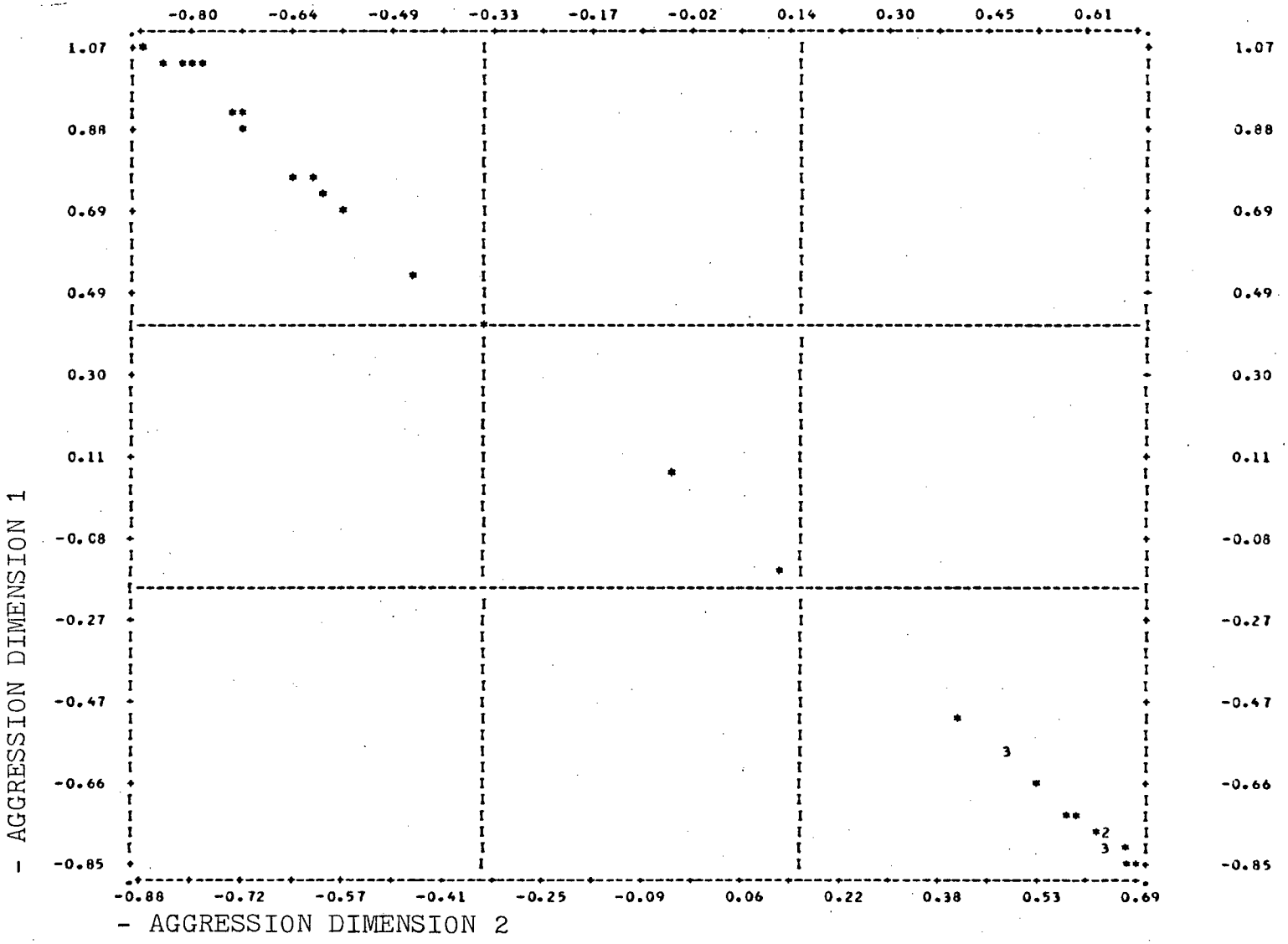


Figure P.4. Scatter diagram of aggression dimension 1 and aggression dimension 2: personality traits facet

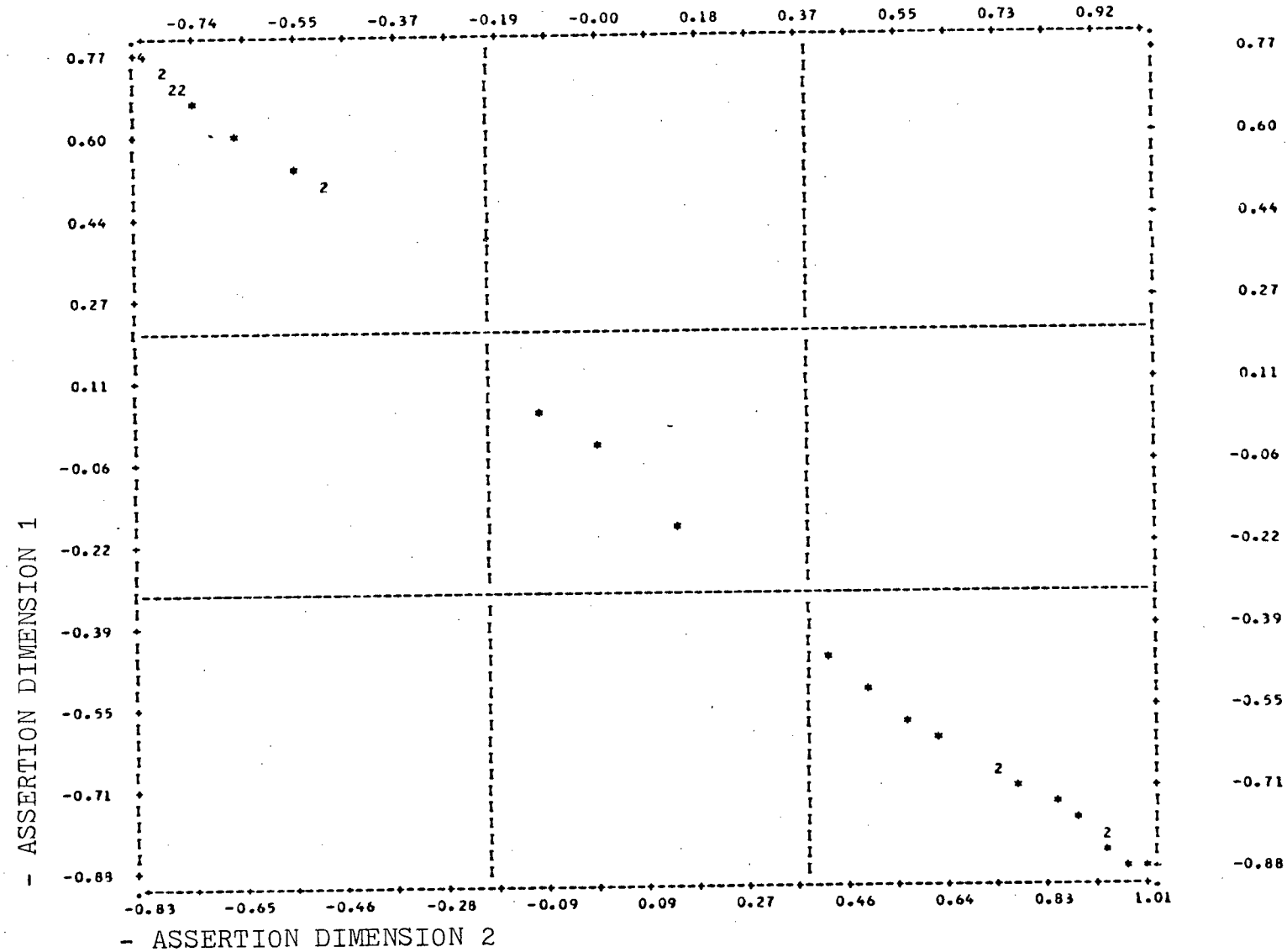


Figure P.5. Scatter diagram of assertion dimension 1 and assertion dimension 2: personality traits facet

APPENDIX Q

SCATTERGRAM SUMMARY STATISTICS FOR EACH SCALE FACET

Table Q.1.

Scattergram Summary Statistics for Verbal Behavior Facet

Dimension	Mean	Standard Deviation	r	r^2	Standard Error of Estimate
VBA1[a]	0.000	1.0171			
VBG1[b]	0.0368	.7401			
VBG2	0.0007	.6956			
VBA1 vs VBG1			.6936*	.48106	.74567
VBA1 vs VBG2			-.7533*	.56741	.68081
VBG1 vs VBG2			-.9634*	.92813	.20193

* Significant at $p < .001$

[a] Verbal Behavior Assertion - Dimension 1

[b] Verbal Behavior Aggression - Dimension 1

Table Q.2.

Scattergram Summary Statistics for Behavioral Components Facet

Dimension	Mean	Standard Deviation	r	r^2	Standard Error of Estimate
BCA1[a]	.0009	.3439			
BCA2	.0001	.9639			
BCG1[b]	-.0001	.9299			
BCG2	0.000	.4278			
BCA1 vs BCA2			.9963*	.99254	.03044
BCA1 vs BCG1			.6816*	.46456	.25790
BCA1 vs BCG2			.6686*	.44709	.26207
BCA2 vs BCG1			.6956*	.48390	.70958
BCA2 vs BCG2			.6876*	.47274	.71722
BCG1 vs BCG2			.9904*	.98088	.13176

* Significant at $p < .001$

[a] Behavioral Components Assertion - Dimension 1

[b] Behavioral Components Aggression - Dimension 1

Table Q.3.

Scattergram Summary Statistics for Personality Traits Facet

Dimension	Mean	Standard Deviation	r	r^2	Standard Error of Estimate
PTA1[2]	0.0000	.6857			
PTA2	0.0003	.7409			
PTG1[b]	-.0000	.7854			
PTG2	-.0009	.6365			
PTA1 vs PTA2			-.9987*	.99748	.03498
PTA1 vs PTG1			-.7904*	.62470	.42700
PTA1 vs PTG2			-.7882*	.62124	.42896
PTA2 vs PTG1			-.7847*	.61572	.46689
PTA2 vs PTG2			.7826*	.61242	.46889
PTG1 vs PTG2			-.9998*	.99952	.01740

* Significant at $p < .001$

[a] Personality Traits Assertion - Dimension 1

[b] Personality Traits Aggression - Dimension 1

Table Q.4.

Scattergram Summary Statistics for Verbal Statements Facet

Dimension	Mean	Standard Deviation	r	r^2	Standard Error of Estimate
VSA1[a]	.0001	1.0259			
VSG1[b]	0.0000	1.0260			
VSA1 vs VSG1			.6978*	.48689	.75503

* Significant at $p < .001$

[a] Verbal Statements Assertion - Dimension 1

[b] Verbal Statements Aggression - Dimension 1