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## *Oral Communication Apprehension*

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Communication apprehension (CA) is a broadly based anxiety related to oral communication (McCroskey, 1970). More specifically, CA is "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons" (McCroskey, 1982b; 1984).

For the purposes of this volume it is critical that we distinguish between CA and shyness as we employ these constructs. Shyness is the predisposition to withdraw from or avoid communication with other people. Hence, CA is a subjective, affective experience whereas shyness is a behavioral tendency that may result from CA or other causes. The distinction we draw is similar to that drawn by Leary (1983a; 1983c) between social anxiety and social-communicative behavior.

The distinction we draw may be made clearer by examining the most recent version of the Personal Report of Communication Apprehension (PRCA-24, Table 1) and the McCroskey Shyness Scale (Table 2). The PRCA (McCroskey, 1970b; 1978; 1982a) is the most widely used operationalization of CA. The McCroskey Shyness Scale (McCroskey, Andersen, Richmond, & Wheelless, 1981) was specifically designed to measure shyness as conceptualized here. Readers are cautioned that "shyness" measures exist that do not measure shyness as we employ that construct. For example, the scale reported by Cheek and Buss (1981) from our view is simply a partial measure of CA, one which focuses on CA in interpersonal communication.

Although CA and shyness are presumed to be related (that is, CA may lead to withdrawal and/or avoidance), they are not presumed to be isomorphic. A number of research studies employing the operationalizations reported in tables 1 and 2 have obtained correlations between .57 and .63 (McCroskey & Richmond, 1982a; 1984). Higher correlations were not expected since shyness is presumed to result from a variety of causes with CA being but one of those causes.

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TABLE 1. Personal Report of Communication Apprehension (PRCA-24)\*

Directions: This instrument is composed of 24 statements concerning your feelings about communication with other people. Please indicate in the space provided the degree to which each statement applies to you by marking whether you (1) Strongly Agree, (2) Agree, (3) Are Undecided, (4) Disagree, (5) Strongly Disagree with each statement. There are no right or wrong answers. Many of the statements are similar to other statements. Do not be concerned about this. Work quickly, just record your first impression.

- \_\_\_\_\_ 1. I dislike participating in group discussions.
- \_\_\_\_\_ 2. Generally, I am comfortable while participating in a group discussion.
- \_\_\_\_\_ 3. I am tense and nervous while participating in group discussions.
- \_\_\_\_\_ 4. I like to get involved in group discussion.
- \_\_\_\_\_ 5. Engaging in a group discussion with new people makes me tense and nervous.
- \_\_\_\_\_ 6. I am calm and relaxed while participating in group discussions.
- \_\_\_\_\_ 7. Generally, I am nervous when I have to participate in a meeting.
- \_\_\_\_\_ 8. Usually I am calm and relaxed while participating in meetings.
- \_\_\_\_\_ 9. I am very calm and relaxed when I am called upon to express an opinion at a meeting.
- \_\_\_\_\_ 10. I am afraid to express myself at meetings.
- \_\_\_\_\_ 11. Communicating at meetings usually makes me uncomfortable.
- \_\_\_\_\_ 12. I am very relaxed when answering questions at a meeting.
- \_\_\_\_\_ 13. While participating in a conversation with a new acquaintance, I feel very nervous.
- \_\_\_\_\_ 14. I have no fear of speaking up in conversations.
- \_\_\_\_\_ 15. Ordinarily I am very tense and nervous in conversations.
- \_\_\_\_\_ 16. Ordinarily I am very calm and relaxed in conversations.
- \_\_\_\_\_ 17. While conversing with a new acquaintance, I feel very relaxed.
- \_\_\_\_\_ 18. I'm afraid to speak up in conversations.
- \_\_\_\_\_ 19. I have no fear of giving a speech.
- \_\_\_\_\_ 20. Certain parts of my body feel very tense and rigid while giving a speech.
- \_\_\_\_\_ 21. I feel relaxed while giving a speech.
- \_\_\_\_\_ 22. My thoughts become confused and jumbled when I am giving a speech.
- \_\_\_\_\_ 23. I face the prospect of giving a speech with confidence.
- \_\_\_\_\_ 24. While giving a speech I get so nervous, I forget facts I really know.

## Scoring:

Group	= 18 - (1) + (2) - (3) + (4) - (5) + (6)
Meeting	= 18 - (7) + (8) + (9) - (10) - (11) + (12)
Dyadic	= 18 - (13) + (14) - (15) + (16) + (17) - (18)
Public	= 18 + (19) - (20) + (22) + (23) - (24)
Overall CA	= Group + Meeting + Dyadic + Public

\*Norms based on 29,478 college students: PRCA-24 ( $X = 16.4$ ,  $SD = 15.3$ ); Group ( $X = 15.4$ ,  $SD = 4.8$ ), Meeting ( $X = 16.4$ ,  $SD = 4.8$ ); Dyadic ( $X = 14.5$ ,  $SD = 4.2$ ); Public ( $X = 19.3$ ,  $SD = 5.1$ ). Alpha reliabilities have ranged from .92 to .97 for the total score.

## CONCEPTUALIZATIONS OF CA

CA is viewed from both trait and state perspectives (Spielberger, 1966). That is, CA exists as a trait-like predisposition toward communication and as a state-like response to a given communication situation. Most of the early research

TABLE 2. McCroskey Shyness Scale\*

Directions: The following fourteen statements refer to talking with other people. If the statement describes you very well, circle "YES." If it somewhat describes you, circle "yes." If you are not sure whether it describes you or not, or if you do not understand the statement, circle "?." If the statement is a poor description of you, circle "no." If the statement is a very poor description of you, circle "NO." There are no right or wrong answers. Work quickly; record your first impression.

- |     |     |   |    |    |   |
|-----|-----|---|----|----|---|
| YES | yes | ? | no | NO | 1. I am a shy person.   |
| YES | yes | ? | no | NO | 2. Other people think I talk a lot.                                 |
| YES | yes | ? | no | NO | 3. I am a very talkative person.                                    |
| YES | yes | ? | no | NO | 4. Other people think I am shy.                                     |
| YES | yes | ? | no | NO | 5. I talk a lot.  |
| YES | yes | ? | no | NO | 6. I tend to be very quiet in class.                                |
| YES | yes | ? | no | NO | 7. I don't talk much.   |
| YES | yes | ? | no | NO | 8. I talk more than most people.                                    |
| YES | yes | ? | no | NO | 9. I am a quiet person.   |
| YES | yes | ? | no | NO | 10. I talk more in a small group (3-6 people) than other people do. |
| YES | yes | ? | no | NO | 11. Most people talk more than I do.                                |
| YES | yes | ? | no | NO | 12. Other people think I am very quiet.                             |
| YES | yes | ? | no | NO | 13. I talk more in class than most people do.                       |
| YES | yes | ? | no | NO | 14. Most people are more shy than I am.                             |

SCORING: YES = 1, yes = 2, ? = 3, no = 4, NO = 5.

Score your responses as follows:

1. Add the scores for items 1, 4, 6, 7, 9, 11, and 12.
2. Add the scores for items 2, 3, 5, 8, 10, 13, and 14.
3. Complete the following formula: Shyness = 42 - (total from step 1) + (total from step 2).

\*Norms based on 3845 college students:  $X = 39.88$ ,  $SD = 10.86$ . Alpha reliabilities have ranged from .89 to .93.

in this area was directed toward the trait-orientation (McCroskey, 1977). More recent research has looked at CA from both a trait and a state perspective (Behnke & Beatty, 1981; McCroskey & Beatty, 1984; Richmond, 1978). Conceptualizations of CA have not, however, been restricted to pure trait or pure state. Rather, CA has been viewed in four ways that are presumably distributed between pure trait and pure state. These are referred to as trait-like, generalized context, person-group, and situational CA.

### Trait-like CA

Trait-like CA is viewed as a relatively enduring, personality-type orientation toward oral communication across a wide variety of contexts. The PRCA-24 is the primary operationalization of this type of CA. It is assumed that scores for an individual on this type of measure will be highly similar across an extended period of time, barring an intervention program designed to alter the CA level or a demand characteristic introduced into the CA measurement. High internal and test-retest reliabilities of the PRCA instrument are suggestive of the existence of such a phenomenon and of the appropriateness of the PRCA instrument as

an operational index of it. More importantly, recent research indicates that the PRCA is a good index of CA concerning communication contexts not represented by the items on the measure, such as situations demanding assertiveness (Beatty, Plax, Kearney, & McCroskey, 1984).

### Generalized-Context CA

Generalized-context CA is viewed as a relatively enduring, personality-type orientation toward communication in a given type of communication context. A wide variety of measures have been advanced that presumably tap this type of CA. Whereas the trait-like view of CA assumes apprehension about communication in one communication context is substantially correlated with apprehension in other contexts (and research has strongly supported that assumption), the generalized-context view does not require that assumption. Constructs such as "stage fright" and "audience anxiety" are representative of this approach.

Some of the available measures of this type of CA include the Personal Report of Confidence as a Speaker (Gilkinson, 1942; Paul, 1966), the Personal Report of Public Speaking Apprehension (McCroskey, 1970), the Interaction Anxiousness and Audience Anxiousness scales (Leary, 1983a), the Shyness Scale (Cheek & Buss, 1981), and the Audience Anxiety scale (Buss, 1980). Recently, McCroskey and Richmond (1982b) isolated four common communication contexts and provided instruments to measure each. The contexts addressed were the same four measured in the PRCA-24; public speaking, speaking in meetings, speaking in small groups, and speaking in dyads. The subscores on the PRCA-24 (see Table 1) provide estimates of CA in each of these generalized contexts.

As was the case with trait-like CA, it is assumed that measures of generalized-context CA will generate scores for individuals that will be relatively consistent across time unless contaminated by intervention or measurement error. Trait-like measures are assumed to be at least moderately correlated with scores on generalized-context measures.

### Person-Group CA

Person-group CA is viewed as a relatively enduring orientation toward communication with a given person or group of people. It is not viewed as personality based, but rather as a response to situational constraints generated by the other person or group.

Although presumed to be relatively enduring, this type of CA would be expected to change as a function of changed behavior on the part of the other person or group. Although people with high trait-like CA or high generalized-context CA would be expected to experience high CA with more persons and groups, knowledge of the levels of either of these should not be expected to be predictive of CA experienced with a given individual or group. In short, this type of CA is presumed to be more a function of the situational constraints

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introduced by the other person or group than by the personality of the individual. Length of acquaintance should be a major consideration here. Whereas in early stages of acquaintance the personality orientations should be somewhat predictive, in later stages the situational constraints should be expected to overpower these orientations (Richmond, 1978).

Few attempts to measure this type of CA have appeared in the literature. However, the state anxiety measure developed by Spielberger (1966), particularly as modified for this purpose by Richmond (1978), appears to be an excellent tool. It can be adapted readily for use with any person or group in any communication context.

### **Situational CA**

Situational CA is viewed as a transitory orientation toward communication with a given person or group of people. It is not viewed as personality based, but rather as a response to the situational constraints generated by the other person or group. The level of this type of CA should be expected to fluctuate widely as a function of changed constraints introduced by the other person or group. Although people with high trait-like CA or high generalized-situation CA would be expected to experience high CA in more individual situations than would other people, knowledge of the levels of either of these should not be expected to be highly predictive of CA experienced by an individual in any given situation. On the other hand, the level of person-group CA should be expected to be moderately highly related to situational CA. Person-group CA primarily is a function of the prior history of the individual with the given person or group. Such a history can be assumed to produce expectations that would influence the level of CA in the given situation involving communication with that person or group.

Measurement of situational CA has received little attention in the previous research. However, the Spielberger (1966) instrument as modified by Richmond (1978) appears to be a very satisfactory tool for this purpose.

### **Relationship between Trait-like and State CA**

In its original conceptualization, CA was viewed exclusively as a predisposer of communication state anxiety. The possibility that state CA feeds back to affect trait-like CA was not considered. With respect to the dispositional nature of trait-like CA, studies have demonstrated the ability of the PRCA to predict self-reported communication state anxiety (Beatty & Behnke, 1980; Behnke & Beatty, 1981). Thus, the assumption that trait-like CA predisposes state CA has been supported.

Recent research has produced evidence suggesting that state CA may temporarily affect trait-like CA (Beatty, Behnke, & McCallum, 1978). It has been shown that anxiety experienced during a communication task that differs from that predicted by a person's level of trait-like CA alters that person's level in the direction of the discrepancy (Beatty & Behnke, 1980). There is also evidence

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that indicates that trait-like CA may be viewed as the accumulation of state CA experiences (McCroskey & Beatty, 1984). Although it appears that trait-like and state CA affect one another, the exact nature of this dynamic process remains unclear.

### CA and General Anxiety

Zuckerman (1976) proposed that trait-like constructs could be viewed as either general or specific. General anxiety refers to the predisposition to experience anxiety in a broad range of situations, such as taking tests, being exposed to snakes, flying, or being confined to small spaces. Because CA focuses exclusively on communication-related situations, the construct is considered a *specific trait*.

Although specific-trait theorists argue that a narrower focus is more useful than a general one in predicting state anxiety reactions, research based on the specific-trait paradigm has produced equivocal findings. At times, specific-trait measures are better predictors than general anxiety measures (e.g., Hodges & Spielberger, 1966; Mellstrom, Zuckerman, & Cicala, 1974), whereas at other times general anxiety measures are at least as predictive as specific measures (e.g., Rappaport, 1979).

With regard to CA, the current theory, which has been supported thus far by research, is that measures of general anxiety may be as predictive as CA measures in communication situations with which the subject has had little or no experience. Because performances in such situations represent novel experiences for the subjects, their general level of anxiety proneness may provide as good (and possibly sometimes better) prediction of the magnitude of state anxiety they will experience in the situations. However, measures of CA should more accurately predict state anxiety for subjects who have some prior exposure to the situation. Thus, the assumption is that the stability and predictiveness of trait-like CA depends on the amount of information and experience subjects have relating to the specific communication contexts assessed by the measure.

Although related (usually around  $r = .30$ ), trait-like CA and general anxiety are viewed as conceptually and empirically distinct constructs. CA is not viewed as a subset of a more general anxiousness. Instead, CA is conceptualized as a contributing factor, rather than an effect, in the development of both general anxiety and social anxiety. There is research in progress in which PRCA scores and general anxiety scores were collected at four separate times during a semester-long introductory communication course. The analysis of the panel data indicates that changes in PRCA scores are followed by similar changes in general anxiousness. However, changes in general anxiousness have no such effect on PRCA scores. These findings are consistent with the results obtained when structural equations are used to analyze the data. Moreover, the absence of significant autocorrelation of the PRCA residuals suggests that CA is not an artifact of some unobserved disturbance variable. Thus, it is improbable that the observed CA-general anxiety relationship is a spurious one. Although this line of research is

in its early stages, the preliminary findings suggest that CA is unique but partially related to general anxiety.

### Trait-like CA and Physiological Arousal

The body of literature concerning the relationship between trait-like CA and physiological activation is scant. Available research, for the most part, shows no meaningful relationship (Beatty, 1984). However, several studies have reported significant moderate relationships between heart rate and state CA scores (Behnke & Beatty, 1981; Behnke & Carlile, 1971).

Schachter and Singer (1962) proposed a paradigm explaining the role of physiological arousal in emotional response that appears to explain why heart rate correlates with state CA yet is uncorrelated with trait-like CA. They suggested that "an emotional state may be considered a function of a state of physiological arousal and of a cognition appropriate to the state of arousal" (p. 380). The existence of physiological arousal engenders pressure to understand and label the drive state. How a person labels this condition depends on past cues "as interpreted by past experience" (p. 380). According to this theory, neither physiological arousal nor cognitive perception alone would account for the emotions experienced during communication. Emotional responses during specific communication experiences are viewed as contingent on the presence of physiological activation along with an interpretation of the arousal as being caused by the communication situation. For example, people who perceive themselves to be high in CA would interpret increased heart rate during communication as fear or anxiety, whereas confident people low in CA might interpret the arousal as excitement. Theoretically then, trait-like CA serves as the predisposition to interpret arousal during communication as anxiety or fear.

Viewed in this context, trait-like CA does not cause, nor is it caused by, increased activation such as heart rate. There is evidence supporting this Schachterian paradigm of CA. Using PRCA scores and elevations in heart rate as predictors, Behnke and Beatty (1981) accounted for 79.6% of the variance in state CA related to public speaking. Each of the predictors accounted for approximately 40% of the variance, and the two predictors were not significantly correlated with each other.

In sum, it is argued that cognitive, trait-like CA predisposes the individual to evaluate whether or not a particular emotion is experienced in a given communication situation. However, it is the feedback in the form of physiological arousal that determines the magnitude of the emotional response. Consequently, an individual perceives tremendous fear related to communication because that individual has high trait-like CA *and* experiences elevated heart rate and/or other physiological activation during a communication encounter. A cycle in which the perception is assimilated into the predisposition is created, thereby reinforcing the person's level of trait-like CA. Thus trait-like CA, physiological arousal, and state CA are entwined in a complex system of attitudes and responses.

## EFFECTS OF CA

The effects of CA, particularly trait-like CA, have been the focus of extensive research. High CA has been found to be negatively associated with desirable outcomes in interpersonal relationships, in the work environment, and in the educational environment. This research has been summarized extensively elsewhere (Daly & Stafford, 1984; McCroskey, 1977; Richmond, 1984), so we will not repeat those efforts here. However, we do wish to note that much of that research has not examined the direct effects of CA. Rather, it has focused on the effects of shyness or communication disruption produced by CA. Consequently, CA should be viewed as an indirect, rather than a direct, causal factor in the negative outcomes commonly found in this body of research. To explain the theoretical relationship between varying levels of CA and varying communication outcomes, we will look at both the internal and the external impact of CA.

### Internal Impact of CA

CA is a subjective, affective response of an individual to communication. Thus, although CA is not unrelated to communication behavior, the experience of CA is strictly internal to the individual. The only effect of CA that is predicted to be universal across both individuals and types of CA is an internally experienced feeling of discomfort. The higher the CA, the greater the internal discomfort.

The implications of conceptualizing CA as strictly an internally experienced phenomenon must be emphasized. Because CA is experienced only internally, the only potentially valid indicant of CA is the individual's report of that experience. Thus, self-reports of individuals, whether obtained by paper-and-pencil measures or careful interviews, provide the only potentially valid measures of CA. Measures of physiological activation and observations of behavior can provide, at best, only indirect evidence of CA and, thus, are inherently inferior approaches to measuring CA. Such measures must be validated against self-report measures, not the reverse. To the extent such measures are not related to self-report measures, they must be judged invalid. Currently available data indicate that such physiological measures (Beatty, 1984; Behnke & Beatty, 1981) vary in validity from moderate to low as do available observer rating instruments (McCroskey & Richmond, 1982a, 1984; Mulac & Wiemann, 1984).

### External Impact of CA

There is no behavior that is predicted to be a universal product of varying levels of CA. Nevertheless, there are some externally observable behaviors that are more likely to occur as the level of CA increases. However, when examining behavioral manifestations of CA, we must keep in mind the distinctions among the types of CA discussed above. Trait-like CA, for example, will be manifested in behavior in a given situation only as it interacts with the constraints of that

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situation. A person with high trait-like CA may behave in a manner no different from anyone else in a quiet conversation with a good friend. Similarly, a person with low trait-like CA may behave in a manner no different from anyone else if called to a meeting to be reprimanded by a supervisor. The behavioral manifestations of high CA we will note below, therefore, presuppose that CA actually is present to a sufficient degree in a given situation to trigger the behavior. The link is most direct for the most situational type of CA. For trait-like CA the link is most tenuous. The behavioral prediction should only be assumed to be correct when considering aggregate behavioral observations of the individual across time and across contexts.

Three patterns of behavioral response to high CA may be predicted to be generally applicable and one pattern can be described as sometimes present, but as an atypical response pattern. The three typical patterns are communication avoidance, communication withdrawal, and communication disruption. The atypical pattern is excessive communication. Let us consider each.

When people are confronted with a circumstance that they anticipate will make them uncomfortable, and they have a choice of whether or not to confront it, they may either decide to confront it and make the best of it or to avoid it and thus avoid the discomfort. Some refer to this as the choice between "fight and flight." Research in the area of CA indicates the latter choice should be expected in most instances (Beatty, Springhorn, & Kruger, 1976). In order to avoid having to experience high CA, people may select occupations that involve low communication responsibilities, may pick housing units that reduce incidental contact with other people, may choose seats in classrooms or in meetings that are less conspicuous, and may avoid social settings. At the lowest level, if a person makes us uncomfortable, we may simply avoid being around that person. Avoidance, then, is a common behavioral response to high CA.

Avoidance of communication is not always possible. One can find oneself in a situation that generates a high level of CA with no advance warning. Under such circumstances, withdrawal from communication is the behavioral pattern to be expected. This withdrawal may be complete, that is, absolute silence, or partial, resulting in talking only as much as absolutely required. In a public speaking setting, this response may be represented by the very short speech. In a meeting, class, or small group discussion, it may be represented by talking only when called upon. In a dyadic interaction, it may be represented by only answering questions or supplying agreeing responses with no initiation of discussion.

Communication disruption is the third typical behavioral pattern associated with high CA. The person may not be fluent in verbal presentation or exhibit unnatural or inappropriate verbal or nonverbal behaviors. Equally as likely are poor choices of communicative strategies, sometimes reflected in the after-the-fact "I wish I had (had not) said . . ." phenomenon. It is important to note, however, that such behaviors may be produced by inadequate communication skills as well as by high CA. Thus, inferring CA from observations of such behavior is not always appropriate.

Overcommunication is a response to high CA that is not common but is

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the pattern exhibited by a small minority. This behavior represents overcompensation. It may reflect the fight rather than the flight reaction, the attempt to succeed in spite of the felt discomfort. The person who elects to take a public speaking course in spite of having extreme stage fright is a classic example. Less easily recognizable is the individual with high CA who attempts to dominate social situations. Most of the time people who employ this behavior option are seen as poor communicators but are not recognized as having high CA; in fact they may be seen as people with very low CA.

To this point we have looked at the typical behaviors of people with high CA levels. We might assume that the behaviors of people with low CA would be the exact reverse. That assumption might not always be correct. Although people with low CA should be expected to seek opportunities to communicate rather than avoid them, and to dominate interactions in which they are a member rather than withdraw from them, people with low CA may also have disrupted communication and overcommunicate. The disruptions may stem from pushing too hard rather than from tension, but the behaviors may not always be distinctly different to the observer. Similarly, the person who overcommunicates engages in very similar behavior whether the behavior stems from high or low CA. Although future research may permit us to train observers who can distinguish disrupted communication resulting from high CA from that resulting from low CA and possibly distinguish between overcommunication behaviors stemming from the two causes, these behaviors are, and probably will remain, indistinguishable to the average person in the communication situation.

To summarize, the primary impact of CA is internal to the individual. In attempting to avoid or reduce the internal discomfort produced by CA, individuals may engage in a variety of behavioral choices that will lead to either reduced communication (avoidance or withdrawal) or less effective communication (disruption, overcommunication), or both. It is these choices that lead to communication behaviors which, in turn, lead to the variety of negative outcomes that research has found to be associated with high CA.

### Development of CA

Although there is considerable speculation concerning how trait-like CA is acquired, few studies have focussed on CA development. Recent writers have acknowledged that there may be a hereditary contribution. This conclusion is based on the work of social biologists who have established that traits such as sociability can be observed in infants shortly after birth (see McCroskey, 1984). However, because none of this work has involved measurement of CA itself, the question of a hereditary contribution remains open.

Although it is possible that heredity contributes to CA development, most writers allege that reinforcement patterns in a person's environment, particularly during childhood, constitute the dominant causal factors. One view is that a child who is reinforced for communicating will communicate more whereas a child who is punished for communicating will communicate less. In the latter case, CA increases as a result of an approach-avoidance conflict. On the one

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hand, the child desires to engage in a normal human urge, communication. On the other hand, the child wishes to avoid punishment. There is evidence that suggests that children who are reinforced for communicating by parents and teachers tend to be low in CA (Daly & Friedrich, 1981). Similarly, there is evidence that children who are punished for communication by parents or teachers develop more self-deprecating attitudes about communication (Beatty, Plax, & Payne, 1984; Plax, Beatty, & Payne, 1984).

A second view of the reinforcement paradigm is that inconsistent reward and punishment for communicating produces trait-like CA. According to this perspective, anxiety about communication develops because the child is unable to predict when reward or punishment will follow behavior. Thus, the child is unable to control the environment and is, in a sense, helpless in it. In the Beatty, Plax, and Payne (1984) and the Plax *et al.* (1984) studies, a considerable proportion of subjects who expressed completely negative attitudes about communication reported childhoods in which rewards and punishments for communication were inconsistent. Thus, there appears to be some support for each of the reinforcement views of CA development.

Modeling of significant others frequently appears as an explanation for CA development. Modeling theory suggests that children (and to some extent adults) observe the communication behavior of others in their environment and attempt to emulate it. Theoretically, if the child observes the model being reinforced for the behavior or the child is rewarded directly for imitating the model, the behavior will continue. If these contingencies are not perceived by the child, modeling is unlikely. Although there has been little CA research focusing on the impact of modeling, the existing research has been unable to detect a modeling effect (Beatty, Plax, & Kearney, 1984). We believe that modeling may serve as a useful theory for partially explaining the development of shyness, but its applicability to CA appears to be minimal.

Finally, CA is sometimes discussed as being a function of inadequate development of important communication skills. However, such an explanation fails to account for numerous cases of show business personalities, such as Johnny Carson and Richard Burton, who clearly demonstrate more than adequate communication skills and yet report being extremely apprehensive in some interpersonal settings and prior to public performances. It is possible that it is the perception of inadequate communication skills, rather than the actual skill level, which contributes to CA. We have videotaped numerous highly apprehensive individuals in communication settings where they have exhibited excellent skills. However, their judgment of their skills was negative, even when confronted directly by videotaped evidence to the contrary. In contrast, we have observed numerous individuals who exhibit very poor communication skills but report little or no CA. Thus, although we do not wish to completely rule out a link between skills and CA, the available evidence does not point to any substantial relationship between the two.

In sum, there is considerable speculation but little solid research concerning the factors that influence the development of trait-like CA. Obviously, it is impractical and probably unethical to manipulate many of these factors in

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children's environments and observe directly the effects on CA. However, research is needed, even if the developmental process can be studied only cross-sectionally or indirectly, if we hope to gain needed insight into CA development.

### TREATMENT OF CA

From the earliest days of research involving CA, treatment has been a major concern (McCroskey, 1972; McCroskey, Ralph, & Barick, 1970). The focus has always been on those individuals with high levels of CA, although more recently we have noted some concern for a possible need to help those with extremely low CA as well (McCroskey, 1984).

Treatment approaches have focused on the behavior therapies of systematic desensitization (Friedrich & Goss, 1984; McCroskey, 1972; McCroskey, Ralph, & Barrick, 1970) and cognitive restructuring (Fremouw, 1984; Fremouw & Zitter, 1978; Glowgower, Fremouw, & McCroskey, 1978; Meichenbaum, 1977). These methods have been found to be highly effective for reducing trait-like and generalized-context CA, both on an absolute scale and in comparison to other treatment methods.

Because CA is not conceptualized as a skills-based problem, it should not be surprising to find that skills training approaches have proven much less satisfactory for overcoming CA than behavior therapy approaches (McCroskey, Richmond, Berger, & Baldwin, 1983). Formal communication courses, with or without specific skills training components, have been found to be generally ineffective (although not harmful) in reducing CA. For some individuals with high trait-like CA, however, skills training produces a negative impact.

The choice of treatment, then, is between systematic desensitization and cognitive restructuring. There is little empirical data on which such a choice can be based. Both are effective, and both seem to be about equally effective. Theoretically, because systematic desensitization involves conditioning relaxation responses to stimuli that before treatment produced high arousal, subjects who experience unusually high arousal from communication encounters might profit most from this treatment. On the other hand, subjects who experience only normal arousal but cognitively interpret that arousal as high anxiety might benefit more from cognitive restructuring. In practice, however, both methods appear to both reduce arousal and improve the cognitive response to arousal. Hence, the choice between the two methods may be of little consequence. For a person with little or no clinical background, systematic desensitization is much easier to learn to implement. This may explain its much wider acceptance on the part of professionals in the communication field.

As we noted previously, CA is not seen as developing primarily as a function of low communication skills. That is not to say that CA is not aggravated by low skills in any context or that no person with high CA also has low skills. Thus, although skills training is not generally effective in substantially reducing trait-like CA, it may have an important role to play in the overall improvement of an individual's communication behavior.

It is not uncommon for individuals to lack sufficient skills for certain communication contexts, such as public speaking, interviewing, or dating. We believe that skills training is called for under such circumstances. The individuals may also be apprehensive about communicating in those contexts, but we should not count on the skills training to overcome that apprehension. People with high CA have been found to derogate their own skill level. Even when their skill is enhanced, many maintain their CA and do not believe their skill has improved to a satisfactory level. Thus, we believe that when there is a problem of CA and a problem of skills, the problem of CA should be addressed first. A reduction of the CA problem should be expected to enhance and to expedite the training to overcome the skills problem.

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