

DOCUMENT RESUME

ED 359 582

CS 508 228

AUTHOR Anderson, Carolyn M.; And Others  
 TITLE Willingness To Collaborate as a New Communication Trait: Scale Development and a Predictive Model of Related Communication Traits.  
 PUB DATE Apr 93  
 NOTE 35p.; Paper presented at the Joint Meeting of the Southern States Communication Association and the Central States Communication Association (Lexington, KY, April 14-18, 1993).  
 PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143) -- Information Analyses (070)  
 EDRS PRICE MF01/PC02 Plus Postage.  
 DESCRIPTORS Communication Research; Communication Skills; \*Cooperation; Higher Education; \*Interpersonal Communication; Models; Predictive Validity; Predictor Variables; Undergraduate Students  
 IDENTIFIERS \*Communication Behavior; \*Willingness to Collaborate Trait Scale

ABSTRACT

A study created and examined a new communication trait--the willingness to collaborate. The Willingness to Collaborate Trait Scale was created. Scale reliability was demonstrated through analysis of internal consistency of the 13-item scale. A communication trait model predictive of trait willingness to collaborate was tested using 401 questionnaires completed by 201 communication students (each of whom recruited one other respondent) at a midwestern state university. A positive relationship was found for five communication traits: argumentativeness, interpersonal communication competency, attentiveness, willingness to communicate, and a relaxed style. A negative relationship was found for verbal aggressiveness. (Three tables of data are included; 61 references are attached.) (RS)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*

ED359582

Communication Trait

1

Willingness to Collaborate as a New Communication

Trait: Scale Development and a Predictive

Model of Related Communication Traits

Carolyn M. Anderson and Matthew M. Martin

John Carroll University

Dominic A. Infante

Kent State University

Running head: Communication Trait

NOT COPY AVAILABLE

Carolyn M. Anderson and Matthew M. Martin are Visiting Assistant Professors in the Communication Department, John Carroll University, University Heights, OH 44118. Dominic A. Infante is Professor in the Communication Studies Department, Kent State University, Kent, OH 44242.

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.  
 Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Carolyn Anderson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)



ERIC 359582

Abstract

A new construct was investigated--trait willingness to collaborate. The Willingness to Collaborate-Trait Scale was created. It proved to have high internal consistency. Support was provided for the scale's validity. A communication trait model predictive of trait willingness to collaborate was tested. A positive relationship was found for five communication traits: argumentativeness, interpersonal communication competency, attentiveness, willingness to communicate, and a relaxed style. A negative relationship was found for verbal aggressiveness. Implications for future research are discussed.

## Willingness to Collaborate as a New Communication

## Trait: Scale Development and a Predictive

## Model of Related Communication Traits

Traits are the relatively consistent disposition to think, feel, or behave in certain ways. Daly's (1987) essay on traits and interpersonal communication points out an underlying assumption about traits is that people differ in systematic ways. Trait research seeks to determine how they differ.

Infante, Rancer, and Womack (1990) define communication traits as subsets of personality traits that "are concerned particularly with human symbolic behavior" (p. 143). Recently, Bayer and Cegala (1992) argue that communication predispositions, as opposed to personality trait constructs, are more appropriate for examining communicative behaviors due to the "more restricted domain of message production" (p. 302). Communication scholars, then, examine those relatively enduring characteristics associated with verbal and nonverbal communication behaviors. For example, one well-researched communication trait is argumentativeness. Infante and Rancer (1982) define it as the personality "trait which predisposes the individual ... to advocate positions on controversial issues and to attack verbally the positions which other people take" (p. 72). How argumentativeness relates to other communication traits and to other variables, then, becomes the focus of research questions.

This study created and examined a new communication trait--the willingness to collaborate. The willingness to collaborate is conceived as active communication involvement with another during the process of decision making. Conceptually, this means a willingness to participate in decision making but also includes a willingness to negotiate and be assertive. A new measurement instrument--Willingness to Collaborate-Trait--was tested for reliability and validity. Then, the willingness to collaborate was examined by a predictive model of communication traits to more clearly illustrate relationships between this new communication trait and other communication traits. Gender was included as a variable of interest.

#### Trait Perspective

Communication research can be viewed in terms of trait and state perspectives. The former believe behavior assumes consistency across situations. The latter attribute behavior more to variations in the situation versus individual differences.

Mischel (1968) challenged the trait approach with claims that inconsistent behavior is really the norm. Subsequently, psychologists divided over the cross-situational consistency issue and associated claims of low predictive validity (Bem & Allen, 1974). As an example, Bem and Allen's (1974) study found that people do behave differently in different situations. To the contrary, Epstein (1979) included a time factor in his study that demonstrated "in the long run, we can depend on people behaving

true to character" (p. 1123). Block (1973) suggests some ways researchers can quiet claims of inconsistency in behavior is to (a) acknowledge the role of context and (b) examine traits that are most likely to occur at similar levels of behavior.

Daly (1987) suggests traits and communication are interconnected. On the one hand, traits account for differences in communication behavior, while on the other hand, communication behavior reinforces traits.

#### Willingness to Collaborate-Trait

#### Willingness to Collaborate-Trait

Trait willingness to collaborate evolved from earlier work in a health context by Anderson and Infante (1992). They examined the willingness to collaborate construct as a situational behavior between patients and perceptions of their physicians' willingness to collaborate or not in the medical interview. Implications for future research suggested a broaden view of the willingness to collaborate construct is that of a communication trait.

Although Daly (1987) points out that most trait studies in the behavioral sciences conceptualize traits independently, he argues there is need for a more integrative approach. Thus, a review of decision-making literature led to the reasoning that trait willingness to collaborate would constitute not only a willingness to participate in the decision making process but: a willingness to negotiate with the other and be assertive, all active behaviors as opposed to more passive behaviors that allow others to make

decisions. These principles seemed to best characterize the disposition for willingness to collaborate or not in decision making. A review of that literature supports the reasoning.

Negotiation. Putnam and Jones (1982) suggest negotiation occurs in any interpersonal context where proposals and compromises are used to reach outcomes. Wilson and Putnam (1990) describe it as a fundamental form of social interaction employed to secure agreement in formal events (e.g., labor contracts) or in interpersonal relationships or small group activities. As a communication process, negotiation involves information (Putnam & Jones, 1982), argumentation (Reiches & Harral, 1974), decision making (Katz, 1984), and outcomes (Smith, 1969). Since conflict is inherent, negotiaton necessitates planning of strategies, accurate perceptions of the parties, and interpretation of the messages in order to act and react to the situation (Putnam & Folger, 1988).

Research surrounding negotiation suggest it is structured by contextual characteristics, such as goals, procedures, strategies and the relational history of the parties (Donohue & Diez, 1985). Smith (1969) found an unrestricted or more open communication atmosphere results in more settlements than a restricted one. Turnbull, Strickland, and Shaver (1976) employed a war-game design to find the highest joint return is in the face-to-face mode and that perceptions of cooperation were not affected by a time factor of when concession is made.

Participatory decision making. Locke, Schweiger, and Latham

(1986) define participatory decision making (PDM) as joint decision making. PDM's merits are a debatable issue for business, politics, etc. (Miller & Monge, 1986), yet it fulfills a need for increased meaningfulness, decreased isolation, and control (Sashkin, 1984). It is argued that management is bound under an ethical imperative to employ it, irrespective of effectiveness (Sashkin, 1984).

Organizational scholars link FDM with employee satisfaction and commitment. Miller and Monge's (1986) review found a direct link between PDM and satisfaction and a participative climate of openness, trust, and receptivity. Informal PDM exists through the interpersonal relationship of the superior and subordinate. Cotton, Vollrath, Froggatt, Lengnick-Hall, and Jennings (1988) support the contextual nature of PDM and find strongest support for employee satisfaction under an informal participation model.

Assertiveness. Infante (1987) states assertiveness is one of four personality traits underlying an explanatory model of aggression. Assertiveness is a "general tendency to be interpersonally dominant, ascendant, and forceful" (p. 164). Wolfe (1968) believes assertiveness can either be defined as aggressive behavior or a strong, outward expression of nonanxious feelings, such as friendliness. In a 1983 study, Tucker, Weaver, and Redden correlated aggression, assertiveness, and shyness to find aggression and assertiveness are measuring the same thing and both have negative meaning. They recommend assertiveness be operationalized in new ways as a positive construct.



In 1980, Lore and More validated four assertiveness dimensions that are viewed as both a skill and a predisposition. Independence is defined as the ability to express or defend opinions. Defense of rights and interests entails ability to reject unjust demands. Directiveness is ability to lead, direct, or influence others in problem situations. Lastly, social assertiveness concerns comfort in interactions involving others. Anderson and Infante (1992) found support for the concurrent validity of their situational willingness to collaboration construct with findings that suggest a slight (low,  $r = .11$ ) to moderate (high  $r = .39$ ) positive relationship existed between each of the four assertiveness dimensions and the willingness to collaborate. The highest correlation was with the defense of rights and interests dimension.

In summary, the research surrounding the contextual constructs of negotiation and participatory decision making and trait assertiveness were catalysts in creating trait willingness to collaborate and were instrumental in the development of the measurement instrument, Willingness to Collaborate-Trait Scale.

Willingness to Collaborate-Trait Scale. The Willingness to Collaborate-Trait Scale's (WTC-TRAIT) statements were, in part, adapted from earlier work by Anderson and Infante (1992). They created a Medical Collaboration Scale-Patient (MEDCO-P) to measure patients' willingness to collaborate with their physicians. The scale had high internal consistency (Coefficient alpha = .94). Factor analysis supported a general-factor structure.

For this study, 36-bipolar verbal and nonverbal items were created based upon the ideas surrounding participatory decision making (e.g., I enjoy participating in decision making), negotiation (e.g., Often I do not explore alternative solutions), and assertiveness (e.g., When others tell me I should do something, I insist upon knowing why). Two communication professors, graduate communication students, and the authors judged the items for face validity. The final version (see Method section for factor analyses) of the WIC-Trait is a 13-item scale based on a 5-point Likert-type rating (see Table 1). Instructions ask respondents to

---

Insert Table 1 about here

---

rate how true each of the statements are for them concerning their communication behavior in general when it comes to decision-making situations involving others. Endpoints were "almost always true" and "almost never true."

#### Communication Traits

This study was a first attempt at building a model illustrative of those communication traits that would predict best trait willingness to collaborate. Prior research by Anderson and Infante (1992) established that communication apprehension was inversely related to willingness to collaborate in a health context. Thus, one who reported a fear of talking was unwilling to collaborate with

his/her physician. In this study, the following communication traits were selected based upon prior research in other contexts.

Willingness to Communicate. McCroskey and Richmond (1987) present a willingness to communicate construct. It evolved from existing communication traits, such as Burgoon's (1976) unwillingness to communicate and McCroskey's (1977, 1984) communication apprehension. Communication apprehension is considered its strongest antecedent.

Willingness to communicate is a cognitive, traitlike approach conceptualizing a global, personality-type orientation to talk or not in communication situations. Assumptions are that people are willing or unwilling to communicate across contexts and receivers, although not necessarily with equal levels of consistency. Although McCroskey and Richmond (1987) acknowledge the important role the situation plays, willingness to communicate, viewed as a trait, explains why under similar constraints "one person will talk and another will not" (p. 130).

It was reasoned that a willingness to communicate is needed in situations requiring decision making. Then, willingness or not to collaborate with the other may necessarily follow.

Argumentativeness. Argumentativeness is a recognition of controversial issues and the stimulation that comes from presenting and defending a position. Infante (1987) states argumentativeness, as a subset of assertiveness, is a positive activity. Rancer and Infante (1985) found motivation to argue was

greater when high argumentatives perceived the adversary similarly or lower in argumentativeness, while low argumentatives were not influenced by the others' traits. Bayer and Cegala (1983) examined parents' self-reported behavior toward their young children. They found parents who were argumentative and not verbally aggressive were associated with a more child-centered parenting style.

Women tend to be less argumentative than men (Infante, 1982). Female observers rated women as more credible when the women were induced to increase argumentativeness (Infante, 1985). Rancer and Dierks-Stewart (1985) found feminine personality types avoid argumentative situations.

Anderson and Infante (1992) did find a significant, although slight ( $r = .17, p < .01$ ) correlation between argumentativeness and willingness to collaborate in a health setting. Argumentativeness, however, was not a predictor in their trait model possibly due to contextual constraints. From a trait perspective, though, argumentativeness takes on broader meaning and was considered an important variable to examine here.

Verbal Aggressiveness. Infante's (1987) review of verbal aggressiveness describes it as an aspect of hostility, with hostility thought to be a destructive behavior. Infante argues that argumentativeness and verbal aggressiveness are separate traits based upon a constructive (argumentativeness) versus destructive (verbal aggressiveness) distinction.

Verbal aggression is defined as a personality trait that

predisposes one to attack the self-concept of another to inflict psychological pain (Infante & Wigley, 1986). One underlying reason for this behavior is argumentative skill deficiency (Infante, 1987a; Infante, Trebing, Shepherd, & Seeds, 1984).

Males choose more verbally aggressive messages than females choose when the opponent is adaptable (Infante, Trebing, Shepherd, & Seeds, 1984), high in argumentative skill (Infante, Wall, Leap, & Danielson, 1984), and is an argumentative adversary using verbal aggression (Infante, 1989). Recently, Infante, Riddle, Horvath, and Tumlin (1992) found high verbal aggressives used such verbal attacks as competence attacks, teasing, and swearing. Some reasons for resorting to verbal aggression were to be "to or not liking the message receiver. Bayer and Cegala (1992) found an authoritarian parenting style reflected parents' tendency to be verbally aggressive and not argumentative with their children.

#### Communicator Style

Communicator style has been verified as an important construct when studying the style dimension of personality (Wheless & Lashbrook, 1987). Snavely (1981) reports one way to approach style research is to employ the communicator style construct. Norton (1978) describes communicator style as the way one interacts, verbally and nonverbally, to "signal how literal meaning should be taken, interpreted, filtered, or understood" (p. 99). Under his model there are 10 independent variables (dominant, contentious, precise, attentive, friendly, open,

relaxed, animated, dramatic, and impression leaving) and one dependent (image). To illustrate, Norton and Warwick (1976) found high assertives are precise, contentious, see themselves as good communicators (image) and create a lasting impression with the other.

Infante and Gorden (1989, 1991) have validated an affirming communicator style construct based upon Norton's (1978) relaxed, friendly, and attentive dimensions. In an organizational context, they have examined both superiors' and subordinates' perceptions of the others' style to find affirming style plays a role in such outcome variables as satisfaction and commitment. It was reasoned here that a person who is willing to collaborate with another would be a person whose has an affirming communicator style.

Stanley and Cohen (1988) reviewed communicator style studies to report gender differences do not seem to present a consistent pattern but vary among the dimensions. Talley and Richmond (1980) report females self-report they are more animated and attentive than males. Montgomery and Norton (1991) found males see themselves as more precise while females more animated.

#### Interpersonal Communication Competence

Spitzburg and Cupach (1989) reviewed communication competency

literature to identify the broad but interrelated themes of control, collaboration, and adaptability. Parks (1985) defines competence in terms of control of one's communication environment, which is manifested by achieving goals in a given situation without jeopardizing other, interdependent goals. Control is viewed as a positive, "natural and intrinsic characteristic of human interaction" (Spitzberg & Cupach, 1989). Weinstein (1969) suggests that socially competent communicators control and shape the responses of others.

Collaboration is a label used by Spitzberg and Cupach (1989) to describe the interaction of the parties whereby each recognizes the other has goals. An essential aspect of communication competency is collaboration--the ability to work with others in achieving a solution to a problem or to reconcile differences (Bochner & Kelly, 1974). Competency requires appropriate behaviors, such as politeness (Weinstein, 1969). Wiemann (1977) envisions competence as an ability to select among verbal and nonverbal behaviors to achieve one's goals while respecting and "maintaining the face and line" of the other (p. 198).

Adaptability is viewed as how flexible one's behavior actually is (Martin & Rubin, 1990). Behavioral flexibility, then, is knowing what to say, when to say it, and even coping with problems (Spitzberg & Cupach, 1989). Also, one must be able to act in new ways, if needed (Bochner & Kelly, 1974). As Spitzberg and

Cupach (1989) suggest, competent communicators are able to select appropriate and effective communication strategies from their repertoires.

Rubin, Martin, Bruning, and Powers (1991) reviewed previous operationalizations of interpersonal communication competency. They noted 10 skills that researchers have recognized as essential: self-disclosure, empathy, social relaxation, assertiveness, interaction management, altercentrism, expressiveness, supportiveness, immediacy, and environmental control. All of the 10 skills involve people communicating appropriately, effectively, and flexibly. Thus, a person who is interpersonally competent is able to communicate appropriately according to the situation and is able to set and then achieve personal goals.

#### Hypotheses and Question

The communication traits reviewed above led to the formulation of two hypotheses and one research question. The hypotheses concern the relationship between willingness to collaborate and each of the communication traits.

H1: There will be a positive relationship between trait willingness to collaborate and argumentativeness, interpersonal communication competency, willingness to communicate, and a friendly, relaxed, and attentive communicator style.

H2: There will be negative relationship between trait



willingness to collaborate and verbal aggressiveness.

The research question focused on a predictive model of the willingness to collaborate and the communication traits and gender. Although gender research reviewed suggests differences exist for specific communication traits, Anderson and Infante (1992) found gender was not factor in their willingness to collaborate health care model. Nonetheless, gender was thought important to include in a model of trait willingness to collaborate.

RQ#1: Is trait willingness to collaborate predicted best by willingness to communicate, argumentativeness, verbal aggressiveness, interpersonal communication competency, a relaxed, friendly, and attentive communicator style or gender?

#### Method

Participants. One part of the sample was 201 communication students at a midwestern state university, who received research credit. Each participant recruited one other respondent. In all, there were 401 completed questionnaires (219 females; 182 males). Ages ranged from 15 to 57 ( $M = 20.20$ ,  $SD = 3.75$ ).

Procedure. Students completed the questionnaire booklet outside of class in scheduled research sessions. The booklet included scales not a part of this study (see principal author for information). Students took one questionnaire with them. They were asked not to help the recruited participant. The recruited

participants supplied first names and telephone numbers for a random varification checks of completion, after which all identifying materials were destroyed.

#### Instruments

The Willingness to Collaborate-Trait Scale's (WTC-Trait) 13 items had high internal consistency with a coefficient alpha of .81 (see Table 1).

The Willingness to Communicate Scale. McCroskey and Richmond (1987) tested a 20-item Willingness to Communicate Scale that measures a persons' predisposition to talk or not. A basic assumption is a correlation exists between the items concerning four contexts (public, meeting, group, and dyad) and three receiver types (stranger, acquaintance, and friend). There are eight filler items. It employs an 11-point rating scale, with percentage of talk time ranging from "0" for never, to "100" for always. The authors report an internal reliability of .92 for the summed scale. McCroskey (1992) and McCroskey and Richmond (1990) state that studies employing the Willingness to Communicate Scale offer continued support of its reliability and construct and predictive validity. In this study, coefficient alpha was .87.

Argumentativeness Scale. Infante and Rancer (1982) validated a 20-item Argumentativeness Scale. Subsequently, Infante and Gorden (1989, 1991) employed a shortened 10-item version of that scale with coefficient alphas of .82 and .73, respectively. The 10-item Argumentativeness Scale was used with a 5-point response format.

Endpoints ranged from "almost never true" to "almost always true." Coefficient alpha was .81.

Verbal Aggressiveness. Infante and Wigley (1986) first developed a 20-item Verbal Aggressiveness Scale, with equal number of positive and negative items. Through factor analyses the authors support the claim that verbal aggressiveness is an independent dimension of personality apart from argumentativeness.

A self-report, shortened 10-item version of the Verbal Aggressiveness Scale has been validated. Infante and Gorden (1989, 1991) report coefficient alphas of .90 and .92, respectively. Respondents use the 10-item version based on a 5-point scale. End points ranged from "almost never true" to "almost always true." Coefficient alpha was .82.

Communicator Style. Norton (1978, 1983) developed a Communicator Style measure that is the one most frequently used in interpersonal communication research (Wheless & Lashbrook, 1987). Researchers treat the 10 style dimensions independently or select among them. Montgomery and Norton (1981) developed a self-report measure based on 4-sentence descriptions of each dimension. In 1991, Infante and Gorden report a coefficient alpha for affirming communicator style (relaxed, friendly, and attentive) as .74.

Here, participants read 4-sentence descriptions of relaxed, friendly, and attentive styles based on Montgomery and Norton (1981). A 6-point scale was used. Coefficient alpha for the three variables was .43, which is below a minimum standard of .70 (Bowers

& Courtwright, 1984). Thus relaxed, friendly, and attentive were treated as independent style dimensions.

#### Interpersonal Communication Competency

Work by Rubin, et al. (1991) established the reliability and validity of a new Interpersonal Communication Competency Scale (ICC) that is a global measure of 10 behaviors (i.e., self-disclosure, empathy, social relaxation, assertiveness, interaction management, altercentrism, expressiveness, supportiveness, immediacy, and environmental control) associated with interpersonal communication competency. Coefficient alphas for the 30-item ICC was .86, and for a 10-item ICC-Short Form, .71. Martin (1992) found that ICC is related positively to affinity-seeking competence and the ability to generate affinity.

Rubin et al.'s (1991) ICC-Short Form was used, consisting of one statement for each of the 10 behaviors. Respondents reported their communication in interactions with other people. A 5-point scale was employed with endpoints of "Almost Always" to "Almost Never." Coefficient alpha was .71.

#### Results

This study had two goals. One was to develop and validate a new measurement scale for trait willingness to collaborate. The other was to examine a model of communication traits that would predict best those who are willing to collaborate.

Willingness to Collaborate-Trait Scale. Principal components analysis and varimax rotation produced a three-factor structure,

accounting for 51.6% of the variance. Criteria were eigenvalues greater than 1.0 and loadings of .50 on one factor and no more than .30 on a second. McCroskey and Young (1979) support these criteria as acceptable in new scale development. Factor I consisted of 6 items (3, 6, 4, 10, 8, and 12), with a coefficient alpha of .81. Factor II had 5 items (5, 7, 9, 11, and 13), with a coefficient alpha of .71, and Factor III had two items (1 and 2), with a coefficient alpha of .50. Table 2 presents summary statistics.

---

Insert Table 2 about here

---

All of the items on Factor I were negatively worded items, while all items on Factors II and III were positively worded. It appears that a latent variable is item wording. The negatively worded items reflect a passive predisposition toward willingness to collaborate, while the positively worded items reflect an active willingness to collaborate.

H1 and H2: Hypothesis one was tested by separate correlational analyses and was supported. A significant, positive relationship was found between the willingness to collaborate and each of the communication traits: argumentativeness ( $r = .58, p = < .01$ ), interpersonal communication competency ( $r = .52, p = < .01$ ), willingness to communicate ( $r = .43, p = < .01$ ), relaxed ( $r = .33, p = < .01$ ), attentive ( $r = .33, p = < .01$ ), and friendly ( $r = .22, p = < .01$ ). Hypothesis two was supported in that a

negative relationship was found for the willingness to collaborate and verbal aggressiveness ( $r = - .19$ ,  $p = < .01$ ).

RQ#1. Research question one asked if willingness to collaborate would be predicted best by argumentativeness, verbal aggressiveness, willingness to communicate, interpersonal communication competency, a relaxed, friendly, and attentive style, or gender. A stepwise multiple regression analysis was performed. Criteria for the equation being that the  $F$  to enter had to be significant at the .05 level and a variable had to explain at least an additional 1% criterion variance. A significant, six-variable equation emerged with a positive relationship for argumentativeness, interpersonal communication competency, attentiveness, willingness to communicate, and relaxed style, with a negative relationship for verbal aggressiveness ( $R = .71$ ,  $R^2 = .51$ ,  $F(6, 393) = 67.05$ ,  $p = < .001$ ). Argumentativeness was the strongest predictor, accounting for 33% of the explained variance, followed by interpersonal communication competence at 12%. Gender and the friendly communicator style dimension did not enter the equation. Table 3 presents the regression statistics.

---

Insert Table 3 about here

---

Thus, those who reported a general disposition of willingness to collaborate also reported the tendency to be argumentative, interpersonally competent communicators, with an attentive and

relaxed style, and a willingness to communicate, but they are not verbally aggressive in decision making involving others.

#### Discussion

This study presented a new communication trait--the willingness to collaborate--and developed a Willingness to Collaborate-Trait Scale (WTC-TRAIT). Prior research of the willingness to collaborate construct was specific to the health context (Anderson & Infante, 1992). View of willingness to collaborate as a trait perspective required a measurement instrument and, thus, the WTC-TRAIT Scale was created and tested. Scale reliability was demonstrated through analysis of internal consistency of the items. Evidence for construct validity was provided through factor analysis procedures.

McCroskey and Young (1979) point out the intent behind any factor analysis procedure is to produce a generalizable instrument that will be useful beyond the initial study. They suggest an adequate and representative sample will bring confidence in a scale's generalizability. Future research can address this issue by using sources other than college students. Additionally, other studies could strengthen findings by including a time factor as a measure of communication trait consistency (Eisler et al., 1975).

Uses for the WTC-Trait Scale include building upon existing research or encouraging designs that answer questions about interpersonal and small group behaviors on outcomes variables. For example, does trait willingness to collaborate make a difference

between superior and subordinate's satisfaction and commitment to the relationship? How does trait willingness to collaborate affect a task group's performance or a family's relationships and harmony? Along these lines of reasoning, it might be illuminating to look at married or live-in partners and the relationship between willingness to collaborate and relationship longevity. These are but a few questions to stimulate future research.

Trait Model. The predictive model proved to be most illuminating. Argumentativeness, as the strongest predictor, supports a link between the ability to argue the issues surrounding decision making and a willingness to collaborate in reaching those decisions (e.g., willingness to negotiate, participate in, and be assertive) with others. Following Infante's (1987) logic, then, the willingness to collaborate is viewed as a positive communication trait. It clearly may be an important communication trait to have when it comes to the decision making process.

Interpersonal communication competence is a strong predictor of willingness to collaborate. This is not surprising. Spitzburg and Cupach (1989) point out that the literature "clearly illustrates" competency's collaborative nature. Thus, the ability to effectively communicate relates to and may enhance the willingness to collaborate.

The other communication variables contributed at least 1% to the criterion variance. The finding for attentiveness supports Anderson and Infante's (1992) findings. Attentiveness can



be displayed through use of facial displays, such as eye contact. Norton (1978) states attentiveness is a requisite to situations requiring good listening skills. Logically, trait willingness to collaborate would require that ability. Similarly, a relaxed style suggests that trait collaborators do not seem anxious or nervous about interacting with the other in the decision making process. Although Infante and Gorden's (1989, 1991) model of an affirming style (relaxed, friendly, and attentive) was not supported here, future research can explore what other style dimensions (e.g., precise, open, animated, dramatic, impression leaving, dominant, contentious, and image) might be predictive.

Findings for willingness to communicate suggest that collaborators are not afraid to communicate with different types of receivers and across contexts, such as in dyads. Although this variable contributed 1% of the explained variance in the predictive model, the correlational analysis produced a stronger picture of its relationship to willingness to collaborate ( $r = .43$ ,  $p = < .01$ ). This sheds light on the more global conceptualization of willingness to communicate.

Verbal aggressiveness was a negative trait for willing to collaborate individuals, while argumentativeness was positive. This supports theoretical conceptualizations. Additionally, research exists that supports similar findings in other contexts (Bayer & Cegala, 1992; Gorden & Infante, 1992; Infante & Gorden, 1991). Infante (1987) quite clearly argues for the destructive

nature of verbal aggressiveness. Thus, a collaborative person would be the one less likely to resort to insults or character attacks against the other.

A post hoc analysis for gender and the willingness to collaborate found no differences between males ( $M = 47.66$ ,  $SD = 6.33$ ) and females ( $M = 47.99$ ,  $SD = 7.01$ ),  $t(400) = .49$ ,  $p > .62$ . Here again, willingness to collaborate appears to not be gender specific (see Anderson & Infante, 1992). Yet, gender research should not be limited to biological gender but may include psychological gender (Bem, 1974; Rakow, 1986). Greenblatt, Hasenhauer, and Freimuth (1980) believe that including psychological sex may enable researchers to explain no findings for biological sex. Additionally, Wood and Phillips (1984) suggest designs might focus on "women in women's environments and ... of men in men's environments" (p. 177).

In keeping with Daly's (1987) idea it might be of interest to assess the link between communication traits and the development and maintenance of those traits. For example, are those who are willing to collaborate born to parents who are willing to collaborate? Do they have siblings who are willing also to collaborate?

## References

- Anderson, C. M., & Infante, D. A. (October, 1992). Test of a communication model of patients and physicians as collaborators in patients' health care. Paper presented at The Speech Communication Association, Chicago.
- Bayer, C., & Cegala, D. (1992). Trait verbal aggressiveness and argumentativeness: Relations with parenting style. Western Journal of Communication, 56, 301-310.
- Bem, S. L. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42, 155-162.
- Bem, D., & Allen, A. (1974). On predicting some of the people some of the time: A search for cross-situational consistencies in behavior. Psychological Review, 81, 506-520.
- Block, J. (1973). Some reasons for the apparent inconsistency of personality. In H. N. Mischel & W. Mischel (Eds.), Readings in personality (pp. 72-75). New York: Holt, Rinehart, & Winston.
- Bochner, A., & Kelly, C. (1974). Interpersonal competence: Rationale, philosophy, and implementation of a conceptual framework. Speech Teacher, 23, 279-301.
- Bowers, J. W., & Courtwright, J. A. (1984). Communication research methods. Glenview, IL: Scott, Foresman.
- Burgoon, J. K. (1976). The unwillingness-to-communicate scale: Development and validation. Communication Monographs, 13, 60-69.
- Cotton, J. L., Vollrath, D. A., Froggatt, K. L., Lengnick-Hall, M. L., & Jennings, K. R. (1988). Employee participation: Diverse forms and different outcomes. Academy of Management Review, 13, 8-22.
- Daly, J. A. (1987). Personality and interpersonal communication: Issues and direction. In J. C. McCroskey & J. A. Daly (Eds.), Personality and interpersonal communication (pp. 13-41). Newbury Park, CA: Sage.
- Donohue, W. A., & Diez, M. E. (1985). Directive use in negotiation interaction. Communication Monographs, 52, 305-318.
- Eisler, R. M., Hersen, M., & Miller, P. M. (1975). Situational determinants of assertive behaviors. Journal of Consulting and Clinical Psychology, 43, 330-340.
- Epstein, S. (1979). The stability of behavior: I. On predicting most of the people much of the time. Journal of Personality and Social Psychology, 37, 1097-1127.

- Greenblatt, L., Hasenauer, J. E., & Freimuth, V. S. (1980). Psychological sex type and androgyny in the study of communication variables: Self-disclosure and communication apprehension. Human Communication Research, 6, 117-129.
- Infante, D. A. (1982). The argumentative student in the speech communication classroom: An investigation and implications. Communication Education, 31, 141-148.
- Infante, D. A. (1985). Inducing women to be more argumentative: Source credibility effects. Journal of Applied Communication Research, 13, 33-44.
- Infante, D. A. (1987). Aggressiveness. In J. C. McCroskey & J. A. Daly (Eds.), Personality and interpersonal communication (pp. 157-192). Beverly Hills, CA: Sage.
- Infante, D. A., & Gorden, W. I. (1989). Argumentativeness and affirming communicator style as predictors of satisfaction/dissatisfaction with subordinates. Communication Quarterly, 37, 81-90.
- Infante, D. A., & Gorden, W. I. (1991). How employees see the boss: Test of an argumentative and affirming model of supervisors' communicative behavior. Western Journal of Speech Communication, 55, 294-304.
- Infante, D. A., & Rancer, A. S. (1982). A conceptualization and measure of argumentativeness. Journal of Personality Assessment, 46, 72-80.
- Infante, D. A., Rancer, A. S., & Womack, D. F. (1990). Building communication theory. Prospect Heights, IL: Waveland.
- Infante, D. A., Riddle, B. L., Horvath, C. L., & Tumlin, S. A. (1992) Verbal aggressiveness: Messages and reasons. Communication Quarterly, 40, 116-126.
- Infante, D. A., Trebing, J. D., Shepherd, P. E., & Seeds, D. E. (1984). The relationship of argumentativeness to verbal aggression. The Southern Speech Communication Journal, 50, 67-77.
- Infante, D. A., Wall, C. H., Leap, C. J., & Danielson, K. (1984). Verbal aggression as a function of the receiver's argumentativeness. Communication Research Reports, 1, 33-37.
- Infante, D. A., & Wigley, C. J. (1986). Verbal aggressiveness: An interpersonal model and measure. Communication Monographs, 53, 61-69.

- Katz, J. (1984). The silent world of doctor and patient. New York: The Free Press.
- Locke, E. A., Schweiger, D. M., & Latham, G. P. (1986). Participation in decision making: When should it be used? Organizational Dynamics, 14, 65-79.
- Lore, M., & More, W. W. (1980). Four dimensions of assertiveness. Multivariate Behavioral Research, 2, 127-138.
- Martin, M. (1992). The affinity-seeking process in initial interactions. Unpublished doctoral dissertation, Kent State University, Kent, OH.
- Martin, M., & Rubin, R. B. (1990, November). The development of the communication flexibility scale. Paper presented at the meeting of The Speech Communication Association, Chicago.
- McCroskey, J. C. (1992). Reliability and validity of the willingness to communicate scale. Communication Quarterly, 40, 16-25.
- McCroskey, J. C., & Richmond, V. P. (1990). Willingness to communicate: A cognitive view. Journal of Social Behavior and Personality, 5, 19-39.
- McCroskey, J. C., & Young, T. J. (1979). The use and abuse of factor analysis in communication research. Human Communication Research, 5, 375-382.
- Miller, K. I., & Monge, P. R. (1986). Participation, satisfaction, and productivity: A meta-analytic review. Academy of Management Journal, 29, 727-753.
- Mischel, W. (1968). Personality and assessment. New York: J. Wiley.
- Montgomery, B. M., & Norton, R. W. (1991). Sex differences and similarities in communicator style. Communication Monographs, 48, 121-132.
- Norton, R., & Warwick, B. (1976). Assertiveness as a communication construct. Human Communication Research, 1, 62-66.
- Norton, R. W. (1978). Foundation of a communicator style construct. Human Communication Research, 4, 99-112.
- Norton, R. W. (1983). Communicator style: Theory, application, and measurement. Beverly Hills, CA: Sage.
- Parks, M. R. (1985). Interpersonal communication and the quest for personal competence. In M. L. Knapp & G. R. Miller (Eds.), Handbook of interpersonal communication (pp. 171-201). Beverly Hills, CA: Sage.

- Putnam, L. L., & Folger, J. P. (1988). Communication, conflict, and dispute resolution: The study of interaction and the development of conflict theory. Communication Research, 15, 349-359.
- Putnam, L. L., & Jones, T. S. (1982). Reciprocity in negotiations: An analysis of bargaining interaction. Communication Monographs, 49, 171-179.
- Rakow, L. F. (1986). Rethinking gender research in communication. Journal of Communication, 35, 11-26.
- Rancer, A. S., & Dierks-Stewart, J. J. (1985). The influence of sex and sex-role orientation on trait argumentativeness. Journal of Personality Assessment, 49, 69-70.
- Rancer, A. S., & Infante, D. A. (1985). Relations between motivation to argue and the argumentativeness of adversaries. Communication Quarterly, 33, 209-218.
- Reiches, N. A., & Harral, H. B. (1974). Argument in negotiation: A theoretical and empirical approach. Speech Monographs, 41, 36-48.
- Rubin, R. B., Martin, M. M., Bruning, S. S., & Powers, D. E. (1991, October). Interpersonal communication competence: Scale development and test of a self-efficacy model. Paper presented at the meeting of the Speech Communication Association, Atlanta.
- Sashkin, M. (1984). Participative management is an ethical imperative. Organizational Dynamics, 14, 5-23.
- Smith, D. H. (1969). Communication and negotiation outcome. The Journal of Communication, 19, 248-256.
- Snavely, W. B. (1981). The impact of social style upon person perception in primary relationships. Communication Quarterly, 29, 132-143.
- Spitzburg, B. H., & Cupach, W. R. (1989). Handbook of interpersonal competence research. New York: Springer-Verlag.
- Stanley, C. C., & Cohen, J. L. (1988). Communicator style and social style: Similarities and differences between the sexes. Communication Quarterly, 36, 192-202.
- Talley, M. A., & Richmond, V. P. (1980). The relationship between psychological gender orientation and communicator style. Human Communication Research, 6, 326-339.
- Tucker, R. K., Weaver, R. L., & Redden, E. M. (1983). Differentiating assertiveness, aggressiveness, and shyness: A factor analysis. Psychological Reports, 53, 607-611.

- Turnbull, A. A., Strickland, L., & Shaver, K. G. (1976). Medium of communication, differential power, and phasing of concessions: Negotiating success and attributions to the opponent. Human Communication Research 2, 262-270.
- Weinstein, E. A. (1969). The development of interpersonal competence. In D. A. Goslin (Ed.), Handbook of socialization theory and research (pp. 753-775), Chicago: Rand McNally.
- Wheless, V. E., & Lashbrook, W. B. (1987). Style. In J. C. McCroskey & J. A. Daly (Eds.), Personality and interpersonal communication (pp. 243-274). Newbury Park, CA: Sage.
- Wiemann, J. M. (1977). Explication and test of a model of communication competence. Human Communication Research, 3, 195-213.
- Wilson, S. R., & Putnam, L. L. (1990). Interaction goals in negotiation. Communication yearbook, 13, 374-406.
- Wolfe, J. (1968). Psychotherapy by reciprocal inhibition. Stanford, CA: Stanford University Press.
- Wood, J. T., & Phillips, G. M. (1984). Report on the 1984 conference on gender and communication research. Communication Quarterly, 32, 175-177.

Table 1

The Willingness to Collaborate-Trait Scale

These statements are about your communication behavior in general when it comes to decision making situations that involve others. Circle the number that best describes how true each of the statements is for you personally.

almost always true = 5  
 often true = 4  
 occasionally true = 3  
 rarely true = 2  
 almost never true = 1

1. When others tell me I should do something, I insist upon knowing why .....	5	4	3	2	1
2. I bargain with others when I think it's needed .....	5	4	3	2	1
3. When there are terms I don't understand, usually I won't bother to ask what they mean .....	5	4	3	2	1
4. Often I do not argue my point of view when conflicting views exist .....	5	4	3	2	1
5. I take charge when decisions have to be made	5	4	3	2	1
6. Often I do not explore alternative solutions	5	4	3	2	1
7. I enjoy participating in decision making ...	5	4	3	2	1
8. I tend to avoid offering suggestions for options .....	5	4	3	2	1
9. Most of the time I initiate suggestions ....	5	4	3	2	1
10. I do not ask about alternative solutions ...	5	4	3	2	1
11. Usually I speak frankly about how I feel ...	5	4	3	2	1
12. If I do not understand all the options, I keep quiet .....	5	4	3	2	1
13. I look others in the eyes when I disagree ..	5	4	3	2	1

Note: Reverse scoring for 3, 4, 6, 8, 10, and 12.



Table 2

Principal Components-Varimax Rotated Factors, Means, and  
Standard Deviations: Willingness to Collaborate-Trait Scale

Items	M *	Factor loadings **		
		I	II	III
3. When there are terms I don't understand, usually I won't bother to ask what they mean	3.58 (.98)	.76	.10	.11
6. Often I do not explore alternative solutions	3.60 (.88)	.73	.16	-.06
4. Often I do not argue my point of view when conflicting views exist	3.46 (1.03)	.67	.18	.07
10. I do not ask about alternative solutions	3.72 (.89)	.66	.10	.01
8. I tend to avoid offering suggestions for options	3.60 (.95)	.64	.29	-.01
12. If I do not understand all the options, I keep quiet	3.73 (.99)	.60	.29	.11
5. I take charge when decisions have to be made	3.61 (.91)	.15	.71	.02
7. I enjoy participating in decision making	3.66 (.99)	.25	.69	-.08
9. Most of the time I initiate suggestions	3.72 (.82)	.21	.63	.02
11. Usually I speak frankly about how I feel	3.84 (.87)	.15	.61	.19

(Continued)

Communication Trait

33

Items	<u>M</u> *	Factor loadings **		
		I	II	III
13. I look others in the eyes when I disagree	3.73 (.95)	.12	.57	.19
1. When others tell me I should do something, I insist upon knowing why	3.89 (.85)	.05	.03	.82
2. I bargain with others when I think it's needed	3.64 (.83)	.04	.16	.75

Note: \* Standard deviations in (). \*\* Factor I (eigenvalue = 4.17, variance = 32.1%); Factor II (eigenvalue = 1.42, variance = 10.9%); Factor III (eigenvalue = 1.15, variance = 8.9%).

Table 3

Stepwise Multiple Regression of Willingness to  
Collaborate-Trait on Communication Traits

---

Criterion variable: Willingness to collaborate-trait

Order of entry	<u>R</u>	<u>R</u> <sup>2</sup>	R <sup>2</sup> Change	Beta	<u>F</u> for Beta *
Argumentativeness	.58	.33		.55	198.86
Interpersonal communication					
competence	.67	.45	.12	.37	164.09
Attentive	.69	.48	.03	.17	120.96
Willingness to					
communicate	.70	.49	.01	.13	95.57
Verbal aggressiveness	.71	.50	.01	-.09	78.64
Relaxed	.71	.51	.01	.09	60.30
Friendly					.89
Gender					.57

---

\*  $p = < .001$ .