

University of Nebraska at Omaha DigitalCommons@UNO

Student Work

8-1996

Relationship between life change events and communication apprehension

Elaine Bylund University of Nebraska at Omaha

Follow this and additional works at: https://digitalcommons.unomaha.edu/studentwork



Please take our feedback survey at: https://unomaha.az1.qualtrics.com/jfe/form/SV_8cchtFmpDyGfBLE

Recommended Citation

Bylund, Elaine, "Relationship between life change events and communication apprehension" (1996). *Student Work.* 155.

https://digitalcommons.unomaha.edu/studentwork/155

This Thesis is brought to you for free and open access by DigitalCommons@UNO. It has been accepted for inclusion in Student Work by an authorized administrator of DigitalCommons@UNO. For more information, please contact unodigitalcommons@unomaha.edu.



RELATIONSHIP BETWEEN LIFE CHANGE EVENTS AND COMMUNICATION APPREHENSION

A Thesis

Presented to the

Department of Communication

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

University of Nebraska at Omaha

by

Elaine Bylund

August 1996

UMI Number: EP72800

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI EP72800

Published by ProQuest LLC (2015). Copyright in the Dissertation held by the Author.

Microform Edition © ProQuest LLC.
All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code



ProQuest LLC. 789 East Eisenhower Parkway P.O. Box 1346 Ann Arbor, MI 48106 - 1346

ACCEPTANCE PAGE

THESIS ACCEPTANCE

Acceptance for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts, University of Nebraska at Omaha.

Committee

Name	Department/School
Londel I	Sen HER
fle foots!	shar warman 1 swood -
Hobert E. Ca	ilson Communication
Chairper	son Holen Calson
Date	7/22/96

ABSTRACT

This research investigates relationships between communication apprehension (CA) and life change events, using college students at a Midwestern university.

Instruments used were the Personal Report of Communication Apprehension-24 (PRCA-24) which measured CA, both overall and in four subareas, and a modified version of the Adolescent Life Change Event Questionnaire (ALCEQ), which records life change events during formative years and past year before being questioned.

No significant relationships were found between the overall scores of the two instruments in this study, although demographic information showed that the younger college students reported more public speaking apprehension than the older groups. Also, females reported a higher level of apprehension in the PRCA subarea of apprehension in meetings.

Subjects were divided according to national norm quartile splits on PRCA overall and subscale scores. Analyses of occurrence of individual life change events in the five examined life time frames among these groupings revealed 41 significant differences.

Many of these differences indicate experiencing certain life change events is related to CA levels. However, the major finding of this study was that the group highest in public speaking CA had a stronger history of family-related *stability* during the formative years, such as less occurrence of starting a new school, moving, and making new friends. They also reported less hassling with parents, and higher occurrence of being grounded.

ACKNOWLEDGMENTS

I am indebted to Dr. Robert E. Carlson for his guidance and assistance in this project. His constant direction in research, analysis and writing, and unflagging moral support made this thesis possible.

I thank my committee members for their valuable advice and help, as well as Dr. Karen Dwyer for her assistance.

I am grateful to my husband, David for moral support and technical help in producing this work, and for my children for their interest and support.

TABLE OF CONTENTS

CHAPTER I		
INTRO	ODUCTION	1
	Survey of Literature	4
	Communication Apprehension	
	Definition/Aspects	
	Related Constructs	7
	Theories of Cause	8
	Manifestations	9
	Therapies	10
	Life Change Events	12
	Definition	12
	Mediating Factors	12
	Gender	
	Historical Overview and Instruments	15
	Adolescent Life Change Event Questionnaire (ALCEQ)	
	Childhood and Adolescent Development	22
	Childhood	, 23
	Speech Development	23
	Anxiety	26
	Adolescence	28
	Puberty	29
	Identity Formation	29
	Anxiety	31
	Statement of Purpose	33
CHAPTER II		
	IODOLOGY	35
	Subjects	
	Data Gathering	
	Instruments	
	Statistical Analysis	
CHAPTER III	,	
RESU	LTS	39
CHAPTER IV		
DISCU	JSSION	50

HAPTER V
CONCLUSION
Implications
Limitations
Recommendations for Future Research
PPENDICES
A. Researcher's Statement of Introduction to Study
B. Cover Page of Instrument Packet
C. Adolescent Life Change Event Questionnaire (ALCEQ)
D. Personal Report of Communication Apprehension (PRCA-24)
EFERENCES

LIST OF TABLES

TABLE I.		
PRC	A AND ALCEQ SCORES AND S.D. BASED ON AGE GROUPS. GENDER BREAKDOWN IN TOTAL	
	SUBJECT ALSO SHOWN	40
TABLE II.		
PRC	A MEAN NORMS AND S.D. COMPARED TO STUDY'S FINDINGS	41
TABLE III.	-	
NUM	MBER OF 'YES' RESPONSES TO ALCEQ QUESTIONS	
	ON AGE GROUPS. ALSO, MEANS FOR AGE GROUPS.	41
TABLE IV.		
ALC	EQ MEANS FOUND IN PAST COMPARED WITH THIS	
	STUDY	42
TABLE V.		
ALC	EQ ITEM/PRCA CORRELATIONS (SPEARMAN RHO) FOUND WITH CATEGORIES	
TABLE VI.		
FOU	R CA GROUPS BASED ON NATIONAL PRCA-24 NORMS	44
TABLE VII-	-X.	
OCC	URRENCE OR ABSENCE (-) OF LIFE CHANGE EVENTS:	
	CA Group 1	45
	CA Group 2	
	CA Group 3	48
	CA Group 4	49

CHAPTER I

INTRODUCTION

Communication apprehension (CA) is widespread in our society and has been shown to relate to problems with self esteem and social interaction (McCroskey, Richmond, Daily & Falcione, 1977). McCroskey (1984) claims that 25% of both university students, adults and children experience CA, with 75-85% of those studied reporting anxiety in the area of public speaking.

Communication apprehension is one of the most frequently investigated areas in the field of human communication. McCroskey (1982) reported over 200 studies in the decade of 1970-80, and there have been approximately 1000 studies since (Richmond & McCroskey, 1995). Richmond and McCroskey (1995) suggest that "Communication apprehension has been a major concern of researchers and scholars...because it permeates every facet of an individual's life" (p. 41).

McCroskey (1970, p. 137) gave a broad definition of CA¹ as "an individual's level of fear or anxiety associated with either real or anticipated communication with another person or persons."

Booth-Butterfield and Gould (1986) gave further differentiation between **trait CA**, a relatively enduring personality orientation to fear of most communication settings, and **state CA**,

¹McCroskey uses the term "communication apprehension." Other authors have used the term "communication anxiety." For purposes of this thesis, the two terms will be used interchangeably. This seems reasonable since McCroskey uses the term "anxiety" within his definition.

the "here and now" response of a person in some situation. Further discussion of the "trait""state" variables will follow in the Survey of Literature.

One of the most popular methods for measuring communication apprehension has been the use of McCroskey's (1993) PRCA-24, a self-report that measures CA under a number of conditions. This measurement reflects the respondent's current self-reported CA level.

Understanding of communication apprehension may be broadened with more information about the respondent's past general development, specifically the formative years of life, as speech and communication patterns developed in the context of home, school and neighborhood backgrounds. Elements of a respondent's past could possibly create a richer view of present communicative attitudinal and perceptual levels. For example, Almy (1955) suggests that birth of a younger sibling during critical speech development may be a cause of stuttering. Ginott (1969) looks at several causes of anxiety in children that could manifest themselves in speech, such as divorce or death of parent/s, fear of abandonment, or other traumatic childhood experiences.

McCroskey (1977) suggests that communication apprehension may often develop during early childhood years.

Yeaworth and York (1980) developed the original Adolescent Life Change Event

Questionnaire (ALCEQ) to be used for interdisciplinary research on adolescent pregnancy. Their

31-item scale was similar to the Social Readjustment Rating Scale developed by Holmes and Rahe

(1967), except it was developed for use with adolescents instead of adults.

Yeaworth, McNamee and Pozehl (1992) have reviewed 25 studies using the ALCEQ (or modifications thereof), and have found it a useful instrument in studying a variety of social phenomenon, including suicidal tendencies, stress, coping, and social support, to name a few. A

major element of social interaction is the ability to communicate. Apprehension associated with that ability presents limitations to a person's effectiveness.

Perhaps it could be argued that such an assessment with life events is of limited worth because the events have already happened, and in many cases were not preventable. Another argument may be that life change events do not happen in isolation, and there are certain mediating variables that influence their effect on the individual, including "1) perception of self, 2) personal characteristics of the individual, 3) coping patterns and 4) social resources" (Yeaworth, 1992, p.799). However, finding a relationship between life change events and CA may be valuable in better understanding contributing causes of CA, and making it possible to know which youth are most at risk for CA problems.

One limitation of such a study would be the reliability of the respondent's memory in trying to recall feelings and events accurately. Although much of the past is difficult to remember, traumatic experiences are often keenly remembered. Therefore, remembering the event may not be the problem as much as weighing its traumatic impact. In any event, if such information could be gathered, it could help to broaden the understanding of the underlying elements of communication apprehension.

SURVEY OF LITERATURE

COMMUNICATION APPREHENSION. Definition/Aspects. McCroskey (1982, pp. 136-7) states that the area of communication apprehension, (CA), has generated more research over the decade of 1970-80 than almost any other in the communication field. Paralleling the increase in research interest has been a broadening of the definition of the term. His original definition in 1970 viewed CA as "a broadly based anxiety related to oral communication." The original foundation on which CA developed was oral, specifically stage fright and reticence. It is the oral aspect that has expanded. Mid-1970 research efforts expanded to writing and singing apprehension. It was also found that apprehension about one is a poor predictor of apprehension about any other.

Booth-Butterfield and Gould (1986, pp. 194-5) differentiate between **trait CA** (a relatively enduring personality orientation to fear of most communication settings), **context CA** (a similar personality orientation toward communication in a given context), and **state CA** (the "here and now" response of a person in some situation).

Remland (1989) added credence to the idea that anxiety levels are more trait than situational in a study that looked at the variable of nonverbal involvement (body language) in an interview setting. He found, surprisingly, that the reported anxiety level of a high CA group was not appreciably reduced by positive nonverbal feedback, nor was the anxiety level of a corresponding low CA group raised by negative nonverbal behavior.

Distinction between CA being considered as a trait or state has been widely argued.

McCroskey (1982, p.146-8) says a "true trait" is an *invariant* characteristic of an individual (e.g. eye color), whereas trait-like personality variables are conceivably changeable. He suggests, as a

substitute for **trait**, the term **generalized-context CA** be used, defined as a "relatively enduring, personality-type orientation toward communication in a given type of context." He observes that a trait-state polarization mind-set ignores the powerful interaction of these two sources, and they cannot be isolated. He asserts that we "reject this false state/trait dichotomy and view the sources of CA on a continuum from pure trait to pure state."

Vinson (1994) agrees, stating that such a distinction between trait and state is done for convenience, and only adds error to the measurement of CA.

McCroskey's (1982, p. 154-9) approach is cognitive, with underlying expectation development. People develop expectations (or assumptions) regarding other people and expectations, also, regarding outcomes. When outcomes are accurate, confidence is developed; when outcomes are negative, a lack of confidence can be produced. Anxiety is produced when no appropriate expectations can be developed. McCroskey also asserts that there is evidence that heredity plays an important role as compelling evidence suggests that children are born with certain personality predispositions or tendencies—not unchangeable, however. There is also the argument that reinforcement patterns particularly in childhood are dominant elements. The two ways to look at those patterns are: behavioristic (roughly synonymous with classical conditioning), or communication behavior that is reinforced will dominate; and modeling, or communication patterns learned by observation.

Ayres and Hopf (1992a, p.1) discuss three approaches to studying CA: **cognitive** - the thinking process creates anxiety, **affect** - the learning processes resulting from past experience (negative or positive), and **behavioral**, which they define as the requisite skills needed for speaking.

Another approach to CA is **physiological**, such as measurable body reactions to stimulus related to communication apprehension. Behnke and Carlile (1971, p. 249) found a relationship between the physiological and psychological components of CA. They discussed a pattern of four characteristic events involving the increased heart rate during public speaking. Using 50 minute increments, they found a small elevation just prior to speaking (**anticipation**), a dramatic increase while beginning the speech (**confrontation**), a marked elevation at the end of the speech (**adaptation**), and a small elevation upon completion of speech (**release**).

Beatty and Behnke (1991) did further research in this area. Measuring both anxious and nonanxious speakers under high- and low-intensity conditions, they found that heart rates of anxious speakers were significantly higher than nonanxious speakers under low-intensity conditions, but heart rates were *not* different between the two groups under high-intensity conditions.

Blood (1994) found that anxiety, as measured through autonomic nervous system activity, increases while the person is struggling with stuttering behavior. Also, he found significantly greater levels of salivary cortisol in the stuttering group during high stress sessions.

Siegman (1993) measured cardiovascular arousal (CV) of subjects listening to three different "voice styles." It was found that CV arousal occurred when the subjects spoke in a mood-congruent voice style--fast and loud in the case of fear and anxiety, and slow and soft in the case of sadness or depression. However, when the subjects were exposed to a mood-incongruent voice, the heightened levels of CV were canceled. Extended research in this area could bring about long-term beneficial modifications in clinical populations.

Related Constructs. Related constructs to the broad conceptualization of communication apprehension, as discussed by McCroskey (1982), include the following:

Stage fright: This is the oldest of the conceptualizations related to CA, with empirical research directed to this for over half a century. It was directed almost exclusively to public speaking. Such apprehension varies with given speaking situations, audiences, subject matter, etc.

Reticence: This concept seems to be the broadest, and is concerned with the lack of communication effectiveness. Phillips (1968) defines a "reticent" individual as one "for whom anxiety about participation in oral communication outweighs his (or her) projection of gain from the situation" (p.40).

Unwillingness to Communicate: This construct was advanced by Burgoon (1976), and views the sources of reluctance to communicate to be, in addition to CA, low self-esteem, introversion and anomia (lack of purpose or identity, rootlessness) and alienation, which are cognitively based. Where reticence is concerned with people who do not communicate effectively, unwillingness to communicate is concerned with reasons people *do not want to do so*.

Predispositions Toward Verbal Behavior (PVB): The construct of predispositions toward verbal behavior (Mortensen, Arntson, & Lustig, 1977) appears to be the logical opposite of unwilling to communicate, in other words, "willingness to communicate," or concerned with the *amount*. People high in PVB, through self report, behave in a consistent manner across communication contexts in terms of amount they talk. Further, as unwillingness to communicate is viewed cognitively, PVB is viewed behaviorally, even though the present self-report scale is cognitively mediated.

Shyness: There is no consensual agreement on the definition of this construct. It is a "fuzzy" concept, but refers to a feeling of discomfort in a variety of communication situations. It can be viewed as either trait or state. Some people are generally shy, while others are only shy in certain situations. McCroskey contends that this construct is not unique, but is woven into many of its sibling constructs. Noted child expert, John Rosemond (1996, p. 28) claims that shyness is an inborn temperamental trait, with 15% of children (significantly more girls than boys) "born shy." Many of them grow out of it. "For every 10 children who are extremely shy in the second year of life, only five will be shy in kindergarten and first grade; by adolescence, only three; by their 20's, only one or two will still be very shy." He bases this on research done by Harvard University psychologist, Jerome Kagan.

McCroskey (1982, pp. 140-5) mentions audience anxiety as a construct highly similar to the oldest conceptualization, stage fright. It is viewed as "fear, tension and disorganization in front of an audience." It is different in that the new concept realization includes talking in meetings, which was generally excluded in the old concept.

In terms of cross-cultural investigations, McCroskey (1982) states that people in the U.S. culture do not differ significantly from people in other cultures, and should be viewed more as approximately a "mainstream" position.

Theories of Cause. McCroskey (1982) states that the best method of isolating causes of events is carefully controlled experimentation. For ethical reasons, of course, this is high restricted for social science studies. Therefore most studies have been done in naturalistic settings, looking for correlational associations. Such research is "fraught with potential error"

(p. 153), as attempts are made to infer causality. McCroskey proposes that further research made validate such claims.

Despite this limitations, McCroskey (1982, pp. 155-6) suggests that causes of situational CA may be any of the following: **novelty** (with uncertainty about how to behave), **formal** (with more rigid behavior rules, offering little room for deviation), **subordinate status** (being evaluated by a superior), **conspicuousness** (all attention focused, bringing apprehension from the scrutiny), **unfamiliarity** (apprehension caused in speaking to people not known), **dissimilarity** (talking to people who are different often brings apprehension), and **degree of attention** (a moderate degree of attention from others is the most comfortable).

Buss (1980, p. 168-9), does not specifically deal with communication apprehension, but overlaps somewhat with McCroskey in suggesting causes for social anxiety. He gives similar categories of causes, but does not include formal or degree of attention. He does add new categories of properties of audience (e.g. a large audience is intimidating after being used to a small audience), and behavioral (dealing with audience feedback). Beatty, Balfantz, & Kuwabara (1989) also used these causes, but added amount of evaluation (similar to Buss' behavioral category). They found that, except for novelty, measures of these variables correlate with CA, and are more similar to dispositional individual differences than situational factors.

Manifestations. Manifestations of communication apprehension are varied. Due to the dearth of research in this area, only a few select examples can be given.

Stuttering is one of the most obvious. Blood (1994, pp.760-1) identifies transient "states" of anxiety (sometimes called "mood states"), permanent "traits" of anxiety involving personality, and "communication apprehension," another form of anxiety, specific to speaking situations. It is

this type of anxiety that stutterers report while speaking specific sounds or words, and in specific speaking situations. There are also chronic avoidances such as not answering the telephone.

Craig (1990) tested a large number of stutterers, comparing them to a matched control group. Before treatment, the stutterers were shown to be more highly anxious on both state and trait measures of communication apprehension than their fluent controls. However, for trait anxiety, this difference disappeared for measures taken after the stutterers were exposed to treatments. This at least raises questions about the relationship between of state and trait variables among stutterers.

Other avoidances by high-CA students found were interaction with instructors in a college setting (Proctor, Douglas, Garera-Izquierdo & Wartman, 1994); full participation in classroom settings (Neer & Kircher, 1989); and communication with others (escape, or in other words, the desire to get away from the anxiety-provoking situation was found to be a motive) (Kondo, 1994). Richmond, McCroskey and McCroskey (1989) found that self-perceptions of communication competence are strongly related to CA and have moderate relationships with self-esteem, introversion, and sociability. McCroskey (1977) found similar relationships. Ayres (1992b) found that high CA students were found to retain less information and had fewer task relevant thoughts. They were also more likely to be academically at risk (Chesebro, 1992).

Therapies. A variety of therapies have been developed to help individuals cope with communication apprehension take different approaches. Although not a comprehensive list, some selective samples are presented. A cognitive approach used by Ayres (1992a) was standard visualization and performance visualization. Standard visualization was found to reduce anxiety, but not to improve the speakers' performance. The performance visualization group

involved a combination of relaxation exercises, observation of video clips of effective speakers with repeated visualization of those skills, and finally, visualization of themselves making a similar effective presentation. The group, in testing, displayed fewer disfluencies, less rigidity and less inhibition than the standard visualization group or the control group. In a later study, Ayres (1994) identified high CA subjects into "more" and "less" vivid imagers. The more vivid imagers were better able to effectively reduce trait CA, state CA, negative thoughts, and rigidity.

Cronin (1994) found that interactive videotape instruction (IVI) programming was also effective to help high CA-students significantly reduce their speech fright over a four-week period as was lecture/linear video tape instruction by two outstanding public speaking instructors.

A more **behavioral** approach is the use of visual aids. In an earlier study, Ayres (1991), found a lower anxiety level in subjects who used a visual aid during the early part of their speech. Although the researcher felt additional research in the area was advisable, the suggestion was made that anxiety was reduced because the visual aid directed attention away from the speaker and reduced the need for the person to assemble the message. It was pointed out, though, that the use of a visual aid could actually have the reverse effect if the speaker was not comfortable in using the visual aid, or if the visual aid was not appropriate to the speech.

McQuillen (1993) used a more affect approach in his examination of two different feedback techniques given to high CA subjects, who gave short impromptu speeches. Compared to low CA subjects, the high CA subjects level of CA was increased by **informative** feedback and decreased by **motivational** feedback.

Although research is adding to the understanding of communication apprehension, many areas of research are still open to exploration in the areas of cause, manifestation and therapy. A

better understanding of relationships of other factors involved in communication apprehension would add to the growing knowledge about communication apprehension, and help to better understand, deal with, and perhaps even prevent, or at least better manage this common problem.

LIFE CHANGE EVENTS. Definition. Life change events deal with stress. In this thesis, the terms life change events and stress or stressors will be used interchangeably. Arnold (1990, p. 24) defines stress as "a physical, emotional, or chemical factor that exerts significant pressure on an individual's ability to function adaptively."

An expanded definition comes from Johnson (1986, p. 16-20), who states three ways of viewing stress. The **stimulus-oriented** view presumes that stress is defined in terms of situational forces outside the person. The **response-oriented** view focuses on the organism's biological or psychological response to presumably stressful situations. The **stress as a transaction between person and environment** view argues that the stressfulness of events in the environment is strongly dependent on the person's view of the event.

Garmezy and Masten (1990, pp. 2-3) use similar terms, but view their relationship more sequentially. Stress is defined by four features: a manifest stimulus event, which is capable of modifying physiological and psychological equilibrium, which is reflected in a state of arousal with various consequences, which changes can disrupt the person's adaptation. Sources of stress can be physical (e.g. dealing with bodily accidents or abuse), chemical (e.g. drugs), biological (e.g. disabilities, puberty), psychological (e.g. deprivations, fears, depression), and socioeconomic/cultural (e.g. discrimination, poverty).

Mediating Factors. As mentioned, stress is not necessarily to be considered a negative thing. Garmezy and Masten (1990) point out that some cases of stress mastery can be a growth

experience and bring out the best in an individual, while recognizing that overwhelming stress can be destructive. They do, however, see value in reducing the amount of stress in children's lives.

Emery and Campbell (1986) take a more physiological view of the brain's function of accepting new information about current reality. This new information regarding an event to be perceived first filters through the memory system in the brain's right hemisphere (the unconscious), then enters the left hemisphere of the brain (the conscious) for interpretation. If the information is "accepted", it is processed back to the right brain hemisphere to long-term memory, keeping what is useful. If the information isn't accepted, a clash of images and beliefs create feelings in the limbic frontal circuits. Emery refers to researchers Eli Robins and associates at Washington University School of Medicine in St. Louis, who have found that people prone to anxiety attacks have a marked imbalance in blood flow between the two hemispheres of the brain (pp.22-24).

An important issue affecting the outcome of stress' impact is the notion of "locus of control". This concept was first developed by Rotter (1966). This basically means the sense that one has that his or her actions influence events. Sadowski, Woodward, Davis, and Elsbury (1983) found there is a greater sense of self-esteem and ego strength when one feels a sense of locus of control, which translates into greater coping skills. Stern (1982) separated items on the Holmes and Rahe (1967) scale of Schedule of Recent Life Events into controllable and uncontrollable. Events that were perceived as uncontrollable were viewed as significantly more stressful than controllable events, and their greater occurrence was related to greater illnesses reported. Dohnrenwend (1981, p. 159) further expands "locus of control" to the notions of internal and external. Internal would be the person's perception of his actions, while external would be the

person's perception of other's attitudes. He gives the following example. "If a person believes, for instance, that people reject him because of the way in which he acts, he can be said to have an internal locus of control for social rejection." On the contrary, "...if he regards such rejection as deriving from another persons' prejudices then he may be said to have an external locus of control for social rejection." Persons with high levels of external locus of control as measured by Rotter's Locus of Control scale had higher levels of anxiety and depression that those with higher internal locus of control.

Another factor in occurrence of life-change events is socio-economic level. Johnson (1986) says there is a tendency for lower socio-economic groups to have a higher level of life change, a finding that has been confirmed in research. Also, life stress scores of children and adolescents are significantly related to measures of depression and anxiety, as well as low self-esteem.

Seiffe-Krenke (1995, p. 217) also emphasizes the term "synchronicity" as an important element of life change event stress. This is the simultaneous appearance of several stressors.

Gender. The gender factor has been studied in relation to life change events. Goodyer's (1990) assessment suggests that overall there is a lack of gender differences with some exceptions. Although the occurrence of life-change events does not differ between genders, the appraisal of stressful events, especially in response to social adversity, does differ. Studies show that girls perceive more stress in their lives than boys, and that boys respond to performance criticism with great efforts, while girls tend to give up. It is not clear that these appraisal differences are inherent or the consequences of adults' responses to the events. Yeaworth et al.

(1992) noted significant gender differences among adolescents, with females perceiving more life change events, and also finding them more upsetting.

Barnett (1987, pp. 144-7) investigated an older age group, and found that women report higher psychological distress, and are more affected emotionally, partly because they feel obligated to respond to not only their own stress, but also the people they care about. Such events are termed "network life-event" clusters, and in some studies it has been shown that these network life events (those that happen to others cared about) were reported as the most distressing in self-reports. Also, it has been suggested that women have been socialized to learn a "helpless style" in coping with stress. The causation factor becomes more complicated at this point in trying to figure out which came first, the stressor or the feeling of helplessness. As noted already in children, even though women and men have the same amount of life change events, women seem to be significantly more affected emotionally.

Historical Overview and Instruments. Moos (1986, pp. 4-9) says that several broad perspectives have helped shape and define current approaches to understanding life crises. The first is evolutionary theory and behavioral adaptation. This notion includes Darwin's theory of evolution, and the idea of natural selection, and adapting to one's environment. The second is psychoanalytic concepts and human growth approaches, including Freud's perspectives of behavior resulting from drives to reduce tension by satisfying sexual and aggressive instincts, often indirectly. Neo-Freudian psychologists see man as possessing such aspects of "competence motivation" as curiosity, an exploratory drive, a need for new varied stimulation, and sense of agency and being in control of their lives. Carl Rogers believed in individuals' needs for actualization, while Maslow distinguished between "growth motivation" (self-actualization) and

"deficiency" (decreasing tension arising from physical needs). The developmental life-cycle approach is posited by Erik Erikson that life events, beginning in infancy strongly affect or even determine adult personality. This will be discussed later.

The study of **coping with extreme crises** points out examples of adaptation under extreme conditions, such as the Nazi concentration camps, war camps, natural disasters, and being victimized by heinous crimes. Such studies point out the amazing capacities of individuals to cope under harrowing conditions. Even though a relationship between life stressors and illness is present, it is quite modest, and most people who experience such stresses remain healthy. Such findings have fueled the search for the "resistance resources" that enable people to prevent or manage stress better (Moos, 1986).

Johnson (1986) reviewed the first life stress research events inventory developed in the 1960's by Hölmes and Rahe (1966) called the "social readjustment rating schedule." The instrument was called the Schedule of Recent Experiences (SRE), and has been widely used in subsequent research. Goodyer (1990) notes that it provided the first convenient index of experienced life changes and their impact. The original intent was to find a method of predicting illness rates from stress. Interest in the general topic of life event stress escalated.

Over the next two decades, considerable interest and modification of the Holmes and Rahe scale occurred, including child and adolescent versions. It became apparent that self-report checklists were not inclusive enough to understand the prevalence or meaning of stressful events in people's lives. Research in the 1970's was more comprehensive and wide ranging with detailed semi-structured interview techniques used, which Goodyer feels is the most reliable and valid

method. He also states that, even though life events may be important causal factors in psychiatric disorders, they are neither sufficient or necessary to explain all disorders.

ADOLESCENT LIFE CHANGE EVENT QUESTIONNAIRE (ALCEQ). Yeaworth, York, Hussey, Ingle and Goodwin (1980) developed the original ALCEQ to be used for interdisciplinary research on adolescent pregnancy. Their 31-item scale was similar to the Social Readjustment Rating Scale developed by Holmes and Rahe (1967), except that it was developed for use with adolescents instead of adults. Yeaworth, McNamee and Pozehl (1992) reviewed 25 studies using the ALCEQ (or modifications thereof), and have found it a useful instrument in studying a variety of social phenomena.

The first study cited (Hussey and Ingle, 1977) gathered data from which means and a rating scale were formulated. Subjects were first asked to rate how upsetting a given event was, using a five-point rating scale. These ratings of events were the basis of formulating a mean, which was multiplied by 20 to obtain a Life Change Unit (LCU) Score. This was done to create a score comparable to the life stress event scores developed for adults. Items were arranged in rank order from most to least upsetting events to create the Adolescent Life Change Event Scale (ALCES). Subjects were then asked which life change events (LCE) had happened to them in the last year. Since the ALCEQ and ALCES have appeared in print, over a hundred inquiries were made to Yeaworth about use of the instrument (Yeaworth, et al., 1992).

Pregnancy-related adolescent issues were studied by several investigators. Robbins (1978) found no significant difference between the total LCU scores between pregnant and nonpregnant adolescent girls (N=40). Kaiser (1980) and Carlson (1981) used the instrument to gather data from pregnant adolescent females in relation to pregnancy decisions (continue, abort, undecided).

They found no significant differences and concluded their sample size was probably too small (N=23). In a later study, Carlson, Kaiser, Yeaworth, and Carlson (1984) still found no significant differences using a larger sample (N=43), although they found the total LCU scores were higher and the social support scores were lower for the continue group than for the abortion group. Carlson, et al. used a modification of the ALCEQ that contained 38 events. They viewed further development and use of their instrument modification as valuable to further research. Anderson (1987) investigated the relationship of LCE and social support to pregnancy in adolescents (N=109). She used the ALCES and the Norbeck Social Support Questionnaire, and found no statistical differences between the pregnant and nonpregnant groups on LCU scores. Tachenko-Achord (1989) used the ALCEQ to explore the effects of LCE and social support on prenatal maternal attachment in pregnant adolescents (N=42). They found no statistically significant relationships between those variables.

In a study relating the ALCEQ to class and gender variables, Mendez (1978) found that some life change events were considered less upsetting to those who had experienced them, as opposed to respondents who hadn't experienced the same events. Also, females tended to perceive events as more upsetting than males did. In later studies using socioeconomic status (SES) and race variables, L'Archevesque (1982) and Kammandel (1982) studied 223 subjects dividing them into five SES categories and two racial categories (white and nonwhite). They found that although there were no significant differences found between the five SES groups, the lowest SES group reported the greatest frequencies of LCE occurrences. They also found that whites perceived events more upsetting than did nonwhites. In a 1983 study, Falvo used the ALCEQ in looking at adolescents (N=123) separating them by their responses into four different

sex roles: androgynous, masculine, feminine, and undifferentiated. The only significant finding reported was that the female subjects in all categories perceived LCE as being more upsetting than did males in the corresponding sex role classifications. Edwards (1986) used the ALCES and the Beck Depression Inventory in studying the relationship of sex role conflict to the level of alcohol use, depression, and stress among adolescents (N=151). She found noticeably higher percentages of females than males on statements pertaining to suicidal thoughts and experiences. affective relationships, and physical appearance. Basch and Kersch (1986) used the ALCEO in their investigation of perceptions of stressful LCE by adolescents (N=189) to determine if there were any differences associated with sex or age. Age differences were not significant, however gender difference was. They reported that female subjects rated all events as more upsetting than did males, with significant differences observed for 15 of 37 events. Thomas, Shoffner, and Groer (1988) investigated perceptions of adolescents (N=323) in terms of gender and location of school (urban, rural, suburban). The mean LCU score of females was higher than males regardless of the geographic location of the schools, with urban females reporting the highest stress levels. Females found LCE relating to self-concept, and interdependence issues more upsetting than did males, while males rated issues relating to role function (such as "failing subjects in school") significantly higher than females. In a longitudinal study of changes in ALCES scores from the freshman to senior year (N=167), Groer, Thomas, and Shoffner (1990) found an increased number of LCE reported from the freshman to senior year of high school. There were specific gender differences in how respondents perceived stressors as seniors than as freshmen. Senior girls reported significant increases in four items, "hassling with parents," "problems with dating," "breaking up with boyfriends," and "acne." Females also reported increased concern about

interpersonal and self-concept/appearance related stressors. The only significant reported change in male paired data was a decrease in "problems making friends."

Ferguson (1981) studied the relationship between life change events and suicidal ideation among gifted and nongifted adolescents (N=96). Fewer life change events were reported by the gifted students, but those respondents perceived those events to be just as stressful as did the nongifted. In a later study of white, middle-class adolescents (N=205) Ferguson (1983) found that "getting into drugs and alcohol" was the most powerful predictor of depth of suicidal ideation for both sexes. Ferguson used three stress scores, one based on events experienced within the year prior to testing, one for each item experienced before one year prior to testing, and one combining the first two. He recommended future use of the instrument that would allow the reporting of multiple occurrence of stressors over different time periods. Parker (1983) also studied adolescent's responses (N=74) to life change events question, and their relationship to suicide attempts. She found that suicide attempters' mean LCU scores were significantly higher than the other two groups studied. Russell (1987) did a study of hopelessness and suicidal ideation in relation to life stress, self-esteem, and friendship in adolescents (N=409). She used the ALCEQ, the Beck Hopelessness Scale, the Rosenberg Self-Esteem Scale, and the social relationship portion of the offer Self-Image Questionnaire for Adolescents (measure of friendships). Subjects in the high-risk suicidal ideation group had significantly lower self-esteem and poorer quality friendships. Ford (1989) used the ALCEQ and the Beck Depression Inventory in a study of correlates of stress and depression (N=58). Approximately half of the subjects were suicide attempters and half were from a public high school. The suicide attempters group reported nearly twice the LCU score of the public high school group.

Jackson (1982) investigated the relationship between LCE and health, also looking at other variables, the only significant finding being in the area of grade point average. The group with the lowest grade point average reported higher levels of death in the family, illness, involvement with drugs or alcohol, being arrested and quitting school. Jackson's sample (N=1207) was the largest cited in the Yeaworth (1992) article. She also asked not just if a life change event had occurred, but how many times. Chiaviello (1983) looked at LCE responses in 10 adolescents diagnosed with cancer and compared them with scores on the Peter Pan Profile (which measures reluctance to growing up). No significant correlation was found. Another health issue, hypertension was studied by Falvo (1983). There was no indication that experiencing a high LCE score was associated with adolescent hypertension. Stines (1986) also did a study on hypertension in adolescents (N=63). She likewise found no correlation between blood pressure or pulse and LCU scores. She did find a higher percentage of girls reporting hassling with parents, problems with size, and getting into drugs and alcohol. Thomas and Groer (1986) studied the relationship of demographic, life-style, and stress variables to blood pressure in adolescents (N=322). Those with poor health habits scored higher LCU scores than those with good health habits. Females were more likely to report stress due to changes in size or appearance, dating problems, breaking up with a close friend, and getting grounded. There was no relationship found between LCU scores and blood pressure levels.

Novy and Donohue (1985) studied the relationship of life change events to juvenile delinquency. No significant results were found.

In analyzing these studies, Yeaworth (1992) observes that almost every administration of this instrument has involved modification, addition or elimination of some items, or some

combination of changes, somewhat limiting the comparability of the studies. Despite this, she states, "there seemed to be a pattern of higher mean LCU scores for adolescents who might be identified as troubled" (p. 797). She observes that females generally seem to perceive events as more upsetting and report more events as having occurred. Also, cross-sectional and longitudinal studies have indicated that older adolescents experience more LCE. Social-economic status and race differences have been found. The lowest SES subjects weighted events as least stressful and had experienced more. In general, subjects who had experienced events tended to weigh them as less upsetting (except for the questions on death or serious illness) than respondents who had not experienced them. Whites weighted events as more upsetting than did nonwhites.

A more concise summary of these studies is found in Table IV in the Results section of this thesis.

CHILDHOOD/ADOLESCENT DEVELOPMENT. Sizer, Whitney & DeBruyne (1994 p. 52) reviewed Eric Erikson's theory of life as a series of stages, each having a particular developmental task associated with it. Erikson felt that each stage must be successfully negotiated before moving onto the next. Each stage is labeled with a corresponding combatant. In infancy, the task is to establish trust vs. mistrust. Childhood's tasks include autonomy vs. shame and doubt, initiative vs. guilt, and industry vs. inferiority. In adolescence, the task is coherent identity vs. identity diffusion. Further developmental tasks are intimacy vs. isolation, generativity vs. stagnation, and integrity vs. despair. Moos (1986, p. 7) feels there is some leeway in such a strict view of a rigid development process, and that our whole idea of "social timing" has changed over the previous two decades, with the "rhythm of the life cycle" being more fluid. He cites the divorce rate and the activities of older people as examples.

Sizer, et al. (1994) also reviewed Abraham Maslow's view of psychological needs as a hierarchy, with five different levels of "needs", building on each other, each needing to be satisfied before moving on to higher ones. They are physiological (survival), safety (security), love (emotional security), esteem (respect), and self-actualization (realizing full potential).

Keeping this in mind, development during childhood will be considered, beginning with the development (or lack) of communication skills, also looking at common anxieties of childhood. Adolescent development will then be considered, with the physiological, psychological and emotional changes that take place. The formation of an identity, and dealing with anxieties and stress will also be considered.

Childhood. As just previously noted, there are many theories about "stages" of life and "needs" in the development process. One of the major developmental process of childhood is speech development, a brief description of which will follow. Communication apprehension has already been discussed. Its relationship with childhood development leaves much open to speculation. However, McCroskey (1977) feels there is a relationship. He states, "It is clear that many children enter kindergarten with high levels of CA already established. Thus, if CA is not a hereditary function, and there are few data pointing in this direction, the cause of CA must lie primarily in a child's experiences during the formative years" (p. 80).

Speech Development. Language development in children follows a natural, predictable pattern with each step building on the past (Medvescek, 1994). Locke (1994) asserts that there are also social and emotional aspects involved in one's *motivation* to speak.

Gander and Gardner (1981, pp. 8-9) discuss this early language development as **prelinguistic** and **linguistic**. The three stages of prelinguistic development are **crying** (to convey

hunger, anger or pain), cooing (open vowel sounds beginning usually in the second month) and babbling (beginning use of lips, tongue, teeth and throat in making sounds beginning usually around the sixth month). Linguistic development consists of the one-word stage (around first birthday), telegraphic stage (two or three words used together), and whole sentences (beginning around the second birthday).

Almy (1955, pp. 270-2) views language development as revealing a child's understanding of the world and also facilitating it. At the same time it reflects the child's unique personality. As the language development unfolds in complexity of structure and vocabulary, reaching a peak in rate development at around four years of age, language is egocentric to some extent, in that there is a general trend to social give and take.

As children go through the above-mentioned processes and stages, normal disfluency occurs. Such things as repeating, pauses, backing up and general confusion as to getting their message out can be observed. Medvescek (1994, p. 100) describes three grammar structures that are often seen. The first is **analogy**, or using words that seem to make sense. For instance, if you're sleepy, you go to sleep. So, if you take a rest, are you "resty"? The second structure is **scissors and paste**, meaning putting the main ideas together, but not necessarily in the right order. "Saying "no eat dinner" gets an idea across, although not structurally correct. The last structure mentioned is simply the idea of **potshots**, or one-time mistakes in language, such as an occasional "goed" instead of "went," etc.

Stuttering is another disfluency problem with a variety of possible causes. Some observe that it is often associated with the birth of a young sibling and is associated with renewed "baby talk" (Almy, 1955, p. 271). Others, such as Dreikurs (1972, p. 46) see a normal, developmental

stuttering magnified into a more serious disorder when parents intervene with warnings, admonitions and reproaches. Fromme (1971, pp. 208-209) suggests that it could also be seen as a manifestation of anxiety, and seen with other retardations or delays in speech such as lisping. He further states that such anxiety easily manifests itself in speech because our breathing apparatus is so prominently involved. Breathing becomes shallow and mouth, lips and tongue become dry. Once speech is adversely affected, the automatic nature of the event kicks in, and the two are associated habitually.

Edmonson (1994) developed a test to identify children who are at-risk for stuttering.

Bender and Small (1994) suggest several ideas to help children overcome normal disfluencies in a positive atmosphere.

Children's care givers can greatly affect their speech development. Almy (1955, p. 271) claims that girls are more advanced than boys in language development, suggesting that one reason may be the affectional bond with the mother, a key language stimulator. Medvescek (1994, pp. 98-99) lists five ways care givers, through speech interaction, lay the foundation for creative and critical thought, reading, writing, decision-making and problem-solving. They include naming things, simplifying language to match the child's verbal skills, using language in play, talking and listening to teach conversational skills, and talking about what the child is interested in.

Pflaum-Conner (1978) suggests that parents or other care givers seem to *instinctively* know how to help children develop language, and such interaction is critical. If it is or is not instinctive, a lack of parental or care giver stimulation seeks to carry over in a child's speech ability effectiveness.

Girolametto and Tannock (1994) found that parents' directiveness and stress were related to their child's speech abilities. Walker (1994, p. 607) reports that economically disadvantaged parents play fewer language games that are conducive to early language learning and typically ask their children less often for language; and if they do, it rarely is in the form associated with later success in traditional school subjects, such as vocabulary, spelling and reading. Similarly, in low socioeconomic schools, teachers spend less daily time in these academic skills, which translates into months of difference over the total-educational experience. This problem is further compounded by the projected growing numbers of poor persons in the national population within the foreseeable future. Implications include the design of procedures for the early identification of children at risk and for the prevention of school failure associated with poverty and depriving environments.

Anxiety. Johnson (1986, p. 15) states that childhood is far from the being the "trouble-free time" about which we reminisce. For some it is marked by "extremely stressful events and life transitions that would severely tax the coping and adaptational abilities of even the most resilient child." Buss (1980, p. 217) adds that "Most phobias are rooted in experiences during childhood, and social anxiety is no exception."

What are possible causes of anxiety in children that often manifest themselves in speech patterns? Ginott (1969, pp. 161-73) mentions six. Anxiety due to fear of abandonment means a fear of being unloved and abandoned by his parents, often with feelings of rejection and anger.

Anxiety due to guilt can occur when care givers forbid or place too much emphasis on negative feelings or "nasty" thoughts the child has. Anxiety due to denial of autonomy and status occurs when a child is prevented from activities or responsibilities of which he or she is ready, but

has not yet fully mastered. Anxiety due to friction between parents occurs when parents fight, and the child feels he or she is the cause of the strife, whether it is justified or not, often feeling they must side with one of the parents. Anxiety due to interference with physical activity may be the product of young children simply lacking the proper amount of space for needed motor activity, often causing anxiety. Anxiety due to life's end is often an enigma to a child veiled in mystery. In addition to not finding it difficult to understand death, children are often not allowed to "grieve" normally.

Fromme (1971, pp. 81-5) mentions four general types of experiences a child lives through which predispose him or her to fear. The first is imitation from an adult modeling fear. Another is trauma from an emotionally upsetting experience. A more complex experience is punishment-hostility-guilt system, created by ambivalent feelings of being punished or corrected, feeling angry, then guilty for having such feelings. Finally the self-reproducing characters of fear itself are irrational fears that build on each other. A fear of an immunization can be generalized to anything related to the doctor or his office. Manifestations of these anxieties and fears typically are nail-biting, thumb-sucking, stuttering, shyness, withdrawal, crying and many others. Some unhelpful things are rational explanations, chiding him or her about the fears, forcing him or her to face fearful experiences, or treating the situation with too much gravity. Four helpful ways of dealing with fears are: encouraging children to talk about what they're afraid of to help in understanding and respecting their fear; second, use the word "fear" as part of normal vocabulary; and third, explain how we or someone we know felt that way once, and in time learned to feel differently; and fourth, make some concessions to the child's fears and support the child should he or she like to try to do something about the fear.

Sarason (1960) developed two anxiety measurement scales that have been used widely. The first was to measure general anxiety in children (GASC). The second was a scale of text anxiety in school-aged children (TASC).

A cross-cultural study (Nijhawan, 1972) using roughly the same methods showed a surprising amount of agreement in findings, including the finding that test anxiety is not a middle class phenomenon.

Adolescence. Adolescence shall be described here as the period of time from the onset of puberty to roughly high-school graduation. Seiffe (1995, p. 1) defines this period further as "a period of transition characterized by accelerated processes of change in cognitive, social, and psychological functioning, accompanied by marked physical restructuring."

Moos (1986, p. 59) sees teenagers during this significant time of transformation as viewing themselves as competent and able to manage life's problems, with "confidence, optimism, and a willingness to work to achieve their goals."

Despite such optimism, Coleman and Hendry (1989) feel that experiences that happen during the critical phases of development have an important bearing upon later life. In relationship to Erikson's theory of life stages, Coleman and Hendry state, however that there has been a shift of emphasis in the past few years in how adolescence is portrayed. There is less tendency to view adolescent is a single stage, or even a series of sub-stages. Empirical evidence has shown that there is too much individual variation in the growth process, and adolescence should be viewed as a transitional process, rather than a stage process.

Researchers have warned against a simplistic approach of adolescence as only one decision-making period. There are "several periods in which the adolescent is confronted with

alternatives, in which a commitment is required." This is called a "multiple-phase identity crisis" (Adams, 1992, p. 91).

Puberty. One of the most apparent changes during adolescence is puberty. Adams and Gullotta (1983) say that puberty is not a sudden event, but a gradual complex process. Puberty is characterized by a spurt in physical growth, maturation of physiological mechanisms, and the appearance of secondary sex characteristics (pubic hair, breast development). The onset of puberty is regulated basically by the endocrine gland secretion of hormones that interact with the cells to create physiological changes. Sizer, et al. (1994) say that adolescents often view these physical changes with some emotion. Negative body image is a common problem in our society, based on the number of diets, cosmetic surgeries, cosmetic sales. Another factor is how early or how late one develops. Generally, early maturing boys report positive feelings, but early or late maturing females report negative feelings.

Also, formal logical thought skills develop more fully (Adams, 1983). During the later adolescent years, the ability to think about consequences of actions develops (Seiffe-Krenke, 1995).

Identity Formation. The conceptualization of the continuity of self, (Adams, 1992) with the increased awareness of societal expectations lead adolescents to deal with the issue of identity formation, thought by many to be adolescence' primary task: the complex psychological phenomenon of the development of the "person in personality" (Adams and Gullotta, 1983, pp.184-5).

Marcia (1966) identified the presence or absence of two major variables in the development of identity: **crisis** and **commitment**. Crisis involves a time of choice among various

alternatives, while commitment refers to the degree of personal investment exhibited. Using these variables, four types of identity statuses emerged:

Status	Past or Present Crises	Commitment
Diffusion	No	No
Foreclosure	No	Yes
Moratorium	Yes	No
Identity Achievemen	t Yes	Yes

An identity-diffusion youth has no pressing need to search for answers, nor has made any strong commitment to a given perspective. He or she would be more prone to look for "thrills" and would tend to participate more in fads. A identity-foreclosure youth has a sense of commitment, but has not reached it through personal crisis. A moratorium-youth is searching for answers, having not yet reached a firm commitment. He or she would be more likely to endorse authority, and have a need for social approval. Identity-achievement youth report a period of struggle and exploration, and have reached a meaningful closure through decision.

This period is the most complex. The youth has reached a high ego development and is more future-oriented (Adams & Gullotta, 1983).

The composure of the individual's family appears to be a mediating factor. Diffusion is related to poor affectual relationship and affection. Foreclosure is associated with perceptions of high affectional relationship with mother. Moratorium and achievement are associated with low control, fairness, encouragement of independence, moderation in praise, high companionship and physical affection (Adams, 1992). As the youth struggles to balance the values of his or her parents with values he or she sees in peer groups or society, many reject their parent's values, however, most eventually return to those values (Sizer et al., 1994).

Ethnic and racial factors present some identity problems as the youth swings back and forth between two sets of cultural values--one's minority group, and the larger social circle. Similarly, in organized religion, the ambiguity of moratorium is often not encouraged to young people who are attempting to negotiate their task of identity formation (Adams, 1992).

Identity formation during the critical adolescent years, with the coping abilities and patterns exhibited during this time can have far-reaching effects throughout life. This time period, unlike previous development requires mature patterns of functioning. Failure to cope effectively may negatively affect subsequent development (Coleman & Hendry, 1989, p. 82).

Anxiety. Emotions, such as uneasiness, anxiety and tension serve as the driving force that compel the adolescent to search for answers to this state of crisis. The stress and anxiety during adolescence is intense. New stressors have come into the life of the adolescent. Arnold (1990, p. 249) lists 18 common adolescent stressors, including identity formation issues, physical, psychological and emotional development related changes, as well as other life change events that may have occurred in childhood, such as illness, moving, divorce of parents, etc. Jackson (1972) found, in a study of high school students, that social stresses were stronger than academic stresses. Although there were not overall gender differences, there were some specific patterns. Girls had more hassling with parents, and boys had more of a tendency to be into drugs and alcohol. Death of a parent, sibling or friend showed a relationship to a low grade point average, Jackson said because of the "devastating nature of such an event."

Life events sometimes play a part in anxiety, but not enough is known to predict or control its effects. Dohrenwend and Dohrenwend (1981, p. 5) suggest that future research include a two-step analysis of not just looking for general relationships, but assessing relationships

between "particular aspects of life events and particular health indicators." Such assessment would not just test if the events was stressful, but would examine "the extent to which it puts persons at risk for specific types of disorders."

STATEMENT OF PURPOSE

The Literature Review discussed the phenomenon of communication apprehension (CA) -a widespread problem affecting individuals' ability to effectively communicate. While much
research has been conducted in identifying and treating CA, little has been done in terms of actual
studies to identify specific causative factors of CA. Also discussed were life change events,
especially those occurring to children and adolescents. Experiencing stressful life change events
has been shown to be related to a number of negative consequences for the individual.

A third area reviewed was development of language in infants and children. There is still not a great deal known about how language actually develops. But, often complicating its development, whatever the cause, there does exist the presence of anxiety in children, that can possibly be manifested in speech difficulties including those related to communication apprehension. There are many crucial time periods in language development, with many factors such as life change events that may affect such development.

Could experiencing childhood or adolescent stressful life change events possibly have a causative relationship to exhibiting communication apprehension later in life? To satisfactorily answer this question would require extensive longitudinal research. However, as a first step in exploring this potential link, the present thesis attempts to answer the following research questions.

- 1. Is there a relationship between communication apprehension and overall life change events in childhood and adolescence?
- 1a. Can life-change events of childhood and adolescence be retrospectively reconstructed by college students to an adequate degree of measurement?

- 1b. Are there age and gender differences in communication apprehension among respondents?
- 2. Do certain types of life-change events occur significantly more often than others in high-CA individuals?

CHAPTER II

METHODOLOGY

SUBJECTS

Participants were chosen from a large lecture section of an entry-level communication course (N=62) and two sections of an entry-level family sciences course (N=17, N=21) at a medium-sized Midwestern university. Demographic information of age groups and gender was gathered.

"Exempt status" was granted by the Institutional Review Board for the Protection of Human Subjects of the University of Nebraska.

DATA GATHERING

The study was administered by one researcher, who read a short introduction of the study (see Appendix A). Students were told that the purpose of the study was to look at communication traits in reference to various life change events. They were told that the questionnaires were anonymous, except for general demographic information, and were given the option of not completing the questionnaires. The researcher then briefly explained how to fill out the questionnaires.

Participants were given a six-page, stapled handout (See Appendices B-D). The first page was a plain yellow cover sheet. The second page gave general directions, and asked for basic gender and age category information. Pages three through six contained the two questionnaires (two pages each). The first instrument, a modification of the Adolescent Life Change Event

Questionnaire (ALCEQ) (Carlson et al., 1984), marks occurrences of specific events relating to the respondent's past. The second instrument, the PRCA-24 (McCroskey, 1984), is a self-report, which measures current communication anxiety. The order of the tests was reversed for half of the questionnaires.

The questionnaires were administered during a normal class period in the regular classroom, early in the semester, and took approximately 15 minutes to complete.

INSTRUMENTS

The Personal Report of Communication Apprehension (McCroskey, 1982) was used in this study. This instrument (PRCA-24) is one of the most popular methods for measuring communication apprehension. Using self-report method of 24 questions, the PRCA-24 tapped communication apprehension (CA) in four contexts or subgroups: group apprehension (informal small group), meeting apprehension (formal group), interpersonal apprehension (with another person), and public speaking apprehension (speaking to large groups). Respondents used a Likert-type scale with a 5-point response format anchored by "strongly agree" and "strongly disagree." In this study data from these four subgroups of apprehension measurement are referred to as follows: group (PRCAG), meeting (PRCAM), interpersonal (PRCAIC) and public speaking (PRCAPS). The PRCA-24 has been found to have reliability usually about .90, and excellent content validity (Levine & McCroskey, 1990; McCroskey, 1984; McCroskey, Beatty, Kearney & Plax, 1985; McCroskey, 1993; Richmond & McCroskey, 1995).

The second instrument was the Adolescent Life Change Event Questionnaire (ALCEQ) (Carlson et al., 1984). Subjects marked 38 events as to their occurrence in their life.

Additionally, in this study, subjects were asked to mark these life change events' occurrence in pre-adolescent and adolescent years, as well as during the past year. In this way, additional data were gathered beyond previous usage of the instrument. Obviously, some of the life change events would not occur in certain age categories, such as menstruation problems in the pre-school categories. The questionnaire directions indicated this. If the life change event occurred, subjects were asked to mark the age category or categories in which the event occurred. The categories were 0-5 years (roughly pre-school), 6-12 years (roughly elementary school), 13-18 years (roughly middle school, junior high and high-school age), and during the past year. Events have previously been weighted for stressfulness (Yeaworth, et al., 1992, p. 785).

STATISTICAL ANALYSIS

The independent variables were the ALCEQ scores and items, plus demographic variables.

These variables were considered in relationship to the dependent variables, which were the PRCA-24 scores overall and its subscales.

Relationships were examined between the PRCA-24 and ALCEQ scores and the subscales of the PRCA-24 with the overall ALCEQ by use of the Spearman rho coefficient. Also, relationships between overall and the four subscales of the PRCA-24 and the individual items of ALCEQ (if occurred or not) were examined by use of point biserial correlation for each of the ALCEQ items (Gehring, 1978; Tabachnick & Fidell, 1989).

Differences in PRCA-24 (overall and four subscales) and the ALCEQ scores based on demographic variables were explored by use of t-tests and one-way analyses of variance with follow-up Student-Newman-Keuls tests.

The subjects were divided into four groups according to levels of communication apprehension as measured by the PRCA-24. Group 1 consisted of those who were more than one standard deviation above the national mean (McCroskey, 1993), Group 2 within one standard deviation above the national mean, Group 3 within one standard deviation below the national mean, and Group 4, more than one standard deviation below the national mean.

Analysis was made by use of χ^2 , to look for differences between the four groups among the ALCEQ individually experienced events and the four classifications of PRCA-24 and its subscales. Follow up χ^2 were made on cells that showed significant differences, to determine the specific CA groups that differed.

CHAPTER III

RESULTS

One hundred questionnaires were returned, 38 from males and 62 from females. Of the returned questionnaires, 48 had the PRCA-24 instrument first, whereas 52 had the ALCEQ first. No order effect was found based on which scale (PRCA-24 and ALCEQ) was completed first by subjects.

Analysis by t-tests showed no significant differences in ALCEQ overall scores, PRCA-24 overall scores or PRCA-24 subscores, based on test order. In order to equalize the number of subjects in the age categories, the five original categories were reduced to three by collapsing the third, fourth and fifth categories. The 18-20 category had 37 subjects, the 21-23 category had 35 subjects, and the final category, 24+ had 28. (The collapsed categories were 24-26=14, 27-29=5, and 30+=9.)

One-way analyses of variance, with follow-up Student-Newman-Keuls tests, revealed no significant differences in ALCEQ and PRCA-24 overall scores, or in PRCA-24 subscores of group, meeting, and interpersonal conversation apprehension based on age groups. However, a significant difference based on age groups was found (F [2,95] = 3.38, p< .04), in the PRCA-24 subscore of public speaking apprehension. A follow up Student Newman Keuls test showed the difference was between the Age Group 1 (M = 16.89) and Age Group 2 (M = 20.65). Group 3 (M = 18.67) was not significantly different from either Group 1 or 2.

No differences based on gender were found in ALCEQ, PRCA-24 overall and PRCA-24 group, interpersonal conversation, and public speaking apprehension subscores. However, the

results of this analysis did show significant differences based on gender in the PRCA-24 subarea of meeting (t[-2.05] = 1.23, p < .05). There was significantly greater apprehension among females (M = 16.82) than males (M = 14.45).

TABLE I.

PRCA AND ALCEQ SCORES AND S.D. BASED ON AGE GROUPS
GENDER BREAKDOWN IN TOTAL SUBJECT ALSO SHOWN.

Age Group	M/F	PRCA M S.D. N	ALCEQ M S.D. N
18 - 20	14/23	62.49 20.40 37	15.00 5.35 37
21 - 23	14/21	67.29 17.22 35	15.24 5.96 35
24+	10/18	63.70 20.53 28	13.39 5.88 28

No significant linear relationships (Spearman rho, p < .05) were found between overall ALCEO and PRCA-24 overall or subarea scores.

The subjects were divided into four groups according to their communication apprehension, based on the previously reported national mean and standard deviation. The highest group was designated as Group 1 (high CA) (PRCA score ≥ 81 , s = 20), Group 2 (PRCA score ≥ 66 and ≤ 80 , s = 30), Group 3 (PRCA score ≥ 51 and ≤ 65 , s = 33), and Group 4 (≤ 50 , s = 15) (see Table VI). Using analyses of variance, homogeneity of variances, and multiple range tests, no two groups were significantly different in ALCEQ overall scores within the various groups. Nor were any significant differences found among the four CA groups in the four age-categories responses in the ALCEQ.

PRCA scores (total mean = 64.49) were consistent with previous means of the instrument as shown on Table II. PRCA interpersonal conversation mean was lowest (14.53), followed by group (15.44), meeting (15.91) and public speaking (18.68).

TABLE II.
PRCA MEAN NORMS AND S.D. COMPARED TO STUDY'S FINDINGS.

Instrument	Instrument Norms M S.D.	This Study M S.D.
PRCA-24 overall	65.6 15.3	64.49 19.30
PRCAGP	15.4 4.8	15.44 5.68
PRCAM	16.4 4.8	15.91 5.83
PRCAIC	14.5 4.2	14.53 4.44
PRCAPS	19.3 5.1	18.68 6.23

The ALCEQ mean was 848.56. Subjects were asked to check when the event occurred; specifically, ages 0-5, 6-12, 13-17, within the past year, or a combination of times. Results were ages 0-5 (M = 79.63), ages 6-12 (M = 216.38), ages 13-17 (M = 514.32), and within the past year (M = 324.29). Total "yes" responses in the various age groups, whether alone or in combination with other age groups are shown in Table III.

TABLE III.

NUMBER OF 'YES' RESPONSES TO ALCEQ QUESTIONS BASED ON AGE GROUPS

ALSO, MEANS FOR AGE GROUPS.

Age groups	# of Yes Responses	Mean
0-5	145	79.63
6-12	402	216.38
13-17	878	514.32
w/in past year	581	324.29

The recollected life change events mean score for the ALCEQ age category of ages 13-17 was 514.32. Table IV compares current study to other studies administering the ALCEQ, previously cited by Yeaworth et al. (1992).

TABLE IV. ALCEQ MEANS FOUND IN PAST COMPARED WITH THIS STUDY.

Study/Year	Age Mean	Characteristic of s.	ALCEQ mean score
Hussey/1977	14.1		475
Mendez/1978	14.9		497
Carlson/1980-1	14-18		550
Ferguson/1981	14.2	Gifted Nongifted	374. 5 494.5
Parker/1983	high school	Suicide attempters Non-suicide attempters	812.95 309.40
Novy/1985	14.3	On juvenile probation	700.62
Chiaviello/1983	13-17	Cancer patients	5()4.7
Falvo/1983	high school	Hypertensives Normotensives	523 573
Stines/1986	high school		579.3
Russell/1987	16.38		513.74
Thomas/1986	15.5		445.47
Anderson/1987	13-18	Pregnant females Non-pregnant females	507.1 501.8
Thomas/1988	15.5	Males Females	396.61 484.32
Tachenko/1989	13-18	Pregnant females	527.02
Ford/1989	12-18	Suicide attempters Non-suicide attempters	1442 886
Groer/1990		Freshmen Seniors (longitudinal)	309 403.6
Total: 16 studies	w/in 13-18		556.98
Bylund/1996	college-age	Recollection of events ages 13-17	514.32

Spearman rho correlation coefficients showed no significant relationship between ALCEQ scores by age groups 0-5, 6-12, 13-17, and PRCA-24 overall or subscales.

Point biserial analysis, again, showed no significant correlation between individual ALCEQ items and PRCA overall or subscale scores for each of the five time frames that data were collected: overall life, past year, 0-5, 6-12, and 13-17 years.

Table V shows the significant correlations (Spearman rho) between individual ALCEQ items and PRCA-24 overall and subscale scores within each age category.

TABLE V.

ALCEQ items/PRCA CORRELATIONS (Spearman rho) FOUND WITH AGE CATEGORIES.

Age category	PRCA overall	PRCAG	PRCAM	PRCAIC	PRCAPS
0-5 years				1 significant finding but only 1 person responded	3 significant findings but only 1 person responded
6-12 years		23 (s = 11) ALCEQ # 23 relative siek		.23 (s = 2) ALCEQ # 21 breakup .21 (s = 2) ALCEQ # 31 acne	23 (s = 34) ALCEQ # 4 new school 23 (s = 31) ALCEQ # 9 new home
13-17 years				21 (s = 8) ALCEQ # 13 move in .20 (s=27) ALCEQ # 31 acne .21 (s=17) ALCEQ # 36 size problem	20 (s = 6) ALCEQ # 8 mother pregnant .21 (s = 16) ALCEQ # 18 sibling marriage
Past year	22 (s=16) ALCEQ # 6 drugs/alcohol .23 (s = 6) ALCEQ # 37 sister pregnant	.20 (s = 7) ALCEQ # 22 parents divorce/separate -2.2 (s = 14) ALCEQ # 24 friend dying	22 (s = 16) ALCEQ # 6 drugs/alcohol .22 (s = 6) ALCEQ # 37 sister pregnant		2.2 (s = 16) ALCEQ # 6 drugs/alcohol .25 (s = 25) ALCEQ # 20 girlfriend pregnant .21 (s = 6) ALCEQ # 37 sister pregnant

Several findings showed p <.05, but were spurious due to the small number of subjects. In the 0-5 group, there was a correlation between PRCAPS and close girlfriend pregnant (ALCEQ 20), breaking up with boyfriend or girlfriend (ALCEQ 21), and close friend dying (ALCEQ 24) (s=1). In the 6-12 age group, correlations were found between PRCAIC and breakup with boyfriend or girlfriend (ALCEQ 21) and acne (ALCEQ 31) (s=2). In the 13-17 age group, there was a negative correlation between PRCAIC and someone moving in with family (ALCEQ 13) (s=8). In the past-year category, PRCA, PRCAM AND PRCAPS were correlated with sister getting pregnant (ALCEQ 37) (s=6). Also, PRCM was correlated with parents divorced or separated (ALCEQ 22) (s=7).

 χ^2 analysis was done comparing individual ALCEQ events among the four classifications of PRCA and its subscales. The national PRCA norms were used for this analysis, as follows in Table VI.

TABLE VI.
Four CA Groups based on National PRCA-24 Norms

CA Group	PRCAoverall	PRCAG	PRCAM	PRCAIC	PRCAPS
1	≥81 (N=24)	≥ 21 (N=21)	≥ 22 (N=25)	≥ 19 (N=21)	≥ 25 (N=17)
2	≥66 ≤ 80 (N=24)	≥16 ≤20 (N=32)	≥17 ≤21 (N=18)	≥15 ≤18 (N=21)	≥20 ≤24 (N=29)
3	≥51 ≤65 (N=28)	≥10 ≤15 (N=28)	≥12 ≤16 (39)	≥11 ≤14 (N=42)	≥15 ≤19 (N=22)
4	≤50 (N=22)	≤9 (N=18)	≤11 (N=17)	≤10 (N=15)	≤14 (N=30)

 χ^2 analysis found several related characteristics of events in the high CA group (Group 1). Follow up analysis substantiated those findings. Significant (p < .05) differences are noted in Tables VII through X.

 $TABLE\ VII.$ Occurrences or absence (-) of life change events: **CA Group 1** at p < .05 *First number = age category (1=overall, 2=()-5, 3=6-12, 4=13-17, 5=past year)

ALCEQ#	PRCA category	Age category/finding significance	Group difference significance	CA Grp 1 No Yes	CA Grp 2 No Yes	CA Grp 3 No Yes	CA Grp 4 No Yes
#1 hassling w/ parents (-)	PRCAPS	*5 .02 10.34	1&2,2&3, 3&4	12 5	11 18	17 5	14 16
#4 new school	PRCA	*2 .03 8.96	1&4, 3&4	23 1	19 5	27 1	16 6
(-)	PRCAPS	*3 .03 9.08	1&4	15 2	19 10	16 6	14 16
#4 new school (+)	PRCAPS	*5 <.05 7.97	1&2	8 9	25 4	15 7	20 10
#9 moving to new home	PRCAPS	*1 .02 9.71	1&2,4	10 7	5 24	7 15	7 23
(-)	PRCAPS	*3 .04 8.59	1&4,3&4	15 2	20 9	17 5	15 15
#14 parent loses job (-)	PRCAPS	*1 .03 8.61	1&2,4	17 0	21 8	19 3	20 10
#20 girlfriend pregnant	PRCAPS	*5 .03 8.62	1&2,3,4	8 9	22 7	18 4	25 5

TABLE VII. (cont.)

ALCEQ#	PRCA category	Age category/finding significance	Group difference significance	CA Grp 1 No Yes	CA Grp 2 No Yes	CA Grp 3 No Yes	CA Grp 4 No Yes
#22 parents divorce/	PRCA	*5 .01 10.91	1&2,3	19 5	24 0	28 0	20 2
separate	PRCAM	*1 .02 10.21	1&2,2&4, 3&4	14 11	16 2	30 9	8 9
		*5 .03 8.97	1&2,3	20 5	18 0	38 1	16 1
#27 making	PRCA	*2 <.01 13.30	1&2,3,4	15 2	18 11	19 3	16 14
(-)		*3 .01 11.10	1&2,4 2&3	18 6	8 16	18 10	9 13
		*4 <.01 12.06	1&2, 2&3	14 10	3 21	13 15	7 15
	PRCAM	*2 .02 9.50	1&2,3	23 2	10 8	23 16	12 5
		*3 .04 8.39	1&2,3	19 6	6 12	19 20	9 8
	PRCAPS	*3 .04 8.59	1&2,4 3&4	13 4	13 16	15 7	12 18
#33 grounded	PRCAPS	*4 .03 9.13	1&3,3&4	7 10_	20 9	18 4	15 15

TABLE VIII. Occurrences or absence (-) of life change events: **CA Group 2** at p < .05 *First number = age category (1=overall, 2=0-5, 3=6-12, 4=13-17, 5=past year)

ALCEQ#	PRCA category	Age category/ finding	Group ditference significance	CA Grp 1 No Yes	CA Grp 2 No Yes	CA Grp 3 No Yes	CA Grp 4 No Yes
#4 new school	PRCAPS	*4 .04 8.41	2&3	11 6	11 18	17 5	17 13
#14 parent loses job (-)	PRCAG	*1 .04 8.44	2&3	17 4	29 3	17 11	15 3
		*5 .01 10.57	2&3	21 0	32 0	24 4	18 0
#19 family alcohol	PRCAIC	*4 .04 8.05	2&3	17 4	12 9	37 5	- 11 -4
	PRCAPS	*2 .03 9.24	2&4	16 1	23 6	21 1	30 0
#21 romantic breakup	PRCAM	*5 .04 8.59	2&1,4	21 4	9 9	27 12	15 2
#24 friend dies(-)	PRCAG	*1 .03 9.00	2&3,4	15 6	26 6	13 15	10 8
#25 trouble with teachers	PRCA	*3 <.01 12.86	2&1,3,4	24 0	20 4	28 0	22 0
	PRCAG	*1 <.01 12.67	2&1,3,4	17 4	16 16	23 5	16 2
		*3 .01 10.76	2&1,3,4	24 0	20 4	28 0	22 0
#36 problem with size	PRCAM	*3 .02 9.59	2&3,4	21 4	12 6	37 2	16 1

TABLE IX.

Occurrences or absence (-) of life change events: CA Group 3 at p < .05

*First number = age category (1=overall, 2=0-5, 3=6-12, 4=13-17, 5=past year)

ALCEQ#	PRCA category	Age category/ finding	Group difference significance	CA Grp 1 No Yes	CA Grp 2 No Yes	CA Grp 3 No Yes	CA Grp 4 No Yes
#2 change in phys.appear.	PRCA	*3 .02 9.56	3&2,4	15 9	12 12	24 4	11 11
(-)	PRCAPS	*3 .03 8.81	3&2,4	12 5	14 15	19 3	17 13
#7 loss of pet	PRCAPS	*4 .04 8.06	3&2,4	13 4	19 10	21 l	19 11
#8 mother pregnant	PRCAIC	*1 .04 8.59	3&4	15 6	14 7	20 22	13 2
		*3 .02 9.73	3&2,4	18 3	20 1	30 12	15 0
#15 hurt/sick	PRCAPS	*4 <.05 7.92	3&4	16 1	22 7	21 1	21 9
#23 parent sick	PRCAG	*3 <.01 13.33	3&1,2	21 0	31 1	20 8	16 2
#25 trouble w/teachers	PRCAM	*3 .02 9.76	3&1,2	24 1	15 3	39 0	17 0
#33 grounded (-)	PRCAPS	*1 .04 8.55	3&1,2,4	6 11	14 15	17 5	13 17

TABLE X. Occurrences or absence (-) of life change events: CA Group 4 at p < .05 *First number = age category (1=overall, 2=0-5, 3=6-12, 4=13-17, 5=past year)

ALCEQ#	PRCA category	Age category/ finding	Group difference significance	CA Grp 1 No Yes	CA Grp 2 No Yes	CA Grp 3 No Yes	CA Grp 4 No Yes
#6 drugs/ alcohol	PRCAPS	*5 <.01 11.92	4&1,3	17 0	24 5	21 1	20 10
#18 sibling marriage (-)	PRCAPS	*4 .03 9.23	4&1,2,3	14 3	21 8	17 5	30 0
#37 sister pregnant (-)	PRCAPS	*1 .04 8.27	4&1,2,3	1 l 6	22 7	17 5	29 1

CHAPTER IV

DISCUSSION

The research questions posed in this thesis were answered to varying degrees. Affirmation of the validity of the techniques used to gather data was obtained. While overall relationship between scores on the PRCA-24 and the ALCEQ was not demonstrated, those individuals who reported the highest levels of communication apprehension were found to have experienced and *not* experienced some specific individual life change events more often than other individuals.

Specifically, the research questions were answered as follows.

RESEARCH QUESTION 1. IS THERE A RELATIONSHIP BETWEEN COMMUNICATION
APPREHENSION AND OVERALL LIFE CHANGE EVENTS IN CHILDHOOD AND
ADOLESCENCE?

As stated in the Results chapter, this study generally showed no significant correlation.

Overall reported life change events did not significantly correlate to respondents' overall communication apprehension, or any of its subareas (PRCA-24 scores).

Dividing the subjects into four groups based on their apprehension levels from PRCA-24 scores, showed no significant differences in comparison with overall life change events.

Within the life change event questions, very little correlation was found with PRCA overall or subscale scores in the earliest ALCEQ age-category. The only significant correlation will not be considered because it was based on only one respondent. Within the 6-12 ALCEQ age-category, group anxiety was negatively correlated with a parent or relative being very sick.

Explanation of this result is purely speculative. Perhaps dealing with and speaking of a loved one's illness has a long term effect of making one less self conscious and thus less anxious. Also negatively correlating with anxiety in public speaking was moving to a new home and starting a new school (often simultaneous events). McCroskey (1982), previously cited in the Survey of Literature, stated several potential causes of CA. Some of these seem to be involved in moving to a new location, with its accompanying adaptions, reminiscent of several of McCroskey's terms: novelty, conspicuousness, unfamiliarity and dissimilarity. However, in spite of these obstacles to overcome, McCroskey does assert that, although conspicuousness can be a cause of CA, a moderate degree of attention from others can be a positive thing. Perhaps the novelty of being the "new kid" gives a degree of confidence in speaking before a group (perhaps introducing him or herself to the classroom, to new clubs, church groups, etc.). Other significant correlations were found but will not be considered, since they were based on only two respondents.

The age group of 13-17 showed an understandable degree of apprehension between interpersonal communication and problems with size and acne. If a teenager feels self-conscious about his or her size and/or acne, interaction with others could be anxiety-provoking. Sizer (1994) views these physical changes in adolescence packed with emotion, often negative.

A further significant finding in the same age group showed a correlation between a sibling's marriage and the respondents public speaking apprehension. No plausible explanation is offered for this.

The category of "within the past year" showed a negative correlation of getting into drugs and alcohol with overall communication apprehension, and specifically anxiety in meetings and

public speaking. Perhaps the use of these things may alter one's perception of his or her anxiety in these settings. Public speaking anxiety was significantly correlated to close girlfriend getting pregnant. No plausible explanation for this can be offered. However, another significant correlation with an event involving a close friend was that of a close friend dying--experiencing this event was negatively correlated with group anxiety. Perhaps with the death of a friend, there is an increase in occurrence of "talking about it" within the informal group setting.

RESEARCH QUESTION 1a. CAN LIFE-CHANGE EVENTS OF CHILDHOOD AND ADOLESCENCE BE RETROSPECTIVELY RECONSTRUCTED BY COLLEGE STUDENTS TO AN ADEQUATE DEGREE OF MEASUREMENT?

PRCA-24 scores in the current study were consistent with the means reported in this commonly-used instrument. This strengthens the reliability and validity of the value of the instrument, as well as strengthens the validity of the study's data. The ALCEQ scores were likewise compared to previous means (see Table IV). Since the ALCEQ has been developed and used for adolescents, comparison was made between the response of actual adolescents, and college students who were recalling their adolescent years. The means of the two were very comparable, and suggests that college subjects questioned about the past, can recall their adolescent years at least to an adequate degree of accuracy. Modification of the Adolescent Life Change Event Questionnaire to report multiple occurrences of stressors over different time periods, was recommended by Ferguson (1983). Jackson (1982) had made already made such a modification, by not just asking if a life change event had occurred, by *how many times*. In fact,

Yeaworth (1992) observes that administration of this instrument has almost always involved a modification of some kind.

Also, the number of "yes" responses to ALCEQ questions, in this study predictably increased with corresponding ages, from the age categories of 0-5 through the 13-17 years. The number of "yes" responses then dropped off, as would be expected, for the past year (since it was a one-year period only). This corresponds with previous ALCEQ studies. Additional stressors come into the life of an adolescent, compounding events that may have occurred in childhood and may continue to occur in adolescence (Arnold, 1990).

Crosstabs analysis (χ 2) of the four CA groups in this study, based on national PRCA-24 Norms showed that within the groups, public speaking apprehension had the most significant number (18) of differences. Overall PRCA scores and meetings followed equally (7), followed by group (6), and lastly interpersonal communication apprehension (3). The ranking of the incidence of the PRCA-subscores is comparable to other studies.

RESEARCH QUESTION 1b. ARE THERE AGE AND GENDER DIFFERENCES IN COMMUNICATION APPREHENSION AMONG RESPONDENTS?

The younger age group showed significantly more apprehension towards public speaking than the next higher age group. There was not a significant difference between the top two age groups, indicating less apprehension with the increase of age, perhaps due to maturation and experience. Possibly the notion of identity development may be a factor here, as the adolescent progresses from earlier identity statuses to higher levels of moratorium and identity achievement

(Marcia, 1966). Development in other areas, such as religion, ethnic, racial or socio-economic backgrounds are negotiated and identity matures (Adams, 1992).

Higher apprehension in females as compared to males in the PRCA-24 subarea of meeting communication apprehension proved an interesting finding. Apparently there is not a gender significance in other areas of communication apprehension, but within the context of meeting (PRCAM) females showed greater apprehension than males. Perhaps meetings have historically tended to be at least presided, if not conducted by males, therefore, the issues of conducting or controlling the direction of the discussion has been a particular gender-sensitive issue.

RESEARCH QUESTION 2. DO CERTAIN TYPES OF LIFE-CHANGE EVENTS OCCUR SIGNIFICANTLY MORE OFTEN THAN OTHERS IN HIGH-CA INDIVIDUALS?

Perhaps the most important findings in this thesis relate to this research question and how high CA individuals differ from others in terms of experiencing specific life change events.

Table VII shows the significant findings for the high communication apprehension group (CA Group 1) as compared with the other CA Groups (2-4). In the age categories of overall, 6-12, and 13-17 it appears that a more stable environment (the absence of moving, having to make new friends, starting a new school, and parent losing job) correlate with public speaking apprehension in the college-age respondent. The absence of the need to make new friends during the age categories 0-5, 6-12, and 13-17 showed significant correlation in overall, meeting and public speaking communication apprehension and also follows the pattern of a more stable environment. The occurrence of being "grounded" significantly correlated to public speaking

apprehension in age category 13-17, which would reflect back on a similar background of traditional parents in a more stable environment. However, the *presence* of parent's divorce or separation overall and within the past year significantly correlated to overall communication and meeting apprehension. Within the category of "past year", high-CA respondents reported less hassling with parents, possibly due to the fact that many are not living at home anymore and having daily interaction with their parents. Confusing the issue and preventing broad conclusions also is the fact that the high CA group's findings were comparable with the group one standard deviation below the mean (Group 3).

Also, as previously noted, the high-CA group seem to follow a pattern of growing up in a more stable environment in terms of not being involved in relocating with its related adjustments. Yet in the category of "past year", the question of starting a new school was positively correlated with public speaking anxiety. The pattern seems to develop that environmental stability is related to overall and meeting communication anxiety and public speaking anxiety especially, during the formative years. This appears to show up, especially in the area of public speaking anxiety, as the youth enter college (a "new school") from a stable environment.

No logical explanation is offered for the significant correlation of a girlfriend getting pregnant within the past year and public speaking apprehension. Not enough information was available about the relationship of the girlfriend to the respondent. Perhaps if the respondent was a male and the father of the girlfriend's pregnancy, this could be quite a stressful event and show up in public speaking apprehension. If the respondent was female, perhaps, as Barnett (1987)

suggested, females more often experience a "network life-event" cluster, or in other words respond to not only to their own stress, but also people they care about.

Significant findings in the other CA categories showed interesting, if not related findings. Of particular note was a noticeable tendency for respondents in the CA group who were one standard deviation above the mean, towards trouble with the teacher and principal overall and during their 6-12 age period, which showed up in overall and group CA. Also, change in physical appearance and problem with size correlated to public speaking and meeting CA respectively, seeming to lend support to the notion of anxiety about appearance relating to communication apprehension, especially in the more formal situations of meeting and public speaking. The issue of alcohol problems in the family apparently was related to the earliest childhood period (0-5) in the area of public speaking, and during teenage years (13-17) in the area of interpersonal communication. Of note, is that although the finding of the absence of starting a new school showed up in the ages 6-12 of being related to public speaking apprehension in the high CA group, the presence of starting a new school in the ages of 13-17 seemed to have some relationship to public speaking apprehension in the CA Group 2. It appears from this study, that, at least to a small extent, it may be easier from a CA point of view for a youth to move during the younger age (6-12) than at an older age (13-17).

However, it seems some exposure to life change events can be helpful to people in learning how to adapt to new situations. As Garmezy and Masten (1990) pointed out, some stress can be a growth experience, and foster self-confidence. This study's findings do seem to show a pattern that a very stable environment during the formative years does relate to overall

and specific forms of communication apprehension during the college years, as long as the changes are not too traumatic, such as the loss of a parent through divorce or separation. The data in this study suggest a relationship among college students, who as children and adolescents had fewer adaption life-change events, such as moving and making new friends, and high communication apprehension. It is somewhat analogous to childhood diseases. The bodily stress during the illness may be painful, but an immunity is usually developed that prevents more serious complications if the illness occurred at a later stage in life.

Perhaps the notion of "locus of control", originally introduced by Rotter (1966) is a key in understanding how some people can adapt and deal with traumatic life change events. Sometimes one does have control in the events that happen, but often there does not seem to be control, at least from an external point of view. Perhaps those who are better able to deal with traumatic events have a level of "locus of control" derived from their acceptance of reality, as suggested by Emery and Campbell (1986). This more *internal* "locus of control" is related to lower levels of anxiety and depression (Dohnrenwend, 1981).

The human spirit is resilient. Experiencing life change events, especially traumatic event/events can be devastating or conquerable. The search for the "resistance resources" (Moos, 1986) that help some people cope better than others is a worthwhile pursuit of sociological study.

Although this was an exploratory study using the Adolescent Life Change Event

Questionnaire in a new way, (in relation to communication apprehension), the data suggests that
this is an area worthy of further study.

CHAPTER V

CONCLUSION

This thesis was an exploratory study to see if any relationship could be found between experiencing life change events during childhood and adolescence and exhibiting communication apprehension later in life. There were no significant correlations found between overall ALCEQ and PRCA-24 scores or subscores. However perhaps the most important finding in this study can be found in the data collected to answer Research Question 2. Among the high communication apprehension group, the data showed a pattern of the *absence* of certain life change events related to family stability questions.

Demographic data revealed a significantly higher level of public speaking apprehension between the younger age group (18-20 years) and the next highest age group (21-23 years). The only significant gender difference was in the PRCA-24 subarea of meeting apprehension, where there was more apprehension among females than males.

PRCA means in the study were consistent with the national means in terms of level of apprehension. Public speaking caused the most apprehension, followed by meeting, and group. Interpersonal conversation caused the least apprehension.

The total "yes" responses to the ALCEQ increased with age, similarly to national norms, and as would logically be expected. Also, ALCEQ means of college students *recalling* questions of LCE in their adolescence were comparable to other studies' norms of adolescent's responses to similar questioning.

Respondents were divided into four classifications of communication apprehension (CA), according to national norms. In the group with the highest CA, a consistent pattern of family-related stability seemed to emerge. In the PRCA sub-area of public speaking, high CA respondents tended to have higher *absence* of moving to a new home, starting a new school, making new friends, and parent losing job, during their formative years. Also supporting that notion was the *absence* of hassling with parents, and the *presence* of being "grounded." This same high CA group (college students) also reported a significantly higher response level to public speaking apprehension during the past year. Also the occurrence of divorce or separation of parents was related to the high CA group both overall and within the past year.

IMPLICATIONS

One contribution of this study is that apparently college students can remember events in their adolescence at least to a comparable degree to adolescents responding to events occurring within the past year of their lives...

Gender issues were not a significant factor in this study, but one observation came forth.

Apparently women have a higher degree of CA in meetings than men.

The data suggested that the group reporting themselves to be high in CA showed a pattern of relative family stability during their formative years. They had *less* occurrence of moving, starting a new school, with the usually accompanying need to make new friends. They had a higher incidence of being grounded, and had less hassling with parents. Conversely, the

respondent's (mostly younger college students) who reported themselves to be high in CA, had a greater incidence of parents divorcing or separating within the past.

This data suggest that some LCE may be valuable in helping adolescents adapt in a communication framework. Growing up in very stable environment with little need to adapt, particularly in needing to make new friends, seems to be related to a higher level of CA upon entering college. However, apparently a high level of LCE, particularly the ones that rank the highest in trauma, such as divorce of parents, also show a pattern of being related to the high CA group. Apparently, some adaptation during the formative years can be good, but too much can be detrimental.

LIMITATIONS

The main limitation of this study was that it was of an exploratory nature, looking for relationships between communication apprehension and life-change events. As far as this researcher is aware, this is the first research of this type. Further, there is an inherent limitation in the use of any retrospective self-report.

Another weaknesses of the study was that the subject sample was fairly small and somewhat homogenous (college-age, white, middle class). Perhaps further related studies could involve a larger and more heterogenous sample.

RECOMMENDATIONS FOR FUTURE RESEARCH

The study suggested that college-age respondents can at least adequately recall their past life events. Perhaps further studies could study the recollection ability of even older respondents, and could see if their ALCEQ means are consistent.

Gender issues could be more thoroughly addressed on this subject. Particularly, the high-CA group was identified, but not broken down into gender groups. It would be interesting to focus on this CA group to a greater extent, not only in stability issues as mentioned above, but viewing any gender differences. The gender issue would also help clarify the finding of the impact of a girlfriend's pregnancy, and its significance to CA.

A consistent pattern of family-related stability seemed to emerge in the high-CA group.

Perhaps a future study could dispute or add credence to this finding by more in-depth questions about stability issues.

This study indicates that life-change events may be very important in relationship to communication apprehension, and further research is warranted to explore this variable in relation to development in the formative years.

APPENDIX A

RESEARCHER'S STATEMENT OF INTRODUCTION TO STUDY

My name is Elaine Bylund, and I am a graduate student in the Department of

Communication, currently working on my Master's thesis. Your class has been chosen to

participate in a research project. The purpose of the study is to look at communication feelings in

reference to various life change events. Each participant will receive a packet containing two

different questionnaires. The questionnaires will taken approximately 15 minutes to complete.

Your identity will be protected. The only demographic information asked for is gender and age

category. You are given the option of not completing the questionnaire. Every attempt has been

made to make the questions clear. Please simply answer them to the best of your ability.

Thank you very much for your participation in this study.

APPENDIX B

COVER PAGE OF INSTRUMENT PACKAGE

Thank you for participating in this study. Your identity will be protected in this study. However, please supply the following general demographic information:

GENDER:	Male _		Female	
AGE GROUP:	18-20	21-23	24-26	
	27-29	30 an	d over	

You will have approximately 15 minutes to complete the questionnaires. Please fully read the directions for each questionnaire. Work quickly and record your first impression. Thank you.

APPENDIX C

ADOLESCENT LIFE CHANGE EVENT QUESTIONNAIRE

ALCEQ

Directions: Read over each event listed below and think if this event has happened to you. If it has, please circle Y for Yes. If it hasn't, circle N for No. If the answer is Yes, please check the box in the age category the event occurred. You may possibly check more than one age category for a particular event. Also, please check if the event occurred to you within the past year. If you don't remember for sure, just answer the best that you can. As you go through the questionnaire, you will see that obviously some age categories would not be appropriate for a particular event.

			_	Age categories in years Wi				
Y (Yes)	or N (No)	0-5	6-12	13-17	past year		
Y	N	1. Hassling with parents						
Y	Ν	2. Changes in physical appearance (braces, glasses, etc.)						
Y	N	3. Problems with dating						
Y	N	4. Starting a new school						
Y	N	5. Hassling with brother or sister						
Y	N	6. Getting into drugs or alcohol						
Y	N	7. Losing a favorite pet						
Y	N	8. Mother getting pregnant						
Y	N	9. Moving to a new home						
Y	N I	10. Failing one or more subjects in school						
Y	N I	11. Death of mother						
Y	N I	12. Being arrested by the police						
Y	N I	13. Having someone new move in with your family (grandparent, adopted sibling or other)						
Y		14. Parent losing a job						
Y	N 1	5. Getting badly hurt or sick						
Y	N 1	6. Quitting school						
Y	N I	7. Brother or sister dying						

Y	(Yes	s) or N (No)	Age ca <u>0-5</u>	ntegories 6-12	in years 13-17	Within the past year
Y	N	18. Brother or sister getting married				
Y	N	19. Family member (other than yourself) having trouble with alcohol				
Y	N	20. Close girlfriend getting pregnant				
Y	N	21. Breaking up with a close girlfriend or boyfriend				
Y	N	22. Parents getting divorced or separated				
Y	N	23. Parent or relative in your family (other than yourself) getting very sick				
Y	N	24. Close friend dying				
Y	N	25. Trouble with teacher or principal				
Y	N	26. Flunking a grade in school				
Y	N	27. Making new friends				
Y	N	28. Problems with menstrual periods (for girls)				
Y	N	29. Starting a job				
Y	N	30. Losing a job				
Y	N	31. Problems with acne				
Y	N	32. Wrecking the car				
Y	N	33. Getting grounded				
Y	N	34. Not making an extracurricular activity (i.e., athletic team, band, etc.)				
Y	N	35. Death of father				
Y	N	36. Problems with size (too tall, too short, too heavy, etc.)				
Y	N	37. Sister getting pregnant				
Y	N	38. Brother getting someone pregnant				

APPENDIX D

PERSONAL RESPONSE COMMUNICATION APPREHENSION

PRCA-24

DIRECTIONS: This instrument is composed of twenty-four statements concerning feelings about communicating with other people. Please indicate the degree to which each statement applies to you by circling SA (strongly agree), A (agree), U (undecided), D (disagree), or SD (strongly disagree) Work quickly; record your first impression.

1.	I dislike p SA	participat A	ing in gro	oup discus D	ssions. SD
2.	Generally SA	y, I am co A	mfortable U	e, while p D	articipating in group discussions. SD
3.	I am tense SA	e and ner A	vous whil U	e particip D	pating in group discussions. SD
4.	I like to g SA	get involv A	ed in grou U	ip discus: D	sions. SD
	Engaging SA	in a grou A	p discuss: U.	ion with 1 D	new people makes me tense and nervous. SD
6.	I am calm SA	and rela A	xed while U	participa D	ating in group discussions. SD
7.	Generally SA	v, I am ne A	rvous who	en I have D	to participate in a meeting. SD
8.	Usually I SA	am calm A	and relax U	ed while D	participating in meetings. SD
	I am very SA	calm and	l relaxed v U	when I an D	n called upon to express an opinion at a meeting. SD
). I am afr SA	raid to ex	press mys U	self at me D	etings. SD
	. Commui SA	nicating a A	nt meeting U	gs usually D	makes me uncomfortable. SD
	. I am ver SA	y relaxed A	when ans	swering q D	uestions at a meeting. SD

13. S.		participat A	ing in a c	onversation D	on with a new acquaintance, I feel very nervous. SD
14. Sa		no fear of A	speaking U	g up in cor D	nversations. SD
15. Sa		rily I am	very tense U	e and nerv D	yous in conversations SD
16. Sa		rily I am	very calm U	and relax	ked in conversations. SD
17. Sa		conversin A	g with a r U	new acqua D	aintance, I feel very relaxed.
18. Sz		aid to spe A	ak up in o U	conversat D	ions. SD
19. Sa		no fear of A	giving a U	speech. D	SD
20. S <i>a</i>		parts of A	my body U	feel very	tense and rigid while giving a speech. SD
21. S <i>a</i>		elaxed wh A	ile giving U	a speech D	SD
22. S <i>i</i>	-	oughts bec	come conf U	used and D	jumbled when I am giving a speech. SD
23. S <i>A</i>		he prospe A	ct of givin	ng a speed D	ch with confidence. SD
24. S <i>A</i>	_	giving a s	peech, I g U	et so nerv D	yous I forget facts I really know. SD

REFERENCES

- Adams, G. R.& Gullotta, T. P. (1983). <u>Adolescent Life Experiences</u>. Monterey, California: Brooks/Cole Publishing Company.
- Adams, G. R., Gullotta, T. P., & Montemayor, R. (1992). <u>Adolescent Identity Formation</u>. Newbury Park, Calif.: Sage Publications.
- Anderson, T. L. (1987). <u>Differences in life change events and social supports of pregnant and non-pregnant adolescents</u>. Unpublished thesis, University of Nebraska Medical Center, Omaha.
- Arnold, L. E. (1990). Childhood Stress. New York: Wiley.
- Almy, M. (1955). Child Development. New York: Henry Holt & Company.
- Ayres, J. (1991). Using Visual Aids to Reduce Speech Anxiety. Communication Research Reports, 8, 73-79.
- Ayres, J. & Hopf, T. (1992a). Visualization: Reducing Speech Anxiety and Enhancing Performance. <u>Communication Reports</u>, 5, 1-10.
- Ayres, J. (1992b). An examination of the impact of anticipated communication and communication apprehension on negative thinking, task relevant thinking, and recall. Communication Research Reports, 9, 3-11.
- Ayres, J., Hopf, T. & Ayres, D. M. (1994). An examination of whether imaging ability enhances the effectiveness of an intervention designed to reduce speech anxiety. Communication Education, 43, 252-258.
- Barnett, R. C., Biener, L., & Baruch, G. K. (1987). <u>Gender and Stress</u>. New York Free Press; London: Collier Macmillan Publishers.
- Basch, C. E.& Kersch, T. B. (1986). Adolescent perceptions of stressful life events. Health Education, 17, 4-7.
- Beatty, M. J., Balfantz, G. L. & Kuwabara, A. Y. (1989). Trait-like qualities of selected variables assumed to be transient causes of performance state anxiety.

 <u>Communication Education</u>, 38, 277-289.

- Beatty, M. J. & Behnke, R. R. (1991). Effects of public speaking trait anxiety and intensity of speaking task on heart rate during performance. <u>Human Communication Research</u>, 18, 147-176.
- Bender, P. E. & Small, L. L. (1994, May) A top pediatrician explains stuttering. <u>Parents</u>, pp. 88-89.
- Behnke, R. R.& Carlile, L. W. (1971). Heart Rate as an Index of Speech Anxiety. Speech Monographs, 38, 65-69.
- Blood, G. W. & Blood, I. M. (1994). Subjective Anxiety Measurements and Cortisol Responses in Adults Who Stutter. <u>Journal of Speech and Hearing Research</u>, <u>37</u>, 760-768.
- Bonie, K. A. (1985). Sex roles, hopelessness, and stress in adolescent females and males. Unpublished doctoral dissertation, University of Cincinnati, Cincinnati.
- Booth-Butterfield, S. & Gould, M. (1986). The Communication Anxiety Inventory: Validation of State- and Context-Communication Apprehension. <u>Communication Quarterly</u>, 34, 194-205.
- Burgoon, J. K. (1976). The unwillingness-to-communicate scale: Development and validation. <u>Communication Monographs</u>, 43, 60-69.
- Buss, A. (1980). Self-consciousness and Social Anxiety. San Francisco: W. H. Freeman.
- Carlson, M. (1981). <u>Life change events, pregnancy and pregnancy outcome decisions in adolescents</u>. Master's research paper, University of Nebraska Medical Center, Omaha.
- Carlson, M. L., Kaiser, K. L., Yeaworth, R.C.& Carlson, R.E. (1984). An Exploratory Study of Life-Change Events, Social Support and Pregnancy Decisions in Adolescents. <u>Adolescence</u>, 19, 765-780.
- Chesebro, J. C., McCroskey, J. C., Atwater, D. F. & Bahrenfuss, R. M. et. al (1992). Communication apprehension and self-perceived communication competence of at-risk students. Communication Education, 41, 345-360.

- Chiaviello, J. M. (1983). A study of the relationship between life change events and reluctance to grow up in adolescents with a life threatening illness. Unpublished clinical investigative paper, Boston University School of Nursing, Boston.
- Coleman, J. C. & Hendry, L. (1989). <u>The Nature of Adolescence</u>. London and New York: Routledge.
- Craig, A. (1994). Letters to the Editor: Anxiety Levels in Persons Who Stutter:

 Comments on the Research of Miller and Watson (1992). <u>Journal of Speech and Hearing Research</u>, <u>37</u>, 90-92.
- Cronin, M. W., Grice, G. L., & Olsen, R. K. (1994). The effects of interactive video instruction in coping with speech fright. Communication Education, 43, 42-53.
- Dohrenwend, B. S. & Dohrenwend, B. P. (1981). Stressful Life Events and their Contexts. (Ben Z. Locke and Andrew E. Slaby, Eds.). Monographs in Psychological Epidemiology Series, New York: Prodist.
- Dreikurs, R. (1972). Coping with Children's Misbehavior. New York: Hawthorn Books.
- Edmondson, D. (1994, June). Identifying kids at risk for speech disorders. <u>Parents</u>, pp. 96-100.
- Edwards, J. G. (1986). <u>Sex-role conflict, alcohol use and alcohol-related characteristics among adolescent females and males</u>. Unpublished dissertation, University of Cincinnati, Cincinnati.
- Emery, G. & Campbell, J. (1986). <u>Rapid Relief from Emotional Distress</u>. New York: Fawcett Columbine.
- Falvo, S. H. (1983). An exploratory study of adolescents' communicative attitudes, perceptions of behavior, and life change events as potential factors in development of essential hypertension. Unpublished thesis, University of Nebraska at Omaha.
- Ferguson, W. E. (1981). Gifted adolescents, stress, and life changes. <u>Adolescence</u>, <u>16</u>, 973-985.
- Ferguson, W. E. (1983). <u>Stress as a precursor of depression, psychosomatic illness and suicidal ideation among white middle class adolescents</u>. Unpublished dissertation, Bryn Mawr College, Philadelphia.

- Ford, J. E. (1989). <u>Correlates of stress and depression in two groups of adolescents</u>. Unpublished thesis, University of Cincinnati, Cincinnati.
- Fromme, A. (1971). The ABC of Child Care. New York: Grosset & Dunlap.
- Gander, M. & Garder, H. (1981). <u>Child & Adolescent Development</u>. Boston, Toronto: Little, Brown and Co.
- Garmenzey, N. & Masten, A. (1990). (Introduction). In L. Eugene Arnold, <u>Childhood Stress</u>. New York: Wiley.
- Gehring, R. E. (1978). <u>Basic Behavioral Statistics</u>. Boston: Houghton Mifflin Company
- Ginott, H. G. (1969). Between Parent and Child. New York University: Avon.
- Girolametto, L. & Tannock, R. (1995). Correlates of directiveness in the interactions of fathers and mothers of children with developmental delays. <u>Journal of Speech & Hearing Research</u>, 37, 1178-1191.
- Goodyer, I. M. (1990). <u>Life Experiences, Development, and Childhood Psychopathology</u>. (M. Rutter, Ed.), Wiley Series on Studies in Child Psychiatry, Chiehester: John Wiley & Sons.
- Groer, MN. W., Thomas, S. P., & Shoffner, D. H. (1990). <u>Adolescent stress and coping:</u>
 <u>A longitudinal study</u>. Paper submitted for publication.
- Holmes, T. H. & Rahe, R. H. (1967). The social readjustment scale. <u>Journal of Psychosomatic Research</u>, 1967, 11, 213-218.
- Hussy, M. A. & Ingle, M. E. (1977). The development of a life change event scale for adolescents. Unpublished research paper, University of Cincinnati, Cincinnati.
- Jackson, B. A. (1972). <u>Student Stress: The Relationship Between Life Change Events and Health Changes for Senior High School Students</u>. Unpublished master's thesis, Seattle University. Kershner, J. (1983, Feb 7) Stress. <u>Kent News Journal</u>.
- Johnson, J. H. (1986). <u>Life Events as Stressors in Childhood and Adolescence</u>. Beverly Hills: Sage Publications.

- Kaiser, K. L. (1980). <u>Life change events</u>, social support and pregnancy in adolescents. Master's research paper, University of Nebraska Medical Center, Omaha.
- Kammandel, R. K. (1982). <u>Adolescents' perceptions and occurrence of life change events</u> by race. Unpublished master's research paper, University of Nebraska Medical Center, Omaha.
- Kondo, D. S. (1994). A comparative analysis of interpersonal communication motives between high and low communication apprehensives. <u>Communication Research Reports</u>, 11, 53-58.
- L'Archevesque, C. I. T. (1982). <u>Adolescents' perceptions and occurrence of life change</u>
 <u>events by socioeconomic status</u>. Master's research paper, University of Nebraska
 Medical Center, Omaha.
- Levine, T.R. and McCroskey, J. C. (1990). Measuring trait communication apprehension: A test of rival measurement models of the PRCA-24. <u>Communication Monographs</u>, 57, 62-72.
- Locke, J. L. Phases in the child's development of language. <u>American Scientist</u>, <u>82</u>, 436-445.
- Marcia, J. (1966). Development and validation of ego-identity status. <u>Journal of Personality and Social Psychology</u>, 3, 551-558.
- McCroskey, J. C. (1970). Measures of communication-bound anxiety. <u>Speech Monographs</u>, <u>37</u>, 269-277.
- McCroskey, J. C., Daly, J. A., Richmond, V. P., & Falcione, R. L. (1977). Studies of the relationship between communication apprehension and self-esteem. <u>Human Communication Research</u>, 3, 269-277.
- McCroskey, J. C. (1977). Oral communication apprehension: A summary of recent theory and research. <u>Human Communication Research</u>, <u>4</u>, 78-96.
- McCroskey, J. C. (1982). Oral Communication Apprehension: A Reconceptualization. <u>Communication Yearbook, 6, 136-7.</u> Sage Publications
- McCroskey, J. C. (1984). The communication apprehension perspective. In. J. Daly and J. McCroskey (Eds.), <u>Avoiding Communication</u>, (pp. 13-38). Beverly Hills: Sage.

- McCroskey, J. C., Beatty, M., Kearney, P. & Plax, T. (1985). The content validity of the PRCA-24 as a measure of communication apprehension across communication contexts. Communication Quarterly, 33, 165-173.
- McCroskey, J.C. (1993). <u>An Introduction to Rhetorical Communication</u>, 6th edition. Englewood Cliffs N.J.: Prentice-Hall.
- McQuillen, J. S. & Storey, J. L. (1993). The impact of speech criticism on speakers' perceived level of communication apprehension. <u>College Student Journal</u>, 27, 322-327.
- Medvescek, C.R. (1994). Toddler Talk. Article 24, <u>Human Development 94/95 Annual Edition</u>. Guilford Ct.: Dushkin Publishing Group.
- Mendez, L. K. (1978). <u>Adolescents' perceptions of life change events</u>. Unpublished thesis, University of Cincinnati, Cincinnati.
- Moos, R. H. & Schaefer, J. A. (1986). <u>Coping with Life Crises: An Integrated Approach</u>. New York: Plenum Press.
- Mortensen, C. D., Arntson, P. H., & Lustig, M. (1977). The measurement of verbal predispositions: Scale development and application. <u>Human Communication Research</u>, 3, 146-158.
- Neer, M. R. & Kircher, W. F. (1989). Apprehensive's perception of classroom factors influencing their class participation. <u>Communication Research Reports</u>, 6, 70-77.
- Nijhawan, H.K. (1972). Anxiety in School Children. New York: Halsted Press.
- Novy, D. M., & Donohue, S. (1985). The relationship between adolescent life stress events and delinquent conduct including conduct indicating a need for supervision. Adolescence, 20, 313-321.
- Parker, S. (1983). <u>Life change events and adolescent suicide attempts</u>. Unpublished thesis, University of Cincinnati, Cincinnati.
- Pflaum-Connor, S. (1978). <u>The Development of Language and Reading in Young Children: Second Edition</u>. Columbus, OH.: Charles E. Merrill Publishing Company.

- Phillips, G. M. (1968). Reticence: Pathology of the normal speaker. <u>Speech Monographs</u>, 35, 39-49.
- Proctor, R. F., Douglas, A. T., Garera-Izquierdo, T., & Wartman, S. L. (1994).

 Approach, avoidance, and apprehension: Talking with high-CA students about getting help. Communication Education. 43, 312-321.
- Remland, M. S. & Jones, T. S. (1989). The Effects of Nonverbal Involvement and Communication Apprehension on State Anxiety, Interpersonal Attraction, and Speech Duration. <u>Communication Quarterly</u>, 37, 170-183.
- Richmond, V. P., McCroskey, J. C., & McCroskey, L. L. (1989). An investigation of self-perceived communication competence and personality orientations.

 <u>Communication Research Reports</u>, 6, 28-36.
- Richmond, V. P. & McCroskey, J. C. (1995). <u>Communication: Apprehension</u>, <u>Avoidance, and Effectiveness</u>. 4th Ed. Scottsdale: Gorsuch Scarisbrick.
- Robbins, R. (1978). A study of relationships between adolescent pregnancy and life change events. Unpublished thesis, University of Cincinnati, Cincinnati.
- Rosemond, J. (1996, January 16), Rosemond speaks out. Omaha World Herald, p. 28.
- Rotter, J. (1966). Generalized Expectancies for Internal versus External Control of Reinforcement. <u>Psychological Monographs</u>, <u>80</u>, No. 1 (whole No. 609).
- Russell, D. C. (1987). <u>Hopelessness and suicidal ideation in adolescents as related to life stress, self-esteem and friendship</u>. Unpublished dissertation, Virginia Polytechnic Institute and State University, Blacksburg.
- Sadowski, C. J. (1983). Sex differences in correlates of locus of control dimensions.

 <u>Journal of Personality Assessment</u>, 47, 627-631.
- Sarason, S. (1960). <u>Anxiety in Elementary School Children</u>. New York, London: John Wiley & Sons.
- Seiffge-Krenke, I. (1995). <u>Stress, Coping and Relationships in Adolescence</u>. Mahwah, N.J.:L. Erlbaum Associates.

- Siegman, A.W. (1993). Voices of Fear and Anxiety and Sadness and Depression: The Effects of Speech Rate and Loudness on Fear and Anxiety and Sadness and Depression. <u>Journal of Abnormal Psychology</u>, 102, 430-437.
- Sizer, F. S., Whitney, E. N. & DeBruyne L. K. (1994) <u>Making Life Choices: Health Skills and Concepts</u>. Minneapolis/St. Paul: West Publishing Company.
- Stern, G. S., McCants, T. R. & Pettine, P. W. (1982). Stress and Illness: Controllable and Uncontrollable Life Events' Relative Contributions. <u>Personality and Social Psychology Bulletin, 8</u>, 140-5.
- Stines, C. N. (1986). <u>Blood pressure and adolescent life change events</u>. Unpublished thesis, University of Nebraska Medical Center, Omaha.
- Tabachnick, B. G. & Fidell, L. S. (1989). <u>Using Multivariate Statistics</u>. New York: Harper & Row, Publishers.
- Tachenko-Achord, S. & Milius, L. (1989). The effects of life change events and social support on prenatal maternal attachments in pregnant adolescents. Unpublished master's research project, University of Nebraska Medical Center, Omaha.
- Thomas, S. P., Shoffner, D. H., & Groer, M. W. (1988). Adolescent stress factors: Implications for the nurse practitioner. <u>Nurse Practitioner</u>, <u>13</u>, 20-29.
- Vinson, L. R. & Roberts, C. V. (1994). Estimating an individual's location along the trait-state continuum: A method for improving the precision of measurement of CA using PRCA-24. Communication Research Reports, 11, 59-66.
- Walker, D. (1994). Prediction of school outcomes based on early language production and socioeconomic factors. <u>Child Development</u>, <u>65</u>, 606-621.
- Yeaworth, R. C., York, J., Hussey, M. A., Ingle, M. E. & Goodwin, T. (1980). The development of an adolescent life change event scale. <u>Adolescence</u>, 15, 91-98.
- Yeaworth, R. C., McNamee, M. J., & Pozehl, B. (1992). The Adolescent Life Change Event Scale: Its development and use. <u>Adolescence</u>, <u>27</u>, 799.