DOCUMENT RESUME

ED 325 890 CS 507 331

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TITLE The Development of a Communication Flexibility Scale.
PUB DATE Nov 90
NOTE 23p.; Paper presented at the Annual Meeting of the Speech Communication Association (76th, Chicago, IL, November 1-4, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Students; Communication Research; *Communication Skills; Higher Education; *Rating Scales; *Test Reliability; *Test Validity
IDENTIFIERS *Communication Competencies

ABSTRACT

Behavioral flexibility has long been recognized as an essential component of communication competence. A study served to develop a communication flexibility scale and corresponding validity and reliability information, and examined the relationship between communication flexibility and related constructs. The Communication Flexibility Scale demonstrated acceptable levels of reliability. In addition, communication flexibility was positively related to social desirability, communication adaptability, and behavioral flexibility and unrelated to rhetorical sensitivity. (One figure and three tables of data are included.) (Author/SR)

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THE DEVELOPMENT OF A COMMUNICATION FLEXIBILITY SCALE

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Paper presented at the
Speech Communication Association
Annual Meeting

November, 1990

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Abstract

Behavioral flexibility has long been recognized as an essential component of communication competence. This paper reports the development of a communication flexibility scale and corresponding validity and reliability information. The Communication Flexibility Scale demonstrated acceptable levels of reliability. In addition, communication flexibility was positively related to social desirability, communication adaptability, and behavioral flexibility and unrelated to rhetorical sensitivity. Discussion focused on future scale research and conceptual definitions of the constructs studied.

Behavioral flexibility is an integral component of communication competence (Bochner & Kelly 1974; Wiemann 1977). Wiemann (1977) defined behavioral flexibility as the adaptations people make within situations and the adaptations they make from situation to situation. A key notion is the ability to adapt to the situation (e.g., Bernstein, 1970) and choose from a behavioral repertoire those behaviors that are most effective and appropriate (Allen & Wood, 1978).

Likewise, Spitzberg and Cupach (1984) concluded that behavioral flexibility--like adaptability, creativity, style-flexing, and behavioral repertoire--is a term used to represent actions of a stable individual who can produce consistent and effective responses in others by adjusting to the situation. Spitzberg and Cupach argued that behavioral flexibility is a skill, one that requires people to apply different behaviors and skills in different contexts and situations. They noted that significantly more research has measured the ability to adapt than has actually measured observed behavior adaptation and argued that researchers who view communication competence as a trait are basically looking at the individual's behavioral flexibility and social adaptability skills.

Possessing behavioral flexibility is a necessary but not a sufficient condition for competence in a given situation. As Rubin (1983, 1990) has noted, competent communicators must have knowledge of how to communicate, motivation to perform actions they believe will be effective, and the skills necessary to enact the communication. Also necessary is the ability to enact appropriate skills and change behavior when necessary. Students lacking in any of these three (knowledge, motivation, and skill) areas need instruction tailored to the deficiency. However, lack of behavioral flexibility is not as easy to remedy because it is central to a communicator's total communication style.

But, before we can provide instruction in behavioral flexibility, we must be able to measure it. In this paper, we examine several lines of research that have helped to form current perspectives on behavioral flexibility: linguistic flexibility, role playing, sex roles, rhetorical sensitivity, communication adaptability, and behavioral flexibility in individuals and groups. We then report the results of a research investigation that attempted to (a) develop and (b) establish validity and reliability for a communication flexibility scale.

Behavioral Flexibility Research

One group of researchers has studied the verbal adjustments communicators make to people and situations. Brown and Gilman (1960) and Wiener and Mehrabian (1968) noted that people adjust their language according to demands of the situation. Bernstein (1970) called the ability of the communicator to adapt to the situation "code-switching." Giles, Mulac, Bradac, and Johnson (1987) explained that Speech Accommodation Theory recognizes that a person needs to verbally adapt to the situation. Thus, verbal flexibility is seen as essential to communication; communicators must be prepared to make adaptations according to demands of the context.

Other researchers have studied the concept of adaptation as role-playing. For example, Goffman (1959) described people who adapt to the context and situation as actors who play various roles. According to Goffman, the competent communicator can portray the proper role at the proper time and can also help others play their roles. According to Robinson (1972), good communication is predicated on good role switching. Argyle (1969) agreed in stating that people with the ability to role-take should be able to gain rapport quickly with others, adapt quickly to the situation, and get along with a wide cross-section of personalities.

In addition, several sex-role researchers have looked at how sex-role flexibility affects communication. Bem (1974) hypothesized that one who is androgynous would be behaviorally flexible. Heilbrun and Pitman (1979) found that high androgyny males were also high in sex-role consistency. When they compared athletic directors with MBA graduate students, Williams and Miller (1983) discovered that athletic directors were more androgynous and more behaviorally flexible than MBA graduate students. Therefore, sex-role researchers have studied behavioral flexibility, but have used different operationalizations.

One attempt to operationalize role playing identified the components of a rhetorically sensitive person (Hart & Burks, 1972). Rhetorically sensitive people: (a) attempt to accept that role taking is part of the human interaction process; (b) attempt to avoid stylized behavior; (c) are willing to undergo the process of adaptation; (d) are other-oriented and realize that some things are better left unsaid; and (e) understand that an idea can be rendered in many ways. Hart, Carlson, and Eadie (1980) expanded on this concept of the rhetorically sensitive person and created an instrument, the RHETSEN Scale, to measure rhetorical sensitivity. The authors believed that rhetorically sensitive people can best be distinguished by contrasting them with two other types of communicators, noble selves and rhetorical reflectors. Noble selves are people who never change, no matter what situation they are in or what they encounter; they would consider hypocritical any change in which they did not believe. Rhetorical reflectors are people who have no one self; they present a different self to different people and in different situations.

Several authors have commented on rhetorical sensitivity, stating that the RHETSEN scale: (a) is an attempt to operationalize communication (Daniels & Frandsen, 1984; O'Keefe & McCornack, 198 ; (b) takes a cultural perspective (Katriel & Philipsen, 1981; Vangelisti & Daly, 1989); and (c) is other-oriented (Spitzberg & Hecht, 1984). While the RHETSEN and rhetorical sensitivity have been addressed briefly in several articles, the RHETSEN Scale remains untested. Few studies have used the RHETSEN Scale, and the results of those studies that

did use the RHETSEN have shown little support of convergent and discriminant validity for the scale.

The Communication Adaptability Scale is another recent instrument constructed to measure communication competence. Zakahi and Duran (1982) saw communication adaptability as an integral part of communication competence and Duran (1983) defined communication adaptability as "the ability to perceive socio-interpersonal relationships and adapt one's interaction goals and behaviors accordingly" (p. 320). According to Duran, communication adaptability consists of individuals' cognitive skills (ability to perceive) and behavioral skills (ability to adapt), interaction goals, and understanding of the communication context. Six factors comprised communication adaptability: social confirmation, social experience, articulation, social composure, wit, and appropriate disclosure. Duran argued that external validity of the Communicative Adaptability Scale could be established by examining the relationship between an observer's rating of a person's behavior and the person's self-report behavior.

A few studies have reported using the Communication Adaptability Scale. Zakahi and Duran (1985) found that social experience and social confirmation were related to loneliness. Duran and Zakahi (1987) later studied the relationship between communication adaptability, communicator style, and communication satisfaction and found that the social confirmation subscale of the Communication Adaptability Scale and the attentive and friendly subscales of Norton's Communicator Style Measure were the best predictors of communication satisfaction. However, the scale's relationship to other communication instruments is unknown. We still need to know how adaptability is related to flexibility and, in a larger sense, a person's ability to interact with others.

Several studies have examined the relationship between behavioral flexibility and interaction management ability within groups or between people. Leathers (1969) showed that a partner's communication produces different effects on a communicator's behavioral flexibility. Also, Infante (1981) used McCroskey and Wright's (1971) Interaction Behavior Measure and found that highly argumentative people are less flexible than those low in argumentativeness.

Behavioral flexibility has been examined in a variety of interaction contexts. Bochner and Yerby (1977), for example, studied teachers and behavioral flexibility. Ruben (1976) identified behavioral flexibility as a component of intercultural competence. And Knapp, Ellis, and Williams (1980) studied interpersonal relationships and concluded that as the intimacy of a relationship increases, communication becomes more personalistic (flexible).

One research area that looks at the role that interaction management plays in communication is communication competence. Bochner and Kelly (1974), in a seminal work on communication competence, defined interpersonal competence as the ability to relate effectively to self and others. They argued that interpersonal competence could be judged by three criteria: (a) the ability to formulate and achieve objectives; (b) the ability to collaborate effectively with others; and (c) the ability to adapt appropriately to situational or environmental variations.

Bochner and Kelly (1974) also identified five basic skills that the interpersonally competent person would possess: empathy, owning feelings and thoughts, descriptiveness, self-disclosure, and behavioral flexibility. Bochner

and Kelly (1974) defined behavioral flexibility as a person's ability to relate in new ways when necessary. One measure of behavioral flexibility would be the ability to identify and focus on different ways of responding in a given situation. One who is behaviorally flexible would recognize that in any given situation there are various alternatives from which to choose. Bochner and Kelly theorized that one who was very behaviorally flexible would have a high number of interactions with others, would make a high number of owning statements, and would not offer a great amount of negative feedback. The authors thought that empathic communication, descriptiveness, owning feelings and thoughts, and self-disclosure should all affect one's behavioral flexibility and they concluded that self-, interactant-, or observer-assessment could be used to measure these five skills.

Wiemann (1977) also considered behavioral flexibility to be central to communication competence, and he proposed a 5-component model of communication competence which included interaction management, empathy, affiliation/support, social relaxation, and behavioral flexibility. Wiemann defined communication competence as "the ability of an interactant to choose among available communicative behaviors in order that he may successfully accomplish his own interpersonal goals during an encounter while maintaining the face and line of his fellow interactants within the constraints of the situation" (p. 188). This refers to the adaptations people make within situations and the adaptations they make from situation to situation. Verbal immediacy cues (Wiener & Mehrabian, 1968) and choice of the proper address used by the communicator in a given situation (see, e.g., Argyle, 1969; Brown & Gilman, 1960; Robinson, 1972) were considered examples of behavioral flexibility.

In his study, Wiemann (1977) had participants watch a videotape and fill out an instrument on the communication behavior of the communicators in the videotape. Some of the items in Wiemann's instrument that measured behavioral flexibility were: "Subject can adapt to changing situations"; "Subject treats people as individuals"; "Subject generally knows what type of behavior is appropriate in any given situation"; "Subject is flexible"; and "Subject is sensitive to others' needs of the moment" (p. 205). Using this instrument requires that cross-situational and cross-relational inferences be made about the subject from the one observed encounter. Raters judge the communicators' overall behavioral flexibility after viewing them in a situation dealing with others. Wiemann concluded that the competent communicator is a person who is other-oriented and yet maintains the ability to accomplish his/her own interpersonal goals.

Purpose

Thus, behavioral flexibility appears to be a central aspect of communication competence. In an ever-changing world, the need to change or adapt seems essential. One who is behaviorally flexible should be more competent--effective and appropriate--in communication situations than a person who is low in behavioral flexibility.

One purpose of this investigation was to construct a communication flexibility scale and to establish reliability and validity for the scale. As we have seen, several researchers included behavioral flexibility subscales in their instruments, but no one instrument has yet been constructed to measure communication flexibility alone. Each of the subscales that exist consists of only a few items and was not specifically designed to measure communication

flexibility. Researchers have mainly factor analyzed larger scales and then labelled one of the factors "flexibility" or "behavioral flexibility." In this study we will consider behavioral flexibility to be cross-situational and will construct an instrument that reflects this.

A second purpose of this study was to examine the relationship between communication flexibility and related constructs. While one can argue theoretically that rhetorical sensitivity, communication adaptability, and communication flexibility are all related to effective communication, there are differences in the definitions of the three constructs.

Rhetorical sensitivity is concerned with the individual's general communicator style, not the individual's ability to change or adapt according to the situation. While the rhetorically sensitive person would always study the possible alternatives before making a communication decision, the noble self would be rigid and would communicate the same way without considering the situation, and the rhetorical reflector would respond in the way that he or she thinks the other person in the communication situation would want him or her to respond.

Communication adaptability focuses on one's ability to perceive what changes may be needed in a situation, to decide what modifications one needs to make in behaviors and goals, and to make those adaptations. In contrast, communication flexibility is concerned solely with one's communication behavior and how one changes his/her communication behavior to be effective within the constraints of the situation. Communication flexibility is not concerned with the cognitive process that takes place in adapting one's behavior or goals, nor is communication flexibility concerned with identifying and labelling a person's general communication style. Communication flexibility concentrates on the changes and adaptations an individual makes in his or her communication behavior within a particular situation and from situation to situation.

When constructing a measure of a communication flexibility, one must decide what is going to be measured (i.e., behaviors, attitudes, or reports of anticipated action) and who is going to do the measuring (i.e., one's self, an interactant, or a non-interactant observer). A multitrait-multimethod approach would provide the experimenter with a way to establish validity for an instrument by having at least two different types of raters (self and others) measure communication flexibility and by comparing at least two measures (communication adaptability, rhetorical sensitivity, and behavioral flexibility) that tap similar constructs and two measures that tap different constructs.

Campbell and Fiske (1959) suggested that one needs to use a multitrait, multimethod approach when attempting to establish convergent and discriminant validity. Convergent validity is gained by using different methods (self-report and observer-report) to measure the same trait or characteristic (behavioral flexibility) while discriminant validity is assessed by using the same method to measure different traits (noble self, rhetorical reflector, social desirability). Campbell and Fiske advised test constructors to use at least two different methods and to measure at least two different traits. In this study, a multitrait-multimethod matrix was used to develop a measure of communication flexibility.

Method

The first stage of scale development for the Communication Flexibility Scale was a pilot study of a 25-item measure which had two possible responses for each item, one which was behaviorally flexible and the other which was not behaviorally flexible. 250 college students completed the 25 forced-choice items, the Marlowe and Crowne Social Desirability Scale (Crowne & Marlowe, 1960), and the Hart et al. (1980) Rhetorical Sensitivity Scale. An individual's communication flexibility score consisted of the sum of the subject's responses to the 25 communication flexibility items. Pearson correlations were computed for communication flexibility and social desirability, rhetorical self, noble self, and reflector self. Communication flexibility was not significantly correlated with any of the other variables. A reliability analysis of the scale resulted in a coefficient alpha of .52. Thus, the initial instrument did not demonstrate sufficient reliability or validity. While the scale had some face validity, the pilot study did not seek to establish construct validity and did not provide concurrent validity.

The scale was changed from a format where subjects chose between two alternative responses to a format where, given a brief scenario about the potential behavior of a person, subjects, using a 5-point Likert-type scale, would indicate how much like the person's behavior their own communication behavior is or would be. It was thought that the forced-choice format did not allow subjects to give a true report of their communication behavior and that by increasing responses, more valid communication flexibility scores might be achieved. Some of the original items were deleted (to improve face validity) and others were added (to improve content validity) to form a 20-item scale.

During the second stage of scale development, 253 students (M age = 21.04, 54.9% female) enrolled in introductory communication classes were asked to complete the 20-item Communication Flexibility Scale (CFS) (see Figure 1), Duran's (1983) Communication Adaptability Scale, and the Hart et al. (1980) RHETSEN Scale. The second and third measure were used to provide concurrent and discriminant validity. Subjects also completed the Social Desirability Scale (Crowne & Marlowe, 1960) and a short semantic differential scale rating their own behavioral flexibility.

While the ideal way to monitor communication flexibility would be to monitor a person's communication in many natural situations, this was not possible. However, students' closest friends have witnessed their communication in different situations. Therefore, each subject asked one friend to fill out a short semantic differential scale rating their friend (the subject) on behavioral flexibility and return the scale via campus mail to the investigator. 119 (47%) were returned. The friend's rating of the person on the semantic differential was compared with the individual's own rating of himself/herself on the semantic differential. This comparison of self-rating and other-rating using the same instrument would provide information on the scale's potential convergent validity. We did not use the 20-item CFS scale here because of it's length and consequent projected low rate of return.

Instrumentation

In addition to the CFS created in this study, three established instruments were used: Marlowe and Crowne's (Crowne & Marlowe, 1960) Social Desirability Scale, Duran's (1983) Communication Adaptability Scale, and the Hart et al.

(1980) RHETSEN scale. In addition, a new scale was created to measure behavioral flexibility.

Marlowe and Crowne's (Crowne & Marlowe, 1960) Social Desirability Scale (SDS) consists of 33 statements about social behavior to which people respond "true" or "false," depending on whether the statement is true of their social behavior. Using the Kuder-Richardson formula, Crowne and Marlowe computed a reliability coefficient of .88. They also found that the SDS was significantly positively correlated with Edwards' Social Desirability Scale and the Minnesota Multiphasic Personality Inventory (MMPI) Test-taking and Lie subscales. The SDS was significantly negatively correlated with the MMPI Validity and Test-taking Attitude, Psychopathic Deviate, and Schizophrenia subscales. Researchers often use this scale to control for social desirability in studies using self-report measures.

Duran's (1983) Communication Adaptability Scale (CAS) is made up of 30 statements, five statements for each of the six subscales: social confirmation, articulation, social composure, wit, appropriate disclosure, and social experience. Participants rate themselves using 5-point scales (ranging from "never true of me" to "always true of me"). Duran reported the coefficient alphas for the CAS subscales as: .85 for Social Confirmation, .78 for Social Composure, .77 for Articulation, .76 for Social Experience, .72 for Wit, and .71 for Appropriate Disclosure. Duran established construct validity for his scale by demonstrating that the CAS accounted for between 48% and 55% of the variance in self-esteem and communication apprehension. In a later study, Duran and Zakahi (1987) found that the social confirmation subscale could be used as a predictor of communication satisfaction.

The Hart et al. (1980) RHETSEN Scale consists of 40 statements dealing with communication attitudes and behaviors. Respondents rate each statement according to how closely the statement matches their own opinion ("almost always true" to "almost never true"). The rhetorical self subscale uses 28 of the items, the noble self subscale uses 24 items, and the rhetorical reflector uses 24 items. Several of the items are found on all three of the subscales, but they are coded differently. Hart et al. (1980) reported coefficient alphas of .76 for the Rhetorical Self subscale, .80 for the Noble Self subscale, and .63 for the Rhetorical Reflector subscale. The authors established criterion validity for the scale in that students who scored high in rhetorical sensitivity were also rated high in rhetorical sensitivity by their instructors. Also pastoral counselors scored higher in rhetorical sensitivity than graduate students, and sorority sisters rated most likely to change their behavior scored higher on the rhetorical reflector subscale than sorority sisters rated most unlikely to change their behavior, who scored higher on the noble self subscale. Hart et al. also claimed some discriminant validity in that rhetorical sensitivity was found to be negatively correlated with social desirability.

A behavioral flexibility scale, which could be used for self-rating and other-rating, was created for this study. A focus group of communication scholars reviewed various semantic differentials pairs suggested by Osgood, Suci, and Tannenbaum (1957) and identified terms that they believed were related to behavioral flexibility. The two flexibility items used by McCroskey and Wright (1971)--changeable/unchangeable and flexible/ inflexible--were added to eight other pairs of terms chosen by focus group participants: rough/smooth, subdued/lively, nonconforming/conforming, useful/useless, hard/soft, sharp/dull, passive/active, and predictable/ unpredictable.

Coefficient alphas were computed for all the scales that were used in this study to assess their internal reliability. Then, a correlation matrix was constructed to look at the possible relationships between the communication variables. With the sample size of 250, correlations of .17 ($p < .05$, one-tailed) were interpretable at a power of .80. With a sample size of 119 (those involving friends' perceptions), correlations of .23 were interpretable at a power of .80.

Results

Reliability of Related Measures

Cronbach's coefficient alphas, summed scale means, and standard deviations for all scales used in this study are reported in Table 1. The Social Desirability Scale's coefficient alpha of .75 compared favorably with the coefficient alpha of .88 reported by Crowne and Marlowe (1960). Readers should note that, although subjects in both studies were college students, Crowne and Marlowe had an n of 39 for their reliability analysis, while the reliability analysis in this study was based on 250 subjects.

Table 1 about here

Reliability analyses of the six subscales of the Communication Adaptability Scale resulted in coefficient alphas similar to those found by Duran (1983): .75 for social confirmation; .81 for social composure; .80 for articulation; .81 for social experience; .75 for wit; and .67 for appropriate disclosure. In addition, a principal components factor analysis with varimax rotation of the 30-item Communication Adaptability Scale was executed in order to see if the scale actually factored into the six subscales identified by Duran (1983). The factor analysis produced a seven-factor solution which accounted for 60.9% of the variance. Each of the seven factors compared with one of the six factors identified by Duran, with Duran's factor of Appropriate Disclosure split into two factors in this analysis. Because the subscales were highly correlated with one another and because the 30-item subscale was more reliable than the individual subscales, a Communication Adaptability Scale total score was used in further analyses. The 30-item Communication Adaptability Scale had a coefficient alpha of .84.

The coefficient alphas of the RHETSEN subscales in this study compared favorably with the coefficient alphas reported by Hart et al. (1980). They reported a coefficient alpha of .76 for the rhetorical sensitivity subscale, .80 for the noble self subscale, and .57 for the rhetorical reflector subscale. In this study, the coefficient alpha for rhetorical sensitivity was .78, .79 for noble self, and .57 for rhetorical reflector.

Self-Rated and Other-Rated Behavioral Flexibility

To construct instruments for the self-rating and other-rating of behavioral flexibility, we factor analyzed the semantic differential scales to identify the dimensions of behavioral flexibility. Separate principal components factor analyses of the self- and other-rating semantic differentials produced identical factor solutions; each had the same four items loaded on the first factor: flexible/inflexible, rough/smooth, hard/soft, and unchangeable/changeable.

Therefore, the self-rated four items were summed to create a Self-Rated Behavioral Flexibility score while the other-rated four items were summed to derive an Other-Rated Behavioral Flexibility score. Reliability analysis of the 4-item Self-Rated Behavioral Flexibility resulted in a coefficient alpha of .66, while the 4-item Other-Rated Behavioral Flexibility coefficient alpha was also .66.

Structure and Reliability of the Communication Flexibility Scale

Reliability analysis of the 20-item Communication Flexibility Scale produced a coefficient alpha of .62. By eliminating six items that were negatively correlated or had low item-total correlations (below .18), a 14-item Communication Flexibility Scale was formed which had an alpha of .70 and a split-halves reliability of .71 (the alphas of the two halves were .50 and .55). The mean for the CFS was 49.99, the median was 50.00, the mode was 47.00, the standard deviation was 6.87, and the scores ranged from 21 to 65. Total scores on the 14-item scale were used in further analyses. T-tests were used to compare the top third of participants in communication flexibility and the bottom third of participants in communication flexibility on the communication measures used in this study. Those who scored higher in communication flexibility scored significantly higher on social desirability [$t(157) = -6.84$, $p < .01$], communication adaptability [$t(150) = -6.89$, $p < .01$], self-rated flexibility [$t(158) = -4.18$, $p < .01$], and other-rated flexibility [$t(73) = -2.97$, $p < .01$].

Test of the Multitrait Multimethod Model

One-tailed pearson correlations (see Table 2) were computed to check if the relationships predicted in the multitrait, multimethod matrix of Communication Flexibility did in fact exist. Positive relationships were expected between communication flexibility and communication adaptability, rhetorical sensitivity, and the two behavioral flexibility scales. No relationship was expected between communication flexibility and social desirability.

Table 2 about here

The 14-item Communication Flexibility Scale was positively correlated with the total Communication Adaptability Scale and five of its subscales: Social Confirmation, Social Composure, Articulation, Appropriate Disclosure, and Social Experience. The Communication Flexibility Scale was not significantly correlated with the Wit subscale.

The 14-item Communication Flexibility Scale was not significantly correlated with any of the RHETSEN's three subscales. We expected the Communication Flexibility Scale to be negatively related to the noble self and rhetorical reflector subscales and positively related to rhetorical sensitivity, but none of these relationships were apparent in this study.

The 14-item Communication Flexibility Scale was significantly and positively correlated at the .05 level with the 4-item Other-Rated Behavioral Flexibility Scale and at the .001 level with the 4-item Self-Rated Behavioral Flexibility Scale. Communication flexibility was also significantly correlated with social desirability. While we expected the CFS to be significantly and

positively correlated with communication adaptability and the two other behavioral flexibility measures, the positive relationship between communication flexibility and social desirability was unexpected.

The 4-item Other-Rated Behavioral Flexibility Scale was significantly and positively correlated with the 4-item Self-Rated Behavioral Flexibility Scale which suggested that either self-report or other-report might be used to measure one's behavioral flexibility. However, 75% of the variance was not accounted for. A t-test was done comparing the self- and other-ratings for each of the behavior flexibility scale items and for the 4-item Self-Rated Behavioral Flexibility and the 4-item Other-Rated Behavioral Flexibility scales (see Table 3). The results showed that raters differed on several of the items, including two which were included in the 4-item scales (rough/smooth and flexible/inflexible). Subjects considered themselves more flexible while their friends considered them smoother. The t-test between the two 4-item scales, however, showed no significant differences.

Table 3 about here

Further analysis found that the Communication Adaptability Scale was significantly positively correlated with the behavior flexibility scales, the Social Desirability Scale, and the Rhetorical Reflector subscale, while significantly negatively correlated with the Rhetorical Self. The Rhetorical Self subscale was also negatively correlated with the Noble Self subscale, the Rhetorical Reflector subscale, and the Social Desirability Scale. Hart et al. (1980) argued that rhetorical sensitivity should be negatively correlated with rhetorical sensitivity because the rhetorically sensitive person is socially autonomous.

Discussion

While communication flexibility has been considered an important part of a person's communication competence (Bochner & Kelly, 1974; Wiemann, 1977), and has been measured in several ways (Heilbrun & Pitman, 1979; McCroskey & Wright, 1971; Wiemann, 1977), to date no scale has been designed specifically to measure communication flexibility. In this study, we defined communication flexibility as the ability to adapt one's communication according to the constraints of the situation.

The Communication Flexibility Scale and the Other- and Self-Rated Flexibility Scales showed some promise of being reliable and valid. The 14-item Communication Flexibility Scale has content validity in that it looks at a variety of situations in measuring flexibility instead of making a judgment of flexibility in only one situation (Wiemann, 1977). Because it included a variety of situations, we expected a somewhat lower alpha. Yet, the final derived alpha was still acceptable. Also, a split-half reliability test showed equality of the two halves. Although the alpha for the two behavioral flexibility scales (comprised of the four semantic differential items) was somewhat below .70, an alpha of .66 is not unacceptable considering the few items in the scales. Thus, the scales demonstrated internal consistency.

Results also suggested that the 14-item Communication Flexibility Scale, the Communication Adaptability Scale, the Self-Rated Flexibility, and the Other-Rated Flexibility scales were all positively and significantly correlated with Social Desirability. People who adapt their behavior according to the situation apparently are aware of what is going on in their environment and make the needed adjustments to coexist with the situation. This effort for coexistence can be thought of as a type of social desirability. Crowne and Marlowe (1960), in fact, defined social desirability as an individual's need "to obtain approval by responding in a culturally appropriate and acceptable manner" (p. 353).

There also seems to be a strong relationship between self-report scales and social desirability. All the self-report scales except for the RHETSEN scale were positively related to social desirability. According to Hart et al. (1980), the RHETSEN subscales should be negatively related to social desirability. In this study, social desirability was positively correlated with rhetorical reflector scores and was negatively correlated with rhetorical sensitivity. There was no significant relationship between social desirability and noble self.

While the theory supporting communication adaptability is similar to that behind communication flexibility, communication adaptability appears to be different from communication flexibility. The Communication Adaptability Scale deals with a person's cognitive and behavioral skills by looking at a person's total communication style while the Communication Flexibility Scale looks only at the person's behavioral change in various situations. However, the two scales are linearly related. Seemingly the two scales are both measuring traits of effective communication. How the traits differ from one another will need to be investigated in the future.

Communication adaptability (Duran, 1983) was linearly related to communication flexibility, self-rated flexibility, other-rated flexibility, social desirability, noble self tendencies, and gender. Also, females scored higher in communication adaptability than males (Duran did not report any gender results). The Communication Adaptability Scale was significantly negatively related to Rhetorical Self, which was somewhat unexpected because both constructs claim to be related to effective communication. Actually, few of the predicted relationships between rhetorical sensitivity and other related constructs materialized.

The question of what the RHETSEN measures arose repeatedly when reviewing the results of this study. Rhetorical Self was not correlated with any of the flexibility scales and was negatively related to social desirability and communication adaptability. The Rhetorical Self subscale was negatively related to the Noble Self and Rhetorical Reflector subscales, but that is to be expected considering that the subscales use many of the same items and that an answer that is coded high for the Rhetorical Self would be coded low for the other two scales, and vice versa.

Hart et al. (1980) claimed that partial correlations controlling for the noble self and rhetorical reflector are needed when comparing the Rhetorical Self to other communication variables. We did not believe this was necessary here because we suspected that one who scores high in rhetorical sensitivity would also theoretically score high in adaptability and flexibility. This proved not to be the case. Therefore, a partial correlation was computed, first controlling for the noble self and then for the rhetorical reflector, but the

results still did not produce any positive relationships between rhetorical sensitivity and flexibility, communication adaptability, and social desirability. So what is the rhetorical self subscale measuring?

Perhaps rhetorical sensitivity is measuring tentative behavior. Hart et al. (1980) reported an adequate internal reliability coefficient alpha for the rhetorical self subscale in their study, and in this study the alpha was .78. However, a measurement theorist would argue that a coefficient alpha for a scale which codes the middle (i.e., 3) response as 2, the response on each side (i.e., a 2 or 4) of the middle as 1, and the outer responses (i.e., 1 or 5) as 0, would be meaningless (Kerlinger, 1986). In the Rhetorical Self subscale of the RHETSEN scale, the difference between "frequently true" and "almost never is true," is equal to the difference between "infrequently true" and "almost never true." One could then argue that the rhetorical self subscale is measuring something, but it does not seem to be measuring communication skills. Hart et al. noted that the rhetorically sensitive person would be tentative, and possibly that is what this scale is measuring because the desired rhetorical sensitive response is "sometimes true." Studies thus far (see, e.g., Dowling & Bliss, 1984) have had a difficult time explaining what the RHETSEN is measuring. While the theory behind rhetorical sensitivity is well stated, the measurement and applicability of the RHETSEN scale remain untested.

This leads to the question of what the Communication Flexibility Scale is measuring. The 14-item Communication Flexibility Scale was significantly related to Self-Rated Flexibility, Other-Rated Flexibility, Social Desirability, Communication Adaptability, and the gender of the participant (females scored higher in communication flexibility). A post-hoc t-test that compared the high and low communication flexibility participants found that those who scored high in communication flexibility scored significantly higher on Social Desirability, Communication Adaptability, Self-Rated Flexibility, and Other-Rated Flexibility. A post-hoc Mancova which compared the same two groups while controlling for social desirability produced similar results. The Communication Flexibility Scale thus seemed to have some discriminant validity.

The results of this study have demonstrated initial support for the Communication Flexibility Scale. Participants used two measures to rate their flexibility and the scores of these two measures were found to be highly related. One could conclude that these measures are measuring elements of the same construct--behavioral flexibility. The high correlation between Self-Rated Flexibility and Other-Rated Flexibility provided evidence that a person can identify, as well as an observer, how he or she behaves in various situations. The raters did differ on two of the items included in the 4-item flexibility scales, but a t-test showed no significant difference between the summed items of the Self-Rated Behavioral Flexibility instrument and the Other-Rated Behavioral Flexibility instrument. The results of the different methods demonstrated that raters did not differ in their perception of communication flexibility. The Communication Flexibility Scale thus seemed to have some convergent validity.

Future research will focus on four immediate questions: (a) What is the relationship between communication flexibility and other communication variables? (b) Which communication variables (including communication flexibility) can best be used as predictors of communication competence or can best discriminate between highly and lowly competent communicators? (c) Will the

relationships hold if non-college populations are used? and (d) Are self-report scales valid?

First, we need to examine additional communication variables in relation to communication flexibility. We would expect that someone who is communication flexible would be: (a) low in argumentativeness, because a highly argumentative person is seen as rigid (Infante & Rancer, 1982); (b) low in communication apprehension, because a person who is high apprehensive is seen as unable to alter his or her behavior (McCroskey, 1984); and (c) high in cognitive complexity (O'Keefe & Delia, 1979) and compliance-gaining (Marwell & Schmitt, 1967), because the communication flexible person would recognize that there are various behavioral alternatives for any situation. These relationships can only be identified through additional research.

Second, because many communication variables are believed to be related to communication competence, researchers should investigate which communication constructs can be used to identify competent communicators or which communication constructs can be used to differentiate between effective and ineffective communicators. A future study might have participants rate themselves on a variety of communication instruments which are believed to be measuring a communication construct related to communication competence, and then have the individuals rated by an observer using an instrument such as Wiemann's (1977) measure of communication competence or Rubin's (1982, 1985) Communication Competency Assessment Instrument. A relationship between communication flexibility and communication competence would establish further construct validity for the Communication Flexibility Scale and provide a test of Bochner and Kelly's (1974) model.

Third, because college students may be a homogeneous group in terms of communication flexibility, research should investigate non-college samples. Perhaps people in certain occupations (e.g., acting, teaching, counseling, public relations) would be more flexible than those in others (e.g., telemarketing, medicine, law enforcement) because of the requirements of the job.

Future research should also continue to study any differences between self-report and other-report scales. Perhaps the Communication Flexibility Scale could be used either by the individual or by an observer in measuring communication flexibility. While the argument between researchers who rely on self-report and those who rely on other-report measures will not be settled soon (e.g., can a person rate his or her own competence or does competence need to be rated by someone who observes the individual's communication behavior?), most researchers would agree that if a person rates himself or herself as a competent communicator and an observer rates that person as a competent communicator, that person then can be classified as a competent communicator. Possibly the Communication Flexibility Scale will be an instrument that could be used by either the individual or the observer to measure a communication tendency to adapt behavior to that which is appropriate to the context.

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Figure 1

20-Item Communication Flexibility Scale

Here are some situations that illustrate how people sometimes act when communicating with others. Imagine that you are in each of the situations and indicate how much your own behavior would be like that described in the scenario. If it is **exactly like you**, circle a **5**; if it is **a lot like you**, circle a **4**; if it is **somewhat like you**, circle a **3**; if it is **not much like you**, circle a **2**; and if it is **not at all like you**, circle a **1**.

* 1. You are invited to give a speech about the university at a city council meeting. Everything seems fine at first, but then fifteen minutes into the speech, several members of the audience start talking to each other. You quickly end the speech and thank the group for their time.

* 2. Last week, you were discussing your monetary situation with your family. As the family came up with several possible solutions, you agreed that there were several different ways to address the problem and decided to consider all the possibilities.

* 3. You and a group of friends get into a discussion on gun control. After a while, it is obvious that your opinions differ greatly from the rest of the group. You explain the opposing position but agree to respect the group's opinion also.

* 4. With the whole evening free, you go to a theatre complex to see a particular movie. The ticket seller tells you that the movie is sold out but that you could buy a ticket to a later show or buy a ticket for another movie. You leave, stating that you are no longer interested in seeing any movie.

* 5. You are invited to a Halloween Party. Assuming it was a costume party, you dress up as the Easter Bunny. When you arrive at the party and find everyone else dressed in formal attire, you are embarrassed and decide to go home.

6. After interviewing with a company, you are offered two positions. One position involves working independently and dealing with constant changes in the responsibilities of the job. The other position working as an assistant for a manager with few changes in the day-to-day routine. You decide to take the job that involves working independently.

* 7. Your daily schedule is very structured. The calendar is full of appointments and commitments and when asked to make a change in the schedule, you reply that changes are impossible.

8. When giving a speech in front of a group of students, you notice members of the audience falling asleep. Because you still had some important points to make, you continue with the speech but attempt to become more informal and intimate with the audience by moving closer to them.

* 9. Discussing a roommate problem with a group of friends, you notice that many different solutions are offered. Although several of the solutions seemed feasible, you already have an opinion and do not listen to any of the alternative solutions.

*10. A friend wants to discuss a problem with you at your house. When your friend does not arrive at the scheduled time, you are unable to get any work done until your friend arrives.

*11. When you are shown to your seat at the football game, you notice you do not recognize anyone sitting nearby. You introduce yourself and attempt to strike up a conversation with the people sitting next to you.

*12. You go to a party where over 50 people attend. You had a good time, but spend most of the evening talking to one close friend.

*13. You are talking with a new friend, Chris, over lunch. When Chris tells you about a family problem, you decide the conversation is getting a little too personal and respond by quickly finishing lunch and leaving.

14. Your roommate usually takes care of salespeople when they call on the telephone. When your roommate is sick one week, you decide to talk to the salespeople when they call to hear what they have to offer before deciding whether or not you are interested.

15. You are introduced to Kim who arrived recently from Southeast Asia. Kim has a limited English vocabulary, but you decide to talk to Kim just like anyone else so Kim wouldn't feel talked-down-to.

16. You are asked by a friend to babysit for an afternoon. You were expecting a young boy and planned to take the boy to the petting zoo around the corner, so you are surprised when a teenage boy arrives. But you decide to take the boy to the petting zoo anyway.

*17. You are engaged in a conversation about politics at a dinner party. You disagree with everyone else's views and argue that everyone else is wrong. Finally, you leave the room and refuse to listen to anyone else.

18. You take a group of friends visiting from out of town to a restaurant known for its excellent ice cream. When informed that the restaurant is out of ice cream, you tell your friends that you will all return to the restaurant at a later date when they have ice cream, but tonight you will have to have something else for dessert.

*19. You enjoy being with Chris, but do not enjoy Chris's habit of always interrupting you. You decide that every time Chris interrupts you, you will then interrupt Chris in order to teach Chris a lesson.

*20. You are asked to give a speech at a Chamber of Commerce breakfast. Because you do not know anyone at the breakfast and would feel uncomfortable not knowing anyone in the audience, you decline the invitation.

Note. The 14-item scale consists of all items with asterisks.

Table 1

Summary Statistics

	M	SD	ALPHA
Social Desirability	14.80	5.04	.75
Communication Adaptability	111.32	11.16	.84
Social Composure	18.00	3.63	.81
Social Confirmation	20.06	2.73	.75
Social Experience	20.03	3.41	.81
Appropriate Disclosure	17.76	2.77	.67
Articulation	18.35	3.25	.80
Wit	16.98	3.69	.75
RHETSEN			
Rhetorical Self	32.58	7.62	.78
Noble Self	14.42	6.86	.79
Rhetorical Reflector	9.60	3.38	.57
Communication Flexibility	49.99	6.88	.70
Self-rated Flexibility	19.64	4.23	.66
Other-rated Flexibility	19.39	4.56	.66

Table 2

Pearson Correlation Coefficients

Variables	1	2	3	4	5	6	7	8
1. Communication Flexibility								
2. Self-rated Flexibility	.30**							
3. Other-rated Flexibility	.24*	.49**						
4. Social Desirability	.43**	.30**	.31**					
5. Rhetorical Reflector	.07	.17*	.09	.19*				
6. Rhetorical Sensitivity	-.02	-.01	.08	-.12	-.39**			
7. Noble Self	.03	-.09*	-.10	.04	-.08	-.85**		
8. Communication Adaptability	.45**	.22**	.20*	.29**	.20*	.10	-.24**	
9. Credits Completed	.02	-.05	-.09	-.07	-.05	-.14*	.12	.10
10. Age	.07	.06	-.00	.14*	-.16*	.04	.13*	.02
11. Gender	.13*	.34**	.32**	.11*	-.18*	.13*	.08	.11*

Note 1. * $p < .05$; ** $p < .001$

Note 2. For gender, male = 1, female = 2

Table 3

Self-Rated and Other-Rated Behavioral Flexibility

	1 - - - - - 7	Self M	Self SD	Other M	Other SD	t	df	p
*	rough - smooth	4.57	1.48	4.90	1.54	-2.33	118	.022
*	inflexible - flexible	5.60	1.30	5.17	1.60	2.41	118	.017
	subdued - lively	5.43	1.48	5.66	1.53	-1.38	118	.170
	conforming - nonconforming	4.05	1.73	4.13	1.64	-0.42	118	.672
	useful - useless	1.65	0.82	1.69	0.85	-0.42	118	.676
*	hard - soft	4.55	1.58	4.64	1.67	-0.47	118	.636
	sharp - dull	2.29	1.00	2.00	1.04	2.40	118	.018
*	unchangeable - changeable	4.92	1.65	4.68	1.66	1.40	118	.163
	passive - active	5.43	1.39	5.55	1.50	-0.66	118	.513
	predictable - unpredictable	4.40	1.68	3.87	1.66	2.69	118	.008
	4-item Flexibility	19.64	4.34	19.38	4.56	0.61	118	.542

Note. The 4-item scale consists of all items with asterisks.