SENSE OF HUMOR AND THE SEVERITY OF HASSLES

AMONG ELEMENTARY SCHOOL CHILDREN

by

Mark Casertano

Dissertation submitted to the Faculty of

Virginia Polytechnic Institute and State University

in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

in

Family and Child Development

APPROVED:

Janet Sawyers, Chair

Victoria Fu

Gloria Bird

Joseph Maxwell

Cherry Houck

August, 1992

Blacksburg, Virginia

SENSE OF HUMOR AND THE SEVERITY OF HASSLES

AMONG ELEMENTARY SCHOOL CHILDREN

by

Mark Casertano

(ABSTRACT)

The study was designed to provide empirical data investigating children's level of sense of humor with the severity of the hassles reported by the children. The sample included 82 children, 50 boys and 32 girls, ranging in age from 8-11 years, and representing the third, fourth, and fifth grades. Both male and female children participated in the study.

The Hassles Scale for Elementary School Children (HSESC), a 22-item checklist, was administered to the children to assess the frequency of selected important hassles and the severity of the hassles. Subjects indicated those items that occurred in the past week and rated the severity of all the hassles on a 5-point Likert type response scale. The Children's Self-Rating of Humor (CSRH) questionnaire, a 20-item questionnaire, was completed by the children to evaluate children's level of sense of humor. Subjects rated each question on a 5-point Likert type response scale. Subjects were administered the scales individually and in small groups. To provide a more in-depth understanding of children's use of humor, a subsample of 12 children, six boys and six girls, randomly selected to

represent the three grade levels and high and low humor scores participated in a follow-up interview.

The results of this study did not provide support for the contention that children with a high sense of humor would report hassles as being less upsetting as compared with children with a low sense of humor that would report hassles as being more upsetting. Further results seemed to indicate that the use of humor in stressful situations depended more on the child's perception of the severity of the hassles rather than on the child's perceived level of sense of humor. The less upsetting the stressful situation was to the child the more likely the child would use humor and the more effective humor was in dealing with the stressful situation. More importantly, this study indicated that when humor was used it was not specific to the stressful situation but rather as a distraction, a more general coping mechanism.

A recommendation for future research should include the need for a better understanding of how children produce humor in stressful situations. Also, future research should focus on investigating the differences in the effects of different types of humor on stressful situations and the timing of using humor on whether it is an immediate or delayed response to a stressful situation. Future studies should focus on the cognitive processes of children's humor when applied to stressful situations.

Dedication

As our lives begin we are given shelter to protect us from natures harsh elements. We are furnished with nourishment so that we may grow and become strong. We are provided with unconditional love during both the difficult times as well as the pleasant times. We are encouraged and supported in all our endeavors whether they bloom like a flower on a spring day or capsize like a canoe on a raging river. Parents shower us with praise and accolades for our successes while remaining discretely in the background. They rush to the forefront to protect and comfort us in our failures. They provide us with the strength to pick up the pieces to try again. It is these simple episodes in life that we take for granted.

It is with these thoughts in mind that I dedicate this volume to my father, Anthony, and in loving memory of my mother, Lillian. They made me realize that a dream, with hard work, dedication, and perseverance, can become a reality.

Acknowledgements

There were times during the long process of completing this project that I became frustrated and discouraged. This ultimately led to my having to handle the stress associated with these feelings. Through it all I was able to cope by relying on my acute, sophisticated, and of course unique sense of humor (just joking). However, a sense of humor was only one of a number of coping mechanisms at my disposal. I also had the opportunity to rely on a number of diverse people to help me weather the storm. To those special people a heartfelt thank you. Among them I would like to thank my committee members, Dr. Janet Sawyers (chair), Dr. Vickie Fu, Dr. Gloria Bird, Dr. Joe Maxwell, and Dr. Cherry Houck for their continuous support and encouragement throughout this project. A special thanks goes to Dr. Kelly Harrison who took the time to help with the statistical program and to answer "just one more question." To those special friends who kept my spirits up with some well timed humorous anecdotes. A very special thanks goes to those friends and parents who helped in recruiting children for this project and to the children for their patience and cooperation in "filling out just one more thing." To my wife Ann, who had to endure the ugly side of me while in the midst of completing her thesis but supported me through

thick and thin. Finally, last and certainly least to the "Fur" whose humorous antics provided me with some moments of laughter.

Table of Contents

List of Tables

Chapter I

Introduction

Researchers have sought to identify environmental and dispositional variables that moderate stress-illness reactions. Among these variables are social support (Cohen & Wills, 1985), locus of control (Johnson & Sarason, 1978; Lefcourt, Miller, Ware, & Sherk, 1981; Sandler & Lakey, 1982), coping skills (Pearlin, Lieberman, Menaghan, & Mullan, 1981), sex-role orientation (Nezu, Nezu, & Peterson, 1986), problem-solving skills (Nezu, Nezu, Saraydarian, Kalmar, & Ronan, 1986), and cognitive appraisal processes (Lazarus, Coyne, & Folkman, 1982). Another variable that may have buffered individuals against the effects of stressful life events was a sense of humor (Martin, 1988; Porterfield, 1987). Humor and laughter have helped us to bear life's burdens, and we were often reminded of how important it was to "keep a sense of humor" during trying times (Porterfield, 1987).

Humor and laughter have been important aspects of human behavior that, until recently, had received little research attention. Recent theoretical and empirical work has provided support for the notion that one function of humor was to attenuate the adverse effects of psychosocial stress (Allen & Zigler, 1986; Martin & Dobbin, 1988; Martin & Lefcourt, 1983). The idea that humor may have played a

stress-moderating role has often been accepted as a truism. Numerous psychological theorists, such as Allport, Freud, and May, have regarded humor as an adaptive coping mechanism (cited in Lefcourt & Martin, 1986).

During adolescence, humor is thought to become important and new forms of humor develop as a result of intellectual maturation. Since adolescence is the age when peer group relations become salient, humor serves an important role in such relationships. Adolescents have been found to use humor frequently in their daily interactions and to report that it helped to convey feelings and attitudes which allowed them to retreat without losing face (Ziv & Gadish, 1990). Humor in adolescence has been found to be related to popularity and leadership. Research has found that preadolescent "class clowns" were more popular, more assertive (Damico & Purkey, 1978), and perceived by peers as having better social relations (Moris, 1985).

Nezu, Nezu, and Blissett (1988) suggested that humor affects the way people perceive stressful events. Humor may lead people to have "positive evaluations concerning self-efficacy and personal control. For example, appraisal of the stressful event may allow it to be perceived more as a challenge than a threat" (pp. 524-525). Humor may also be helpful for interpersonal reasons. A person who uses humor to cope with stress may gain the support of others since

people enjoy humor (Nezu, Nezu, & Blissett, 1988). Garmezy, Masten, and Tellegen (1984) have suggested that a sense of humor is an aspect of competence which tempered stressful experiences or enhanced competent functioning in a child under stress.

Childhood has been seen as a carefree time of play and freedom from responsibility. However, much like adults, children experience considerable pain, both emotional and physical intermixed with the pleasures and joys of life (Johnson, 1986; Martin, 1988). Children experience the arrival of new brothers or sisters, changes in family routines, and the frequent feelings of jealousy that were the result from having to share parental attention with a new family member. They deal with separation issues associated with entering school for the first time. Many children have experienced the change from one school to another, moving to a new home or community, and have been faced with leaving behind old friendships and attempting to develop new ones. Also, children are exposed to the stress resulting from conflict between their parents, and increasing numbers of children are being forced to cope with all the feelings and life changes that come with parental separation and divorce. A smaller but significant number of children have experienced the serious illness or death of a parent or other family member. The developing awareness of

stress as a potential contributor to the problems of childhood has resulted in increased attention being given to the effects of stressful life changes on children (Johnson, 1986).

Researchers have demonstrated that stressful life events have an adverse impact on individuals' psychological and physical well-being. People who have experienced many negative life events were more likely to have suffered symptoms of psychological distress such as anxiety and depression and to have developed a broad range of physical illnesses than were those who have experienced fewer such events (Dohrenwend & Dohrenwend, 1974; Porterfield, 1987).

Anecdotal daily experience and clinical lore have long suggested that humor could be an effective and adaptive mechanism for dealing with stress (Dixon, 1980). Even though increased attention has been paid to various aspects of humor, few studies have appeared in the literature that have directly investigated its stress-moderating effects (Nezu, Nezu, & Blissett, 1988). Safranek and Schill's (1982) report on a cross-sectional study that assessed the moderating effects and nature of humor on subjects' recent stressful life experiences and associated distress indicated that humor did not appear to moderate the effects of life stress. However, a series of studies by Martin and Lefcourt (1983) yielded findings that were contradictory to the

Safranek and Schill (1982) results. Martin and Lefcourt (1983) found that humor appreciation was not sufficient to reduce stress. Rather, an individual must have been able to actually have used or produced humor in a stressful situation for humor to moderate stress. Subjects with a lower tendency to perceive and enjoy humor and to respond with laughter in their daily lives experienced stressful life events and disturbed moods. In contrast, a much weaker relationship between stressful life events and disturbed moods was found for subjects with a greater sense of humor.

Many researchers have written about the use of humor in moderating the effects of stress and its contribution to physiological and psychological well-being. These researchers have concentrated their efforts primarily on an adult population. It seems that no research has examined the child's sense of humor in relation to the severity of hassles reported in the lives of children. Would the degree of the child's sense of humor affect the severity of hassles? Do children who perceive themselves as having a high sense of humor report that the hassles are less severe than children with a perceived low sense of humor? Thus, the purpose of this research is to provide empirical data investigating children's level of sense of humor with the severity of the hassles reported by the children.

Research Hypothesis

To examine the role of children's level of sense of humor and the perception of the severity of hassles the following hypothesis was considered:

1) Children with a high sense of humor will report hassles as being less upsetting while children with a low sense of humor will report hassles as being more upsetting.

Chapter II

Review of Literature

Rarely does a day go by in which most of us have not found something to laugh and joke about. Laughter has been a prominent activity whenever groups of people have come together. Why do we laugh? What is the purpose of humor in the human species? Humor and laughter have played an important role in the maintenance of both physiological and psychological health and well-being in the face of stress (Lefcourt & Martin, 1986). This idea has enjoyed widespread support, both among the public and among the professionals in the fields of psychology and medicine (Dillon, Minchoff, & Baker, 1985; Levi, 1965; McClelland, 1989). An ancient biblical maxim suggested that humor was valuable to the health of the individual, "a merry heart doeth like a good medicine, but a bitter heart drieth the bones" (Proverbs, 17:22).

Goodman (1983), Robinson (1983), and Ziv (1984) stated that humor served an adaptive function for the individual. A good sense of humor allowed the individual to cope with difficulties whether they were mild, day to day hassles or major life traumas. O'Connell (1987) suggested that humor was such a valuable resource because it helped to create a "natural high" in the individual.

Dixon (1980) maintained that humor helped individuals

cope with the stress in the person's life. Dixon suggested that having a good sense of humor, being able to see things in a humorous light, and laughing helped the individual to overcome stress. Also, humor has been linked to overall feelings of emotional well-being and good moods (Mannell & McMahon, 1982) and to an enhanced quality of life (Goldstein, 1987).

Goldstein (1982) has noted that the idea that laughter is therapeutic has a long history. Citing a number of physicians and philosophers from the 13th through 19th centuries, Goldstein presented a series of testimonials to the value of humor for health. In his book Laughter and Health, Walsh (cited in Goldstein, 1982), a medical professor at Fordham University, suggested that laughter can help the individual forget about the pain by lessening the concentration on the area of difficulty. The individuals state of mind was thought to be important in how well the patient coped with illness. Cousins' (1979) best-selling account of his recovery from a serious collagen disease through massive doses of laughter and Vitamin C has provided additional anecdotal evidence of the salutary effects of humor and laughter.

What does it mean to have a sense of humor? Various types of humor have been identified (e.g., aggressive, sexual, or nonsense). Studies on individual differences in

humor have generally attempted to relate dimensions of humor appreciation to certain aspects of personality, such as aggression, age, sex, and intelligence. Thus, most of the research of individual differences in humor has focused on certain dimensions of humor rather than on a generalized humor construct. It has also been noted that the current methods of assessing humor do not say much about humor in individuals' everyday lives (Martin & Lefcourt, 1984).

Definitions of Humor

Eysenck (1972) suggested three possible definitions for sense of humor: (a) the conformist sense, emphasizing the degree of similarity between people's appreciation of humorous material; (b) the quantitative sense, referring to how often a person laughed and smiled and how easily he or she was amused; and (c) the productive sense, focused on the extent to which the person told funny stories and amused other people. From this perspective, most researchers have concentrated on the conformist sense of humor, either by attempting to relate dimensions of humor appreciation to certain aspects of personality, such as aggression and need for approval (Hetherington & Wray, 1964), or general variables such as age, sex, and intelligence (Felker & Hunter, 1970; McGhee & Grodzitsky, 1973), or by manipulating environmental variables and observing the effects on ratings of humorous materials (Prerost, 1975).

Moody (1978) developed a somewhat broader system for categorizing definitions of sense of humor: (a) the he/she-realizes-how-funny-I-am definition, by which another person's sense of humor was judged in terms of how readily one could get him or her to laugh at one's jokes; (b) the conventional sense, which corresponded to Eysenck's conformist definition, referred to the degree to which the person laughed at the same things that most other people laughed at; (c) the life-of-the-party sense, referring to the size of the person's repertoire of jokes and funny stories; (d) the creative sense, or the ability to produce original humorous or witty remarks or jokes (corresponding to Eysenck's productive definition); (e) the good sport sense, meaning the ability to "take a joke" and not get too defensive when teased by others; and (f) the cosmic perspective sense, referring to the ability to see oneself and others in a somewhat distant and detached way.

Still other researchers have offered definitions of humor and sense of humor based upon the processes involved. Definitions of sense of humor have been based on children's appreciation or comprehension of humor.

Martin and Lefcourt (1984) have defined sense of humor as the frequency with which the individual smiled, laughed, or otherwise displayed amusement in a variety of situations. This definition does not make a distinction among various

types of humor, such as sexual, aggressive, or social humor and avoids the debate over the processes involved in humor. This definition of humor, how frequently individuals experience humor and mirth rather than on their preference for a certain kind of humor, was adapted for this study.

Theoretical Approaches to Humor

Since the days of ancient Greece, a wide variety of philosophers have turned their attention to humor and laughter, and a plethora of opinions and theories have been proposed. None of these theories encompassed all aspects of the phenomena, and many of them have contradicted one another.

The various theories of humor have differed in the degree to which they focused on the cognitive and emotional aspects of humor (Lefcourt & Martin, 1986). A source of complexity and confusion that has lead to disagreements among theorists has been the variety of functions that humor served. In particular, there has been disagreement concerning whether humor has been positive and constructive or negative and destructive. Humor has been seen to reflect the base, ugly, and aggressive aspects of human nature, whereas on the other hand, humor has been associated with the sublime, innocent, and joyful (Lefcourt & Martin, 1986). As Keith-Spiegel (1972) has pointed out, various theorists

have differed in the degree to which they viewed humor as a "gift handed down from the gods or a scourge delivered up from the devils" (p. 25).

References to humor and comedy in the writings of Plato, Aristotle, Hobbes, and Rousseau, focused on the derisive qualities of laughter that was directed toward ugliness and deformity and reflected the more undesirable qualities of man. Aristotle suggested that "comedy aims at representing man as worse, tragedy as better than in actual life" and "the ludicrous is merely a subdivision of the ugly" (cited in Piddington, 1963).

In contrast, other writers such as McComas, Eastman, Bliss, Armstrong, and Mindess (cited in Lefcourt & Martin, 1986) have disagreed with these negative views. They contend that humor has been one of mankind's noblest attributes and it reflects an expression of tolerance, acceptance, and sympathy toward one's fellow man. In their view humor is portrayed as a liberating force that freed individuals from the often-stifling constraints of social convention and environmental pressures.

It appears that both views are correct, to some extent. Perhaps a brief review of some of the major theories of humor will help delineate the functions and values of humor. Four prominent approaches of humor theory include the psychoanalytic, arousal, cognitive, and superiority. The

psychoanalytic, arousal, and superiority theories are primarily based on work with adults. However, these theories have implications for the study of humor in children.

Psychoanalytic Approaches

According to Freud (1905, 1928), all forms of mirthful experience represented a economizing of psychic energy that was dissipated in the form of laughter. Also, from the Freudian perspective jokes and wit involved techniques that allowed people to express briefly unconscious aggressive and sexual impulses that would normally have been repressed. Freud (1928) suggested that humor occurred in situations in which persons would normally have experienced certain emotions, such as sadness or fear, but the perception of various humorous elements in the situation provided them with an altered perspective on the situation and allowed them to avoid experiencing this negative affect. He viewed humor as a defense mechanism that allowed people to face a difficult situation without becoming overwhelmed by unpleasant emotion. According to Freud humor was very beneficial. Humor allowed for the dissipation of negative emotion that would normally have been experienced as a result of aversive life experiences. Freud considered humor to be the action of the parental superego attempting to comfort and reassure the anxious ego.

Rosenwald (1964) attempted a direct test of Freud's theory. He examined the relationship of repression and amusement. He suggested that humorous appreciation should be greatest among people with labile inhibitions; the operation of repression should increase amusement. He reasoned that individuals who offered the most sexual and aggressive fantasy responses on the TAT protocols would have the most labile repressions. The results supported the notion that those with labile repressions enjoyed sexual and aggressive humor more than did others.

Spiegel, Brodkin, and Keith-Spiegel (1969) sought to test the relationships between anxiety, acceptance of sexual impulses and appreciation of sexual humor in a group of undergraduate students. They found a strong positive association between level of anxiety and the admission of personally unacceptable impulses. Male students were more anxious, more rejecting of sexual impulses, and more frustrated and disturbed by sexuality, than the female students. Males gave higher funniness ratings to the overtly and moderately sexual cartoons. Among the female subjects, appreciation of the moderately sexual cartoons was positively associated with sexual frustration and disturbance. These results were interpreted as support for Freud's notion that amusement stems from release from repression.

Pinderhughes and Zigler (1985) examined the cognitive and motivational influences on children's humor responses. The authors indicated that psychodynamic determinants could be associated with the theme of the humor. The authors claimed that all children, in kindergarten and third grade, preferred aggressive themes to dependency themes.

Wolfenstein (cited in Updike, 1981) recognized differences in uses of humor at various ages. Wolfenstein claimed that the motive in children's humor was to overcome distress and to gain momentary release from frustration. Wolfenstein believed that there is a difference between whether the adult or the child initiates the absurdity or nonsense of a joke. The child must have reached a high level of mastery and understanding of their environment before they can respond to adult humor. Wolfenstein speculated that the age this occurs depends upon the child's intelligence level and interest in the joke.

Arousal Approaches

Arousal theorists postulated that the function of laughter is to reduce built-up tension or energy. Berlyne (1960, 1969, 1972) emphasized the relationship between tension or arousal and humor. Berlyne postulated two arousal-related mechanisms in humor that he called arousal boost and arousal jag mechanisms. The arousal boost mechanism was operative during the telling of a joke, when

arousal was elevated by means of what Berlyne termed the collative properties of the joke, including such properties as novelty, complexity, incongruity, and redundancy. This increase in arousal up to an optimal level was experienced as pleasurable. The arousal jag mechanism took over when arousal had been elevated beyond the optimal level and had therefore begun to be aversive. The telling of the punch line was a sudden resolution of the arousing properties of the joke, causing the arousal level to be reduced to a pleasurable level. This sudden reduction of arousal from an aversive to a pleasurable level added to the enjoyment of the joke. The pleasure experienced by both the arousal boost and the arousal jag was expressed in the form of laughter. Thus, rather than viewing laughter as a release of excess arousal or tension, much like Freud did, Berlyne saw it as an expression of the pleasure related to changes in arousal (Lefcourt & Martin, 1986). Similar to Freud, Berlyne saw humor as being beneficial.

Another theory that dealt with the role of arousal in humor is Apter's theory of psychological reversals (Apter 1982; Apter & Smith, 1977) which argued that the hedonic tone associated with different levels of arousal depends upon the metamotivational state of the individual. In the telic state the individual was goal oriented and serious-minded, whereas the individual in the paratelic state was

focusing on ongoing activity rather than the ultimate goal of the activity and is more playful. In the telic state arousal was experienced as unpleasant and distressing because it was perceived as interfering with attainment of a goal. The paratelic state was experienced as pleasurable and exciting because it enhanced the experience of the current activity.

Apter (1982) believed that humor involved both an increase in arousal and a reversal from the telic state to the paratelic state of mind. According to Apter's theory, the function of laughter was to increase physiological arousal while in the paratelic state because increases in arousal are experienced as pleasurable in this state. This theory differs from Freud's in terms of the assumed function of laughter. In Apter's theory the function of humor was thought to be one of increasing (pleasurable) arousal, whereas in Freudian theory laughter was seen as serving to decrease (unpleasant) arousal. Thus, from the point of view of Apter's theory, humor and laughter were therapeutic, not because they reduced one's level of arousal and tension, but because they allowed one to experience the arousal and tension in a different, less devastating way.

Cognitive Approaches

Humor researchers have begun to examine individual differences in children's humor as a function of

differential level of cognitive development. The crux of the cognitive developmental theories of humor was that an individual's comprehension and appreciation of ludicrous situations will depend to a great extent on the match between the individual's existing developmental level and the cognitive demands placed upon them by the humorous event (Brodzinsky & Rightmyer, 1980).

Incongruity theories focus on the cognitive elements of humor. According to this approach, the essence of humor resides in the bringing together of two normally disparate ideas, concepts, or situations in a surprising or unexpected manner. It has been proposed that the perception of incongruity was a necessary condition for the experience of humor (Fry, 1963; McGhee, 1971; Shultz, 1972, 1976).

McGhee (1971, 1977) and Shultz (1976) both proposed that incongruity-based humor was one of the earliest forms of humor in young children. McGhee (1971, 1977) proposed that an incongruous stimulus would be evaluated as humorous only when the stimulus was recognized as inconsistent with one's past experience, and when no attempt was made to alter one's existing cognitive structures to fit the discrepant event. Pien and Rothbart's (1980) position regarding the origins of incongruity humor differed from both Shultz's and McGhee's position. They argued that the development of symbolic play capacities and fantasy assimilation were not necessary for

the appreciation of incongruity humor. They proposed that incongruity humor involved only the recognition of incongruity and a playful interpretation of incongruity, and that both these abilities were present by the fourth month of life.

Shultz and Bloom (1976) examined the relationship between the appreciation of resolved incongruity and the capacity for concrete operational thought in children aged seven and eight. The authors found that performance on tests measuring the development of concrete operational thought did not relate to a preference for original over resolution deleted jokes. However, it was related to the capacity to detect the ambiguities of the humor. The children at a concrete operational stage were detecting incongruity, and the information required to resolve it.

Koestler (1964) coined the term bisociation to refer to the juxtaposition of two normally incongruous frames of reference, or the discovery of various similarities and analogies implicit in concepts normally considered remote from each other. Humor has been seen as a part of the creative activity of human beings. The incongruity theories of humor have suggested that humor involved sudden, surprising shifts in cognitive processing of information to account for the beneficial effects of humor (Frankl, 1969; Moody, 1978; O'Connell, 1976).

Kagan (1967) claimed that the assimilation of a stimulus into an existing schema constituted a source of pleasure for the child if some optimal amount of mismatch between the stimulus and the schema occurred. He postulated that it is necessary to perceive the stimulus not only as being different but also as being inconsistent with the child's prior experience with the stimulus situation. Kagan also claimed that achieving such conceptual mastery over the environment, the child will attempt to incorporate the new stimulus into relevant schemas that they have already developed; this is called reality assimilation. Only if children realized the joke was a play on reality will they find it funny. In order for children to understand the humor of the joke and know how to assimilate it, they must be aware of the kinds of reality factors that have been violated.

Kagan (1967) suggested that objects and events expressing minor discrepancy from those already assimilated in schema induced amusement when successfully assimilated, when their incongruity was resolved. In contrast, McGhee (1971) and Fry (1963) suggested that amusement resulted from the fantasy assimilation of incongruous stimuli. According to McGhee (1971) and Fry (1963) the individual assimilated the inconsistent and unexpected into existing mental schemas without accommodating these models of reality to fit the

discrepancy.

Pinderhughes and Zigler (1985) examined the cognitive and motivational influences on children's humor responses. Children in kindergarten and third grade and at two SES levels were shown aggression and dependency cartoons. The authors indicated that cognitive determinants in children's humor responses were seen in those findings associated with the difficulty level of the cartoons. Funniness ratings decreased as difficulty levels increased. Mirth responses and funniness ratings increased as comprehension increased.

Masten (1986) examined the relationship between humor and competence in children between the ages of 10 and 14, specifically between three types of humor behavior and several significant aspects of effective functioning. The author found that greater or higher levels of humor production, comprehension, and greater mirth were associated with academic and social competence. Children who expressed these humor abilities were viewed by their teachers as more effectively engaged in the classroom and more attentive, cooperative, responsive, and productive. The results from Masten's (1986) study supported the hypothesis, derived from the developmental literature as well as from theories of humor, that humor and competence were positively related.

Superiority Approaches

Superiority or disparagement theories date back to Plato

and Aristotle. Aristotle, for example, concluded that laughter arises in response to weakness and ugliness (Lefcourt & Martin, 1986). The superiority approach was epitomized in Hobbes' dictum that "the passion of laughter is nothing else but some sudden glory arising from some sudden conception of some eminence in ourselves, by comparison with the infirmity of others, or with our own formerly" (cited in Piddington, 1963). Whereas Plato and Aristotle suggested that it was the powerful and unblemished who laughed at the infirm and ugly, Hobbes felt that it was the imperfect and blemished who laughed at others who were even more unfortunate than themselves in order to enhance their own self-respect (Lefcourt & Martin, 1986).

The views of humor offered by Dunlap, Leacock, Rapp, Sidis, and Wallis have been classified as superiority theories, developed on the idea that laughter was a spontaneous response of triumph that derived mainly from a favorable comparison of the self to others. Those others tended to be inept, ugly, dumb, clumsy, weak, poor, and so forth, and the sudden revelation of these traits in characteristic behaviors was what was seen as prompting the self-enhancing comparisons that fuel laughter (cited in Zillman, 1983).

Gallois and Callan (1985) examined the relationship of ethnocentrism and the presence of an ethnic label to the

humor appreciation of jokes with socially acceptable or unacceptable aggressors and victims. Undergraduate students rated the jokes on humor, justifiability, hostility, and acceptability of aggressor and victim. The authors indicated that high ethnocentrics, but not those low on ethnocentricity, found jokes with neutral aggressors and ethnic victims to be more humorous. All subjects gave higher humor ratings to jokes with justified aggression. Both ethnic stereotypes and the particular description of the characters appeared to have a significant influence on humor ratings in disparagement jokes. The results supported aspects of the superiority theory of humor.

Superiority theorists have suggested that humor was thought to result from a sense of superiority derived from the disparagement of another person or of ourselves. Zillman (Zillman, 1983; Zillman & Bryant, 1980) proposed a misattribution theory of humor to explain why people were able to laugh at the misfortunes of others. Zillman (1983) suggested that such laughter required the presence of innocuous humor cues in the misfortune. These humor cues (such as the amusing shape of a disliked neighbor's mailbox after he backed his car into it) allowed for the laughter to misattribute the cause of his or her laughter and therefore enjoy the pleasure derived from the misfortune of another person without cognitive dissonance or fear of social

censure.

Wicker, Barron, and Willis (1980) examined disparagement variables and their effect on resolution and funniness with a group of female undergraduates. Jokes were varied on the equity of retaliation in an exchange of insults, the relative status of the two parties in the exchange, and in another set of jokes, the popularity of a famous victim of the joke. The authors found that overretaliation decreased rated funniness and rated resolution of the joke. Jokes with disliked victims were rated as funnier and higher in resolution than were jokes with neutral or liked victims. Incongruity (surprise) ratings were not affected by any treatment. The authors interpreted the results as supporting a proposed integration of disparagement theories with incongruity-resolution theories of humor.

Levine (1977) has suggested that the essential effect of humor was the associated pleasure that derives from a sense of mastery and ego strength. Levine suggested that smiling and laughing began as a result of the innate pleasure of growing feelings of mastery in the child, and when faced with an anxiety-evoking situation, the individual used humor to restore those familiar feelings of mastery and sense of control.

Mishkinsky (1977), who regarded humor as a courage mechanism as opposed to a defense mechanism, stated that

"with the expression of humor the sense of helplessness vanishes and is replaced by an attitude of defiance" (p. 361).

The perspective of the superiority approach was that the salutary effects of humor have been derived from the enhanced feelings of self-esteem, mastery, confidence, and the reduced feelings of threat that accompany a humorous approach to a normally stressful situation (Lefcourt & Martin, 1986).

Researchers have suggested that humor could serve a number of functions. Humor has been perceived as a coping mechanism for life difficulties and stress; as an instrument for enhancing an individual's quality of life; an expression of tolerance, sympathy towards others', and acceptance as in self-deprecation humor to promote cohesion in a group; and as an overall feeling of emotional well-being, physical well-being, and good moods. These findings have been based primarily on research with adults and adolescents. More research is needed in order to ascertain the functions of humor in children.

Children's Humor Development

Philosophical speculations about humor have a long history, but until recently empirical studies of humor were not undertaken. The development of humor in children began

to be studied in the 1970's. The functions of humor in children's lives are diverse, changeable, and interactive and these same functional characteristics of humor continue across the childhood years (McGhee, 1986).

According to McGhee (1986) the functions of humor have been twofold during the childhood years. The first function has been that of a communication system with multiple facets. One of these facets has been how the child relates to other people on a social level through the use of humor. The second and third facets have been less direct, as children utilize humor for personally satisfying demonstrations of their developmental level while at the same time indicating these abilities to other people in the environment.

The second function of humor was that of a mutual socialization process whereby the child socializes and is socialized by other people. Humorous situations were contexts in which the child learns socially acceptable behavior (McGhee, 1986). Although the social facilitation of humorous laughter may have been determined by sharing the social situation rather than by sharing humor, it is through these humorous contexts that the child learns what is perceived as being humorous by the culture (Chapman, 1975).

McGhee (1979) argued that developmental changes in children's humor reflect underlying cognitive developmental

changes. New levels of cognitive skill lead to new forms of humor comprehension and appreciation. The acquisition of concrete operational thinking enables the child to keep two ideas in mind at the same time, and this leads to the onset of enjoyment of riddles and jokes based on double meanings. Humor begins once events can be stored and recalled in terms of simple images. As the child's thinking becomes conceptual in nature, humor also becomes conceptually based. For example, as language is increasingly used to represent objects and ideas, it begins to be used in humor.

What develops in humor? Most of the research has focused on appreciation of cartoons or jokes and a few studies have examined humor comprehension or frequency of humor initiation.

Humor Comprehension

Developmental change occurs in the kind or level of humor children are capable of understanding (McGhee, 1983b). McGhee (1979) claimed that a child must have a primitive image-based representational capacity to find humor in acting on one object as if it were another object. Puns and other jokes requiring simultaneous awareness of two different meanings of a word appeared to have required some degree of concrete-operational thought capacities. In other words, every joke or cartoon could be said to require some minimal level of cognitive development for comprehension of

the humor depicted, given familiarity with the stimulus elements involved. For most jokes and cartoons the level of cognitive functioning required for getting "the point" remains uncertain.

Zigler, Levine, and Gould (1966) studied second through fifth grade children and found a significant positive relationship between grade level and comprehension of cartoons. Comprehension of cartoons increased steadily between the second and fourth grades, but decreased significantly between the fourth and fifth grades. McGhee (1971) showed boys of 5, 7, and 9 years old cartoons and jokes representing cognitive humor. Results indicated that comprehension of humor stimuli increased significantly with age.

Humor Appreciation

Developmental trends in children's humor appreciation follow the same pattern that holds for changes in humor comprehension. That is, as progressive underlying cognitive development enables the child to understand new forms of humor, those new forms are preferred over forms the child has been able to understand for some time. For example, once children acquire the capacity for understanding linguistic ambiguity at around the age of 7, they find puns and other double-meaning jokes much funnier than humor based on playing with the sounds of words (characteristic of

preschoolers). This appears to reflect a general mastery-play cycle. Children maintain a relatively serious frame of mind in connection with a new cognitive skill until they feel they have mastered it; after this they include it with other forms of play behavior. In the case of humor, once a child becomes confident of the relationship between stimulus elements or achieves a new level of understanding through acquisition of new cognitive skills, the child enjoys distorting that knowledge or understanding in the guise of a joke (McGhee, 1983b).

Humor Production

Investigations of the creative aspects of children's humor have been rare. The interest in children's humor has focused almost exclusively upon reactions to pre-arranged cartoons, jokes, and films. Our understanding of humor development has been based on observations of the kinds of events children smile and laugh at, and their statements indicating how funny they think a particular event is and why they think it is funny (McGhee, 1980).

Several psychoanalytic theorists, such as Freud, Grotjahn, Kris, Levine, and Wolfenstein (cited in McGhee, 1980) have drawn attention to the importance of cognitive mastery for the creation of humor by children. The child must achieve a sense of confidence about knowing how a relationship or event should occur before they can derive

humor from distorting it in some way. McGhee (1977, 1979) also stressed the importance of cognitive mastery in children's humor, suggesting that as successively higher orders of mastery are achieved in the child's understanding of the world, they both create and respond maximally to humor consistent with that new level of mastery.

Just as a child's developmental level is closely associated with the kinds of humor that are understood and appreciated, it determines the form of humor the child is capable of creating. However, it is not clear at this point whether children become capable of creating humor as soon as or soon after they are able to understand it (McGhee, 1980).

Framework of Stress

Researchers' conceptualizations of stress have been increasingly complex over the years. In order to understand stress in all its complexity, physiological, psychological, and sociological factors must be considered (Appley & Trumbull, 1986). Any discussion of stress requires that at least some attention be given to how the concept of stress is to be used. Despite the fact that the word "stress" has been a part of almost everyone's vocabulary and that most of us have some notion of what it means to have been stressed, no universal definition of stress has been offered by researchers in the field (Johnson, 1986). The field of

stress research has been soundly and appropriately criticized for its failure to adequately define the concept of stress (Compas & Phares, 1991).

The term stress has been used in a variety of ways. One viewpoint on stress has focused on the family (Boss, 1987; Brown, 1980; Hill, 1949, 1958; McCubbin, Joy, Cauble, Comeau, Patterson, & Needle, 1980). Stress has also been conceived of as a stimulus, as a response, or as the interaction between a stimulus and a response (Feist & Brannon, 1988; Selye, 1982). In other cases stress has been defined in terms of person-environment interactions with an emphasis placed on the role of cognitive appraisal as a primary determiner of the actual stressfulness of events (Lazarus, 1966; Lazarus & Folkman, 1985; Lazarus & Launier, 1978).

Stress in the Context of the Family

Family stress has been defined as an upset in the steady state of the family (Boss, 1987). Hill (1958) presented a framework for family stress theory that focused on three variables: A, the provoking event or stressor; B, the resources or strengths the family had at the time of the event; and C, the meaning that the family attached to the event. These three variables have been a foundation for family-stress theory. A stressor, according to Hill (1949), consisted of those life events or occurrences that were of

sufficient magnitude to have brought about change in the family system.

DeLongis, Folkman, and Lazarus (1988) examined daily stress processes among married couples. The somatic and psychological effects of common everyday hassles were investigated. The authors found a significant relationship between daily stress and the occurrence of both concurrent and subsequent health problems such as flu, sore throat, headaches, and backaches. The negative effects of stress on mood were limited to a single day, with the following day characterized by mood scores that were better than usual. Subjects with unsupportive social relationships and low self-esteem were more likely to experience an increase in psychological and somatic problems both on and following stressful days than were participants high in self-esteem and social support. The authors suggested that persons with low psychosocial resources were vulnerable to illness and mood disturbance when their stress levels increased, even if they generally had little stress in their lives.

McLanahan (1983) examined the relationship between heads of family and stress. Three types of stressors were examined: the presence of chronic life strains, the occurrence of major life events, and psychological supports. The author indicated that female-headed families were more likely to experience chronic stress in the form of low

income and low levels of social support and were more likely to experience acute stress in the form of major life events. Female heads experienced more stress in the form of negative self-image and negative views about the future. The author suggested that recently divorced, separated, and widowed females were much more likely to experience major life events. The author concluded that single female heads with children experienced more stress than their married male counterparts in all three areas and suggested that the higher incidence of major life events experienced by female heads was primarily a function of the marital disruption process rather than a characteristic of the state of single parenthood.

Brown (1980) indicated that a stressor event was a stimulus or force that had an impact on the individual or family and that could or could not produce stress, which depended on the individual's or the family's perceptions, resources, and context. A stressful life event had only the potential to cause stress; it was not synonymous with the state of stress. Based on this definition, a stressful life event had no positive or negative attribute (Boss, 1987).

Similar to Brown; McCubbin et al. (1980) claimed that stress was not seen as inherent in the event itself, but was conceptualized as a function of the response of the distressed family to the stressor.

Stress as a Stimulus

Research has centered around stress as a stimulus. In this view stress stimuli were events which encroach on a person. A stimulus was a stressor when it created a stressful physiological or behavioral response (Peel, 1987). Environmental events were classified into three types of stressful stimuli (Lazarus & Cohen, 1977): major changes which were frequently cataclysmic, affected large numbers of people, and were outside of the individual's control; major changes which affected one or a few persons; and daily hassles. White (cited in Peel, 1987) indicated that while stimulus definitions of stress considered some conditions arising within the individual, they did not account for individual variations in the evaluation of events.

Stress as a Response

Some researchers considered stress to be a stimulus, while other researchers viewed stress as a response. Researchers in the area of stress often have made reference to the influential work of Selye (1976, 1982) and his definition of stress as "the nonspecific response of the body to any demand" (p. 1). Selye (1956) claimed that any number of stressors were capable of producing stress. These stressors shared the capability of placing demands upon individuals' adaptability. Physiological responses aided in adaptation to environmental change or stimuli. Kobasa

(1985) has pointed out that in many studies a stressor was defined as stressful if it caused changes in, and demanded readjustment of, an average person's normal routine.

Stress in Terms of Person-Environment Interactions

The definition of stress as a person-environment interaction dominates the stress literature. Stress has been defined as a relationship rather than a single variable, taking into account both personal and environmental qualities (Lazarus, 1966). In terms of a specific definition, Lazarus and Folkman (1985) offered the following: "Psychological stress is a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (p. 19). From this framework, stress could have been the result of either discrete events of major or minor magnitude or ongoing, chronic aspects of the person-environment relationship.

None of these views has been uniformly accepted by researchers working in the area of stress. Johnson (1986) has argued that without attempting to arrive at an agreed-upon definition of stress, one could still focus on those environmental stimuli or situations that represent "potential stressors", their impact on the individual, and the degree to which the impact of these potential stressors

was mediated by other variables.

Dynamics of Stress

The current framework of stress has incorporated the concept of dynamics in which stress is examined as a relational concept. Recent research has focused on stress in terms of person-environment interactions mediated by the integrated processes of appraisal, coping, and adaptation (Holroyd & Lazarus, 1982; Lazarus, 1980; Lazarus & Folkman, 1984). The dynamics of stress include three different processes; the process of appraisal, the process of coping, and the process of adaptation. Since this study is concerned with children's perception of the severity of hassles, only the process of appraisal will be discussed.

Process of Appraisal

Cognitive appraisal has been a process mediating the relationship between person and environment factors associated with stress. Through cognitive appraisal, an evaluation is made as to why and to what extent a transaction is perceived as stressful. Three types of stressful appraisals are harm/loss, threat, or challenge (Lazarus, 1980). As the individuals examine their relationships with the environment, they appraise transactions as being benign-positive, irrelevant, or stressful. Cognitive processes determine the appraisal of

stress as well as the arousal of emotions (Lazarus, 1980; Lazarus, Kanner, & Folkman, 1980).

Theoretical Approaches to the Study of Stress

Stressful Events

An important task facing clinical psychologists is the identification of factors that predict an increased probability for emotional and behavioral problems in children. A wide range of social and biological factors may play a role in a child's maladjustment. Research that has indicated a consistent association between stressful events and psychological disorder in adults have suggested that stress may have been an important construct to investigate in younger populations. Stressful experiences that occurred early in development may have contributed to emotional/behavioral problems and disrupted positive development. Early events may have altered the course of later development either directly or indirectly. Stressful events and maladjustment may have been reciprocally related. Thus, stressful events during childhood may have set in motion a process in which stress and emotional/behavioral problems have contributed to one another. In spite of the potential importance of studying stressful events in childhood, relatively little empirical research has been carried out in this area (Compas & Phares, 1991).

According to Rabkin and Struening (1976) life events research has investigated whether there was a temporal relationship between the occurrence of illness and recent increases in stressful events. Stressful life events have been believed to have an additive effect: the greater the number of stressful life events, the greater the negative effect on the individual.

Hodges, Kline, Barbero, and Flanery (1984) compared children with recurrent abdominal pain (RAP) to behaviorally disordered (BD) children and healthy children on number of life events experienced and on amount of readjustment necessitated by the events. The parents of these children were also compared on these variables as well as on a subjective rating of stress which they assigned to the life events. The authors found that the children in the RAP and BD groups had experienced significantly more life events and more stress associated with them than the healthy children. The children in the RAP and BD groups differed in the type of life events expressed. The RAP group members were more likely to have experienced life events related to illness, hospitalization, and death. There were no significant differences between the parents in the RAP group and the parents of the two comparison groups on any of the measures.

According to Sarason (1980) the term life stress was usually used to refer to life changes that were calls for

action and evoked stress. Events varied in their social desirability, the amount of change they required, and personal meaningfulness. Research has shown that, whereas everyone experiences life changes, high levels of change experienced within a relatively short period of time have had deleterious effects (Johnson & Sarason, 1979). Numerous studies have sought to determine the relationship between life stress and problems of health and personal adjustment.

Dobson, Campbell, and Dobson (1982) examined the relationship between children's self-concepts, perceptions of school, and life change. The authors indicated that high numbers of life changes were related to lower self-concept, and significant positive correlations were found between self-concept and satisfaction with school, commitment to classwork, and reactions to teachers. The authors indicated that although the student's adjustment to life events and quality of the classroom environment, created or supported by the teachers, had some influence on self-concept, this influence was small when compared to the influence of the quality of the student's social experiences with peers and teachers.

Research on life stress has focused attention on the role of individual differences that, in interaction with environmental events, influence adjustment. However, for most individuals a stressful event was thought of as

something undesirable or threatening. Mainly because of the work of Holmes and Rahe (1967) and others (Dohrenwend & Dohrenwend, 1970; Froberg, Karlsson, Levi, & Lidberg, 1971), change became the critical element in the assessment of stress. The key component in making a life event stressful was conceptualized as its ability to change an individual's usual activities, and not its desirability or undesirability (Gersten, Langner, Eisenberg, & Orzeck, 1974). Holmes and Rahe (1967) scaled the change introduced by a life event in terms of the readjustment required by the individual.

Another approach to life stress was taken with the Life Experiences Survey (LES) (Sarason, Johnson, & Siegel, 1978). In addition to reporting events experienced in the recent past, respondents categorized each event as having been desirable or undesirable and rated the degree of personal impact of the event. The LES provided for individualized ratings of the impacts of events and for the separate assessment of positive and negative life changes.

Several studies have documented a relationship between life stress and measures of anxiety (Dekker & Webb, 1974; Lauer, 1973), and psychological distress (Dohrenwend, 1973). Also, several studies have provided data on the relationship between life stress and depression. Some investigators have focused specifically on childhood depression and have provided additional information on the link between stress

and depressive features (Swearingen & Cohen, 1985; Johnson & McCutcheon, 1980).

Daily Hassles

Lazarus and his colleagues suggested an alternative approach to understanding stress (Kanner, Coyne, Schaefer, & Lazarus, 1981; Lazarus, 1980; Lazarus, Kanner, & Folkman, 1980). This approach considered the role minor stresses and pleasures characteristic of daily living played on adaptational outcomes.

Kanner and his colleagues (cited in Peel, 1987) suggested that the overall level of demands on a person and their perceived resources may determine what hassles are noticed and how much trouble or worry are associated with them. When demands are high or resources limited, events that are usually ignored or seen positively may be perceived negatively. This suggests that an assessment of hassles must consider the overall level of hassles and resulting stress than the particular hassle presented (Luborsky, Docherty, & Penick, 1973).

Kanner et al. (1981) have provided data suggesting that measures of hassles were more highly correlated with indices of psychological adjustment than measures of major life events. The greatest concern has been focused on major life changes. The greatest impact upon the lives of most individuals may not be from these major changes but from

strain accompanying day-to-day performance, referred to as hassles.

Stress in Children

Children often have been forced to adjust to numerous adverse situations such as divorce, death, and abuse without much assistance (Arent, 1984; Elkind, 1986). Many adults believe that children do not experience much stress because they are not considered to be responsible for many things in their lives. In fact, the opposite has been found to be true, in part because children did not know what to do about the stressful events (Omizo, Omizo, & Suzuki, 1988). Yet, few studies have investigated stress in children.

Omizo, Omizo, and Suzuki (1988) conducted a study in which children in grades 1-12 completed a stress scale. They found that elementary school children cited five categories of stressors:

> 1) Family problems. Parental disapproval, feeling unloved and abandoned, guilt feelings about parents' divorce, parents' fighting, competing with a sibling, not spending much time with a parent, adjusting to stepparents and two households when parents are divorced, 2) Feeling different. Feelings of inferiority, not having the same material things as others, lack of awareness of self (strengths and

weaknesses), and not accepting self, 3) School related problems. Teachers not liking them, fear of failing, not getting homework done, failing to meet expectations of parents in regard to academic achievement, and not having friends, 4) Discipline. Afraid of being punished, unfair punishment, inconsistent discipline, and parents and teachers being too critical, 5) General concerns. Doing something wrong, feeling insecure, feeling that something is going to happen, and feeling that something is scary. (p. 269)

Indeed it would seem that children have experienced stress in their life. Children, like adults, have been responsible for many things in their lives. Along with these responsibilities come the adverse effects of stress.

Humor and Stress Research

Some of the research on the value of humor has come from the medical profession. Since the publication of Cousins' (1979) book there has been much speculation on what humor does for the individual. The book told of the author's cure from ankylosing spondylitis through laughter and the maintenance of a hopeful outlook. It has led many people to believe that a good laugh was as good as any medicine (Strombom, 1989).

Various studies have examined the relationship between

humor and health and the results have consistently shown that having a good sense of humor and laughing were wonderful for the body. McGhee (1983a) and Fry (1986) have surveyed the research on humor and health and listed study after study extolling the benefits of "a merry heart."

However, there has been little research on the effects of humor on adult's or children's ability to handle stress. Some studies have indicated that humor moderated both general stress and the effects of specific stressful events. Some authors have suggested that one's sense of humor served as a moderator of the deleterious effects of negative stressful life events.

There has been little research that has investigated the effects of humor on children's ability to handle stress. The reasons for the lack of research ranged from inadequate measures of humor and stress for young children to a limited understanding about humor and stress in children.

Humor Scales

Many of the measures or scales of humor have been designed for adults, such as the Situational Humor Response Questionnaire; although, cartoons have been used with children (Allen & Zigler, 1986; Masten, 1986; Pinderhughes & Zigler, 1985). One of the more popular scales that has been used to measure sense of humor in adults has been the Situational Humor Response Questionnaire developed by Martin

and Lefcourt (1984). The use of this questionnaire has become more popular in the last decade (Lefcourt & Martin, 1986; Martin & Lefcourt, 1983; Nezu, Nezu, & Blissett, 1988; Porterfield, 1987). Other researchers have used various humorous exercises, media, and tapes (Dworkin & Efran, 1967; Lefcourt & Martin, 1986; White & Camarena, 1989), and humorous narratives (Martin & Lefcourt, 1983).

Stress Scales

There are many different scales used to assess stress. Many of these scales have been designed specifically for adolescents and adults (Compas, 1987; Johnson, 1986). The few measures used to assess stress in children have been adaptations of the life events approach to adult stress (Coddington, 1972a,b, 1984; Holmes & Rahe, 1967). Researchers have relied on scales such as the Life Events of College Students (Labott & Martin, 1987; Martin & Lefcourt, 1983) and the Life Experiences Survey (Martin & Lefcourt, 1983; Nezu, Nezu, & Blissett, 1988; Safranek & Schill, 1982) to assess stress. Scales used for assessing anxiety or mood were developed mainly for adolescents and adults. Researchers have used scales such as the Profile of Mood states (Labott & Martin, 1987; Lefcourt & Martin, 1986; Martin & Lefcourt, 1983), the Mood Adjective Checklist (Dworkin & Efran, 1967; Lefcourt & Martin, 1986; Mannell & McMahon, 1982; White & Camarena, 1989), and the State-Trait

Anxiety Inventory (Nezu, Nezu, & Blissett, 1988; Robles, Smith, Carver, & Wellens, 1987; Safranek & Schill, 1982).

There have been a plethora of studies conducted on adolescents and adults that investigated the effects of humor on stress and anxiety. Since many of the different measures used in assessing humor and stress were developed for older populations, it was not surprising that there has been little research conducted on humor and stress in children.

Empirical Findings

General mood disturbance.

A series of studies conducted by Martin and Lefcourt (1983) examined the relationship between sense of humor, stress, and mood disturbance. In the first study the goal was to determine if the magnitude of the correlation between negative life events and mood disturbance varied significantly as scores on the humor measure increased. The authors indicated that for three of the four measures of humor, there was a significant interaction between the humor measure and negative life events. High-humor subjects exhibited a weaker relationship between negative life events and mood disturbance when compared to low-humor subjects. As negative life events increased, low-humor subjects indicated greater mood disturbance when compared to high-humor subjects.

Martin and Lefcourt's (1983) second study indicated that high-humor subjects exhibited a weaker, nonsignificant relationship between negative life events and mood disturbance when compared to low-humor subjects. Also, as negative life events increased, low-humor subjects indicated greater mood disturbance when compared to high-humor subjects. When the authors correlated humor production and negative life events they found that subjects who indicated that they had experienced high levels of stress during the previous year were more capable of producing humor. The authors surmised that subjects who experienced many negative life events actively cultivated a sense of humor in order to cope with stress.

In Martin and Lefcourt's (1983) third study the authors assumed that subjects who were most adept at creating witty narratives would also tend to use humor when confronted with stressful events in everyday life. Results of this study paralleled the results of the previous studies. Humor showed a greater moderating effect on this measure than on the measures of humor used in the previous studies. The greater effect resulted from using a more accurate measure of the way subjects tend to use humor in everyday life. Martin and Lefcourt (1983) concluded that the results of their three studies strongly support the idea that humor diminishes the negative effects of stress.

Labott and Martin (1987) conducted a study similar to Martin and Lefcourt's (1983) first study. They examined the relationship between sense of humor, stress, mood disturbance, and weeping. The results indicated that there was a strong relationship between negative events and mood disturbance in high weepers but not in low weepers. Humor-coping was found to buffer the effect of negative events upon mood disturbance. These findings were consistent with Martin and Lefcourt's (1983) first study. The authors concluded that humor, when deliberately used as a means of coping with stressful life events, may have exerted a direct influence on disturbed moods; as opposed to influencing mood only indirectly by moderating the effects of stressful life events.

Lefcourt and Martin (1986) sought to expand on their earlier (Martin & Lefcourt, 1983) studies. In the first extension, they investigated whether a sense of humor reduced the impact of a stressful experience. The results for laughter indicated that subjects in the humorous-narrative group laughed more often and longer than subjects in the other groups (intellectual-narrative and no-narrative). Female subjects were found to be significantly more troubled by the film than were male subjects; therefore, an analysis of variance was performed on the variables of negative and positive affect. In terms of

negative affect scores, creating a humorous narrative significantly reduced female subjects' distress. This contrasted with male subjects whose scores did not differ across treatment groups. The authors surmised that there may have been a floor effect for males since negative affect scores were lower than females. That is since males did not find the film stressful, their negative affect scores could not be lowered by a humorous narrative. The authors also suggested that the lack of differences across groups for the males was that they experienced the instructions to create humor as a somewhat stressful demand that actually added to the stressfulness of the film rather than reduced it. Also the data revealed that high-humor subjects had significantly lower negative affect scores. As for positive affect, subjects in both the humorous-narrative group and the no-narrative group had significantly higher positive affect scores than subjects in the intellectual-narrative group; however, the humorous-narrative and no-narrative groups did not differ significantly. Additionally, subjects who received high ratings for their humorous narratives had higher positive affect scores.

In summary, females, who were instructed to create a humorous narrative reported less disturbed moods than did those who were instructed to create an intellectual narrative or watch the film in silence. Subjects who

reported that they use humor in coping with stress revealed less mood disturbance than did those who reported not using humor. Finally, subjects who were most successful in creating humor reported higher levels of positive moods than did those who were less successful.

Lefcourt and Martin's (1986) second study was similar to the previous study. The no-narrative group was dropped and only male subjects were used. The study's design controlled for stress that resulted from being asked to create a humorous narrative. This control addressed the question of why male subjects in the humorous-narrative group did not report less negative affect than male subjects in the other two groups.

Analysis of the avoidance behavior variable yielded no significant results. Analysis of the mirth variable revealed that subjects in the humorous-narrative conditions displayed significantly more mirth than subjects in the intellectual-narrative conditions. Contrary to the author's hypothesis, high-coping behavior subjects in the humorous-narrative conditions experienced a stronger gain in mood disturbance than high-coping humor subjects in the intellectual-narrative conditions.

The second study did not confirm the authors' hypothesis that male subjects in the first study may have found being asked to create a humorous narrative to be a stressful

request. Lefcourt and Martin (1986) concluded that their second study did not support the idea that humor moderates the effects of stress on mood. They surmised that the male subjects did not experience much stress while watching the film. In conclusion, it appeared that results from four of the five studies supported the belief that humor moderated the effects of stress on mood.

White and Camarena (1989) studied the stress moderating effects of humor in a small group setting. They randomly assigned college students to a relaxation group, a laughter group, or a health education (control) group. The authors indicated that the relaxation group had significantly lower mood disturbance scores than the other two groups. The authors stated that the data suggested that the laughter group experienced a decrease in mood disturbance relative to the control group, but they provided no data indicating that this between-group difference was significant.

Safranek and Schill (1982) conducted a study similar to Martin and Lefcourt's (1983) first study. They investigated whether the use and/or appreciation of humor helped people cope with stress. The authors indicated that stress was significantly correlated with both trait and state anxiety. The authors also found that humor did not diminish the effects of stressful life events, contrary to findings from Martin and Lefcourt's (1983) first study.

Anxiety and depression.

Research has been conducted on the effects of humor on the specific mood of anxiety and depression. Nezu, Nezu, and Blissett (1988) investigated whether humor moderates the effects of stressful life events on just trait anxiety, defined as a characteristic the individual carries around with them. The authors concluded that neither humor nor the interaction between humor and life stress was significantly related to anxiety scores. A limitation of the study was that it used only a trait measure of anxiety.

Mannell and McMahon (1982) studied the relationship between mood and incidents of humor and overt laughter. The authors had undergraduate students keep a daily diary of humorous events. One of the tasks was to rate the amount of amusement the humorous stimuli provided. Anxiety was found to have a significant negative correlation with all three measures of humor: number of humorous incidents, number of overt laughs, and average amusement scores. The results were interpreted as an indication that humor is related to a decrease in an individual's experience of anxiety. A limitation of the study was that the study's design, specially the diary keeping, may have created a demand characteristic in that it may have "sensitized the subjects to the presence of humor in their daily activity and consequently modified the impact of humor on mood levels

differently than normal" (p. 153).

Dworkin and Efran (1967) also found that humor decreased subjects' anxiety. The authors angered subjects and then had them listen to humorous tapes. The humorous tapes significantly decreased subjects' anxiety; the control tapes, documentary readings and music, did not have this effect. The Dworkin and Efran (1967) study assessed state anxiety since the authors manipulated subjects' mood.

Robles, Smith, Carver, and Wellens (1987) conducted a study that explored the effect of subliminal humorous visual images on state anxiety. They randomly assigned undergraduate students to one of three conditions: positive (humorous) image, negative (threatening) image, or neutral (control) image. According to the authors the subjects who were shown humorous subliminal visual images had significantly lower anxiety scores when compared to subjects who were shown neutral or negative subliminal visual images.

White, Winzelberg, and Schultz (1988) assessed the immediate effects of a humor intervention on subjects' state anxiety. Undergraduate students were randomly assigned to one of two laughter groups, a relaxation group, or a control group. The results indicated that all the groups significantly lowered subjects' levels of anxiety; no group showed significantly more reduction in state anxiety than the other groups.

White et al. (1988) offered some critical observations. One was that subjects did not laugh much; therefore, the effects of laughter may not truly have been evaluated. Another observation was that despite random assignment, subjects in the laughter groups experienced more stress in response to the stressor.

Porterfield (1987) conducted a study that assessed whether sense of humor buffered the impact of negative life events on psychological and physical well-being. According to Porterfield (1987), hierarchical multiple regression analyses revealed no evidence that humor moderated the impact of negative life events on either depression or physical illness. Instead, the results suggested that sense of humor directly mitigated depression only, independent of the effects of life stress. The author concluded that the ability of sense of humor to buffer life stress has yet to be demonstrated with any confidence.

In summary, as with general mood disturbance, studies that have investigated the moderating effects of humor on anxiety and depression have yielded mixed results. Humor apparently had a mitigating effect on state anxiety but not on trait anxiety or depression.

Summary

At the present time there has been little research that has investigated the effects of humor on children's ability

to handle stress. Studies have either presented positions advocating stress management or evaluated intervention strategies to cope with stress. There are many reasons for the lack of research. First, much of the humor research with children has focused on appreciation and comprehension of humor (Masten, 1986; McGhee, 1971, 1977; Rosenwald, 1964; Spiegel, Brodkin, & Keith-Spiegel, 1969), types of humor that children use (sexual, aggressive, social, and nonsense) (Gallois & Callan, 1985; Wicker, Barron, & Willis, 1980), and attempts to relate dimensions of humor appreciation to certain aspects of personality. Second, no adequate scale exists for measuring children's sense of humor. Martin and Lefcourt's (1984) scale for measuring sense of humor, the Situational Humor Response Questionnaire, is applicable only to adults. Third, little is understood about children's stress and few studies have investigated stress in children (Compas & Phares, 1991). Fourth, there have been few measures of stress designed specifically for children, in contrast to the more numerous measures appropriate for adolescents and adults (Compas, 1987; Johnson, 1986). Fifth, the few available measures of childhood stress have been adaptations of the classic life events approach to adult stress of Holmes and Rahe (1967), and Coddington's Social Readjustment Rating Scale (Coddington, 1972a,b, 1984). Sixth, despite the wide spread use and utility of

Coddington's scale, limitations have been noted. One major concern is that parents or teachers provide the information concerning the stressfulness of events for the children. This is problematic in that the perceptions of those individuals who are presumed to be experiencing events as stressful are not directly assessed. Another concern is that adults may underestimate the impact of events that children rate as highly stressful, and overestimate the impact of events that children rate as not very stressful (Colton, 1985; Yamamoto & Felsenthal, 1982). The studies that have been cited with the effects of humor on stress with adults have been used to extrapolate measures and findings.

This study will focus on children's sense of humor and how it relates to their perception of the severity of hassles. Humor is defined in a quantitative sense (Martin & Lefcourt, 1984) while stress is seen as the interaction between the person and the environment (Lazarus & Folkman, 1985). Also, this study will focus on the dynamic of stress as a process of appraisal as evident in the children's perceptions of stress.

Chapter III

Methodology

Hassles Scale Pilot Study and Humor Project

Construction of Hassles Scale

As discussed earlier, a study conducted by Omizo, Omizo, and Suzuki (1988) found that elementary school aged children cited five categories of stressors: 1) Family problems, 2) Feeling different, 3) School related problems, 4) Discipline, and 5) General concerns. A scale, using the items from these five categories, was constructed to measure elementary school age children's stress and the severity of the stressors. However, the items on the scale as reported by Omizo et al. (1988) did not use terms which were understandable to elementary school age children.

Therefore a pilot study was conducted to refine the wording of the items. A list of 22 items, taken directly from those reported by Omizo, Omizo, and Suzuki (1988), representing these five categories was constructed. The wording of many of these items appeared to reflect adult wording. A group of 27 children ranging in age from 8-11 years old served as subjects. The 15 girls and 12 boys redefined the ambiguous terms on the scale in their own words.

Each child was given a letter and consent form to take home to their parents. The letter explained an overview of

the pilot study and parents were invited to have their children participate. The child was also invited to participate. Upon response those children given consent to participate were given the opportunity to take part in the pilot study (see Appendix A).

The researcher and children read each item one at a time. The researcher explained any term that the children did not understand and then asked the children to give synonyms and examples of that item. One example of an item on the scale was, "feelings of inferiority." When children were asked to give synonyms and examples of inferiority they defined it as "not being good enough." The children then gave examples such as making mistakes, being teased by others, and feeling stupid. Each subsequent item on the scale was treated in the same fashion. The terms that the children provided were used for the final construction of the Hassles Scale for Elementary School Children (HSESC) (see Appendix B).

Construction of Humor Questionnaire

Research has demonstrated that ratings given by teachers and parents have been used to complement conventional assessments of children (Runco, 1988). Many areas of study have been using subjective ratings. Runco and Schreibman (1983, 1987) demonstrated that parent and teacher ratings are useful for making decisions about autistic children.

They argued that parents and teachers have a very large sample of behavior to draw on when making judgments. The social validation paradigm has been useful for constructing measures for parents and teachers.

There has been a unique aspect of social validation research in that the instruments were constructed from ideas gathered from significant others. Parents, teachers, and children have assisted with construction of a rating instrument, and then asked to give ratings of the children (Runco, 1988). There are two phases involved in the social validation methodology. First, is the construction of the instrument, and the second involves collecting numerical ratings with the instrument (Runco, 1988). Socially valid measures have been developed with parents and teachers of autistic children (Runco & Schreibman, 1987), teachers of creative children (Runco, 1984), fifth graders self-ratings of creativity (Miller & Sawyers, 1989), and children's judgments of autism and social validation of behavior therapy efficacy (Runco & Schreibman, 1988).

Runco and Schreibman's (1988) study was conducted to gather information from a relevant population, namely school children. The rationale was that an important goal for autistic children was to help them behave more like normal children. Other children were the implicit standard for society and other children were important agents in the

environment. The researchers' findings indicated that improvements resulting from behavior therapy were apparent to school children, that these children were more positive in their willingness to be close to the autistic children, and that social validation procedures were applicable to this age group. The work by Runco and his colleagues served as the basis for the construction of a self-rating measure of children's sense of humor.

The Assistant Superintendent of Schools was contacted by letter to present an overview of the humor project and was asked permission to solicit cooperation from an elementary school in Blacksburg (see Appendix C). Once permission was obtained the researcher contacted the principal and guidance counselor of the school to present an overview of the humor project. Upon final approval from school officials, children in the third, fourth, and fifth grade, ages 8-11 years old, in a elementary school in Blacksburg assisted in the construction of the Children's Self-Rating of Humor (CSRH) questionnaire. The objective was to construct a measure that accurately described the behavior in question (sense of humor), and allowed the rater to use terms which they understand. Each child was given a letter and consent form to take home to their parents. The letter explained an overview of the project and parents were invited to have their children participate. The child was also invited to

participate (see Appendix D).

In the first phase of the project, 19 third graders (10 boys and 9 girls), and 24 fourth graders (14 girls and 10 boys), were given a blank form on which they were asked to 1) give synonyms of "humor", and 2) to list behaviors observed in elementary school children considered to be humorous.

The researcher compiled a list of 35 of the descriptors of humor listed by the children (see Appendix E). In the second phase of the project 29 fifth graders (15 girls and 14 boys) were given the list and were asked to indicate which descriptors they thought were most characteristic of humor by placing an (X) on the line next to that item. The children were encouraged to give additional items.

Similar to Runco (1988), items that were indicated by at least 65% of the sample were used to construct the CSRH questionnaire. As shown in Table 1, 16 of the items reached the arbitrarily preselected level of 65% (see Appendix F). Subsequently these 16 items and four antonyms of humor were listed in random order on the CSRH questionnaire. The scale was given a 5-point response option: (1) Not At All, (2) A Little, (3) Somewhat, (4) Mostly, and (5) Very Much. An example of the wording on the scale was, "To what degree, or how often, are you...Funny"? (see Appendix G).

Sense of Humor and Severity of Hassles Study

Sample

The sample consisted of children registered for summer playcamp in Montgomery County, children enrolled in summer school programs in the city of Blacksburg, and children recruited through the grapevine. The age of the children ranged from 8-11 years. Both male and female children were asked to participate in the research study. The sample included 82 children, 50 boys and 32 girls.

The Recreation and Outdoor Supervisor of the summer playcamp, Directors of the summer school programs, and parents were contacted in person to present an overview of the research project and were invited to participate. Subsequently, each age eligible child was given a letter and consent form to take home to their parents (see Appendix H). The letter explained an overview of the research project and parents were invited to have their children participate. Also, the child was invited to participate. The parents were asked to respond to the letter by giving consent for their child to participate. The children were asked to bring the consent form back to the summer playcamp or the school program and to hand it back to their camp counselor or teacher. Within one week of the distribution of the letters the researcher returned to the summer playcamp and schools for the signed consent forms. Upon final response

from the parents, the researcher contacted the Recreation and Outdoor Supervisor of the summer playcamp, the Directors of the summer school programs, and the parents and finalized, in person, plans for implementing the research project.

Instrumentation

The Hassles Scale for Elementary School Children (HSESC), a 22-item checklist of hassles, was completed by the children. The HSESC is a questionnaire that measures the frequency of selected important hassles in an elementary school age child's life. The frequency of hassles is measured by the occurrence of the individual hassle, in the past week, selected by each child. The subjects were asked to place an (X) next to the number of each hassle they had experienced in the past week. Also, subjects were asked to rate the severity of all the hassles, as if they did experience them, on a 5-point Likert style response scale with a rating of 1 indicating the low end of the response to the upper rating of 5, indicating the high end of the response. The scale consisted of five family problem items, four feeling different items, five school related problem items, four discipline items, and four general concern items.

Children's sense of humor was evaluated by self-ratings of sense of humor. The Children's Self-Rating of Humor

(CSRH) questionnaire, a 20-item questionnaire, was completed by the children. The CSRH is a questionnaire that measures children's sense of humor. Subjects were asked to respond by rating each question on a 5-point Likert type response scale. The questionnaire consisted of 16-items that are synonyms of humor and behaviors of children considered to be humorous. To avoid a possible response set, boring, unamusing, cry, and frown, four antonyms of humor, were added to the questionnaire.

Data Collection

The researcher administered the HSESC to the subjects at their campsite, in their classroom, or at their home. The HSESC was administered individually and in small groups comprised of 2 to 10 subjects. In administering the HSESC, the following instructions were presented to the children by the researcher: "This is a list of things that can happen to you. We will read each item together one at a time. After every item is read I will ask you to place an (X) next to that item if it happened to you in the past week. If it did not happen to you in the past week leave the item blank. Once the scale has been completed we will go back to the beginning and rate all of the items as if they did happen to you. For each item circle the number that best describes how upsetting these things would be to you." Each item was read to the children and the researcher was available to

answer questions or to clarify any of the hassles listed. Once the scale was completed by the subjects the researcher collected all the questionnaires.

The researcher then administered the CSRH questionnaire to the children. Each child was asked to rate their own sense of humor using a 5-point Likert style response scale. The researcher was available to answer questions or to clarify any items on the questionnaire. Once the questionnaire was completed by the subjects the researcher collected all the questionnaires. Each survey was coded with a unique, confidential identification number.

Scoring

The HSESC had a possible score ranging from 22-110. Each subject's total hassles score, from the 5-point Likert style response scale, was obtained by summing the severity of the 22 hassle items. Also, hassle scores were computed for each of the five stressor categories (family problems, feeling different, school problems, discipline, and general concerns). Each subject's score for the five stressor categories was obtained by summing the severity of the items in each category and dividing by the number of items in that category. Total frequency scores for each stressor category were obtained by adding the number of responses indicated by each child and dividing by the total number of possible responses in each category.

The CSRH questionnaire had a possible score ranging from 16-80. A median split was used to group subjects into a high humor group (above 48) and low humor group (below 48). Each subject's humor score was obtained by summing the humor score of each item. The four contraindicative items of the CSRH (items 3, 12, 14, and 18) were omitted from the scoring.

Follow-up Interviews

To provide a more in-depth understanding of children's use of humor in responding to hassles they identified as experiencing in the past week, a subsample of 12 children, six boys and six girls, were randomly selected to represent the three grade levels (third, fourth, and fifth) and high and low humor scores. Children's humor scores ranged from 39-70 (M = 50.50, SD = 9.25). Children in the low humor follow-up group means were M = 43.67, SD = 3.14. Children in the high humor group means were M = 57.30, SD = 8.14. The interviews were conducted once the administration and scoring of the hassles scale and the humor questionnaire were completed. The interviews were tape recorded for later analysis. Parents were contacted, by the researcher, to arrange a day and time for the follow-up interview with their child. Interviews were conducted at the child's home. Children were asked to answer questions pertaining to the use of humor in stressful situations (see Appendix I).

Chapter IV

Results

The high humor group (HH) consisted of 50 subjects, 33 boys and 17 girls (13, 8-year-olds; 10, 9-year-olds; 17, 10-year-olds; and 10, 11-year-olds), with humor scores ranging from 49-77 (M = 60.10, SD = 7.82). The low humor group (LH) consisted of 32 subjects, 17 boys and 15 girls (8, 8-year-olds; 10, 9-year-olds; 6, 10-year-olds; and 8, 11-year-olds), with humor scores ranging from 20-47 (M = 39.25, SD = 6.42).

A GLM one-way analysis of variance was conducted to examine differences between the high and low humor groups on the amount of severity of hassles. The analysis, $F(1,80) = 0.24$, $p > 0.6236$, indicated that there was no significant difference (see Table 2). Also, five GLM one-way analyses of variance were conducted to examine differences between the high and low humor groups in the amount of severity of hassles for each stressor category; family problems ($F(1,80) = 0.88$, $p > 0.3516$), feeling different ($F(1,80) = 0.45$, $p > 0.5022$), school problems ($F(1,80) = 0.38$, $p > 0.5407$), discipline ($F(1,80) = 0.32$, $p > 0.5735$), and general concerns ($F(1,80) = 0.01$, $p > 0.9091$). As shown these analyses also failed to demonstrate any significant differences for severity of hassles. The means and standard deviations of the severity of hassles by stressor category

Table 2

Analysis of Variance for Severity of Hassles by High/Low Humor Groups

Source	df	SS	MS	F	p
Group	1	62.35	62.35	0.24	0.6236
Subject (Group)	80	20543.37	256.79		
Total (Adj)	81	20605.72			

are shown in Table 3. Thus, the results did not support the hypothesis that children with a high sense of humor would report hassles as being less upsetting as compared with children with a low sense of humor that would report hassles as being more upsetting.

A Chronbach alpha (Anastasi, 1982), a measure of interitem consistency, showed that the hassles scale was reliable with a alpha coefficient of .87. Additionally, a Chronbach alpha was obtained for each of the five stressor categories, family problems (.85), feeling different (.83), school problems (.78), discipline (.80), and general concerns (.86). Also, a Chronbach alpha showed the humor questionnaire was reliable with a alpha coefficient of .82.

Frequency of hassles by stressor category indicated that hassles associated with the general concerns category occurred most frequently followed by family problems, feeling different, discipline, and school problems (see Table 4). These findings conflicted with Omizo, Omizo, and Suzuki's (1988) study. They found that elementary school children indicated that family problems occurred most frequently followed by feeling different, school problems, discipline, and general concerns.

Severity of hassle scores by stressor category indicated that children found discipline most upsetting followed by school problems, family problems, general concerns, and

Table 3

Severity of Hassles Means and Standard Deviations by Stressor Category

	Group	
Stressor Category	High Humor	Low Humor
Family problems (1,6,13,18,21)		
M	14.64	15.63
SD	4.29	5.15
Feeling different (2,7,11,16)		
M	10.66	11.22
SD	3.38	4.06
School problems (3,8,12,17,19)		
M	15.12	15.75
SD	4.71	4.24
Discipline (4,9,14,20)		
M	12.76	12.28
SD	3.79	3.66
General concerns (5,10,15,22)		
M	11.72	11.81
SD	3.56	3.59

Note. N = 82

Table 4

Proportion of Responses by Stressor Category

Stressor Category	Frequency	Proportion
General concerns (5,10,15,22)	143	.436
Family problems (1,6,13,18,21)	176	.429
Feeling different (2,7,11,16)	128	.390
Discipline (4,9,14,20)	110	.335
School problems (3,8,12,17,19)	64	.156

Note. Total frequencies indicated only for those hassles that occurred in the past week from each child.

feeling different (see Table 5). The results indicated that even though general concerns had occurred more frequently in the past week these hassles were less upsetting to children than discipline which was more upsetting but occurred less frequently.

Follow-up interviews were conducted with a subsample of 12 children. The subsample of children consisted of six boys and six girls, randomly selected, representing the three grade levels (third, fourth, and fifth). Two boys, one with a high sense of humor and one with a low sense of humor, and two girls, one with a high sense of humor and one with a low sense of humor for each grade level were interviewed. High humor scores ranged from 49-70 ($\underline{M}$ = 57.3, $\underline{SD}$ = 8.14) and low humor scores ranged from 39-47 ($\underline{M}$ = 43.6, $\underline{SD}$ = 3.14).

Interview questions were specific to hassles that each child indicated had occurred in the past week. When the children were asked **"what did you do to deal with the stress when you experienced a particular situation"** every child, regardless of whether they indicated that they had a high sense of humor or low sense of humor, stated that they talked to someone about the situation. Moreover, the children's response was consistent for all the items they indicated had occurred. In most instances they talked with a parent while a few children talked to a friend. Also, a

Table 5

Total Mean Severity of Hassles Scores by Stressor Category

Stressor Category	Total Mean Hassle Score	Mean
Discipline (4,9,14,20)	257.75	3.14
School problems (3,8,12,17,19)	252.80	3.08
Family problems (1,6,13,18,21)	247.00	3.01
General concerns (5,10,15,22)	241.25	2.94
Feeling different (3,8,12,17,19)	223.00	2.72

few children said that they would go off to be alone or find something to do to keep busy so as not to think about the situation. One child said, "I go to my room to get away." Once again, no differences dependent on the child's level of sense of humor were found.

The children were asked **"if they ever use humor to deal with the situation and the kind of humor they used"**. Every child, with the exception of one child, said that they sometimes used humor to deal with a stressful situation. It appeared that children used humor in those situations they found to be less upsetting. The less upsetting the stressful situation was to the child the more likely they would have used humor to deal with the situation. The kind of humor they reported using in dealing with stressful situations was the telling of jokes or funny riddles. When asked if they used any other kinds of humor to deal with a particular stressful situation the children replied that they just told jokes or funny riddles. It appeared that the humor used was not necessarily directly related to the hassle but rather humor was used as a distractor.

When asked **"what usually happens when you use humor or how does it make you feel when you use humor in stressful situations"** the children indicated that using humor "helps to make me feel better" about the situation. A few children added, "It depends on how serious it is." Again, it

appeared that the more serious or upsetting the situation was the less humor helped them to feel better about the situation.

The children were asked "**in what situations is humor effective in helping you deal with stress and why**". They were also asked "**when is humor not effective in dealing with stressful situations and why**". Each child, except the one child who reported (he/she) never used humor, replied that humor can be effective in any situation depending on how upsetting the situation was to them. The more upsetting the situation was to the child the less humor was effective in dealing with the situation. One child said, "When it is something real serious its not funny and you don't feel happy. Not getting my homework done is very serious, its not funny."

In summary, when children were confronted with a stressful situation they indicated they would talk with a parent or friend, or tried to find something to do to keep busy so as not to think of the stressful situation. The children stated that when they did use humor to deal with stressful situations it takes the form of telling jokes or funny riddles. When the children used humor in stressful situations they reported that it helped them to feel better about the situation. However, using humor in a stressful situation in order to feel better about the situation and

the effectiveness of using humor depended on how upsetting the situation was to the child. The more upsetting the situation was to the child the less likely they would use humor. Also, the more upsetting the situation was to the child the less effective humor was in dealing with the situation. The results from the follow-up interviews were consistent across all three grade levels and did not depend on the child's reported level of sense of humor.

Chapter V

Discussion

Results indicated that there was no significant difference between the severity of hassles as indicated by scores on the Hassles Scale for Elementary School Children (HSESC) of the sample of subjects with high sense of humor scores and low sense of humor scores in response to a number of hassles. The results did not support the hypothesis that children with a perceived high sense of humor would report hassles as being less upsetting as compared with children with a perceived low sense of humor that would report hassles as being more upsetting.

In order to rule out the possibility that the summated stress score was making differences in the five individual stressor categories, further analyses were conducted (ANOVA's). No significant differences were found between the low and high humor groups in severity of hassles for any of the five stressor categories (family problems, feeling different, school problems, discipline, and general concerns). What was found for total stress was confirmed for each of the five stressor categories. The use of humor to deal with stress in each of the stressor categories depended more on the child's perception of the severity of the hassle rather than the perception of their own level of sense of humor.

In follow-up interviews children indicated making limited use of humor in dealing with stressful situations. Basically, humor was used as a distraction in dealing with hassles; for example as a emotion-focused form of coping. According to their reports humor was effective in dealing with stress. However, when humor was used the content or theme was not specific to the stressful situation. Moreover, the use of humor seemed to depend more on the children's perception of the severity of the hassles than on a particular situation. The more upsetting the situation the less likely the children were to use humor as a distraction. This seems to imply that these children's use of humor, as a way of coping, was limited by their perceived severity of a particular stressful situation.

According to the incongruity theories, which focus on the cognitive elements of humor, the essence of humor resides in the bringing together of two normally dissimilar ideas, concepts, or situations in a surprising or unexpected manner. Fry (1963), McGhee (1971), and Shultz (1972, 1976) proposed that the perception of incongruity was a necessary condition for the experience of humor. McGhee (1983b) maintained that in the case of humor, once children become confident of the relationship between stimulus elements or achieve a new level of understanding through the acquisition of new cognitive skills, children enjoy distorting that

understanding or knowledge in the guise of a joke. However, this may not apply to children who have experienced a stressful situation. Children may feel less confident, less able to understand the relationship between stimulus elements, or may not even recognize that a relationship exists between stimulus elements. These factors may limit children's ability to joke about the stressful situation. Additionally, it could be argued that in a stressful situation children may be less able to bring together two dissimilar ideas, concepts, or situations. In this case children would have more difficulty to in seeing humor when under stress.

The adult literature does not inform us of the process by which children respond to stress, but it does provide conceptualizations that may help us understand children's response to stress. A theoretical perspective that may be relevant is the adult-based stress and coping model (Folkman & Lazarus, 1980; Lazarus & Folkman, 1984). The model distinguishes specific coping approaches, classified as either problem-focused coping (trying to manage or modify the source of the problem) or emotion-focused coping (trying to manage or reduce emotional stress). In this study children reported coping with stressful situations by trying to reduce the emotional stress through an inhibition of action or using humor as a distraction. Children also

indicated that they talked to someone about the situation. In this instance children were capable of using a problem-focused coping mechanism. Children indicated that they sought the help of their parents in trying to manage the source of the stressor.

Lazarus and Folkman (1984) proposed that psychological stress "is a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources" (p. 21). One's coping process and way of coping may also be influenced by a person's appraisal of the situation. This process was used by children in this study. The interview data seem to show that children used humor (emotion-focused) in coping with minor hassles and to seek help (problem-focused) in coping with more severe stressors. Humor was used as a means to inhibit an action or as a means of distraction.

Interview data also provide us with some knowledge about the process of coping among children. In many situations these children used humor, initially, to reduce emotional stress. Then they might talk to someone or seek the help of their parents in trying to cope with the stressor (hassle). This is reflective of a problem-focused coping process.

Frequency of hassles in this study indicated that children experienced more general concerns, which did not coincide with the Omizo et al. (1988) study, followed by

family problems, feeling different, discipline, and school problems. A explanation for general concerns occurring more often may have been that the children did not have any control of the situation which may have led to their feeling more upset. One explanation for family problems occurring more often in the Omizo et al. (1988) study may have been that children spend a good portion of their time with their family and interacting with other members of their family. This would seem to suggest that family problems would occur more frequently. The only category that coincided with the Omizo et al. (1988) study was discipline, which ranked fourth among the stressor categories.

This study found that family problems ranked second while the Omizo et al. (1988) study found feeling different ranked second in occurrence of hassles. In this study the third most frequently occurring category was feeling different while the Omizo et al. (1988) study found school problems occurring more frequently. It would seem that the category of feeling different would have ranked higher in this study because the children, ranging in age from 8-11 years old, are beginning to experience feelings of being different. Therefore, they would experience feeling different more often than the subjects in the Omizo et al. (1988) study in which the children ranged in age from 6-12 years old. However, it was found that feeling different

ranked lower in this study as compared to the higher ranking in the Omizo et al. (1988) study. Finally, it was found that school problems ranked last in occurrence of hassles for this study. This can be explained in that children were asked to indicate those items that occurred to them in the past week. However, because most of the children had been out of school two or more weeks when the hassles scale was administered they would not have been able to indicate those items as occurring in the past week.

Hassle scores indicated that children found discipline more upsetting than any of the other four stressor categories, school problems, family problems, general concerns, and feeling different, respectively. The results showed that family problems, feeling different, and general concerns occurred more frequently than discipline hassles which ranked fourth in frequency. It was also found that family problems, feeling different, and general concerns were less upsetting to the child while discipline hassles were more upsetting but occurred less frequently. One reason for discipline to have been the most upsetting category may have been that if the child was punished for something he/she did not do or received inconsistent discipline this may have caused confusion. This confusion may have added to the stressfulness of the situation. Another explanation may have been that discipline brings

about some embarrassment especially if conducted in front of peers. This may also have added to the stressfulness of the situation. Feeling different was reported as the least upsetting of the five stressor categories. This was an interesting finding in that it would appear for the age group of this study (8-11 years old) that feeling different would have ranked higher on severity of hassles.

Conclusion

Does humor really help children deal with the effects of stress? The results of this study indicated that the use of humor in stressful situations depended more on the child's appraisal of the severity of the hassle than on the child's sense of humor. The less upsetting the stressful situation was to the child the more likely the child was to use humor and the more effective humor was in dealing with the stressful situation.

Evidence was found to support Martin's (1988) contention that humorous responses in times of stress may be effective in dealing with the adverse consequences of stress. According to Martin (1988), humor can provide alternative perspectives on the situation. Humor allows for a reappraisal of the threatening aspect of the problem, permitting the child to view the problem more objectively and potentially to engage in more effective problem solving. Humor as a form of emotion-focused coping allows the child

time to distance themself from the problem and then regroup or to view the problem more objectively and then problem solve (problem-focused coping) by asking parents for help.

Suggestions for Future Research

To more fully understand these uses of humor among children more research is needed in the area of children's production of humor. Also, future research could focus on the qualitative aspect of the effects of humor on children's stress. Researchers could investigate in more detail how children produce humor in stressful situations.

A better understanding of how children produce humor may lead to the development of a more valid and reliable instrument to measure children's sense of humor. Further studies should be conducted to refine and validate both the hassles scale and the humor questionnaire used in this study. A item analysis could provide for a more valid and reliable instrument.

Further research is needed to examine the cognitive processes involved in children's use of humor in stressful situations. Little is known about the effects of different types of humor in dealing with stressful situations. Is viewing a funny cartoon more helpful to the child in dealing with stress than a funny story or telling jokes.

Still another unanswered question is the role of time in relation to children's effective use of humor in coping with

stress. For example, it may be that humor is effective only after a passage of time.

References

Allen, L., & Zigler, E. (1986). Humor in children: A nonverbal humor test. Journal of Applied Developmental Psychology, 7, 267-276.

Anastasi, A. (1982). Psychological testing (5th ed.). New York: Macmillan.

Appley, M. H., & Trumbull, R. (1986). Development of the stress concept. In M. H. Appley & R. Trumbull (Eds.), Dynamics of stress: Physiological, psychological, and social perspectives (pp. 3-18). New York: Plenum.

Apter, M. (1982). The experience of motivation. London: Academic.

Apter, M., & Smith, K. (1977). Humour and the theory of psychological reversals. In A. J. Chapman & H. C. Foot (Eds.), It's a funny thing, humour (pp. 95-100). Oxford: Pergamon.

Arent, R. P. (1984). Stress and your child. Englewood Cliffs, NJ: Prentice-Hall.

Berlyne, D. E. (1960). Conflict, arousal and curiosity. New York: McGraw-Hill.

Berlyne, D. E. (1969). Laughter, humor and play. In G. Lindzey & E. Aronson (Eds.), Handbook of social psychology 2nd ed., Vol. 3, pp. 795-852. Reading, MA: Addison-Wesley.

Berlyne, D. E. (1972). Humor and its kin. In J. H. Goldstein & P. E. McGhee (Eds.), The psychology of humor (pp. 43-60). New York: Academic.

Boss, P. (1987). Family stress. In M. B. Sussman & S. K. Steinmetz (Eds.), Handbook of marriage and the family (pp. 695-723). New York: Plenum.

Brodzinsky, D., & Rightmyer, J. (1980). Individual differences in children's humour development. In P. E. McGhee & A. J. Chapman (Eds.), Children's humour (pp. 181-212). Chichester: Wiley.

Brown, B. (1980). Perspectives on social stress. In H. Selye (Ed.), Selye's guide to stress research: Vol. 1 (pp. 21-45). New York: Van Nostrand Reinhold.

Chapman, A. J. (1975). Humorous laughter in children. Journal of Personality and Social Psychology, 31, 42-49.

Coddington, R. (1972a). The significance of life events as etiologic factors in the diseases of children: A survey of professionals. Journal of Psychosomatic Research, 16, 7-18.

Coddington, R. (1972b). The significance of life events as etiologic factors in the diseases of children: A study of a normal population. Journal of Psychosomatic Research, 16, 205-213.

Coddington, R. (1984). Measuring the stressfulness of a child's environment. In J. H. Humphrey (Ed.), Stress in childhood (pp. 3-18). New York: AMS Press.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98, 310-357.

Colton, J. (1985). Childhood stress: Perceptions of children and professionals. Journal of Psychopathology and Behavioral Assessment, 7, 155-173.

Compas, B. (1987). Stress and life events during childhood and adolescence. Clinical Psychology Review, 7, 275-302.

Compas, B., & Phares, V. (1991). Stress during childhood and adolescence: Sources of risk and vulnerability. In E. M. Cummings, A. L. Greene, & K. H. Karraker (Eds.), Life-span developmental psychology (pp. 111-129). Hillsdale, NJ: Erlbaum.

Cousins, N. (1979). Anatomy of an illness. New York: Norton.

Damico, S., & Purkey, W. (1978). Class clowns: A study of middle school students. American Educational Research Journal, 15, 391-398.

Dekker, D. J., & Webb, J. T. (1974). Relationships of the social readjustment rating scale to psychiatric patient status, anxiety, and social desirability. Journal of Psychosomatic Research, 18, 125-130.

DeLongis, A., Folkman, S., & Lazarus, R. (1988). The impact of daily stress on health and mood: Psychological and social resources as mediators. Journal of Personality and Social Psychology, 54, 486-495.

Dillon, K. M., Minchoff, B., & Baker, K. H. (1985). Positive emotional states and enhancement of the immune system. International Journal of Psychiatry in Medicine, 15, 13-18.

Dixon, N. F. (1980). Humor: A cognitive alternative to stress? In I. G. Sarason & C. D. Spielberger (Eds.), Stress and anxiety (Vol. 7, pp. 281-289). Washington, DC: Hemisphere.

Dobson, J., Campbell, N., & Dobson, R. (1982). The relationship between children's self-concepts, perceptions of school, and life change. Elementary School Guidance and Counseling, 17(2), 100-107.

Dohrenwend, B. S. (1973). Life events as stressors: A methodological inquiry. Journal of Health and Social Behavior, 14, 167-175.

Dohrenwend, B. S., & Dohrenwend, B. P. (1970). Class and race as status related sources of stress. In S. Levine & N. A. Scotch (Eds.), Social stress (pp. 111-140). Chicago: Aldine.

Dohrenwend, B. S., & Dohrenwend, B. P. (Eds.). (1974). Stressful life events: Their nature and effects. New York: Wiley.

Dworkin, E. S., & Efran, J. S. (1967). The angered: Their susceptibility to varieties of humor. Journal of Personality and Social Psychology, 6, 233-236.

Elkind, D. (1986). Stress and the middle grade. School Counselor, 33, 196-206.

Eysenck, H. J. (1972). Foreword. In J. H. Goldstein & P. E. McGhee (Eds.), The psychology of humor. New York: Academic.

Feist, J., & Brannon, L. (1988). Health psychology: An introduction to behavior and health. Belmont, CA: Wadsworth.

Felker, D., & Hunter, D. (1970). Sex and age differences in response to cartoons depicting subjects of different ages and sex. Journal of Psychology, 76, 19-21.

Folkman, S., & Lazarus, R. (1980). An analysis of coping in a middle-aged community sample. Journal of Health and Social Behavior, 21, 219-239.

Frankl, V. (1969). The will to meaning. New York: World.

Freud, S. (1905). Jokes and their relation to the unconscious. Leipzig: Deuticke.

Freud, S. (1928). Humour. International Journal of Psychoanalysis, 9, 1-6.

Froberg, J., Karlsson, C., Levi, L., & Lidberg, L. (1971). Physiological and biochemical stress reactions induced by psychosocial stimuli. In L. Levi (Ed.), Society, stress, and disease: The psychosocial environment and psychosomatic diseases (pp. 280-295). New York: Oxford.

Fry, W. F. (1963). Sweet madness: A study of humor. Palo Alto: Pacific.

Fry, W. F. (1986). Humor, physiology and the aging process. In L. Nahemow, K. McCluskey-Fawcett, & P. E. McGhee (Eds.), Humor and aging (pp. 81-98). Orlando: Academic.

Gallois, C., & Callan, V. (1985). The influence of ethnocentrism and ethnic label on the appreciation of disparagement jokes. International Journal of Psychology, 20, 63-76.

Garmezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. Child Development, 55, 97-111.

Gersten, J. C., Langner, T. S., Eisenberg, J. G., & Orzeck, L. (1974). Child behavior and life events: Undesirable change or change per se? In B. S. Dohrenwend & B. P. Dohrenwend (Eds.), Stressful life events: Their nature and effects (pp. 159-170). New York: Wiley.

Goldstein, J. H. (1982). A laugh a day: Can mirth keep disease at bay? The Sciences, 22, 21-25.

Goldstein, J. H. (1987). Therapeutic effects of laughter. In W. Fry & W. Salameh (Eds.), Handbook of humor and psychotherapy: Advances in the clinical use of humor (pp. 1-19). Sarasota, FL: Professional Resources Exchange.

Goodman, J. (1983). How to get more smileage out of your life: Making sense of humor, then serving it. In P. E. McGhee & J. H. Goldstein (Eds.), Handbook of humor research: Vol. 2 (pp. 1-21). New York: Springer-Verlag.

Hetherington, E., & Wray, N. (1964). Aggression, need for social approval, and humor preferences. Journal of Abnormal and Social Psychology, 68, 685-689.

Hill, R. (1949). Families under stress. New York: Harper & Row.

Hill, R. (1958). Generic features of families under stress. Social Casework, 49, 139-150.

Hodges, K., Kline, J., Barbero, G., & Flanery, R. (1984). Life events occurring in families of children with recurrent abdominal pain. Journal of Psychosomatic Research, 28, 185-188.

Holmes, T. H., & Rahe, R. H. (1967). The social readjustment rating scale. Journal of Psychosomatic Research, 11, 213-218.

Holroyd, K., & Lazarus, R. (1982). Stress, coping and somatic adaptation. In L. Goldberger & S. Breznitz (Eds.), Handbook of stress: Theoretical and clinical aspects (pp. 21-35). New York: Free Press.

Johnson, J. H. (1986). Life events as stressors in childhood and adolescence. Beverly Hills, CA: Sage.

Johnson, J. H., & McCutcheon, S. M. (1980). Assessing life stress in older children and adolescents: Preliminary findings with the life events checklist. In I. G. Sarason & C. D. Spielberger (Eds.), Stress and anxiety (Vol. 7, pp. 111-125). Washington, DC: Hemisphere.

Johnson, J. H., & Sarason, I. G. (1978). Life stress, depression and anxiety: Internal-external control as a moderator variable. Journal of Psychosomatic Research, 22, 205-208.

Johnson, J. H., & Sarason, I. G. (1979). Moderator variables in life stress research. In I. G. Sarason & C. D. Spielberger (Eds.), Stress and anxiety (Vol. 6, pp. 151-167). Washington, DC: Hemisphere.

Kagan, J. (1967). On the need for relativism. American Psychologist, 22, 131-143.

Kanner, A., Coyne, J., Schaefer, C., & Lazarus, R. (1981). Comparison of two modes of stress management: Daily hassles and uplifts versus major life events. Journal of Behavioral Medicine, 4, 1-39.

Keith-Spiegel, P. (1972). Early conceptions of humor: Varieties and issues. In J. H. Goldstein & P. E. McGhee (Eds.), The psychology of humor (pp. 3-39). New York: Academic.

Kobasa, S. C. (1985). Stressful life events, personality, and health: An inquiry into hardiness. In A. Monat & R. S. Lazarus (Eds.), Stress and coping: An analogy (2nd ed., pp. 174-188). New York: Columbia University Press.

Koestler, A. (1964). The act of creation. London: Hutchinson.

Labott, S. M., & Martin, R. B. (1987). The stress-moderating effects of weeping and humor. Journal of Human Stress, 13, 159-164.

Lauer, R. H. (1973). The social readjustment scale and anxiety. Journal of Psychosomatic Research, 17, 171-174.

Lazarus, R. S. (1966). Psychological stress and the coping process. New York: McGraw-Hill.

Lazarus, R. S. (1980). The stress and coping paradigm. In C. Eisdorfer, D. Cohen, & A. Kleinman (Eds.), Conceptual models for psychopathology (pp. 177-214). New York: Spectrum.

Lazarus, R. S., & Cohen, J. B. (1977). Environmental stress. In I. Altman & J. F. Wohlwill (Eds.), Human behavior and the environment: Current theory and research. New York: Plenum.

Lazarus, R. S., Coyne, J. C., & Folkman, S. (1982). Cognition, emotion, and motivation: The doctoring of Humpty-Dumpty. In R. W. J. Neufeld (Ed.), Psychosocial stress and psychopathology (pp. 218-239). New York: McGraw-Hill.

Lazarus, R. S., & Folkman, S. (1984). Coping and adaptation. In W. D. Gentry (Ed.), Handbook of behavioral medicine. New York: Guilford.

Lazarus, R. S., & Folkman, S. (1985). Stress, appraisal, and coping. New York: Springer.

Lazarus, R. S., Kanner, A., & Folkman, S. (1980). Emotions: A cognitive-phenomenological analysis. In R. Plutchik & H. Kellerman (Eds.), Theories of emotion (pp. 189-217). New York: Academic Press.

Lazarus, R. S., & Launier, R. (1978). Stress-related transactions between persons and environment. In L. A. Pervin & M. Lewis (Eds.), Perspectives in international psychology (pp. 287-327). New York: Plenum.

Lefcourt, H. M., & Martin, R. A. (1986). Humor and life stress: Antidote to adversity. New York: Springer-Verlag.

Lefcourt, H. M., Miller, R. S., Ware, E. E., & Sherk, D. (1981). Locus of control as a modifier of the relationship between stressors and moods. Journal of Personality and Social Psychology, 41, 357-369.

Levi, L. (1965). The urinary output of adrenalin and nonadrenalin during pleasant and unpleasant emotional states. Psychosomatic Medicine, 27, 80-85.

Levine, J. (1977). Humour as a form of therapy: Introduction to symposium. In A. J. Chapman & H. C. Foot (Eds.), It's a funny thing, humour (pp. 127-137). Oxford: Pergamon.

Luborsky, L., Docherty, J. P., & Penick, S. (1973). Onset conditions for psychosomatic symptoms: A comparative review of immediate observation with retrospective research. Psychosomatic Medicine, 35, 187-204.

Mannell, R., & McMahon, L. (1982). Humor as play: Its relationship to psychological well-being during a course of a day. Leisure Sciences, 5(2), 143-155.

Martin, R. A. (1988). Humor and the mastery of living: Using humor to cope with the daily stresses of growing up. Journal of Children in Contemporary Society, 20, 135-154.

Martin, R. A., & Dobbin, J. P. (1988). Sense of humor, hassles, and immunoglobulin A: Evidence for a stress-moderating effect of humor. International Journal of Psychiatry in Medicine, 18(2), 93-105.

Martin, R. A., & Lefcourt, H. M. (1983). Sense of humor as a moderator of the relation between stressors and moods. Journal of Personality and Social Psychology, 45, 1313-1324.

Martin, R. A., & Lefcourt, H. M. (1984). Situational humor response questionnaire: Quantitative measure of sense of humor. Journal of Personality and Social Psychology, 47, 145-155.

Masten, A. (1986). Humor and competence in school-aged children. Child Development, 57, 461-473.

McClelland, D. C. (1989). Motivational factors in health and disease. American Psychologist, 44, 675-683.

McCubbin, H., Joy, C., Cauble, B., Comeau, J., Patterson, J., & Needle, R. (1980). Family stress and coping: A decade review. Journal of Marriage and the Family, 42(4), 855-871.

McGhee, P. E. (1971). The development of the humor response: A review of the literature. Psychological Bulletin, 71, 328-348.

McGhee, P. E. (1977). A model of the origins and early development of incongruity-based humour. In A. J. Chapman & H. C. Foot (Eds.), It's a funny thing, humour (pp. 27-36). Oxford: Pergamon.

McGhee, P. E. (1979). Humor: Its origin and development. San Francisco: Freeman.

McGhee, P. E. (1980). Development of the creative aspects of humour. In P. E. McGhee & A. J. Chapman (Eds.), Children's humour (pp. 119-139). Chichester: Wiley.

McGhee, P. E. (1983a). The role of arousal and hemispheric lateralization in humor. In P. E. McGhee & J. H. Goldstein (Eds.), Handbook of humor research: Vol. 1 (pp. 13-37). New York: Springer-Verlag.

McGhee, P. E. (1983b). Humor development: Toward a life span approach. In P. E. McGhee & J. H. Goldstein (Eds.), Handbook of humor research: Vol. 1 (pp. 109-134). New York: Springer-Verlag.

McGhee, P. E. (1986). Humor across the life span: Sources of developmental change and individual differences. In L. Nahemow, K. McCluskey-Fawcett, & P. E. McGhee (Eds.), Humor and aging (pp. 27-51). Orlando: Academic.

McGhee, P. E., & Grodzitsky, P. (1973). Sex-role identification and humor among preschool children. Journal of Psychology, 84, 189-193.

McLanahan, S. (1983). Family structure and stress: A longitudinal comparison of two-parent and female-headed families. Journal of Marriage and the Family, 45, 347-357.

Miller, H. B., & Sawyers, J. K. (1989). A comparison of self and teachers' ratings of creativity in fifth-grade children. The Creative Child and Adult Quarterly, 14, 179-185.

Mishkinsky, M. (1977). Humour as a "courage mechanism". Israel Annals of Psychiatry and Related Disciplines, 15, 352-363.

Moody, R. (1978). Laugh after laugh: The healing power of humor. Jacksonville, FL: Headwaters.

Moris, A. (1985). Humor and leadership among adolescents. In A. Ziv (Ed.), Adolescence: The unusual age. Tel Aviv: Papyrus.

Nezu, A. M., Nezu, C. M., & Blissett, S. E. (1988). Sense of humor as a moderator of the relation between stressful events and psychological distress: A prospective analysis. Journal of Personality and Social Psychology, 54, 520-525.

Nezu, A. M., Nezu, C. M., & Peterson, M. A. (1986). Negative life stress, social support, and depressive symptoms: Sex role as a moderator variable. Journal of Social Behavior and Personality, 1, 599-609.

Nezu, A. M., Nezu, C. M., Saraydarian, L., Kalmar, K., & Ronan, G. F. (1986). Social problem solving as a moderating variable between negative life stress and depressive symptoms. Cognitive Therapy and Research, 10, 489-498.

O'Connell, W. E. (1976). Freudian humour: The eupsychia of everyday life. In A. J. Chapman & H. C. Foot (Eds.), Humour and laughter: Theory, research and applications (pp. 313-329). London: Wiley.

O'Connell, W. E. (1987). Natural high theory and practice: The humorist's game of games. In W. Fry & W. Salameh (Eds.), Handbook of humor and psychotherapy: Advances in the clinical use of humor (pp. 55-79). Sarasota, FL: Professional Resources Exchange.

Omizo, M., Omizo, S., & Suzuki, L. (1988). Children and stress: An exploratory study of stressors and symptoms. School Counselor, 35(4), 267-274.

Pearlin, L. T., Liberman, M. A., Menaghan, E. G., & Mullan, J. T. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.

Peel, B. B. (1987). Coping and adaptation among adolescents. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Piddington, R. (1963). The psychology of laughter: A study in social adaptation. New York: Gamut.

Pien, D., & Rothbart, M. K. (1980). Incongruity, humour, play, and self-regulation of arousal in young children. In P. E. McGhee & A. J. Chapman (Eds.), Children's humour (pp. 1-26). Chichester: Wiley.

Pinderhughes, E., & Zigler, E. (1985). Cognitive and motivational determinants of children's humor responses. Journal of Research in Personality, 19, 185-196.

Porterfield, A. L. (1987). Does sense of humor moderate the impact of life stress on psychological and physical well-being? Journal of Research in Personality, 21, 306-317.

Prerost, F. J. (1975). The indication of sexual and aggressive similarities through humor appreciation. Journal of Psychology, 91, 283-288.

Rabkin, J. G., & Struening, E. L. (1976). Life events, stress, and illness. Science, 194(4269), 1013-1020.

Robinson, V. (1983). Humor and health. In P. E. McGhee & J. H. Goldstein (Eds.), Handbook of humor research: Vol. 2 (pp. 109-128). Springer-Verlag.

Robles, R., Smith, R., Carver, C. S., & Wellens, A. R. (1987). Influence of subliminal visual images on the experience of anxiety. Personality and Social Psychology Bulletin, 13, 399-410.

Rosenwald, G. (1964). The relation of drive discharge to the enjoyment of humour. Journal of Personality, 32, 682-697.

Runco, M. A. (1984). Teachers' judgments of creativity and social validation of divergent thinking tests. Perceptual and Motor Skills, 59, 711-717.

Runco, M. A. (1988). Parents' and teachers' ratings of the creativity of children. Journal of Social Behavior and Personality, 4, 73-83.

Runco, M. A., & Schreibman, L. (1983). Parental judgments of behavior therapy efficacy with autistic children: A social validation. Journal of Autism and Developmental Disorders, 13, 237-248.

Runco, M. A., & Schreibman, L. (1987). Socially validating behavioral objectives in the treatment of autistic children. Journal of Autism and Developmental Disorders, 17, 141-147.

Runco, M. A., & Schreibman, L. (1988). Children's judgments of autism and social validation of behavior therapy efficacy. Behavior Therapy, 19, 565-576.

Safranek, R., & Schill, T. (1982). Coping with stress: Does humor help? Psychological Reports, 51, 222.

Sandler, I. N., & Lakey, B. (1982). Locus of control as a stress moderator: The role of control perceptions and social support. American Journal of Community Psychology, 10, 65-80.

Sarason, I. G. (1980). Life stress, self preoccupation, and social supports. In I. G. Sarason & C. D. Spielberger (Eds.), Stress and anxiety (Vol. 7, pp. 73-92). Washington, DC: Hemisphere.

Sarason, I. G., Johnson, J. H., & Siegel, J. M. (1978). Assessing the impact of life changes: Development of the life experiences survey. Journal of Consulting and Clinical Psychology, 46, 932-946.

Selye, H. (1956). The stress of life. New York: McGraw-Hill.

Selye, H. (1976). The stress of life (rev. ed.). New York: McGraw-Hill.

Selye, H. (1982). History and present status of the stress concept. In L. Goldberger & S. Breznitz (Eds.), Handbook of stress: Theoretical and clinical aspects (pp. 7-17). New York: Free Press.

Shultz, T. R. (1972). The role of incongruity and resolution in children's appreciation of cartoon humor. Journal of Experimental Child Psychology, 13, 456-477.

Shultz, T. R. (1976). A cognitive-developmental analysis of humour. In A. J. Chapman & H. C. Foot (Eds.), Humour and laughter: Theory, research, and applications (pp. 11-36). Chichester: Wiley.

Shultz, T. R., & Bloom, L. (1976). Concrete operational thought and the appreciation of verbal jokes. In A. J. Chapman & H. C. Foot (Eds.), Humour and laughter: Theory, research, and applications. Chichester: Wiley.

Spiegel, D., Brodkin, S., & Keith-Spiegel, P. (1969). Unacceptable impulses, anxiety and the appreciation of cartoons. Journal of Projective Techniques and Personality Assessment, 33, 154-159.

Strombom, T. A. (1989). Humor and the problem solving behavior of married couples. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Swearingen, E. M., & Cohen, L. H. (1985). Measurement of adolescent's life events: The junior high life experiences survey. American Journal of Community Psychology, 13, 69-85.

Updike, K. S. (1981). Cognitive incongruity as an elicitor of laughter in older infants. Unpublished master's thesis, Virginia Polytechnic Institute and State University, Blacksburg, VA.

White, S., & Camarena, P. (1989). Laughter as a stress reducer in small groups. International Journal of Humor Research, 2, 73-79.

White, S., Winzelberg, A., & Schultz, B. (1988). Laughter as a stress reducer. Unpublished manuscript, University of California, Santa Barbara, Student Health Service.

Wicker, F., Barron, W., & Willis, A. (1980). Disparagement humor: Dispositions and resolutions. Journal of Personality and Social Psychology, 39(4), 701-709.

Yamamoto, K., & Felsenthal, H. (1982). Stressful experiences of children: Professional judgments. Psychological Reports, 50, 1087-1093.

Zigler, E., Levine, J., & Gould, L. (1966). Cognitive processes in the development of children's appreciation of humor. Child Development, 37, 507-518.

Zillman, D. (1983). Disparagement humor. In P. E. McGhee & J. H. Goldstein (Eds.), Handbook of humor research: Vol. 1 (pp. 85-108). New York: Springer-Verlag.

Zillman, D., & Bryant, J. (1980). Misattribution theory of tendentious humor. Journal of Experimental Social Psychology, 16, 146-160.

Ziv, A. (1984). Personality and sense of humor. New York: Springer.

Ziv, A., & Gadish, O. (1990). Humor and giftedness. Journal for the Education of the Gifted, 13(4), 332-345.

APPENDIX A

Parental and Child Consent Letter: Pilot Study

May 10, 1992

Dear Parent,

I am a graduate student in the Department of Family and Child Development at Virginia Tech in Blacksburg. I am conducting a pilot study on hassles in the lives of elementary school children.

In order to assess each child's stressful experiences a brief scale will be completed. Unfortunately, the scale in its present form can not be understood by elementary school aged children. The purpose of this short study is to simplify the terms so that children can understand them. If you and your child grant permission, the researcher will read each item, with your child, and explain any term that the child does not understand. Your child will be asked to give synonyms and examples of that item. Each item that your child does not understand will be treated in the same fashion. It will only take 20-30 minutes to complete.

No child will be forced to participate in the study and may withdraw from the study at any time. All information will be treated confidentially and will be identified only by a code number.

Please complete the consent form and have your child return it. If you have any questions, or would like more information, please feel free to contact Dr. Janet Sawyers at (703) 231-6148 or myself at (703) 951-2240. Thank you for your cooperation.

Sincerely,

Janet Sawyers
Project Director

Mark Casertano
Project Coordinator

Consent Form

Simplifying Terms on Hassles Scale

I acknowledge that I have been informed of the nature of this study. I understand my child may withdraw from the study at any time. It is understood that the information will be kept confidential. My child may participate in this study.

Child's name:_____

Signature of parent or guardian:_____

Signature of child:_____

Date:_____

APPENDIX B

Hassles Scale for Elementary School Children

HASSLES SCALE FOR ELEMENTARY SCHOOL CHILDREN (AGE 8-11)

NAME _____ DATE _____ AGE _____ SEX: M F RACE: Caucasian Black Hispanic Asian Other

DIRECTIONS: Below is a list of things that can happen to you. If any of these things has happened to you in the past week make a (X) next to the number. When you have finished go back and rate <u>all</u> of these things as if they did happen to you. Circle the number that best describes how upsetting these things would be to you.

		Not Upsetting	A Little Upsetting	Somewhat Upsetting	Mostly Upsetting	Very Upsetting
___	1) Parents not liking the things I do (way I dress or wear my hair, my friends)	1	2	3	4	5
___	2) Feelings of not being good enough (making mistakes, being teased by others, feeling stupid)	1	2	3	4	5
___	3) Teacher not liking me	1	2	3	4	5
___	4) Afraid of being punished	1	2	3	4	5
___	5) Doing something wrong (cheating, disobeying parents, hurting my brothers or sisters)	1	2	3	4	5

		Not Upsetting	A Little Upsetting	Somewhat Upsetting	Mostly Upsetting	Very Upsetting
___	6) Feeling left out or being ignored	1	2	3	4	5
___	7) Not having the same things as others (not getting a new bike, not having video games)	1	2	3	4	5
___	8) Afraid of failing (not doing well in sports, taking tests)	1	2	3	4	5
___	9) Unfair punishment (punished for something you did not do)	1	2	3	4	5
___	10) Feeling unsafe (walking on dark street, getting beat up, being home alone)	1	2	3	4	5
___	11) Not knowing the things I do well or don't do well (strengths and weaknesses)	1	2	3	4	5
___	12) Not getting my homework done	1	2	3	4	5
___	13) Parents arguing	1	2	3	4	5
___	14) Inconsistent discipline (sometimes you get a warning and other times you get punished for the same thing)	1	2	3	4	5
___	15) Feeling that something is going to happen (getting an award, family member will die)	1	2	3	4	5

	Not Upsetting	A Little Upsetting	Somewhat Upsetting	Mostly Upsetting	Very Upsetting
___ 16) Friends making fun of how I dress or look	1	2	3	4	5
___ 17) Being pressured by my parents to make good grades	1	2	3	4	5
___ 18) Competing with a sibling (brother or sister getting more attention from parents)	1	2	3	4	5
___ 19) Not having friends	1	2	3	4	5
___ 20) Parents and teachers being too critical (being hard on you)	1	2	3	4	5
___ 21) Wishing my parents would spend more time with me	1	2	3	4	5
___ 22) Being afraid or scared (having a bad dream)	1	2	3	4	5

APPENDIX C

Letter to Superintendent

May 12, 1992

Dr. James Sellers
Assistant Superintendent for Instructional Services
Montgomery County of Schools
Christiansburg, VA 24073

Dear Dr. Sellers,

I am a graduate student in the Department of Family and Child Development at Virginia Polytechnic Institute and State University in Blacksburg. I am constructing a sense of humor questionnaire for elementary school aged children.

Children, whose parents give consent to participate, will be asked to help with the construction of the humor scale. It will take only 15-20 minutes to complete the form. No child will be forced to participate in the project and may withdraw from the project at any time. All information will be treated confidentially and will be identified only by a code number.

I am asking your permission to solicit cooperation from the staff, parents, and children of a Blacksburg City Elementary School. I need a sample of (50) children from three grade levels (third, fourth, and fifth).

If you have any questions, or would like more information, please feel free to contact Dr. Janet Sawyers at (703) 231-6148 or myself at (703) 951-2240. I appreciate your consideration of this request.

Sincerely,

Janet Sawyers
Project Director

Mark Casertano
Project Coordinator

APPENDIX D

Parental and Child Consent Letter: Construction of Humor Questionnaire

May 15, 1992

Dear Parent,

I am a graduate student in the Department of Family and Child Development at Virginia Tech in Blacksburg. I am constructing a sense of humor questionnaire for elementary school children. I would like to ask your permission for your child to participate in the project.

In order to assess elementary school children's sense of humor I will be constructing a sense of humor questionnaire with the help of your child. Your child will be given a blank form on which your child will be asked to 1) give synonyms of "humor", and 2) to list behaviors observed in elementary school children considered to be humorous. It will take only 15-20 minutes to complete.

No child will be forced to participate in the project and may withdraw from the project at any time. All information will be treated confidentially and will be identified only by a code number.

Please complete the consent form and have your child return it to their teacher at school. If you have any questions, or would like more information, please feel free to contact Dr. Janet Sawyers at (703) 231-6148 or myself at (703) 951-2240. Thank you for your cooperation.

Sincerely,

Janet Sawyers
Project Director

Mark Casertano
Project Coordinator

Consent Form

Construction of Humor Questionnaire

I acknowledge that I have been informed of the nature of this project. I understand my child may withdraw from the project at any time. It is understood that the information will be kept confidential. My child may participate in this project.

Child's name:_____

Signature of parent or guardian:_____

Signature of child:_____

Date:_____

APPENDIX E

Humor Descriptors Checklist

NAME _____

DIRECTIONS: Below is a list of items that describe humor. Some items describe humor better than other items. Place a (X) on the line next to the items that you think best describe humor.

___ 1) amusing
___ 2) clown
___ 3) crazy
___ 4) cute
___ 5) enjoyment
___ 6) friendly
___ 7) fun
___ 8) funny
___ 9) funny voice
___ 10) goofy
___ 11) hilarious
___ 12) hot shot
___ 13) humorous
___ 14) joyful
___ 15) kid around
___ 16) laugh
___ 17) macho
___ 18) magical
___ 19) makes funny faces
___ 20) nonsense
___ 21) playful
___ 22) riddles
___ 23) sarcastic
___ 24) show off
___ 25) silly
___ 26) smart
___ 27) smile
___ 28) teasing
___ 29) tells funny stories
___ 30) tells jokes
___ 31) thoughtful
___ 32) unusual
___ 33) weird
___ 34) wild
___ 35) zany

APPENDIX F

Humor Descriptors Percentages

Table 1

Humor Descriptors Percentages

Descriptors	%	Descriptors	%
1) amusing	69	19) make funny faces	79
2) clown	10	20) nonsense	41
3) crazy	65	21) playful	41
4) cute	10	22) riddles	34
5) enjoyment	52	23) sarcastic	17
6) friendly	34	24) show off	07
7) fun	65	25) silly	86
8) funny	97	26) smart	14
9) funny voice	48	27) smile	65
10) goofy	79	28) teasing	28
11) hilarious	65	29) tell funny stories	72
12) hot shot	07	30) tell jokes	72
13) humorous	72	31) thoughtful	21
14) joyful	38	32) unusual	38
15) kid around	69	33) weird	52
16) laugh	76	34) wild	65
17) macho	03	35) zany	69
18) magical	14		

Note. N = 29

APPENDIX G

Children's Self-Rating of Humor

CHILDREN'S SELF-RATING OF HUMOR (CSRH)

NAME _____ AGE _____ GRADE _____ SEX: M F

DIRECTIONS: Please answer each question on the form. Circle the number that best describes your feelings towards each question. Take your time and carefully consider each question.

	Not At All	A Little	Somewhat	Mostly	Very Much
1) To what degree are you funny?	1	2	3	4	5
2) How often do you make funny faces?	1	2	3	4	5
3) How often do you cry?	1	2	3	4	5
4) To what degree are you silly?	1	2	3	4	5
5) To what degree are you goofy?	1	2	3	4	5
6) To what degree are you amusing?	1	2	3	4	5
7) To what degree are you humorous?	1	2	3	4	5
8) How often do you smile?	1	2	3	4	5
9) To what degree are you fun?	1	2	3	4	5
10) To what degree are you wild?	1	2	3	4	5
11) How often do you laugh?	1	2	3	4	5

	Not At All	A Little	Somewhat	Mostly	Very Much
12) To what degree are you boring?	1	2	3	4	5
13) To what degree are you hilarious?	1	2	3	4	5
14) How often do you frown?	1	2	3	4	5
15) How often do you tell jokes?	1	2	3	4	5
16) To what degree are you zany?	1	2	3	4	5
17) How often do you kid around?	1	2	3	4	5
18) To what degree are you unamusing?	1	2	3	4	5
19) How often do you tell funny stories?	1	2	3	4	5
20) To what degree are you crazy?	1	2	3	4	5

APPENDIX H

Parental and Child Consent Letter

June 3, 1992

Dear Parent,

I am a graduate student in the Department of Family and Child Development at Virginia Tech in Blacksburg. For my doctoral dissertation I am conducting a study on sense of humor and hassles in the lives of elementary school aged children.

If you and your child grant permission, your child will be asked to complete a hassles scale and a sense of humor questionnaire. The forms will be administered to your child at their camp site or classroom. It will take only 20-30 minutes to complete the forms. The researcher will ask your child to check each hassle they have experienced. Your child will also be asked to rate all of the hassles as to how upsetting they are to them. After completing the hassles scale your child will be asked to rate their own sense of humor. Also, your child may be asked to participate in a short follow-up interview.

No child will be forced to participate in the study and may withdraw from the study at any time. All information will be treated confidentially and will be identified only by a code number. A summary of the results will be shared with interested parents and the school.

Please complete the consent form and have your child return it to their camp counselor or teacher. If you have any questions, or would like more information, please feel free to contact Dr. Janet Sawyers at (703) 231-6148 or myself at (703) 951-2240. Thank you for your cooperation.

Sincerely,

Janet Sawyers
Project Director

Mark Casertano
Project Coordinator

Consent Form

Sense of Humor and the Severity of Hassles
Among Elementary School Children

I acknowledge that I have been informed of the nature of this study. I understand my child may withdraw from the study at any time. It is understood that the information will be kept confidential. My child may participate in this study.

Child's name:_____

Signature of parent or guardian:_____

Signature of child:_____

Date:_____

Address:_____

Telephone Number:_____

____ Yes, I would like the results of this study.

APPENDIX I

Interview Questions

Interview Questions

1) What do you do to deal with the stress when you experience this particular situation?

2) Do you ever use humor to help deal with this situation?

3) What kind of humor do you use in this situation?

4) What usually happens when you use humor in this situation? How do you feel?

5) In what situations is humor effective in helping you deal with stress? Why?

6) When is humor not effective? Can you think of times when humor did not help you? When? Why?

VITA

EDUCATION

Virginia Polytechnic Institute and State University
Degree: Doctor of Philosophy, August 1992.
Major: Child Development.
Dissertation: Sense of Humor and the Severity of Hassles Among Elementary School Children.

Southern Connecticut State University
Degree: Master of Science, May 1986.
Major: Counseling/Mental Health and Clinical Services.

Southern Connecticut State University
Degree: Bachelor of Arts, May 1984.
Major: Psychology.

WORK EXPERIENCE

Head Teacher- VPI&SU Child Development Laboratory, (Toddlers) August 1989-May 1992.

Back-up Teacher- VPI&SU Child Development Laboratory, August 1990-May 1991.

Graduate Assistant- VPI&SU August 1989-August 1990.

Supervisor- Highland Heights- St. Francis Home for Children February 1989-August 1989.

Assistant Supervisor- Highland Heights- St. Francis Home for Children. April 1988-February 1989.

Child Care Worker- Highland Heights- St. Francis Home for Children. May 1986-April 1988.

PROFESSIONAL ASSOCIATION MEMBERSHIPS

National Association for the Education of Young Children.

Southern Association for Children Under Six.

Virginia Association for Early Childhood Education.

Virginia Tech Association for Early Childhood Education.

Society for Research in Child Development.

PRESENTATIONS

Casertano, M. (1992, April). Sense of Humor and the Severity of Hassles Among Elementary School Children. Symposium conducted at the meeting of the 18th Annual Southeastern Symposium on Child and Family Development, Blacksburg, Virginia.

PUBLICATIONS

Rogers, C. S., Rahman, Y., & Casertano, M. A. (1991). Social experiences and stranger anxiety among infants of working and nonworking mothers. International Journal of Early Childhood, 23, 59-68.

Mark Casertano