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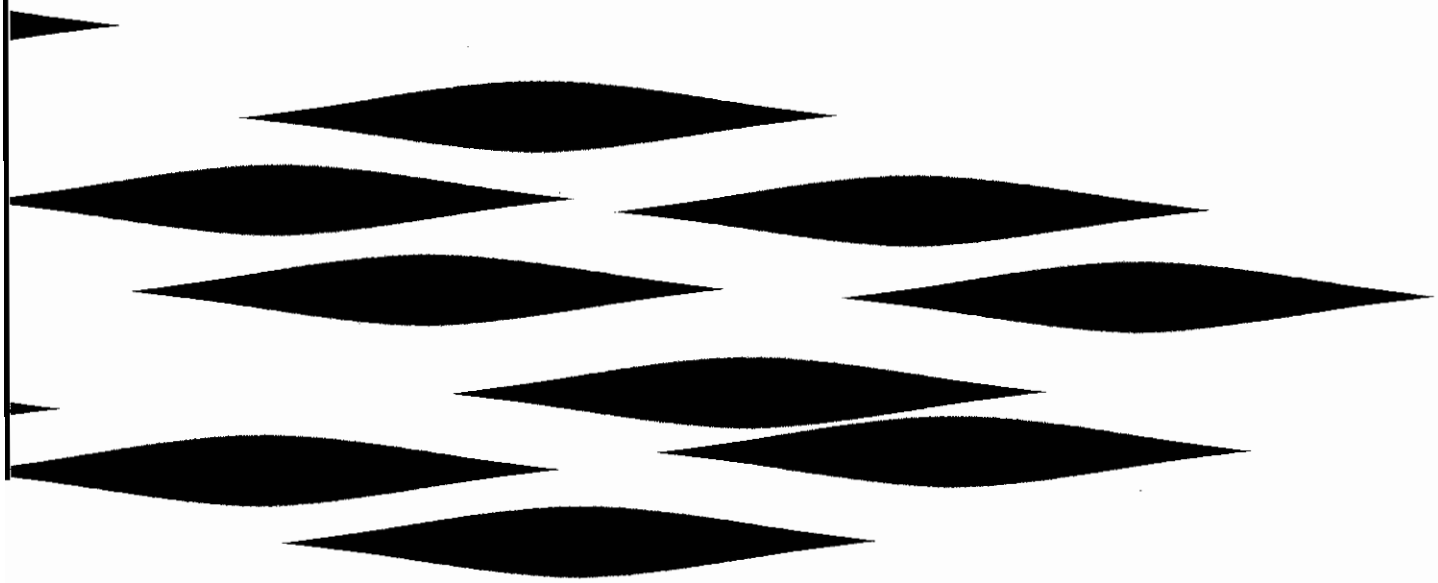
THE ASSESSMENT OF SPEECH-RELATED ATTITUDES AND BELIEFS OF PEOPLE WHO STUTTER



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Preface

This report concerning the attitudes and beliefs of people who stutter toward their stuttering and its effects on their lives evolved out of a number of joint research investigations by William Leith, a speech-language pathologist, and Gregory Mahr, a psychiatrist. The informal studies were carried out in the Stuttering Rehabilitation Centers, which are operated by Leith and Mahr.

Whereas Mahr's clinical orientation is cognitive, Leith's orientation is cognitive behavioral. These differing clinical views lead to many informal studies concerning the influence of the stuttering person's attitudes and beliefs about treatment. Mahr, as a psychiatrist and a person who stutters, had unique insights into the emotional aspects of stuttering. In addition, Leith and Mahr have, for the past 4 years, conjointly lead a therapy group for stuttering clients focused on dealing with attitudes and beliefs that interfere with stuttering treatment. These interactions lay the ground work for the present investigation.

The scope of the preliminary studies was limited by the lack of published research and standardized instruments in the area of stutterers' attitudes and beliefs. Initially, various tests and scales specific to stuttering and pertinent to the investigators' interests were screened and administered to stutterers in the centers. As the database expanded, it became increasingly evident that there was a need for an extensive investigation of the attitudes and beliefs of people who stutter toward their speech and other social aspects of their lives.

Expanding the scope of the investigation, Larry Miller, an expert in interpersonal communication, was invited to join the research project. He provided interpersonal communications tests and scales to be administered and tested. Again, tests and scales that were administered in pilot studies and found to be pertinent to the investigation were incorporated into a final test battery.

To obtain the necessary subjects for the study, nine speech-language pathologists in the United States were asked to assist in the data gathering, resulting in a population of 67 stuttering subjects.

At the time, Leith was working with the speech pathology program at Oulu University in Oulu, Finland. He discussed the research project with Eila Alahuhta, the director of the program at Oulu University, and with Evoke Kovacs-Vass, a visiting professor from the speech pathology program at Barczi Gusztav Teachers College in Budapest, Hungary. Both Alahuhta and Kovacs-Vass agreed to assist with the investigation by coordinating the project and providing subjects from their countries. Alahuhta provided 27 Finnish subjects and Kovacs-Vass provided 30 Hungarian subjects. The report that follows presents the findings of this investigation.

We express our appreciation to the following people who assisted in the collection of data in the United States: Jean Blosser, University of Akron; Hugo Gregory, Northwestern University; Barry Guitar, University of Vermont; Steve Hood, University of South Alabama; Walter Manning, Memphis State University; Kenneth St. Louis, University of West Virginia; Vivian Sheehan, Santa Monica, California; Woodruff Starkweather, Temple University, and Patrica Zebrowski, University of Iowa.

Special thanks is also given to Doris Allen of Royal Oak, Michigan, for her contributions to the research design, statistical analysis, and interpretation of the data. We also want to thank our research assistant, Linnae Bankey, for her many hours of work on data processing and analysis as well as keeping the entire project organized and orderly. We also acknowledge all of the work done by persons unknown to us who worked on the project in Finland and Hungary.

Finally, we thank all the subjects who took the time to complete the extensive test battery and return it to us for analysis.

One additional comment concerns what may appear to be an inconsistent use of person-first language in the report. Person-first language was used in general, but not in those few instances when it would have distorted the meaning or confused the reader.

Chapter 1

Introduction

1.1 BEHAVIORISM AND COGNITIVISM

Treatment for stuttering is often frustrated by the stuttering person's attitudes and beliefs such as denial, passivity, helplessness, guilt, shame, and anger. Since, at best, treatment can only reduce the severity of the stuttering, not eliminate it or "cure" it, the person continues to stutter—although perhaps less severely—and the attitudes and beliefs associated with being "a stutterer" remain and continue to interfere with treatment.

Motivation and other attitudinal factors related to self-image and social functioning are therefore important considerations in any treatment program. As with other attitudes and beliefs associated with stuttering, few normative data are currently available. Most assessment tools focus on stuttering and severity-associated behavior, but such information tells us little about the person as a functional, social being.

1.2 OPERATIONAL DEFINITIONS: ATTITUDES AND BELIEFS

According to Rokeach (1980), an *attitude* is ". . . a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner" (p. 112). *Beliefs* are defined as "inferences made by an observer about underlying states of expectancy" (p. 2). Continuing, Rokeach states that a *belief system* ". . . may be defined as having represented with it, in some organized psychological but not necessarily logical form, each and every one of a person's countless beliefs about physical and social reality" (p. 2).

Stutterer's attitudes about stuttering reflect their belief systems. If people who stutter believe they are victimized by their disorder, their attitudes towards it will reflect helplessness and passivity. Their belief systems will encompass a variety of beliefs about their social status, personality, relationships to others, and their understanding of why and how they stutter. The belief system related to stuttering is broad in scope and pervasive in its effect on all aspects of a stutterering person's life, especially the social dimension. Out of this belief system develop the attitudes and predispositions toward behavioral responses that affect social functioning.

Rokeach identifies five classes of beliefs: (a) primitive beliefs, 100% consensus; (b) primitive beliefs, zero consensus; (c) authority beliefs; (d) derived beliefs; and (e) inconsequential beliefs (pp. 6–12). Primitive beliefs are of particular relevance to our discussion of stuttering. Primitive beliefs with 100% consensus are axiomatic beliefs that are psychologically incontrovertible and universally shared by others. Examples include "I believe this is a table" or "I believe this is my mother." Such issues are unquestioningly accepted as fact; the believer believes, and feels that anyone else who could know would believe it too.

Primitive beliefs with zero consensus are axiomatic beliefs formed by experience, but do not depend on being shared by others. A child may come to believe that he lives in a hostile world or that certain phobic objects are dangerous. He knows that these beliefs are not shared by others, yet these beliefs are impervious to argument. In Rokeach's words, "It is as if the believer says: 'I believe, but no one else could know. Therefore, it does not matter what others believe' " (p. 9). Common primitive beliefs with zero consensus are "I am no good," "No one cares about me," "I am always right."

Authority beliefs are those based on contact with an authoritative reference group such as the parents of a child. As a child matures, the choice of authoritative reference groups becomes more complex. Authoritative beliefs are controvertible because a believer learns that other reference groups do not share his or her belief system.

Derived beliefs, like authoritative beliefs, are based on identification with a reference group. Unlike authoritative beliefs, however, derived beliefs are based purely on authority and not on any contact with the objects of the belief. We believe that Helsinki is the capitol of Finland not because we have been there but because books on Finland say so.

Inconsequential beliefs are "matters of taste" that are inconsequential because they are not connected to the other beliefs. They are incontrovertible and their maintenance does not require social support. Preferring tennis over racquetball, for example, is an inconsequential belief.

People who stutter may be particularly prone to the development of primitive beliefs with zero consensus regarding their stuttering. Stuttering is often a taboo topic, little discussed and less understood. In their formative years, people who stutter have little contact with authoritative reference groups that could provide a healthy understanding of their disorder. In the relative absence of consensual validation or appropriate information, the person who stutterers is exposed to consistent penalty from the larger social world. In social situations, he or she faces stigma and embarrassment. It is easy to imagine the stuttering person developing fixed belief systems incorporating beliefs such as "I am no good," "I am a helpless victim of my stuttering," "The world is dangerous and unjust." Complicating these primitive beliefs are authority beliefs learned from the family, peers, and the media that people who stutter are inept and emotionally troubled.

1.3 COGNITIVE PSYCHOLOGY

Ever since the development of ego psychology and cognitive psychology, attitudes and beliefs have been recog-

nized as important issues in psychotherapy. In the cognitive therapy of depression, the central focus of therapy is attitude change. According to the cognitive model, depressed mood is a result of depressing thoughts and attitudes, and when thoughts, attitudes, and beliefs change, feelings change in consequence. In a major recent National Institute of Mental Health study, cognitive therapy was shown to be as effective for the treatment of depression as pharmacological interventions (Ellkin, Shea, Watkins, et al, 1989).

Attitude change has long been an important goal of stuttering treatment. Most clinicians recognize that the attitude with which a stuttering person approaches a speaking situation affects the stuttering. In most situations, the less a stutterer fears a speaking situation the more fluent he or she will be.

1.4 THE SEVERITY OF STUTTERING

The assessment of the severity of stuttering is an extremely difficult task. The first issue to be resolved is who is to assess the severity—the individual people who stutter who are emotionally involved in the disorder or listeners who can rely only on their own reaction to the stuttering. The researchers feel that only the stutterers themselves can truly assess the severity of their stuttering. Much research is needed in this area before a valid and reliable severity instrument can be developed.

The formal severity scales available, such as the Stuttering Severity Instrument (Riley, 1972), are based mainly on the frequency of occurrence of stuttering blocks. The factors of the duration of the stuttering episodes and the degree and type of associated struggle behaviors that indirectly reflect the stutterer's emotional involvement in the stuttering are dealt with in a more molar approach. They are not considered equally with the frequency of occurrence in the determination of severity of stuttering. Furthermore, these scales are not sensitive to the various speaking conditions in which stuttering occurs in varying degrees of severity. Finally, the scales fail to consider how the people themselves view the severity of their stuttering.

The stutterers' self-evaluation of the severity of their stuttering is a result of their cognitive assessment of the effect of the stuttering on their lives. This assessment is based on their belief systems regarding their stuttering. Only the stuttering people themselves have this global view that takes into consideration their emotional responses to the physiological act of stuttering. As Van Riper noted (1982, pp. 212–213), self-reports of stuttering severity, because they represent the stutterers' views of themselves, may be the most clinically significant severity measure.

1.5 THE ILLNESS MODEL

Cognitive intervention in chronic behavioral disorders has been formalized in terms of the "illness model." According to the illness model, stuttering is not only a habit or psychological symptom, but is also a chronic illness.

To fully understand the illness model it is important to understand the self-help movement upon which the illness model for behavioral disorders is based. The paradigm of the self-help movement is Alcoholics Anonymous (AA). The AA treatment model has identified and effectively addressed certain key issues in controlling maladaptive behavior patterns. AA views alcoholism as an illness that cannot be controlled by the "willpower" of the alcoholic. The alcoholic is genetically prone to the illness of alcoholism and must learn to live with that fact and accept responsibility for his or her illness. The illness model addresses the same cognitive issues of denial, passivity, and self-blame that are serious impediments to effective stuttering treatment.

In treating alcoholism, the first key issue is acceptance. A person must accept that she or he suffers from a problem in order to address that problem effectively. The second key issue is responsibility. As long as a person complains about a problem, blames others, or feels guilty or helpless, responsibility for the problem is not accepted. To accept responsibility for a problem means that one agrees to do what needs to be done to control it.

Alcoholics are trapped in a cycle of denial, guilt, self-blame, and passivity and believe in a "willpower model" for controlling their drinking behavior. They believe they can simply "will" themselves not to drink. They deny their alcoholism and their inability to control their drinking. Each time they return to drinking, however, they experience shame and remorse. Their shame and self-castigation make them all the more vulnerable to further relapses, and with each relapse they feel all the more helpless against their addiction. In most instances, the addiction is reinforced and becomes stronger.

When alcoholics accept the illness model, they can acknowledge their addiction and their inability to control their drinking. By acknowledging their powerlessness, they take responsibility for their addiction and avoid the cycle of guilt and helplessness in which they are both victim and prisoner. Once they acknowledge their addiction, they can accept treatment, change their lifestyle, avoid all contact with alcohol, and behave responsibly as recovering alcoholics instead of struggling to control their drinking through sheer willpower.

Stuttering shares a number of common features with alcoholism. Stuttering is a chronic problem that a person tries to avoid. However, the very struggle not to stutter intensifies the stuttering by creating more secondary mannerisms and more anxiety. Like alcoholism, stuttering cannot be controlled solely by "willpower." Much as they try, people who stutter cannot consistently "will" themselves not to stutter. They must instead change their speech behaviors such as rate, vocal onset, or other mechanisms to reduce and help control stuttering blocks.

According to the illness model, stuttering is a chronic disease that the person who stutters must learn to deal with effectively and responsibly. It is an illness for which there is effective treatment, but the treatment requires changes in speech behavior. The illness model does not necessarily postulate a particular treatment program or etiology, only

the chronicity and an inability to control the disorder through willpower.

Following the Rokeach schema, the illness model replaces consensual primitive beliefs such as, "I can control my problem with willpower," which in relapses becomes primitive, nonconsensual beliefs such as, "I am no good, I am a failure," with healthy authoritative beliefs.

1.6 DENIAL OF PROBLEMS

As we have seen in our discussion of alcoholism, denial can be a particularly important factor in coping with chronic illness. In denial we pretend that something that is true is not true.

Denial serves the protective function of allowing a person to face painful information gradually or, sometimes, not at all. In denial a person fools himself or herself so as to avoid or postpone facing painful awareness. In grief, for instance, a person may be emotionally overwhelmed by full awareness of the loss and may pretend, if only briefly, that the loss did not occur. Dramatic, blatant examples of denial do occur, but most often denial is a temporary and unstable defensive stance, existing simultaneously and in equilibrium with its opposite, acceptance. In grief, denial can serve a protective function, but as a person reconstitutes psychically, waves of acceptance and grief alternate with periods of denial as the pain of the loss is gradually processed emotionally.

Denial is common in medical settings as a response to illness. Newly diagnosed diabetics, for instance, may accept the diagnosis of diabetes on a cognitive level, but not accept the full emotional and behavioral implications of that diagnosis. If asked, "Are you diabetic?" they will answer, "yes," but they will still act and feel as if they are not. Until the diagnosis is fully accepted and integrated on an emotional as well as a cognitive level, the person will be in denial and will have problems complying with necessary medical and dietary regimens.

In the medical setting, denial can be protective. Cassem and Hackett (1971) found that heart attack victims who had a high degree of denial had better outcomes, perhaps because denial in that acute situation protected them from certain cardiac arrhythmias that can be exacerbated by anxiety.

Denial is a complex phenomenon occurring on multiple cognitive and affective levels. It can exist simultaneously with its opposite, acceptance. There can be cognitive acceptance but emotional denial, as in the diabetics described above, or cognitive denial but emotional acceptance, as in the grieving parent who through obvious anguish and tears insists that his or her child has not died. Breznitz (1983) has elucidated the multiple levels of denial as shown in Figure 1.

Denial operates through a complex system of primitive beliefs with zero consensus, and can be a particularly important issue in stuttering treatment. Very little theoretical or empirical work has been done in the area of denial in stuttering.

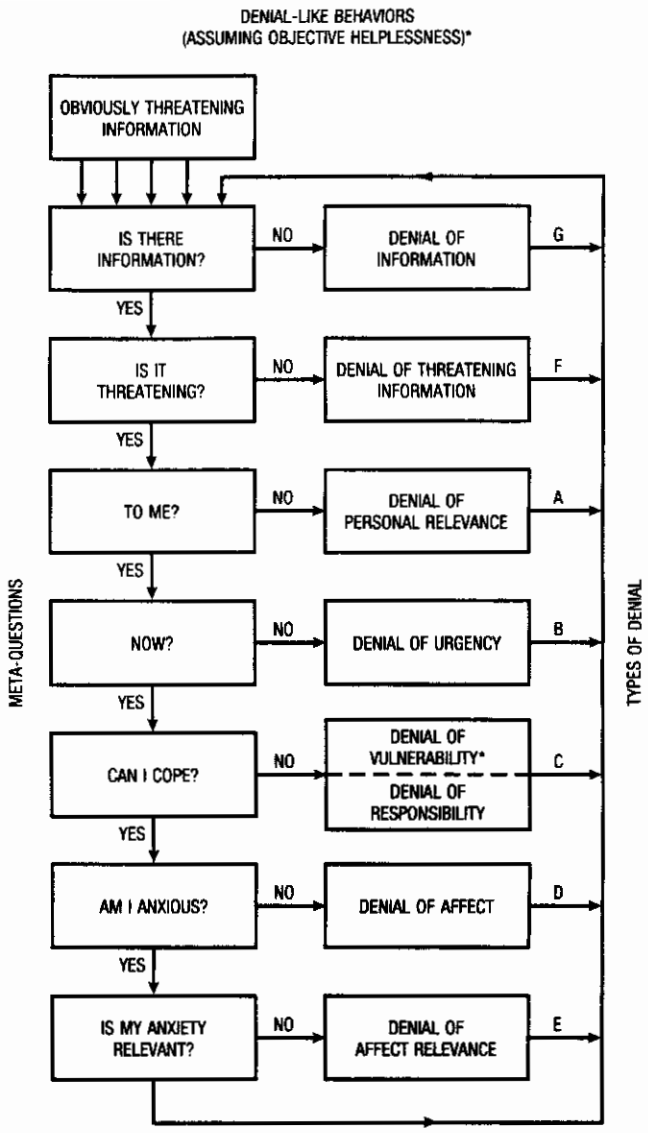

FIGURE 1. The seven kinds of denial. Breznits, S. (1983). Used by permission.

1.7 THE RESEARCH PROBLEM

This study was designed to investigate the attitudes and beliefs of people who stutter in three broad categories: (a) attitudes toward oral communication in general, (b) perceived influence of stuttering on the stuttering person's life and, (c) the attitudes and beliefs the stutterers hold about their stuttering. In this study we systematically explore the relationships between attitudes or beliefs and stuttering. We propose an attitude/belief assessment battery and describe its application and outcome. Our focus is on the effects of stuttering on the cognitions of the individual and her or his ability to function in a social world, not on a search for psychological causes for stuttering.

Chapter 2

Review of the Literature/Statement of the Problem

The more general emotional and psychological aspects of stuttering have been extensively studied. A review of this literature is complicated by terminological confusion, variations in research focus, and the sheer volume of data (See Bloodstein, 1987; Beech & Fransella, 1968; Brutten & Dunham, 1989; Brutten & De Nil, 1990; Cooke & Fitzgerald, 1985; Manning, Dailey, & Wallace, 1984; Ostrom, 1969; Van Riper, 1982). Our review is limited to certain key aspects of this issue, namely the stuttering person's attitudes and beliefs concerning oral communication in general, the perceived influence of stuttering on the person's life, and the attitudes and beliefs people hold toward their stuttering. The factors that have been researched to date are presented below.

2.1 ATTITUDES ABOUT STUTTERING

2.1.1 Reactions to Stuttering

An early but very influential attempt to measure attitudes toward stuttering was the The Iowa Scale of Attitude Toward Stuttering (Ammons & Johnson, 1944). In the Iowa scale a person who stuttered was asked to indicate agreement or disagreement with a series of questions about stuttering and stutterers. The purpose was to identify those cognitive expectancies that contributed to stuttering symptomatology.

Emerick (1960) found that nonstutterers with a "tolerant" attitude towards stuttering based on lower scores on the Iowa scale counted more blocks in samples of stuttering speech than those with intolerant attitudes. According to the illness model presented in the previous chapter, it appears that listeners with intolerant attitudes toward stuttering deny blocks when they hear them, just as the person who stutters denies his or her problem.

The Erickson Scale of Communication Attitudes (Erickson) was developed in 1969 as a measure of attitudes of stutterers toward interpersonal communication. Guitar (1976) found this measure to be a valid predictor of long-term improvement after treatment. Later research also demonstrated that attitude change may be an important variable in treatment outcome (Guitar & Bass 1978, Andrews & Craig 1988). Those with more negative attitudes prior to treatment showed poorer long-term recovery, although short-term response to treatment was the same. In 1974 Andrews and Cutler developed a briefer version of the Erickson Scale, the S-24. They felt that this briefer version more accurately discriminated between stutterers and nonstutterers, showed a stronger trend toward normality when administered to stutterers improving in treatment, and was more reliable when repeatedly administered to nonstutterers. Unlike the Iowa Scale, the S-scale, although designed specifically for stutterers, makes no mention of stuttering and is designed to distinguish stutterers from nonstutterers on the basis of speech attitudes. Ingham and Ulliana (1984) have argued that the Erickson S-24 is not, in fact, a pure measure of attitude, that it is influenced by variations in stuttering behavior.

In 1985 Manning and Ornstein applied a "self-efficacy" scaling technique to stuttering. Self-efficacy measures "an individual's confidence that he or she can perform activities necessary to produce a particular outcome" (p. 313). With regard to speaking situations and especially with regard to maintaining fluency, people who stutter show less confidence than people who do not nonstutter. Ladouceur, Caron, and Caron (1989) demonstrated that self-efficacy scaling was accurate in predicting success in stuttering treatment.

In 1967 Wolf developed the Perception of Stuttering Inventory as a measure of the struggle, avoidance, and expectancy aspects of stuttering. The instrument is designed as a clinical tool to aid the speech-language pathologist in developing therapeutic goals and assessing progress.

The attitude and personality research of Manning, Dailey, and Wallace (1984) reported that older people who stutter, aged 52–82 years, reported approach and performance behaviors similar to young adults who stutter. However, older stutterers also perceived their stuttering as much less handicapping than when they were younger. Their scores on the Erickson Scale averaged 16.0 out of a possible 24.0. This average compares with the pretreatment scores of 19.4 for young adults (Howie, Tanner, & Andrews, 1981), and 20.0 (Guitar & Bass, 1977) and 15.6 during treatment (Ornstein & Manning, 1985).

Denial is a particularly important feature of adjustment to illness. As discussed in Chapter 1, denial is a complex phenomenon present across multiple affective and cognitive levels. Breznitz (1983) has depicted the multiple levels of denial as shown in Figure 1. As Breznitz shows, different aspects of threatening information can be denied as each "meta-question" is answered in the negative. There are no existing tests of denial for people who stutter.

2.1.2 Perceived Influence of Stuttering on Life Adjustments

On the basis of social learning theory, Rotter developed the Locus of Control scale in 1966. Rotter postulated that the effects of reward or reinforcement are conditional on whether a person perceives the reward as contingent on his or her behavior. A person with an external locus of control believes that behavioral consequences are due to chance or luck; a person with an internal locus of control believes that his or her behaviors or abilities determine outcomes. Conture (1990) highlighted the importance of encouraging an

internal locus of control in the person who stutters through speech treatment.

Locus of control has been examined in a stuttering population. McDonough and Quesal (1988) compared stutterers and nonstutterers on a Locus of Control inventory. They found no significant differences, but they then developed a specific speech Locus of Control scale that successfully differentiated between stutterers and nonstutterers. The scores on the speech Locus of Control scale correlated highly with scores on the Erickson (S scale). Neverlein (1989) also used the Locus of Control to assess how much a person who stuttered felt he needed information about stuttering.

In the Ladouceur study (Ladouceur, Caron, & Caron, 1989) the Locus of Control and the Erickson scores were recorded in addition to the self-efficacy scaling scores. Locus of Control and Erickson scores did not predict successful treatment, and people who stuttered severely formed a distinct subgroup not responsive to treatment.

Although the results of Locus of Control testing in people who stutter have been equivocal, this measure appears to capture an important aspect of stuttering viewed according to the illness model, namely, the primitive belief that a person who stutters is a victim of his or her stuttering. As a measure developed independently of the stuttering population, it allows comparisons between stutterers and normal speakers in ways that the Erickson, Perception of Stuttering Inventory, or the Iowa scales do not.

2.1.3 Attitudes and Beliefs About Oral Communication in General

The earliest studies assessing attitudes toward speaking used the Knower Speech Attitude Scale and the Knower Speech Experience Inventory (Knower, 1938). These scales, developed for use with normal-speaking subjects, were used to assess speech-related attitudes in people who stutter by Brown and Hull (1942) and Naylor (1953).

Stuttering people's attitudes towards specific speaking situations were the focal point of another series of scales typified by the speech situation rating sheet by Shumak (1955). Shumak's test listed 40 common speech situations and asked people who stutter to rate them with respect to avoidance, dislike, and severity of stuttering in each situation.

Watson, Gregory, and Kistler (1987) and Watson (1988) developed an inventory to assess communication attitudes associated with 39 specific speaking situations. In an attempt to examine affective cognitive and behavioral attitudes, speakers were asked whether they enjoyed a speaking situation, whether their speech skills were good in the situation, whether most speakers enjoyed a situation, and whether most speakers' speech skills were good in this situation. Stutterers differ from nonstutterers in their enjoyment of speaking situations and in their self-assessment of speech skills, but this single test measure did not attempt to capture the complexities of speech-related attitudes and beliefs.

Kraaimagt, Janssen, and Brutten (1988) examined cognitive and autonomic measures of anxiety in a stuttering population. Autonomic anxiety was measured by changes in skin conductance. Stutterers with lower levels of anxiety during oral reading were more likely to show improved speech after treatment, suggesting the importance of attitude and communication anxiety in stuttering treatment.

Greiner, Fitzgerald, and Cooke (1985) studied social sensitivity in people who stutter using the Revised Willoughby Personality Schedule. Stutterers showed higher degrees of social isolation and social sensitivity but less social confidence.

These general measures of communication anxiety, although useful, do not effectively isolate and quantify the broad range of communication-related attitudes.

The Communicator Style test constructed during the 1970s and 1980s by Robert W. Norton (1978, 1983) is a broader measure of communication attitudes. Norton proposed that most people develop a pattern of relatively enduring yet dynamic behaviors that serve to characterize individual conduct during message exchange sequences. Style was defined as the way the meaning of a message is "signaled, filtered, interpreted or understood" (Norton, 1978). The style construct was used to characterize the general way a person communicates, although style is largely independent of message content or substance. Style is concerned with patterns of form and habit that underlie message-processing activities. In other words, the way a message is presented constitutes the domain of the style construct. Similar content of political criticism can be delivered by a Johnny Carson monologue or a William Buckley discourse, but the style will be different.

Norton (1978, 1983) defines the multidimensional construct as consisting of 10 independent dimensions and of one dependent dimension, communicator image, which captures the overall style gestalt. The independent dimensions, or subconstructs, define characteristic interactive tendencies as being dominant, argumentative, dramatic, animated, open, impression-leaving, friendly, relaxed, attentive, and precise. Fundamentally, style is an objective phenomenon in that a majority of the measuring items are amenable to empirical observation. Responses to particular items are collapsed into 11 different scores; 1 score for each style dimension with individual scale items defining only one subconstruct. The internal structure of the overall construct was initially developed, and is typically applied, as a self-report instrument. The Communicator Style test used in this research was crafted through a number of studies. The foundation work used a sample of nearly 1,100 college students and adults from the Midwest (Norton, 1978).

Early research (Norton, 1978) documented internal reliability ranging from a low of .37 for the Friendly subconstruct to a high of .82 for the Dominance subconstruct. Given the nature of a multidimensional construct and the small number of items on a short scale range, Norton considered the reliability acceptable (except for the Friendly subconstruct). Subsequent changes in item phrasing and the addition of new items served to bolster the softer reliability coefficients to more acceptable levels. Importantly, however, the structure of the larger style domain has remained stable across a number of studies. Some of the subconstructs, particularly the Dominance, Dramatic, and Atten-

tive components of style, have proven consistently predictive of hypothesized outcomes (Miller, 1977, 1980; Norton, 1983; Norton & Miller, 1975; Norton & Pettegrew, 1977, 1979; Norton & Nussbaum, 1980; Norton & Montgomery, 1982; Montgomery & Norton, 1981). Communicator style is viewed as a relatively enduring, trait-like quality.

Norton recognized the style construct as being inherently multidimensional and decidedly responsive to social context. Most people, for example, do not interact with a close friend the same way they do with an acquaintance or business associate. Norton maintained that even within the diversity that seems to exist across contexts, people exhibit a distinctive range of signaling behaviors that help establish their identity. Style is a complex, multidimensional variable. While communicator style consists of 11 empirical interrelated dimensions that are conceptually distinct, communicator image is a composite element that best captures the overall gestalt of communicator style construct. A more narrowly focused measure of one salient aspect of social conduct is the Personal Report of Communication Apprehension.

The Personal Report of Communication Apprehension is designed to measure ". . . an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons." (McCroskey, 1977, p. 142). Essentially, communication apprehension is a unidimensional construct considered to be a personality trait or is at least trait-like in nature, that is, communication apprehension is a relatively enduring orientation that persists across a variety of contexts. The measure consists of 25 items and uses a 5-point Likert-type scale.

High internal reliability (.92–.96) has been repeatedly demonstrated in prior studies, and test-retest reliability consistency has also been high (McCroskey, 1978). The measure evidences face validity and has consistently predicted behavior theoretically consistent with the communication apprehension construct (McCroskey, 1978). McCroskey found that 20% of a large sample of normal speakers had high apprehension scores. The Communicator Style and the Personal Report of Communication Apprehension are tools that help identify and define communication patterns and preferences and help to characterize attitudes toward social activity.

2.1.4 Perceived Influence of Stuttering on Social Interactions

A review of available inventories of social functioning showed the Texas Social Behavioral Inventory to be a brief, easily administered, and well-validated measure of social competence. The original inventory was administered to more than 1,000 subjects and reduced to 32 items on the basis of factor and item analysis. The Texas Social Behavioral Inventory represents an objective measure of social competence.

2.2 STATEMENT OF THE PROBLEM

This study is designed to investigate the attitudes and beliefs of people who stutter in three general categories. With regard to attitudes toward oral communication in general, the scales used are the Communicator Style and the Personal Report of Communication Apprehension. A second general area of interest concerns the stuttering person's views of forces influencing their lives and their social behaviors. This was assessed by the Locus of Control and the Texas Social Behavioral Inventory. The third area of concern focused on the stutterers' attitudes toward their stuttering. The scale used here was the Erickson.

Independent variables of age, sex, and severity of stuttering were considered because the researchers felt there would be attitudinal and belief differences as a function of these variables. In the case of age, it was postulated that older stutterers would differ from younger stutterers by showing more acceptance of their stuttering.

Gender was also considered a possible source of variation in attitudes and beliefs. Because of genetic and/or cultural influence, females appear to deal more openly with their emotions than males (Keen, 1991; Richardson, 1981). Based on this, we postulated that the attitudes and beliefs of female stutterers would be less negative than those of the male stutterers.

Stuttering severity was also considered a source of differences. We postulated that the more severe stutterers would have concomitantly more severe emotional reactions to their stuttering than would less severe stutterers (Van Riper, 1982, pp. 156–159, 225–241). Perceived difference would be related to different concerns; that is, the mild stutterers fearing someone would discover they were a stutterer and the severe stutterers fearing not being able to say what they wanted to say.

This investigation was thus designed to test for significant differences in attitudes and beliefs between subgroups of stutterers on the attitude and beliefs scales, and to establish normative data for a group of stuttering subjects. The essential research hypotheses being assessed can then be stated in the null form as follows:

1. There will be no differences in tests of attitudes and beliefs toward speaking in general, factors influencing their lives and their social behaviors, and their own stuttering between various age groups of stutterers.

2. There will be no differences in tests of attitudes and beliefs toward speaking in general, factors influencing their lives and their social behaviors, and their own stuttering between male and female stutterers.

3. There will be no differences in tests of attitudes and beliefs toward speaking in general, factors influencing their lives and their social behaviors, and their own stuttering, between self-perceived mild, moderate, or severe stutterers.

A final hypothesis, again stated in the null form, considers the differences expected between the research population and the populations used in establishing normative data for the various scales in the test battery. Results from our research population will be compared to those nonstuttering populations previously examined with test battery components. This hypothesis is as follows:

4. There will be no differences between the stuttering population and nonstutterers on all five tests.

Chapter 3

Method

3.1 CREATING THE TEST BATTERY

3.1.1 United States Version

After reviewing the literature concerning scales and tests that measure attitudes and feelings in the areas of orientation toward oral communication in general, perceived influences of stuttering on life adjustments, and attitudes toward stuttering, five well-developed scales were selected for the test battery. Selection criteria included the clarity of the instructions and the clarity of the self-scoring method, with some consideration of the length of the test battery. The scales selected are as follows:

Attitude Toward Oral Communication in General. With regard to attitudes toward general communication, two major scales were available, the Communicator Style scale and the Personal Report of Communication Apprehension. Both scales have been extensively studied and standardized on college students (Norton, 1978, 1983; McCroskey, 1969, 1977, 1978).

Communicator style is broadly conceived to refer to "the way one verbally and paraverbally interacts to signal how literal meaning should be taken, interpreted, filtered or understood" (Norton, 1978, 1983). The measure is a 51-item paper and pencil instrument, with each item scored on a 5-point, Likert-type scale. Each of the 11 subtests consists of the composite of four or five scale items. One subtest, Communicator Image, represents an overall composite of the style variables. This subtest was used as the best indicator of one's overall style of communication. It was compared to the several other scales described below. The remaining subtests were treated separately as subordinate elements in the complex style domain.

All Communicator Style subtests are scored using a 5-point scale. A score of 1 indicates strong disagreement with a statement that characterizes the talk and interaction patterns, and a score of 2 denotes disagreement with the statement. A score of 3 means the subject has a neutral reaction to the statement. On the positive side, a score of 4 indicates agreement, and a score of 5 indicates strong agreement with the statement. The implications of higher scores on the subtests are shown in Table 1.

The Personal Report of Communication Apprehension is a 25-item, self-report, paper and pencil measure in which each item is anchored by a 5-point, Likert-type scale. A score of 1 indicates strong disagreement with the statement, and a score of 5 indicates strong agreement with the content of the item. Item responses are collapsed into a single composite score, which serves as a unidimensional index to the degree to which an individual experiences apprehension toward oral communication.

The version of the Personal Report of Communication Apprehension used in this research was developed by McCroskey (1969, 1977, 1978) through testing more than 16,000 subjects who were college students, adults, and older high school students. The higher score indicates more anxiety associated with oral communication.

Attitudes Toward Life Style and Social Interactions. Since Rotter's original 1966 work on the Locus of Control, a variety of related locus of control measures have been developed. For purposes of this study we used the Mastery-Powerlessness Scale developed by Frank and Hoehn-Saric (1985). Much briefer and more easily administered than the Rotter inventory, this 18-item modification "rates a person's perception of internal control, i.e., the degree to which he is in control of himself and his environment, as opposed to external control, i.e., the degree to which he sees himself at the mercy of fate and other forces" (Hoehn-Saric & McLeod, 1985).

The Locus of Control consists of 18 items. Seventeen statements are scored either 1 or 0 depending on whether the situation is perceived to be characteristic of the individual. A score of 1 indicates the situation is characteristic, and a score of zero indicates that it is not. One of the 18 items is scored on a 0–6 scale in terms of the amount of control the person feels he or she has over his or her life. The higher the score the greater the control. The item scores are subsequently summed to produce a single numerical composite. The neutral score is a composite of 12. Scores greater than 12 indicate more internal control, and scores below 12 indicate more external control.

The Texas Social Behavioral Inventory was selected for use in this research. The original version of the inventory contained 32 items and was designed to measure self-esteem and social competence. Helmreich and Stapp (1974) developed a 16-item short form, which showed a .97 correlation with the original scale. The short form was used in this study and each item was scored on a 5-point scale on which higher scores indicate a greater sense of social competence. The associated numerical scores and their respective definitions are as follows:

1—not at all characteristic of me
2—not very characteristic of me
3—slightly characteristic of me
4—fairly characteristic of me
5—very much characteristic of me

Attitudes Toward Stuttering. With respect to attitudes toward stuttering the only major scale found was the Erickson. This 39-item scale is designed for use with a stuttering population as a measure of attitudes toward stuttering.

Items on the Erickson are scored either true or false with true represented by a score of 1. The higher the score the more negative the individual's attitudes toward communication, that is, the more negatively stuttering has affected his or her attitude. An item analysis of the scale revealed that the Erickson scale did not address an important aspect of attitudes toward stuttering, that of denial. For that reason a series of questions about denial and coping was devel-

TABLE 1. Interpretations of higher scores on the various scales.

Scale	*Meanings of higher scores*
Communicator Style	
Comm. Image	More positive image as an effective speaker.
Friendly	More sociable, stroke-giving, with friendly style.
Relaxed	More calm and comfortable during communication.
Argumentative	More contrary and contentious in conversations.
Attentive	More listening skills, pays close attention to speaker.
Open	More gregarious, approachable, extroverted.
Animated	More movement, eye contact, facial expressions.
Impression	More easily remembered because of projected impression.
Dominance	More dominant in communications, strong communicator.
Dramatic	More animated speaker; gestures, stories, jokes, etc.
Precise	More involved in providing details in conversations.
Pers. Rpt. Comm. App.	More anxious about communications
Loc. of Control	More internal control
Tex. Soc. Beh. Inv.	More socially competent
Erickson	More rejecting of the stuttering

oped for exploratory use in this study. These 26 items are based on the authors' extensive experience with both stuttering and chronic illness. They are designed to assess several components of denial and acceptance. Not being able to discuss a problem with family or friends indicates a lack of acceptance (questions 1–5), as does blaming oneself or others (questions 6 and 7). Pretending that one does not have negative feelings about one's stuttering (questions 10, 11 and 14) or not acknowledging the effect stuttering has had on one's life (questions 8, 9, 13, 17–20, and 25) suggests denial. Fantasies of cure (questions 21 and 23) and feelings of passivity or helplessness (questions 16 and 22) suggest a lack of mature coping. Affirmative answers to the remaining items (questions 12, 15, 24 and 26) indicate mature acceptance.

Scoring is based on a 4-point scale. The subject indicates how often the statement applies to him or her, from "never" to "often."

The test battery, consisting of five measures testing the three areas of interest, is presented in Appendix A. The Denial Questionnaire appears in Appendix B.

3.1.2 Finnish and Hungarian Versions

The study included stutterers from Finland and Hungary for cross-cultural comparisons with the stutterers from the United States. The selection of Finland and Hungary as participants in the study was somewhat fortuitous and based on the fact that Emoke Kovacs-Voss from Hungary was working with Eila Alahuhta in Finland during the time the first author was there establishing the project with Dr. Alahuhta.

Eila Alahuhta at the Oulu University in Oulu, Finland, and Emoke Kovacs-Vass at the Medical Education Division of the Barczi Gusztav Teachers College in Budapest, Hungary, coordinated the research project in their respective countries. The first author met with Alahuhta and Kovacs-Vass at the University of Oulu and reviewed the research project and the test battery. English-speaking students working with Alahuhta and Kovacs-Vass translated the test battery, including procedures and instructions, into the Finnish and Hungarian languages, respectively. The denial questions were not included because of cultural and language differences, which the researchers felt would invalidate cross-cultural comparisons, especially since normative reliability and validity data have not yet been established.

3.2 SUBJECTS

3.2.1 United States

Contacts were made with speech-language pathologists who were responsible for stuttering programs at various agencies and university programs in the United States. Individuals who agreed to assist in the study were sent test batteries along with self-addressed, stamped envelopes to distribute to stutterers who volunteered to participate. The only restrictions were that the respondents could be no younger than 17 years of age and have no other disabling condition such as stroke, mental retardation, or other emotional, cognitive, or physical impairments. Data describing the demographic characteristics of the subjects are presented in Table 2.

TABLE 2. Subject information.

Data	*Total sample*	*Males*	*Females*
United States			
Mean age	34.13	34.74	32.81
SD	11.92	10.89	13.56
Range	17–68	29–68	17–64
N	67	46	21
Finland			
Mean age	33.81	33.90	33.57
SD	8.85	9.25	6.78
Range	19–54	19–54	25–44
N	27	20	7
Hungary			
Mean age	29.0	29.3	27.4
SD	6.56	6.95	4.37
Range	17–41	17–41	22–34
N	30	25	5

Note. States/Subjects: Alabama—3, California—11, Florida—1, Illinois—5, Indiana—1, Iowa—4, Michigan—28, New York—1, Ohio—4, Pennsylvania—3, Tennessee—3, Vermont—3.

Sixty-nine people who stutter participated in the United States segment of the study. Two subjects did not complete the questionnaire properly and their data were discarded. The final sample of 67 stutterers consisted of 16 mild stutterers, 34 moderate stutterers, 13 severe stutterers, and 4 subjects who did not rate the severity of their stuttering. There were 46 male and 21 female stutterers in the group. The 17–30-year-old group included 31 subjects. There were 17 subjects in the 31–40-year-old group and 19 in the 41–68-year-old group.

The data came from 12 states representing most regions of the country. The mean age of all subjects was 34 years with the mean for the males being 35 and the mean for females being 33. The ages ranged from 17 through 68. The range for the males was 19 through 68 while the range for females was 17 through 64.

3.2.2 Finland and Hungary

Twenty-seven stutterers from Finland and 30 stutterers from Hungary participated in the study. The Finnish group consisted of 20 males and 7 females, ranging in age from 19 to 54 with an average age 34. The Hungarian group included 25 males and 5 females. The age range was from 17 to 41 with an average age of 29. Data were not collected on severity of stuttering because of possible cultural differences regarding the degree of stigma attached to stuttering and the social tolerance of the disorder. Further data on foreign subjects are presented in Table 2.

3.3 DATA COLLECTION

3.3.1 Standard Procedures

Each test battery contained a set of instructions for the person procuring the stuttering subjects, a set of instructions for the person taking the tests, the five scales, the questions related to denial, and a self-addressed and stamped envelope for the return of the completed materials.

The person who contacted the stuttering subjects was instructed on the selection of subjects as well as the information about the project he or she was to share with the volunteers. These instructions were removed before the battery was given to the subjects. The instructions to the subjects asked them to list their age, their sex, and the severity of their stuttering and then to read carefully the instructions contained with each of the five tests and the questions that followed.

3.3.2 United States

Fifteen directors of training programs or stuttering treatment programs were contacted and asked to assist in procuring subjects for this study. People who agreed were asked to explain the project to their stuttering clients and encourage them to participate in the research by completing the test battery. An appropriate number of test batteries was provided for distribution to the subjects along with a self-addressed, stamped envelope to return the battery.

Because the subjects were guaranteed anonymity and thus did not identify themselves, it was impossible to determine precisely which respondents returned a test battery. Therefore, each director was contacted three times over a 3-month period and asked to remind the participating stutterers to return the test battery. Approximately 125 test batteries were distributed. Approximately 54% of the forms were comprehensively and properly completed and returned, yielding a sample of 67 stutterers.

3.3.3 Finland and Hungary

Following the standard data collection procedures, Alahuhta and Kovacs-Vass contacted speech-language pathologists in their respective countries and enlisted their assistance in locating people who stutter who would participate in the study by completing the test battery. The project was explained and the stutterers were encouraged to participate. The professionals were contacted several times to remind the stutterers to complete and return the test batteries. The collected data were then forwarded to the researchers in the United States for statistical analysis.

3.4 STATISTICAL ANALYSIS

The data generated through the administration of the battery of tests was initially summarized through simple statistical procedures and then explored through a variety of analytic techniques. Unpaired t tests and univariate F tests provided insight into the nature of differences on the several tests in the battery as a function of gender, stuttering severity (United States sample only), and age. Significant F test results were explored through post hoc procedures. Subsequently, two-factor F tests were performed to detect more complex influences and to identify possible interactions. Lastly, several correlation and regression analyses were performed in efforts to explore the interrelationships between and among the several measures and the variables of interest. The data were analyzed on a Macintosh SE microcomputer using the statistical package "Statview SE plus Graphics" (Feldman, Gagnon, Hofman, & Simpson, 1987).

Chapter 4

Results

The means and standard deviations of the test battery for the American research sample as a whole and for subgroup classifications by gender, severity, and age are presented in Table 3. Communicator Image is presented in the table as the best overall indicator of the Communicator Style construct, which is the only multidimensional measure in the battery. The means and standard deviations for the 10 Communicator Style subtests are displayed in Table 4.

Normative data are overviewed in Table 5. Normative data for the nonstuttering population are presented for all of the Communicator style subtests (wherever available), the Personal Report of Communication Apprehension, Locus of Control, and Texas Social Behavioral Inventory. Normative data in a stuttering population are available for the Erickson and that data are included in the table also.

The data displayed in Tables 3 and 4 reveal patterns of centrality and dispersion for data organized by subsets within measures. It is most useful to focus on patterns of similarity and difference within measure by data subset rather than between measures when reviewing these tables. Cross-measure comparisons are not instructive here both because of differences in how the several measures are scaled and because of the different attitude orientations they are presumed to tap.

The data presented in Tables 3 and 4 were analyzed to locate possible significant differences between test performance by gender, severity of stuttering, and age. First, unpaired *t* tests were used to identify possible differences between male and female stutterers for the five general measures that composed the overall test battery and, secondarily, the 10 Communicator Style subtests that define the multidimensional style domain. The alpha level was set at .05.

Analysis revealed no statistically significantly differences between male and female responses on the Erickson, the Locus of Control, the Texas Social Behavioral Inventory, or the Personal Report of Communication Apprehension. These data are presented in Appendix C. Significant differences were detected, however, between males and females for the Communicator Style measure. Specifically, males scored significantly higher than females on Communicator Image, the primary style variable of interest ($t = -2.85$, $df = 65$, $p < .006$ respectively). Examination of data exploring the 10 style subtests revealed that female stutterers rated themselves as being significantly more Dramatic than males rated themselves ($t = -2.13$, $df = 63$, $p < 0.04$). No other differences were detected with respect to gender comparisons for male and female stutterers on the Communicator Style scale.

F tests were used to detect possible differences in the response patterns of stutterers to the tests comprising the battery as a function of stuttering severity (mild, moderate, or severe). Analysis revealed no significant differences in the data sets with respect to stuttering severity for the majority of tests in the battery (see Appendix C). The one exception was the Erickson, where a statistically significant difference was detected ($F = 3.16$, $df = 2.59$, $p < .05$, $\omega^2 = .065$). Post hoc comparisons explored the source of the between-groups differences. Analysis identified the difference as a function of whether the degree of stuttering reported was characterized as being moderate or severe. Severe stutterers reported a significantly lower score, indicating less acceptance of the stuttering, than did moderate stutterers (see Table 3). Mild stutterers, although not significantly different from either moderate or severe stutterers, were more accepting of their stuttering. Interestingly, stutterers reporting the greatest degree of stuttering severity were the least accepting (judging from mean scores).

Exploration of the subtests of the Communicator Style construct detected significant differences with respect to (a) Friendliness ($F = 4.32$, $df = 2.59$, $p < .05$, $\omega^2 = .097$), where moderate and severe stutterers rate themselves as being significantly more friendly than mild stutterers rate themselves; (b) Attentiveness ($F = 5.70$, $df = 2.59$, $p < .05$, $\omega^2 = .132$), where moderate and severe stutterers rate themselves as significantly more attentive than mild stutterers rate themselves; and (c) Impression Leaving ($F = 5.55$, $df = 2.59$, $p < .05$, $\omega^2 = .128$), where moderate stutterers report that they leave a significantly better impression on others following a social interaction than do mild stutterers, and a higher, though not a statistically significantly better impression than severe stutterers report leaving. No other statistically significant differences were detected as a result of stuttering severity, although one trend towards a difference was noted. Analysis of the data for the Dramatic subtest of the Communicator Style measure revealed a near-significant difference ($F = 2.79$, $df = 2.58$, $p < .07$, $1\text{-}\beta = .75$, ES = .50), such that mild stutterers report seeing themselves as more Dramatic than do those who rated themselves as being either moderate or severe stutterers, although, again, the differences merely approached conventional levels of significance.

F tests were also used to detect possible differences in subject response patterns to the battery of tests as a function of age. The study sample was divided into three age groups, 16–30, 31–40, and 41–68 years. The analyses revealed that no significant differences were associated with any of the five tests as a function of age grouping (see Appendix C). Examination of the subtests of the Communicator Style construct also revealed no differences associated with age. Thus, on balance, the analyses establish that age, at least as a factor in this research, has no informational utility with respect to the communication profile of the sample of stutterers. In short, getting older does not change attitudes or beliefs toward communication and social activities as generally defined by the measures used here.

An additional series of two-factor *F* tests were conducted in an effort to explore the possible interrelationship(s) between stuttering severity and gender. This series of analy-

TABLE 3. Means and standard deviations for five measures.

Measure	Gender		Severity			Age			Overall
	M	*F*	*Mild*	*Mod*	*Severe*	*16–30*	*31–40*	*41–68*	
n	46	21	16	34	13	31	17	18	67
Communicator Image									
M	3.1	2.7	2.8	3.0	3.3	3.0	3.2	2.9	3.0
SD	0.7	0.6	0.6	0.8	0.4	0.7	0.7	0.7	0.7
Personal Report of Communication Apprehension									
M	84.8	82.8	81.4	86.8	79.0	86.1	87.5	77.7	84.4
SD	16.2	20.3	21.7	15.3	18.2	16.5	15.1	20.2	16.8
Locus of Control									
M	15.0	15.9	16.1	14.8	15.2	15.2	13.9	16.6	15.4
SD	04.4	04.3	04.7	03.9	05.3	03.8	05.0	04.5	04.2
Texas Social Behavioral Inventory									
M	37.0	37.6	38.4	36.7	37.7	37.4	37.2	36.9	37.3
SD	09.2	09.0	11.5	07.9	09.0	08.8	09.3	09.6	09.0
Erickson									
M	26.9	27.6	25.9	29.2	23.6	27.7	27.2	26.0	27.0
SD	07.7	07.0	08.6	06.3	07.6	06.7	06.7	09.2	07.4

ses was performed to detect main effects associated with degree of stuttering severity and gender, but also to identify whether higher-order interactions between the variables might be embedded in the data. The results revealed no significant main effects or significant interactions for any of the five major tests in the battery (see Appendix C). Thus, the evidence suggests that stuttering severity and gender are independent variables with respect to the five major tests composing the test battery.

Examination of the subtests of Communicator Style also revealed no statistically significant main effects, although a significant two-way interaction was identified as a function of gender and stuttering severity on the Openness subtest ($F = 4.39$, $df = 2.56$, $p < .05$, $\omega^2 = .099$). Examination of the cell means suggests that males who rate themselves as being mild stutterers and females who rate themselves as being moderate stutterers report similar Openness ratings and are significantly more open in their communication practices than are males and female stutterers reporting any other level of stuttering severity.

In addition to establishing patterns of central tendency and variation for the several measures by gender, stuttering severity, and age grouping, the relationship between and among the several measures were explored. These analyses involved a series of correlations and regression procedures.

The correlation analyses indicate patterns of association between and among the five measures composing the test battery. The strongest positive relationships exist between the Personal Report of Communication Apprehension and the Erickson ($r = .67$), followed closely by a correlation between the Texas Social Behavioral Inventory and the Locus of Control ($r = .62$) and the Texas Social Behavioral Inventory and the Erickson, although the relationship is negative ($r = -.60$). Respondent performance on the Locus of Control is associated with performance on the Erickson, again in the negative direction ($r = -.50$). The Texas Social Behavioral Inventory is negatively associated with Personal Report of Communication Apprehension scores at a moderate level ($r = -.48$), indicating that as sociability scores as measured by the Texas Social Behavioral Inventory improve, scores on the Personal Report of Communication Apprehension tend to diminish. This makes sense because the core of the Personal Report of Communication Apprehension taps anxiety and fear (of oral communication) and neither feeling is positively associated with sociability (McCroskey & Richmond, 1987, p. 147).

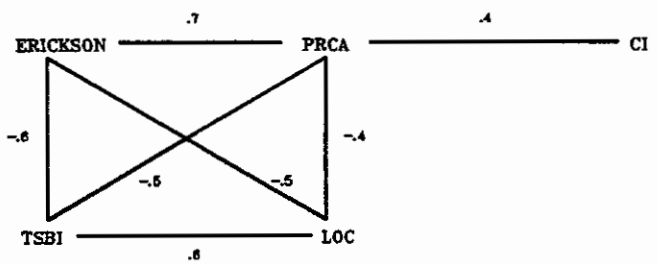

FIGURE 2. McQuitty Correlation Structure for all stutterers.

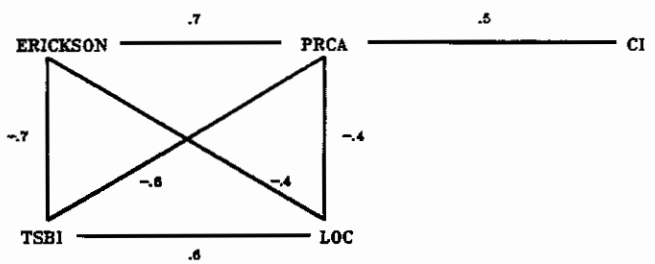

FIGURE 3. McQuitty Correlation Structure for male stutterers.

TABLE 4. Means and standard deviations for communicator style subconstructs.

	Gender		Severity			Age			
Subconstructs	*M*	*F*	*Mild*	*Mod*	*Severe*	*16–30*	*31–40*	*41–68*	*Overall*
n	46	21	16	34	13	31	17	18	67
Friendly									
M	2.6	2.6	2.2	2.8	2.9	2.5	2.5	3.0	2.6
SD	0.7	0.9	0.6	0.9	0.6	0.8	0.8	0.8	0.8
Relaxed									
M	2.7	2.7	2.8	2.7	2.6	2.7	2.8	2.6	2.7
SD	0.5	0.7	0.3	0.7	0.5	0.5	0.6	0.7	0.6
Argumentative									
M	3.0	3.1	3.4	3.0	2.8	3.0	3.1	3.0	3.0
SD	0.8	0.9	0.8	0.8	0.5	0.7	0.8	0.9	0.8
Attentive									
M	2.8	2.8	2.3	3.0	3.0	2.7	2.7	3.0	2.8
SD	0.7	0.9	0.6	0.8	0.5	0.8	0.7	0.9	0.8
Open									
M	3.0	3.0	3.0	3.0	2.9	3.0	3.1	2.8	3.0
SD	0.5	0.6	0.4	0.6	0.6	0.5	0.6	0.7	0.6
Animated									
M	3.1	2.9	3.2	3.0	3.1	3.0	3.1	3.1	3.1
SD	0.6	0.8	0.7	0.6	0.6	0.7	0.6	0.8	0.7
Impression Leaving									
M	2.7	2.9	2.2	3.0	2.6	2.6	2.8	2.8	2.7
SD	0.8	0.9	0.6	0.9	0.7	0.9	0.8	0.8	0.8
Dominance									
M	3.2	3.1	3.3	3.0	3.3	3.1	3.4	3.0	3.1
SD	0.9	0.6	0.8	0.9	0.7	0.8	0.8	0.8	0.8
Dramatic									
M	3.1	3.6	3.7	3.1	3.2	3.3	3.5	3.1	3.3
SD	0.8	0.8	0.8	0.9	0.7	0.9	0.9	0.9	0.9
Precise									
M	3.0	3.1	3.0	3.1	3.1	2.9	3.2	3.1	3.0
SD	0.6	0.7	0.6	0.7	0.6	0.6	0.7	0.7	0.6

The two communication indices, the Communicator Image and the Personal Report of Communication Apprehension, are positively associated ($r = .41$) at a moderate level. The Locus of Control is negatively associated with the Personal Report of Communication Apprehension (−.36) and Communicator Image (−.19). Communicator Image is negatively associated with the Texas Social Behavioral Inventory (−.25) and positively associated, albeit the weakest correlation identified at .16, with scores on the Erickson. Overall, the correlation analyses reveal that the several measures in the test battery serve to provide unique, although not in every instance totally unrelated, information about the attitudes and views of the respondents with respect to communication.

Correlational data can be structurally organized by McQuitty Elementary Linkage Analysis (McQuitty, 1957). A McQuitty Linkage diagram graphically depicts patterns of association among variables, in this instance five mea-

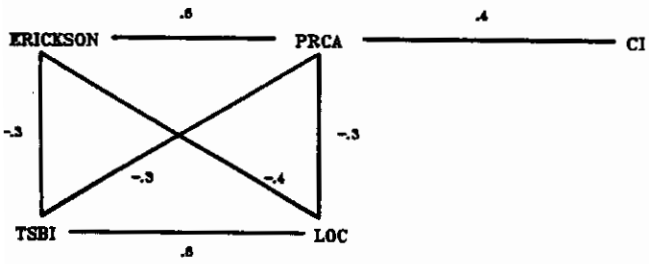

FIGURE 4. McQuitty Correlation Structure for female stutterers.

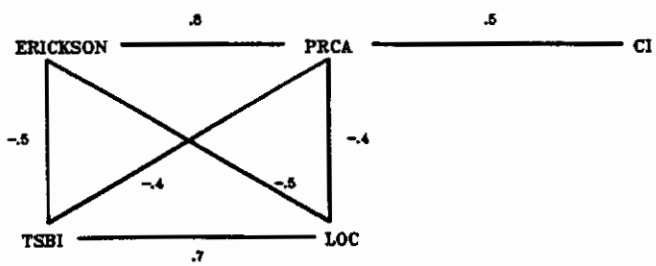

FIGURE 5. McQuitty Correlation Structure for mild stutterers.

TABLE 5. Normative data on all scales.

Scale	*Mean*	*SD*
Communicator Style[a]		
Comm. Image	2.65	.58
Friendly	*	
Relaxed	2.38	.51
Argumentative	2.41	.57
Attentive	2.84	.50
Open	*	
Animated	2.31	.44
Impression Leaving	2.79	.43
Dominance	2.41	.52
Dramatic	2.71	.44
Precise	*	
Pers. Rpt. Comm. App.[b]	60	12
Tex. Soc. Beh. Inv.[c]	40.55	9.0
Loc. of Control[d]	12.65	2.5
Erickson[e]	25.65	7.24

Note. [a] college students. [b] nonstuttering adults. [c] nonstuttering adults. [d] patients with chronic anxiety disorder. [e] stutterers. * normative data unavailable.

sures, and is particularly useful when the sample size precludes using factor analysis to search for underlying dimensionality. Figure 2 uses the correlational data for the entire data set to structure a Linkage Analysis. Linkages (correlations) below .3 are not depicted. Generally, the Linkage Analysis reveals that the Erickson, Personal Report of Communication Apprehension, and the measure of Communicator Image operate from a single family domain wherein communication apprehension is central. The Texas Social Behavioral Inventory and the Locus of Control measure operate from a very different family domain in that they are negatively related or unrelated (at $r = .3$) to the other variables, but are positively associated ($r = .6$) with each other. Thus, the Linkage Analysis serves to reveal that the five measures used in this research (a) derive from two different family domains or systems of attitude and (b) provide unique insight into the phenomenon of interest. In other words, none of the measures taps exactly or largely the same patterns as accessed by any other measure.

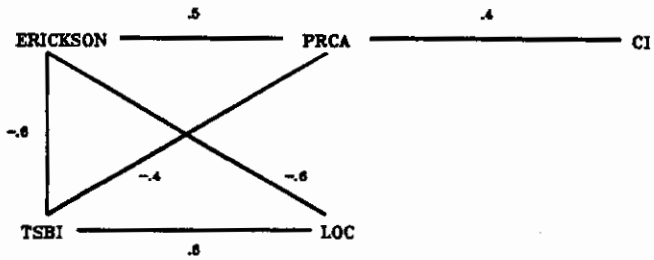

FIGURE 6. McQuitty Correlation Structure for moderate stutterers.

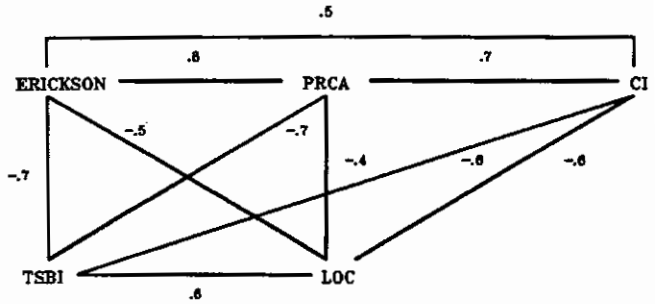

FIGURE 7. McQuitty Correlation Structure for severe stutterers.

Figures 3 through 7 summarize correlational patterns embedded in the data for the several measures by gender and severity respectively. In almost every case the fundamental linkage pattern holds, although the strength of associations (correlations) tends to fluctuate somewhat. For example, a comparison of Figures 3 and 4 for male and female subjects respectively evidences that the female structure is softer or more loosely integrated (note weaker correlations) than that for male subjects. Similarly, with respect to stuttering severity, the data indicates a more complex structure for severe stutterers where their Communicator Image is more comprehensively integrated (more linkages) and more compact or tighter (i.e., higher correlations). Although tests of differences are useful in locating points of possible interest, Linkage Analysis serves to help advance a more complete view of structural patterns between and among the measures. Correlations for the age subgrouping were not analyzed because there were no significant differences found between age groups.

Finally, data were explored through a series of stepwise regression analyses. The general question was, Which linear combination of tests best predicts the other, where the other might be any particular measure of interest? Five separate stepwise regressions were executed, using each measure as the dependent variable and the remaining four measures as predictor variables. These analyses serve to highlight more starkly the strongest patterns of association within the data set. Two steps of regressions were completed for each of three measures and one step for each of two measures. Scores on the Personal Report of Communication Apprehension are best predicted by the Erickson and the Communicator Image scales ($r^2 = .74$). Scores on the Erickson are best predicted by the Personal Report of Communication Apprehension and the Texas Social Behavioral Inventory ($r^2 = .74$). Scores on the Texas Social Behavioral Inventory are best predicted by the Locus of Control scale and the Erickson ($r^2 = .70$). Locus of Control scores are best predicted by the Texas Social Behavioral Inventory ($r^2 = .62$), and Communicator Image is best predicted by the Personal Report of Communication Apprehension ($r^2 = .41$). These and the other findings are discussed in the following chapter.

Chapter 5

Discussion

Certain types of bias are inherent to any self-report measure. Self-report measures do not necessarily document what actually is, but rather what a person perceives. As we have discussed in the context of the illness model, chronic disorders associated with social stigma are often inaccurately perceived by the sufferer because of denial. Denial may explain the lack of homogeneity evident on casual inspection of Table 3, although the restricted scale range for some measures may account for the seemingly small standard deviations (relative to means). Standard deviations tended to be more variable in this data set than is generally true for the normal comparison groups.

Each of the variables—gender, age, and severity of stuttering—provided some basis for suspecting differences in attitudes and beliefs between the various groups. It might be assumed that gender is a basis of differences in attitudes toward stuttering and its effect on life adjustment. One might assume that as the stutterer matures, his or her attitudes would change as a function of increased maturity and life experiences. Presumably, this difference would be most obvious between younger stutterers, that is, those under 30 years of age and older stutterers, those over 50 years of age. Finally, one might assume that there would be differences in attitudes and beliefs between mild, moderate, and severe stutterers, with mild stutterers being most concerned that someone might discover that they stutter. The severe stutterers, on the other hand, might be most concerned with being able to say what they want to say when they want to say it. That, on balance, we found so few statistically significant differences in areas where they might be expected is both surprising and curious.

5.1 GENDER DIFFERENCES BETWEEN SCALES

Contrary to expectations, gender differences as measured by this test battery were minimal. Male stutterers felt that they put forth a more positive communication image than females. Females, however, scored higher than males on the Dramatic subtest of the Communicator Style. No other significant gender-related differences were detected. The general indication, then, is that gender of the stutterer is not a particularly important variable with regard to understanding or explaining attitudes toward communication.

5.2 AGE DIFFERENCES BETWEEN SCALES

As stated earlier, it was assumed that there would be significant differences in attitudes and beliefs between the stutterers when grouped by age. It was especially felt that the youngest group of stutterers would differ significantly from the oldest group of stutterers. The anticipated difference was presumed to be a correlate of the added emotional maturity normally associated with aging. Over the course of a lifetime one might presume that the person who stutters would make some emotional adjustments to his or her stuttering, becoming better adjusted to the stuttering and accepting this aspect of his or her life. Manning, Dailey, & Wallace (1984) have reported such a tendency.

No significant differences were found between any of the age groups on any of the scales, including no differences on any of the subtests of the Communicator Style. It would seem, then, that age, at least as operationally defined here, is not a significant variable in assessing the attitudes and beliefs of people who stutter toward communication prospects and practice.

5.3 SEVERITY DIFFERENCES BETWEEN SCALES

Although the checklist self-assessment of stuttering severity is not viewed as a fully accurate and precise measure of stuttering severity, it does provide an indication of how severe a stutterer the person believes she or he is. That assessment is probably based on personal observations or what they have been told by professionals. In Communicator Style subtests, mild stutterers scored lower than moderate stutterers with respect to Attending, Impression Leaving, being Friendly and being Dramatic. Mild stutterers apparently view themselves as less interactants on those aspects of social style than moderate stutterers view themselves. Perhaps mild stutterers are hypervigilant and self-critical in fear that they will be "discovered" or recognized as stutterers. In their vigilance to avoid discovery, the mild stutterers show diminished attentiveness. The severe stutterers seem to align themselves with the moderate stutterers in terms of friendliness, attention, and leaving a good impression. The three age groups appear to divide themselves into two classifications; the mild stutterers and those who are moderate or severe stutterers. Curiously, it is the mild stutterers who appear to be more negative about their stuttering, despite the fact that moderate and severe subgroups of stutterers are more severely stigmatized by their stuttering.

5.4 CORRELATIONS BETWEEN MEASURES

In general, the various tests were independent and appeared to be measuring unique components of attitude and

belief. The correlations between measures previously reported indicates that the strongest correlations were between the Erickson and the Personal Report of Communication Apprehension (.67) and between the Texas School Behavioral Inventory and the Locus of Control (.62). There was also a moderately strong correlation between the Texas Social Behavioral Inventory and the Erickson, although, as one might expect, it was in the negative direction (−.60). The overall correlational patterns as illustrated by McQuitty figures (see Figures 2–7) show interrelationships between all measures. Note also that in the correlation structure for severe stutterers, the pattern of connection is much tighter, that is, stronger, suggesting perhaps that the element of severity underlies and serves to unify what are otherwise relatively independent measures.

5.5 COMPARISONS WITH DATA FROM OTHER POPULATIONS

Examination of Table 6 shows the relations between stutterers and nonstutterers on the various scales involved in the test battery. The subtests of the Communicator Style, where normative data are available, indicate that, with two exceptions, the stutterers score higher than nonstutterers. This pattern, generally speaking, suggests that the stutterers felt they presented a more positive image, were more relaxed during conversations, were more argumentative and more animated, were stronger (better) communicators, and used more gestures and stories than did nonstutterers. The two subtests where the stutterers scored themselves about the same as nonstutterers related to Attentiveness and Impression Leaving. In some important respects the response pattern is consistent with the tendency to deny the social difficulties.

TABLE 6. Comparisons of normative and stutterers' scores.

	Group norms		*Stutt. sample*	
Scale	*M*	*SD*	*M*	*SD*
Comm. Style[a]				
Comm. Image	2.6	.6	3.0	.7
Friendly	*		2.6	.8
Relaxed	2.4	.5	2.7	.6
Argumentative	2.4	.6	3.0	.8
Attentive	2.8	.5	2.8	.8
Open	*		3.0	.6
Animated	2.3	.4	3.1	.7
Impression	2.8	.4	2.7	.8
Dominant	2.4	.5	3.1	.8
Dramatic	2.7	.4	3.3	.9
Precise	*		3.0	.6
Pers. Rpt. Comm. App.[b]	60	12	84	18
Tex. Soc. Beh. Inv.[c]	40.55	9.00	37.3	5.4
Loc. of Control[d]	12.65	2.5	15.3	4.3
Erickson[e]	25.65	7.24	27.07	.4

Note. [a] college students. [b] nonstuttering adults. [c] nonstuttering adults. [d] patients with chronic anxiety disorder. [e] stutterers. * normative data unavailable.

Although claiming to be as stylistically able as nonstutterers, stutterers may have used their Communicator Style report as a means of denying the effect stuttering has had on their general communication practice. Another influencing factor may be self-report bias, namely that these scores reflect how the person who stutters would like to be perceived by others. Finally, the scoring of the subtests might have lent itself to a certain amount of bias. It is important to note that each subtest is based on the scores of five or six scale items. Scoring is based on a 5-point scale where YES = 5, yes = 4, ? = 3, no = 2, and NO = 1. The five scores are totaled and a mean established for each construct. The questions were devised for the nonstutterer and many of them are somewhat inappropriate when applied to a stutterer. If the stutterers used an inordinate number of neutral or "don't know" responses, this tendency would weight the means in the direction of higher scores. An item analysis of each of the 11 subtests revealed that a high proportion of the people who stutter did, indeed, use the questionable middle score in each subtest. The "don't know" response represented a high of 48.5% of the scores in four subtests and a low of 25.4% in one subtest. It was the modal response in eight of the Communicator Style subtest and ranked as the second choice in the remaining three. The frequent choice of the "don't know" response by the people who stutter served to inflate the means, producing a bias and tending, along with the denial factor, to account for the unexpected high scores.

A review of the scores on the Communicator Style subtests (see Table 6) demonstrates that, in the normative data based on college students, the highest score is 2.8 and the lowest is 2.3, a .5 spread. This, coupled with the .2 range of means and .5 range of standard deviation, almost rules out the possibility that the normal speakers relied extensively on the "don't know" response. However, the range of mean scores for the stutterers was from 2.6 to 3.3, a .7 spread. The range of the *SD* was .3 and the average *SD* was .8. The relatively high variability (as compared with the normative data) tends to support the view that some factor was influencing the judgments of the people who stutter. If we examine the normative scores associated with the Dramatic subtest we find that one *SD* includes scores ranging from 2.3 to 3.1. However, one *SD* for the stutterers includes scores ranging from 2.4 to 4.2, a considerably wider range. The stutterers' responses were characterized consistently by wide variability, (i.e., the lack of homogeneity) on all Communicator Style subtests.

When compared with the normative data on the Personal Report of Communication Apprehension, it is obvious that the stutterers felt more anxiety regarding speaking than did the nonstutterers. The size of the *SD* is also of interest here since it is much larger for the stutterers than the nonstutterers.

The stutterers' score of 37.3 on the Texas Social Behavioral Inventory as opposed to the nonstutterers' score of 40.55 reflects the stutterers' feelings of social inadequacy. Interestingly, the stutterers manifested greater homogene-

ity than the nonstutterers as evidenced by a lower standard deviation (5.4 as opposed to 9.0 for the nonstutterers).

The "normative" data associated with the Locus of Control represents the scores of patients suffering chronic anxiety. Table 5 indicates that these subjects tend to score in the direction of internal control, albeit slightly, with a mean of 12.65, where a score of 12 is considered the dividing line between internal and external control. However, the stutterers' mean was 15.3, a deviation of 3.3 points. This suggests that stutterers felt more internal control than the subjects with chronic anxiety disorder, the population for whom normative data are available. The standard deviations indicate relatively minor variations and, therefore, good homogeneity with a difference of only .5 points.

It was expected that the sample of stutterers would indicate external control in that they report feeling helpless against their stuttering. In examining the response patterns it was noted that the scoring on the individual items tended to support the "External" control expectations. The final question on the measure, however, asks the stutterers to rate on a 7-point scale the amount of control they feel they have over their lives (where the highest score indicates "complete control" and lowest indicates "no control"). The scores on this last item stand in stark contrast to the previous test items, which allow but a single point per item to the final score. Ninety-two percent of the stutterers rated this item in the top three points, indicating a great deal of internal control and substantially offsetting prior choices on single-point items. Here, again, the results of this test seem to be heavily affected by responses to a single question. In our view, the higher score, which indicates more internal control, is a reflection of the denial process, particularly on the final question, which represents a disproportionate and heavily weighted "overview" of the extent to which one has control over his or her own life.

Internal Locus of Control may have a more complex interpretation in a stuttering population. According to the scale itself, internal control implies self-determination whereas external control has to do with chance and luck. Because of guilt or self-blame, stutterers may see themselves as passive victims, but victims of an internal process for which they blame themselves, namely stuttering, rather than a victim of external circumstances. In that case, an internal locus control would represent guilt and self-blame rather than healthy acceptance. Item analysis of the questions probing denial seems to suggest such an interpretation (Table 7).

The first five denial questions refer to the comfort stutterers feel while talking about their stuttering with others. Most report that they do talk about the subject with family and spouses, but very few discuss it with their bosses or co-workers.

The stutterers did not accept an illness model for stuttering. Most strongly disagreed with the statement that stuttering is an illness (item 12). Most stutterers blamed themselves (item 6) and their parents (item 7) for their stuttering, indicating either a high degree of denial or the presence of inaccurate authority beliefs about the origin of stuttering. For both items the strongest possible response was the modal response.

TABLE 7. Item analysis of the denial questionnaire.

Item	*Mean*	*Mode/Percent*	*Item*	*Mean*	*Mode/Percent*
1	2.97	4/47	14	3.06	3/38
2	2.15	1/31	15	3.13	4/49
3	2.41	2/32	16	2.75	3/34
4	3.07	3/40	17	3.19	4/53
5	2.90	3/44	18	2.78	3/34
6	2.60	4/35	19	2.69	3/41
7	3.28	4/60	20	2.60	3/34
8	3.29	4/51	21	3.53	4/72
9	2.97	4/38	22	2.31	2/35
10	2.81	3/34	23	3.37	4/65
11	2.76	3/37	24	3.10	3/41
12	2.24	1/40	25	2.68	3/34
13	2.69	4/29	26	3.09	4/54

On the contrary, most stutterers felt they had some control over their stuttering (item 16) and could "improve their speech if they thought of it" (item 15). These responses appear to indicate a degree of acceptance and acknowledgment that they had some control over their stuttering. All subjects were either in treatment or recently had been in treatment and these responses may be related to speech modification skills learned in treatment. But most felt that they could "cope with their stuttering" only sometimes (item 24).

Most stutterers did acknowledge the chronicity of their disorder (item 26). They also recognized strong negative feelings about stuttering (items 10, 11, and 14) and the social effects of stuttering (items 18, 19, and 20).

Interestingly, a very high percentage of stutterers assented to the statement "I think someone has a cure for stuttering" (item 23). Sixty-five percent of these chronic stutterers "often" believed that someone had a cure for stuttering. This again clearly demonstrates a lack of acceptance and the presence of primitive beliefs with zero consensus. No one has a cure for stuttering, but these chronic stutterers accept on faith that someone does. Wishful thinking may be one psychological correlate of denial.

The fantasy of cure and the tendency to blame themselves and others demonstrate clearly a cognitive set that can interfere significantly with successful speech treatment. If you blame yourself and your parents or wait for a cure as these people who stutter so prominently do, it is very difficult to maintain regular behavioral programs for speech maintenance. The responses to the questions clearly show a place for educational and cognitive therapy in a stuttering treatment program.

The scores on the Erickson represent two groups of people who stutter, the subjects in this study and those who participated in Erickson's study (1969). The data show only slight variations in scores. The mean score for the stuttering in this study was 27.0, whereas Erickson's subjects had a mean score of 25.7. Again, the *SD* of 7.4 is close to that of the Erickson study of 7.2, suggesting that the two populations are homogeneous in some aspects.

5.6 CLINICAL IMPLICATIONS

From our study of attitudes and beliefs associated with the phenomenon of stuttering, we maintain that the stuttering person's psyche and soma are inseparable. Attitudes and beliefs about speech develop as a result of interactions between the psychological stutterer and the psychological stuttering; between the independent cognitive process and the behavioral responses.

We suggest that the punishment associated with the block prompts escape and avoidant behavior in the person who stutters. Escape behavior gives rise to secondary mannerisms; struggle behavior associated with attempts to escape from or avoid the occurrence of the stuttering block. These behaviors are then the manifestation of a belief; if a certain behavior is performed the block will either not occur or will terminate. This belief is then reinforced when the frequency or duration of block is indeed modified. However, as the effectiveness of the behavior decreases and the frequency and duration of the blocks increase, the belief is weakened through this failure. Repeated partial successes followed by failures lead to what has been termed *learned helplessness* (Seligman, 1975, Garber & Seligman, 1980). The learned helplessness paradigm describes the development of a cognitive stance of passivity and helplessness. Seligman's model was developed by observing rats that were punished at random. As those rats learned that no matter what they did they would be punished, they became passive and would no longer attempt to problem solve or avoid aversive stimuli. An analogous process may occur in the stutterers who feel victimized by their chronic illness. They begin to feel helpless, fearful, and anxious, believing that no matter what they do, nothing will get better. According to the Rokeach schema, primitive beliefs with zero consensus develop. Through education and confrontation, these must be replaced by healthy authority beliefs for treatment to be effective.

5.7 THE INFLUENCE OF ATTITUDES AND BELIEFS ON THE TREATMENT OF STUTTERING

In treatment, negative attitudes and beliefs take the form of clinical resistance. Although people who stutter may seek treatment, they will seem to resist attempts to treat the disorder. Especially in behavioral treatment programs, the person who stutters will not follow through with the behavior change programs. When the stuttering clients are expected to use their new attitudes, beliefs, or behaviors in talking situations outside the clinical environment, they will resist behavior change. The basis of this resistance is the expectation of failure at modifying the stuttering in talking situations. This fear is based on past learning, past failure, and the primitive belief that they are helpless when it comes to modifying their stuttering.

Denial is also an important source of resistance in treatment. Effective use of speech treatment tools forces a person who stutters to acknowledge the pervasiveness and seriousness of his or her communication disorder. Denial protects against this awareness. The underlying primitive belief with zero consensus is "My stuttering is not a problem." Again, through confrontation and education, this must be replaced by the authority belief, "My stuttering is an important problem that can be treated but not cured."

Because of the pervasiveness of negative attitudes and beliefs and the effects they have on treatment, it behooves the clinician to evaluate the stuttering client's attitudes and beliefs prior to planning a therapeutic program. This evaluation should direct the clinician's treatment to dealing with those attitudes and beliefs that will have the most negative effect on treatment.

It seems quite apparent that there is a need for a standardized test of denial for the stuttering population. Such a test would make a significant contribution to the treatment of the disorder.

Chapter 6

Cultural Influences in Attitudes and Beliefs

6.1 CULTURAL COMPARISONS

In a chapter titled "Treating the Stutterer with Atypical Cultural Influences," Leith (1986) defined the term *culture* to include the attitudes, beliefs, behaviors, and life styles of a group of people. He went on to state that when these factors are common to all members of a group, the group is homogeneous and becomes a cultural group (p. 9). It is from this standpoint that we view the cultural groups studied in this investigation as groups with common attitudes, beliefs, behaviors, and life styles. Furthermore, we consider each culture—Finnish, Hungarian, and American —as unique. The American culture poses some special problems that we will discuss shortly.

The Finnish and the Hungarian cultures have some common ties. Their languages, although distinct, have many common elements because both are Uralic languages. The Finnish language is of the Finnic-Permain branch of the Finno-Urgian branch, whereas the Hungarian language is of the Urgian branch. Both the Finnish and Hungarian cultures share a common origin in the Finnish-Ugric tribes. However, because of divergent geographical environments, each group developed, over the past 2,000 years, a unique cultural and national identity in the nations of Finland and Hungary respectively. Finland, following Iceland and Norway, is the most sparsely populated country in Europe. It is basically agrarian in nature and, because of its small population, primarily rural. Hungary, in contrast, is more urban and industrialized than Finland, although it maintains its agrarian roots. The political environment of the two countries has contributed to a divergence of cultures, the Hungarians being under Communist rule from 1948 until recently, and Finland being established as an independent country in 1917 with a socialist political system (da Costa & Kojo, 1985; Hajdu, 1975; Vuorela, 1962).

The Finnish and Hungarian cultures are homogeneous, with the vast majority of people being native-born. Unlike the United States, there are relatively few subgroups within these cultures.

According to Leith (1986), "There seems to be a natural tendency for people to view a cultural group as an entity within itself rather than as being made up of a number of related subgroups." The United States is largely populated by immigrants who make up a variety of subgroups. The largest immigrant group came from Western Europe, but other major immigrant cultural groups are African American, Hispanic, Jewish, Asian, and Arabic. Further, when we consider a cultural subgroup such as the Hispanic culture we must also recognize that there are subgroups within this subgroup. There are four major subgroups within the Hispanic culture, namely, the Mexican, Latin American, Caribbean, and Spanish. Each of the Hispanic subcultures has common roots with the other subcultures but is distinct enough to maintain its own identity.

Any attempt to define the culture of the United States must take into consideration all of the subcultures recognized in the country. And, with a nation whose population is based on immigrants, this becomes an impossible task. We are forced to consider a "General American Culture," an amalgamation of all the cultural influences by the myriad of subcultures within the American society.

Major historical influences on the General American Culture include the work ethic of Puritanism and the individualism of the western frontier. These historical influences affect child-rearing practices. Children in the United States are encouraged to be competitive, aggressive, striving, and achievement-oriented, traits that reflect the General American Culture (Leavitt, 1974; Spradley & Rynkiewich, 1975).

This cultural background is relevant as we examine the possible effects of culture on the attitude measures used in this study.

6.2 RESULTS

6.2.1 By Cultural Group

The summary of cultural findings are shown in Table 8. Five single-factor, non-repeated-measures ANOVA were performed to detect possible differences in the response patterns of American, Finnish, and Hungarian stutterers to five main scales in the test battery. The group sizes used in the analysis were 67 American stutterers, 27 Finnish stutterers, and 30 Hungarian stutterers.

The initial analysis revealed significant differences in the data set with respect to the Communicator Image subtest. Post hoc comparisons explored the between-groups differences. Analysis identified the difference as significant at the .01 level between the American and the Finnish stutterers (Scheffé $F = 5.80$), between the Finnish and the Hungarian stutterers (Scheffé $F = 13.89$), and between the American and the Hungarian stutterers (Scheffé $F = 4.05$). Thus, each group was unique in terms of their views of themselves as communicators. The smallest difference was between the American and Hungarian stutterers.

Significant differences were also found when considering the Personal Report of Communication Apprehension. The post hoc comparisons revealed significant differences at the .01 level between American and Finnish stutterers (Scheffé $F = 13.83$) and between the American and Hungarian stutterers (Scheffé $F = 12.43$). No significant differences were discovered between the Finnish and Hungarian stutterers, however, with respect to communication apprehension. The American stutterers experienced significantly more anxiety associated with speech than either the Finnish or the Hungarian stutterers. There were no significant

TABLE 8. Scales by culture: Means and standard deviations.

Test	*USA*	*Finland*	*Hungary*	*F*(2,122)	*P*
Comm. Style.: Comm. Image.	*M* = 3.0 *SD* = .7	*M* = 2.48 *SD* = .71	*M* = 3.41 *SD* = .57	13.91	<.0001
Pers. Rpt. Comm. App.	*M* = 84.4 *SD* = 16.8	*M* = 67.6 *SD* = 6.21	*M* = 69.0 *SD* = 6.77	20.24	<.0001
Loc. of Control	*M* = 15.4 *SD* = 4.20	*M* = 14.6 *SD* = 3.66	*M* = 13.3 *SD* = 2.98		NS
Tex. Soc. Beh. Inv.	*M* = 37.3 *SD* = 9.0	*M* = 35.5 *SD* = 6.27	*M* = 35.6 *SD* = 6.94		NS
Erickson	*M* = 27.0 *SD* = 7.4	*M* = 18.2 *SD* = 3.62	*M* = 17.5 *SD* = 2.70	35.86	<.0001

differences between Finnish and Hungarian stutterers in Personal Report of Communication Apprehension scores.

The analysis of the data set associated with the Locus of Control and the Texas Social Behavioral Inventory showed no significant differences between any of the stuttering groups.

The data associated with the Erickson demonstrated significant differences between groups. Post hoc comparisons revealed significant differences at the .01 level between the American and Finnish stutterers (Scheffé $F = 22.09$) and between the American and the Hungarian stutterers (Scheffé $F = 24.43$). No significant differences were found between the Finnish and Hungarian stutterers. The American stutterers demonstrated a much more negative attitude toward their stuttering than the Finnish or Hungarian stutterers.

Consolidation of the findings reveals that the American stutterers reported the most anxiety associated with their stuttering, the most negative attitudes toward their stuttering and, along with the Hungarian stutterers, the most denial of the stuttering. With regard to the Communicator Image they indicated an image between the positive image of the Hungarian and the negative image of the Finnish stutterers. There appears to be a strong relationship between the Personal Report of Communication Apprehension and the Erickson. The high anxiety reported in the Personal Report of Communication Apprehension is reflected in the strong rejection of stuttering in the Erickson. These data would appear to reflect a goal-oriented culture that subjects its members to high stress and anxiety. The image one presents in social interactions is important and persons with a negative image cope with it through denial. Social interactions and social approval appear extremely important. Personal attributes that are essentially negative such as stuttering are the source of much of the anxiety associated with this culture.

The Hungarian stutterers reported the most positive image score, and with the Finnish stutterers, showed the least anxiety toward speech and the least negative attitude toward their stuttering. They were similar to the American stutterers regarding the most denial of the stuttering. This culture appears to foster self-confidence, resulting in a society relatively free of anxiety. Negative personal attributes are important factors but are not the source of disabling anxiety, although they do elicit denial on the part of group members.

The Finnish stutterers reported the most negative image and were equal to the Hungarian stutterers for the least anxiety toward speaking and least negative attitudes toward their stuttering. They also reported the least denial of all cultural groups. The culture appears to foster self-depreciating images but little anxiety.

It would appear from the data that, when considering the Personal Report of Communication Apprehension and the Erickson, the European stutterers appear much more accepting of their stuttering than the American stutterers. The lower levels of anxiety reported in the Personal Report of Communication Apprehension are reflected in lower scores on the Erickson.

The American culture image emerging from the data seems to support the "stereotype" of life in America; fast-paced, full of stress and anxiety, highly competitive, and image-conscious. These elements also appear in the Finnish and Hungarian cultures but to a significantly lesser degree.

Because the General American Culture does not take into consideration the many variations found between the numerous cultures that make up our society, direct comparisons between the American stutterers and those from Finland and Hungary may be less valid. The groups that make up the American society are not homogeneous. In a study of cultural influences in stuttering, Leith and Mims (1975) found divergence between Black and White stutterers in behaviors, attitudes, beliefs, and life styles, the very ingredients pointed out earlier that are essential elements of conformity for there to be a cultural group. The data revealed in this study as pertaining to cultural differences is viewed as valid when contrasting the data from homogeneous societies such as Finland and Hungary. However, comparisons of data from these homogeneous societies and the data from the multicultural American society can be viewed only as representative of a hypothetical "average" American stutterer.

TABLE 9. Scale by gender by culture.

Measure	Finnish		Hungarian		American	
	M (n = 20)	F (n = 7)	M (n = 25)	F (n = 5)	M (n = 46)	F (n = 21)
Scale						
Comm. Image						
M	2.5	2.4	3.4	3.5	3.1	2.7
SD	0.8	0.5	0.6	0.6	0.7	0.6
Pers. Rpt. Comm. App.						
M	67.4	68.0	69.6	66.0	84.8	82.8
SD	6.6	5.2	6.8	6.5	16.2	20.3
Loc. of Control						
M	14.2	15.7	13.2	13.4	15.0	15.9
SD	3.9	2.9	2.6	4.8	4.4	4.3
Tex. Soc. Beh. Inv.						
M	34.6	37.9	35.1	38.4	37.0	37.6
SD	6.4	5.5	6.8	7.7	9.2	9.0
Erickson						
M	18.0	18.3	18.1	18.0	26.9	27.6
SD	3.2	4.9	2.7	2.7	7.7	7.0
Subtests						
Friend.						
M	3.2	3.7	3.2	3.6	2.6	2.6
SD	0.8	0.5	0.8	0.3	0.7	0.9
Relax.						
M	3.1	3.3	2.1	2.0	2.7	2.7
SD	0.4	0.4	0.7	0.5	0.5	0.7
Argum.						
M	3.1	3.4	3.2	3.0	3.0	3.1
SD	0.7	1.2	0.8	1.1	0.8	0.9
Attent.						
M	3.3	3.2	3.2	3.3	2.8	2.8
SD	0.6	0.9	0.8	0.4	0.7	0.9
Open.						
M	2.4	3.0	2.8	3.1	3.0	3.0
SD	0.6	0.5	0.9	0.9	0.5	0.6
Anim.						
M	2.7	2.7	2.1	2.3	3.1	2.9
SD	0.9	0.8	0.7	0.3	0.6	0.8
Imp. Lv.						
M	3.3	3.6	3.3	3.3	2.7	2.9
SD	0.7	0.3	0.7	0.5	0.8	0.9
Domin.						
M	2.5	2.6	2.5	2.5	3.2	3.1
SD	0.7	0.9	0.8	0.8	0.9	0.6
Dram.						
M	2.4	2.8	2.5	2.5	3.1	3.6
SD	0.7	0.7	0.7	0.7	0.8	0.8
Prec.						
M	2.9	2.7	2.9	2.6	3.0	3.1
SD	0.7	1.0	0.9	0.3	0.6	0.7

6.2.2 Age and Gender Variables and Cultural Groups

6.2.2.1 By Cultural Group by Gender. The data contained in Table 9 represents the scale scores of male and female subjects in all cultural groups. These data and the data to follow on age subgroups were not treated statistically and are presented and discussed only in terms of trends that may indicate areas for further research.

It is of interest to note that on the Locus of Control the female subjects consistently score higher than the male subjects in all groups. The greatest difference between men and women is found in the Finnish group, a 10.5 higher score for the women. This trend for higher scores for female subjects is also seen in all cultural groups for the Texas Social Behavioral Inventory. This could be inter-

TABLE 10. Scale by age by culture.

Measures	Finnish			Hungarian			American		
	16–30 $n = 12$	31–40 $n = 8$	41+ $n = 7$	16–30 $n = 18$	31–40 $n = 11$	41+ $n = 1$	16–30 $n = 31$	31–40 $n = 17$	41+ $n = 18$
Scale									
Comm. Image									
M	2.5	2.9	1.9	3.4	3.5	3.2	3.0	3.2	2.9
SD	0.7	0.5	0.4	0.4	0.8	x	0.7	0.7	0.7
Pers. Rpt. Comm. Anx.									
M	69.0	62.7	70.6	67.9	70.3	73.0	86.1	87.5	77.7
SD	6.1	2.7	6.8	4.6	9.6	x	16.5	15.1	20.2
Loc. of Control									
M	15.0	14.5	14.0	13.2	13.4	13.0	15.2	13.9	16.6
SD	4.0	2.8	4.4	3.3	2.8	x	3.8	5.0	4.5
Tex. Soc. Beh. Inv.									
M	37.1	36.1	32.0	37.1	32.1	49.0	37.4	37.2	36.9
SD	5.3	5.4	3.0	6.3	6.0	x	8.8	9.3	9.6
Erickson									
M	18.5	16.6	19.4	17.9	18.5	15.0	27.7	27.2	26.0
SD	2.8	3.4	4.9	2.5	3.0	x	6.7	6.7	9.2
Sub-tests									
Friend.									
M	3.6	3.2	3.0	3.1	3.7	3.2	2.5	2.5	3.0
SD	0.7	0.8	0.7	0.8	0.6	x	0.8	0.8	0.8
Relax.									
M	3.2	3.2	3.1	2.1	2.0	2.7	2.7	2.8	2.6
SD	0.5	0.3	0.3	0.7	0.6	x	0.5	0.6	0.7
Argum.									
M	3.4	3.3	2.7	3.2	3.1	4.0	3.0	3.1	3.0
SD	0.9	0.5	0.8	0.8	0.9	x	0.7	0.8	0.9
Attent.									
M	3.5	3.4	2.8	3.1	3.6	3.0	2.7	2.7	3.0
SD	0.7	0.5	0.7	0.7	0.6	x	0.8	0.7	0.9
Open.									
M	3.0	3.1	2.9	2.8	3.0	1.7	3.0	3.1	2.8
SD	0.7	0.6	0.5	1.0	0.7	x	0.5	0.6	0.7
Anim.									
M	2.8	3.0	2.1	2.0	2.2	2.5	3.0	3.1	3.1
SD	1.0	0.6	0.7	0.5	0.9	x	0.7	0.6	0.8
Imp. Lv.									
M	3.6	3.1	3.1	3.2	3.5	3.7	2.6	2.8	2.8
SD	0.6	0.7	0.5	0.7	0.6	x	0.9	0.8	0.8
Domin.									
M	2.7	2.7	2.0	2.4	2.7	2.7	3.1	3.4	3.0
SD	0.9	0.5	0.5	0.6	1.0	x	0.8	0.8	0.8
Dram.									
M	2.5	2.6	2.4	2.5	2.5	2.5	3.3	3.5	3.1
SD	0.8	0.7	0.7	0.8	0.7	x	0.9	0.9	0.9
Prec.									
M	3.1	3.0	2.4	2.5	3.4	3.2	2.9	3.2	3.1
SD	0.8	0.7	0.7	0.7	0.7	x	0.6	0.7	0.7

preted as the female stutterers feeling they are more in control of their lives, more socially competent, and more accepting of their stuttering. Within the subconstructs, only the Friendly scale showed any trend, with the female subjects feeling they were friendlier. However, this was restricted to the Finnish and Hungarian cultures with the American women indicating the same degree of friendliness as the American men.

6.2.2.2 By Cultural Group by Age. Table 10 contains the results of all testing divided by culture and by age. The data associated with the Hungarian group 41 years and older is not included in the discussion because there was only one subject in the group.

The Locus of Control scale demonstrates rather consistent scores across age groups in all cultures but the American. The age groups in the American population vary

widely in their scores on this test. With the Texas Social Behavioral Inventory the American stutterers did not vary in scores by age while the Finnish stutterers and, to some degree, the Hungarian stutterers showed decreasing scores with increasing age. The Relaxed subtest previously demonstrated gender by culture differences and it is evident in this table that the groups were homogeneous not only from the gender grouping but also the age groupings.

Essentially the results of the gender and age analyses support the findings reported earlier on the American stutterers that these variables are not factors involved in the determination of attitudes and beliefs by people who stutter. Although there are general differences in attitudes and beliefs between the Finnish, Hungarian, and American stutterers, they do not appear to be the result of the gender or the age of the stutterer.

Chapter 7

Conclusions

This study provides a conceptualization of beliefs and attitudes relevant to stuttering according to the Rokeach schema and the illness model. The test battery used in this investigation indicates that the attitudes and beliefs of American stutterers toward general communication, life style, and social interactions differ from the normative data associated with the various scales composing the test battery. These data suggest that people who stutter are a separate population, identifiable not only by their unique speech patterns, but also by their attitudes and beliefs toward speech, life style, and social interaction. The differences in attitudes and beliefs can safely be attributed to the influence of stuttering in the person's life.

The battery also tested attitudes related directly to stuttering. The results of the Erickson showed that the population of Americans who stutter in this study was comparable to other groups of people who stutter who have been tested with the Erickson. A review of the questions related to denial indicated that the stutterers demonstrated denial of their problem, supporting the recommendation that a standardized scale of denial be researched and developed.

These data demonstrate that negative attitudes and beliefs do exist in stuttering populations and it can be assumed in turn that these attitudes and beliefs negatively influence effectiveness of treatment. Clinicians would be well advised to assess the stutterer's attitudes and beliefs prior to initiating treatment. The treatment program should include specific procedures designed to modify those attitudes and beliefs that are counter-productive in the stuttering person's treatment, life style, and social interactions. Specifically, treatment should address primitive beliefs and replace them with authority beliefs more compatible with the goals of treatment.

This investigation has shown, contrary to expectations, that age, gender, and severity did not meaningfully influence attitudes and beliefs. Expected attitudinal and belief differences between genders and age groups of people who stutter did not materialize. The very few differences that appeared in the severity grouping, although statistically significant, are relatively unimportant when considering the complexity of the stuttering problem as a whole. The differences would have no effect on a treatment program.

Another surprising finding of the study was, as reported in the previous chapter, the significant attitudinal and belief differences between the European stutterers and the American stutterers. It appears that cultural differences do influence the attitudes and beliefs of stutterers within that culture.

We will not attempt to make clinical recommendations for the treatment of the European stutterers since we are not familiar with the stuttering treatment programs available in the two countries. It remains for speech-language pathologists in those countries to interpret our findings and integrate them into the treatment of stuttering in their respective countries.

With regard to the American stutterer, we feel that, if the treatment is to be successful in reducing the severity of stuttering and if the improvement in the speech is to be continuing, the treatment procedures must acknowledge and deal with the stuttering person's attitudes and beliefs. Denial and passivity are especially important negative attitudes to be addressed in treatment. These attitudes reflect primitive beliefs that can be effectively addressed through the illness model. Treatment procedures must involve not only the stuttering, but also the stuttering person.

This study has focused on many areas, both within and between cultures, that warrant further investigation. Additional insights into the effects of attitudes and beliefs on the treatment of stuttering can only help to make treatment more effective and efficient.

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Appendix A

The Test Battery

TEXAS SOCIAL BEHAVIORAL INVENTORY

Directions: Circle the letter beneath each statement that most represents you. The letters, a through e, are defined as follows:

a = Not at all characteristic of me
b = Not very characteristic of me
c = Slightly characteristic of me.
d = Fairly characteristic of me
e = Very much characteristic of me.

1. I am not likely to speak to people until they speak to me.
   a b c d e
2. I would describe myself as self-conscious.
   a b c d e
3. I feel confident of my appearance.
   a b c d e
4. I am a good mixer.
   a b c d e
5. When in a group of people, I have trouble thinking of the right things to say.
   a b c d e
6. When in a group of people, I usually do what the others want rather than make suggestions.
   a b c d e
7. When I am in disagreement with other people, my opinion usually prevails.
   a b c d e
8. I would describe myself as one who attempts to master situations.
   a b c d e
9. Other people look up to me.
   a b c d e
10. I enjoy social gatherings just to be with people.
    a b c d e
11. I make a point of looking other people in the eye.
    a b c d e
12. I cannot seem to get others to notice me.
    a b c d e
13. I would rather not have very much responsibility for other people.
    a b c d e
14. I feel comfortable being approached by someone in a position of authority.
    a b c d e
15. I would describe myself as indecisive.
    a b c d e
16. I have no doubts about my social competence.
    a b c d e

COMMUNICATOR STYLE MEASURE

Directions: Circle the answer beneath each statement that best describes you. The statements are:

YES—strong agreement with the statement
yes —agreement with the statement
? —neither agreement nor disagreement with the statement
no —disagreement with the statement
NO —strong disagreement with the statement

1. I am comfortable with all varieties of people.
   YES yes ? no NO
2. I laugh easily.
   YES yes ? no NO
3. I readily express admiration for others.
   YES yes ? no NO
4. What I say usually leaves an impression on people.
   YES yes ? no NO
5. I leave people with an impression of me which they definitely tend to remember.
   YES yes ? no NO
6. To be friendly, I habitually acknowledge verbally other's contributions.
   YES yes ? no NO
7. I am a *very* good communicator.
   YES yes ? no NO
8. I have some nervous mannerisms in my speech.
   YES yes ? no NO
9. I am a very relaxed communicator.
   YES yes ? no NO
10. When I disagree with somebody I am very quick to challenge them.
    YES yes ? no NO
11. I can always repeat back to a person exactly what was meant.
    YES yes ? no NO
12. The sound of my voice is very easy to recognize.
    YES yes ? no NO
13. I am a very precise communicator.
    YES yes ? no NO
14. I leave a definite impression on people.
    YES yes ? no NO
15. The rhythm or flow of my speech is sometimes affected by my nervousness.
    YES yes ? no NO
16. Under pressure I come across as a relaxed speaker.
    YES yes ? no NO
17. My eyes reflect exactly what I am feeling when I communicate.
    YES yes ? no NO

18. I dramatize a lot.
YES yes ? no NO
19. I always find it very easy to communication on a one-to-one basis with strangers.
YES yes ? no NO
20. Usually I deliberately react in such a way that people know that I am listening to them.
YES yes ? no NO
21. Usually I do not tell people much about myself until I get to know them well.
YES yes ? no NO
22. Regularly I tell jokes, anecdotes and stories when I communicate.
YES yes ? no NO
23. I tend to constantly gesture when I communicate.
YES yes ? no NO
24. I am an extremely open communicator.
YES yes ? no NO
25. I am vocally a loud communicator.
YES yes ? no NO
26. In a small group of strangers I am a very good communicator.
YES yes ? no NO
27. In arguments I insist upon very precise definitions.
YES yes ? no NO
28. In most social situations I generally speak very frequently.
YES yes ? no NO
29. I find it extremely easy to maintain a conversation with a member of the opposite sex whom I have just met.
YES yes ? no NO
30. I like to be strictly accurate when I communicate.
YES yes ? no NO
31. Because I have a loud voice I can easily break into a conversation.
YES yes ? no NO
32. Often I physically and vocally act out what I want to communicate.
YES yes ? no NO
33. I have an assertive voice.
YES yes ? no NO
34. I readily reveal personal things about myself.
YES yes ? no NO
35. I am dominant in social situations.
YES yes ? no NO
36. I am very argumentative.
YES yes ? no NO
37. Once I get wound up in a heated discussion I have a hard time stopping myself.
YES yes ? no NO
38. I am always an extremely friendly communicator.
YES yes ? no NO
39. I really like to listen very carefully to people.
YES yes ? no NO
40. Very often I insist that other people document or present some kind of proof for what they are arguing.
YES yes ? no NO
41. I try to take charge of things when I am with people.
YES yes ? no NO
42. It bothers me to drop an argument that is not resolved.
YES yes ? no NO
43. In most social situations I tend to come on strong.
YES yes ? no NO
44. I am very expressive non-verbally in social situations.
YES yes ? no NO
45. The way I say something usually leaves an impression on people.
YES yes ? no NO
46. Whenever I communicate, I tend to be very encouraging to people.
YES yes ? no NO
47. I actively use a lot of facial expressions when I communicate.
YES yes ? no NO
48. I very frequently verbally exaggerate to emphasize a point.
YES yes ? no NO
49. I am an extremely attentive communicator.
YES yes ? no NO
50. As a rule, I openly express my feelings and emotions.
YES yes ? no NO

Out of a random group of six people, including myself, I would probably have a better communicator style than (circle one choice)

5 of them	4 of them	3 of them
2 of them	1 of them	none of them

PERSONAL REPORT OF COMMUNICATION APPREHENSION

Directions: Circle the answer beneath each statement that best describes you. The statements are:

YES—strong agreement with the statement
yes —agreement with the statement
? —neither agreement nor disagreement with the statement
no —disagreement with the statement
NO —strong disagreement with the statement

1. While participating in a conversation with a new acquaintance I feel very nervous.
YES yes ? no NO
2. I have no fear of facing an audience.
YES yes ? no NO
3. I talk less because I am shy.
YES yes ? no NO
4. I look forward to expressing my opinions at meetings.
YES yes ? no NO
5. I am afraid to express myself in a group.
YES yes ? no NO
6. I look forward to an opportunity to speak in public.
YES yes ? no NO

7. I find the prospect of speaking mildly pleasant.
   YES yes ? no NO
8. When communicating, my posture feels strained and unnatural.
   YES yes ? no NO
9. I am tense and nervous while participating in group discussions.
   YES yes ? no NO
10. Although I talk fluently with friends, I am at a loss for words on the platform.
    YES yes ? no NO
11. I have no fear about expressing myself in a group.
    YES yes ? no NO
12. My hands tremble when I try to handle objects on the platform.
    YES yes ? no NO
13. I always avoid speaking in public if possible.
    YES yes ? no NO
14. I feel that I am more fluent when talking to people than most other people are.
    YES yes ? no NO
15. I am fearful and tense all the while I am speaking before a group of people.
    YES yes ? no NO
16. My thoughts become confused and jumbled when I speak before an audience.
    YES yes ? no NO
17. I like to get involved in group discussions.
    YES yes ? no NO
18. Although I am nervous just before getting up, I soon forget my fears and enjoy the experience.
    YES yes ? no NO
19. Conversing with people who hold positions of authority causes me to be fearful and tense.
    YES yes ? no NO
20. I dislike to use my body and voice expressively.
    YES yes ? no NO
21. I feel relaxed and comfortable while speaking.
    YES yes ? no NO
22. I feel self-conscious when I am called upon to answer a question or give an opinion in class.
    YES yes ? no NO
23. I face the prospect of making a speech with complete confidence.
    YES yes ? no NO
24. I'm afraid to speak up in conversations.
    YES yes ? no NO
25. I would enjoy presenting a speech on a local television show.
    YES yes ? no NO

LOCUS OF CONTROL

Place a checkmark before one of the statements following each item which is closest to describing what you usually do in that situation. Check the one that you usually do, not the one that you think you should do.

1. If you had a job that did not have automatic pay raises, would you:
   1____ ask for one when you thought you deserved it or
   0____ wait until it was offered to you?
2. When you buy some new clothes, do you usually prefer to:
   1____ shop alone or
   0____ take someone to help you decide?
3. When you have an accident at home or at work do you usually blame it on:
   0____ bad luck or the carelessness of others or
   1____ your own negligence?
4. At a social gathering, who usually takes the lead in choosing the topics of conversation?
   0____ the person I'm talking with.
   1____ myself.
5. If, at a gathering of friends, someone shows up whom you do not know but would like to meet, do you:
   1____ introduce yourself or
   0____ hope that one of your friends introduces you.
6. If while driving in a strange city and being in no rush, you were to get lost, would you first:
   1____ look at a map and try and figure it out yourself or
   0____ pull into a gas station and ask for directions?
7. When you have a problem of some kind do you first:
   1____ try to handle it by yourself or
   0____ ask for help from friends, family members or others?
8. If you hear that some people where you work were going to be laid off permanently, would you:
   0____ begin to look for a new job right away, or
   1____ wait until you were sure you would be one of the people laid off?
9. Do you *regularly* save money for things you may want in the future?
   1____ yes
   0____ no
10. When buying a small electrical appliance (toaster, iron, etc.) do you usually:
    1____ listen carefully to what the salesman recommends, or
    0____ pay very little attention to the salesman because you have decided in advance?

Now, place a check mark beside one statement of each pair which is closest to what you believe to be the case. Be sure to check the one that is closest to the truth rather than the one you would like to be true.

1. 0____ Whether or not my plans work out is usually a matter of luck.
   1____ When I make plans, I am fairly sure that I can make them work out.
2. 1____ I usually feel that I have control over the direction my life is taking.
   0____ Sometimes I feel that I don't have enough control over the direction my life is taking.

3. 0____ What is going to happen will usually happen, no matter what I do.
   1____ Taking definite actions has usually worked out better for me than trusting to fate.
4. 1____ In my case, getting what I want has little or nothing to do with luck.
   0____ Whether or not I get what I want is usually a matter of luck.
5. 1____ Becoming a success is a matter of hard work; luck has little or nothing to do with it.
   0____ Getting a good job depends mainly on being in the right place at the right time.
6. 0____ People don't realize that most of the things that happen to them are the result of chance.
   1____ Chance happenings hardly ever have a big influence in peoples lives.
7. 0____ Many times I feel that I have hardly any influence over the things that happen to me.
   1____ I do not believe that chance and luck are very important in my life.

How much control do you have over your life and what happens to you? Please check one of the seven levels which comes closest to describing how much control you feel you have.

6____ Complete control
5____
4____
3____
2____
1____
0____ No control

ERICKSON S-SCALE

1. I usually feel that I am making a favorable impression when I talk
   True False
2. It is easy for me to talk to important people
   True False
3. More than anything else I would like to be able to talk better
   True False
4. You can't gain much by arguing
   True False
5. I find it easy to talk with almost anyone
   True False
6. I find it very easy to look at my audience while speaking to a group
   True False
7. I have felt self-conscious when reciting in class
   True False
8. A person who is my teacher or my boss is hard to talk to
   True False
9. I am often in places where I need to introduce one person to another
   True False
10. I would like to introduce the speaker at a meeting
    True False
11. I never did volunteer much to recite in class
    True False
12. Even the idea of giving a talk in public makes me afraid
    True False
13. Some words are harder than others for me to say
    True False
14. I would rather not introduce myself to a stranger
    True False
15. I forget all about myself shortly after I begin to give a speech
    True False
16. I am a good mixer
    True False
17. People sometimes seem uncomfortable when I talk to them
    True False
18. I dislike introducing one person to another
    True False
19. I often ask questions in group discussions
    True False
20. I find it easy to keep control of my voice when speaking
    True False
21. I become suddenly afraid when called upon to speak
    True False
22. I do not mind speaking before a group
    True False
23. I find it easiest to talk with persons younger than me
    True False
24. I do not talk well enough to do the kind of work I'd really like to do
    True False
25. My speaking voice is rather pleasant and easy to listen to
    True False
26. I am sometimes embarrassed by the way I talk
    True False
27. I face most speaking situations with complete confidence
    True False
28. There are few people I can talk with easily
    True False
29. I talk better than I write
    True False
30. My speech is the same as always
    True False
31. I wish it did not bother me to talk with people
    True False
32. It is easier to answer questions in class than to ask them
    True False
33. I often feel nervous while talking
    True False

34. In school I found it very hard to talk before the class
True False

35. I find it hard to talk when I meet new people
True False

36. I often have to search for the words I want
True False

37. I feel pretty confident about my speaking ability
True False

38. I wish I could say things as clearly as others do
True False

39. Even though I knew the right answer I have often failed to give it because I was afraid to speak out
True False

Appendix B

The Denial Questionnaire

Read each statement below and then indicate by the scale how often the statement applies to you. The key to the scale is:

1 = Never
2 = Seldom
3 = Sometimes
4 = Often

I have talked about my stuttering to my:					
1. spouse, steady date		1	2	3	4
2. boss, supervisor		1	2	3	4
3. coworkers		1	2	3	4
4. family members		1	2	3	4
5. best friend		1	2	3	4
6. I think my stuttering is my own fault	(——)	1	2	3	4
7. I think my stuttering is my parents' fault	(——)	1	2	3	4
8. I think about the impact stuttering has had in my life		1	2	3	4
9. I forget I am a stutterer	(——)	1	2	3	4
10. I feel sad that I stutter		1	2	3	4
11. I feel angry that I stutter		1	2	3	4
12. I think that stuttering is an illness, like a disease or ailment		1	2	3	4
13. I pretend I am not a stutterer	(——)	1	2	3	4
14. My stuttering upsets me		1	2	3	4
15. I can improve my speech if I think of it		1	2	3	4
16. I feel I have no control over my stuttering	(——)	1	2	3	4
17. I am unaware of my stuttering	(——)	1	2	3	4
I feel my stuttering interferes with my:					
18. social life		1	2	3	4
19. job		1	2	3	4
20. relations with the opposite sex		1	2	3	4
21. I think my stuttering will go away when I am older	(——)	1	2	3	4
22. I brood over my blocks	(——)	1	2	3	4
23. I think someone has a cure for stuttering	(——)	1	2	3	4
24. I feel I can cope with the stuttering		1	2	3	4
25. I am not afraid of my stuttering	(——)	1	2	3	4
26. I accept my stuttering as a problem that will be with me for life.		1	2	3	4

Appendix C

Variables by Scales: Tests of Significance

Tests of Significance: Sex by Scale

Scale	T value	df	P	Gender
Ericson	−.371	64	.712	
Loc. of Control	−.404	61	.687	
Tex. Soc. Beh. Inv.	−.237	64	.813	
Pers. Rpt. Comm. App.	.424	64	.673	
Comm. Style				
Comm. Image	−2.85	65	.006*	Male
Friendly	.173	64	.863	
Relaxed	−.283	65	.778	
Argumentative	−.778	64	.440	
Attentive	.302	64	.763	
Open	.058	64	.954	
Animated	1.45	63	.153	
Impression Lvg	−.85	63	.399	
Dominance	.051	63	.96	
Dramatic	−2.13	63	.037*	Female
Precise	−.735	63	.465	

* significant < .05 level.

Tests of Significance: Severity of Stuttering by Scale

Scale	df	F-test	P	Comp	Test	Sig score
Erickson	2	3.16	.049*	mo/se	Fisher	4.77*
Loc. of Control	2	.159	.854			
Tex. Soc. Beh. Inv.	2	.2	.819			
Pers. Rpt. Comm. App.	2	1.12	.334			
Comm. Style						
Comm. Image	2	1.75	.183			
Friendly	2	4.32	.018*	mi/mo	Fisher	.454*
				mi/se	Fisher	.557*
Relax	2	.396	.675			
Argumentative	2	2.34	.105			
Attentive	2	5.70	.005*	mi/mo	Fisher	.43*
				mi/se	Fisher	.527*
Open	2	.098	.907			
Animated	2	.175	.840			
Impression lvg	2	5.55	.006*	mi/mo	Fisher	.475*
Dominance	2	.654	.524			
Dramatic	2	2.79	.069**	mi/mo	Fisher	.527*
Precise	2	.048	.953			

Note. severity: mi = mild; mo = moderate; se = severe.
* *p* significant < .05 level.
** Trend.

Tests of Significance: Age Groups by Scale

Scale	df	F-test	P
Erickson	2	3.	.742
Loc. of Control	2	1.24	.296
Tex. Soc. Beh. Inv.	2	.018	.982
Pers. Rpt. Comm. App.	2	1.79	.175
Communicator Style			
Comm. Image	2	.602	.551
Friendly	2	2.41	.098
Relaxed	2	.638	.532
Argumentative	2	.064	.938
Attentive	2	.828	.442
Open	2	1.12	.331
Animated	2	.291	.748
Impression Lvg	2	.229	.742
Dominance	2	.861	.428
Dramatic	2	.828	.442
Precise	2	.906	.409

Tests of significance: Sex and Severity by Scale

Scale	df	F-test	P
Erickson	2	.244	.782
Loc. of Control	2	.555	.577
Tex. Soc. Beh. Inv.	2	.522	.596
Pers. Rpt. Soc. App.	2	.738	.483
Comm. Style			
Comm. Image	2	.423	.657
Friendly	2	1.10	.339
Relaxed	2	.419	.660
Argumentative	2	.196	.823
Attentive	2	.566	.571
Open	2	4.37	.017*
Animated	2	1.33	.273
Impression Lvg	2	.019	.981
Dominance	2	.047	.955
Dramatic	2	.304	.739
Precise	2	1.24	.298

* p significant < .05 level.