

**THE RELATIONSHIP BETWEEN SELF-ESTEEM AND
RISK-TAKING BEHAVIOR IN ELEMENTARY
SCHOOL CHILDREN**

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THE RELATIONSHIP BETWEEN SELF-ESTEEM AND RISK-TAKING
BEHAVIOR IN ELEMENTARY SCHOOL CHILDREN

An Abstract
Presented to
the Graduate Council of
Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
Nancy Carol Young
August, 1976

ABSTRACT

A group of 80 sixth grade children, both boys (N = 33) and girls (N = 47), were given the Coopersmith Self-Esteem Inventory (SEI) and were individually measured by a game, involving probabilities and rewards, to assess their willingness to take risks. After being assessed on both measures, each student was classified as either in the high, medium, or low self-esteem group. It was hypothesized that the high self-esteem children would take significantly more moderate risk than either the medium or low self-esteem children. An analysis of variance was used to analyze the differences between the self-esteem groups and risk-taking levels. The analysis revealed no significant differences between the self-esteem groups at the .05 significance level. Some explanations and contradictory data are offered in an attempt to explain these findings.

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To the Graduate Council:

I am submitting herewith a Thesis written by Nancy Carol Young entitled "The Relationship Between Self-Esteem and Risk-Taking Behavior in Elementary School Children." I recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts, with a major in Psychology.


Major Professor

We have read this thesis and
recommend its acceptance:


Second Committee Member


Third Committee Member

Accepted for the Graduate Council:


Dean of the Graduate School

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TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
II. METHOD	12
Subjects	12
Apparatus	12
Self-Esteem Measure	12
Risk-Taking Measure	13
Procedure	14
III. RESULTS	18
Self-Esteem	18
Risk-Taking	18
Test of the Hypothesis	19
IV. DISCUSSION	22
V. REFERENCES	25
VI. APPENDIXES	29
A. Parental Permission Letter	29
B. Introduction - Cover Story	30
C. Instructions - Self-Esteem Inventory	31
D. Coopersmith Self-Esteem Inventory (SEI)	33
E. Instructions - Risk-Taking Game	36

LIST OF TABLES

TABLE	PAGE
I. Mean and Standard Deviation of Risk-Taking Levels for the Self-Esteem Groups	20
II. Percentage of Risk-Taking Choices Per Self-Esteem Group	21

CHAPTER I

INTRODUCTION

Many theoretical and experimental studies have been carried out to help in understanding the nature of risk taking and how risk taking is related to other psychological variables in social and educational environments. Risk taking has been considered to be an important determiner of problem solving ability (Bruner, Goodnow, & Austin, 1956), creativity (Pankove & Kogan, 1968), achievement motivation (Atkinson, 1957, 1958, 1964; Atkinson & Feather, 1966; Brody, 1963; Hamilton, 1974; Roberts, 1974), vocational choice and entrepreneurship (McClelland, 1958, 1961), and many other variables. From these and many other studies, theories have been developed to explain risk-taking behavior.

One theory has been set forth by Atkinson and Feather (1966). Their theory relates achievement motivation and the fear of failure to risk taking in skill related tasks. Atkinson wanted to account for an individual's selection of one action among a set of possible alternatives, and the strength of this action tendency once initiated. The strength of the aroused achievement motivation is said to be a function of the motive strength and the expectancy of goal-attainment aroused by the cues in that given situation. Other studies have suggested that a third variable, incentive, is important, and suggest the formula: $Motivation = f (Motive \times Expectancy \times Incentive)$. Atkinson's experiments (1957, 1958, 1964) were attempts to state explicitly

how individual differences in the strength of achievement motives influenced behavior in competitive situations. Atkinson listed and defined three variables hypothesized to be involved in the relationship of achievement motivation and risk taking. The first variable is expectancy. Expectancy involves the cognitive anticipation usually aroused in an individual by cues in a given situation. The second variable is the incentive. Incentive is the relative attractiveness of a specific goal that is offered in a situation or the relative unattractiveness of an event that may occur as a consequence of some act. The last variable is the motive or the disposition to strive for a certain type of satisfaction. Some motives strive to maximize satisfaction and others strive to minimize pain.

Atkinson conducted investigations to study these variables and to develop his theoretical model of motivational determinants of risk-taking behavior (Revised in Atkinson & Feather, 1966). The major implications of Atkinson's theory are that the performance level of an individual will be greatest in a situation with a .5 probability of success, and that individuals with high achieve-success motivation should prefer intermediate or calculated risk levels while those with a high avoid-failure motivation or a low achieve-success motivation should tend to prefer "sure things," which would include either the very easy or the extremely difficult undertakings. These selection tendencies involve making a choice whether to take the risk or not, and what level of risk. Success is accompanied with pride and

failure with humiliation, so the individual must make this choice and have some basis for it.

Hamilton (1974) tested Atkinson's theory and his results, in general, supported it. He found that, with a ring toss game, those with high achieve-success and low avoid-failure motivation chose the moderate probability levels. Those with high avoid-failure and low achieve-success motivation avoided these choices. This may be partially explained by noting that the motivational groups' behavior was tested in relation to each other and not to absolute standards. Another possible explanation is that the difference is due to differential optimism among the subjects. The high avoid-failure subjects tended to throw from the greatest distances but did not uniformly avoid the moderate probabilities. Brody (1963) found that individuals with high achieve-success motivation tend to bias their probability estimates optimistically, where those with high avoid-failure motivation do not.

Other studies relating risk taking and achievement motivation using Atkinson's theory include deCharms and Dave' (1965), Raynor and Smith (1966), and Roberts (1974). DeCharms and Dave' used Atkinson's model of assessing achievement motivation and also used a model developed by Jordan and deCharms (1959). Jordan and deCharms' model divided achievement motivation into "hope of success" and "fear of failure." The experimenters attempted to explain to each child the probability of achieving success in the different conditions of the risk-taking task. They found no significant relationship using the Atkinson model

but they did find by using the Jordan-deCharms method that high hope of success and high fear of failure children both were more successful in the trials and took more moderate risk than the other children. The contrast of this study with previous studies may be due to the fact that: (a) the children were isolated during testing, (b) the children knew the probabilities of success prior to the trials, and (c) a different physical setting was used.

Raynor and Smith (1966) used both games of skill and games of chance with each student. They used Atkinson's predictions for the skill games but no predictions were made on the risk preferences with chance tasks. The experimenters assessed risk taking under relaxed (conditions deemphasizing the task and presenting a gamelike atmosphere) and achievement-oriented (instructions to do as well as one can in order to measure his ability) situations. They found that the achievement motivated students preferred intermediate risks in skill games but not in chance games, which supports Atkinson's (1957) model. Raynor and Smith's study also found that the relationship between achievement motivation and risk in skill games was stronger when the task was presented under achievement-oriented conditions than under relaxed conditions. Roberts' (1974) results also support Atkinson's theory. Roberts used a modified shuffleboard task as his risk measure. The subjects were randomly placed in one of five competitive treatment levels: alone, presence of others, interpersonal competition, intergroup competition, and interpersonal and intergroup competition. Roberts' results supported Atkinson's

theory that achieve-success subjects preferred intermediate risk significantly more than the avoid-failure subjects. The avoid-failure subjects preferred extreme risk more than low or intermediate risk. No significant differences were found between the competitive treatment groups.

Pollatsek and Tversky (1970) offer another theory of risk-taking behavior in terms of the ordering of options with respect to risk. This theory provides a testable psychological model for the measurement of risk and offers a quantitative concept of risk to substitute the less explicit notions of risk used in other theories. The theory uses probability distributions over monetary values. It is not a fundamental measurement model in a classical sense because this theory assumes the representation of options as distributions on a straight line. This theory is based on tentative assumptions and has not, as of yet, been supported. The theory is assumed to be linear in that, under the other assumptions involved, the risk of an option is expressible as the linear combination of its expectation and variance. One starts by ordering probability distributions with respect to some property such as risk and then develops an index of risk. Evaluating the theory is difficult because many of the assumptions of risk are not very clear. There is also difficulty in operationally defining the risk ordering of distributions.

Coombs and Huang (1970) proposed and tested a portfolio theory of risk preferences. This theory proposes that there is a preferred level of risk for tasks of differing expected values. The games used were characterized by specific expected

values and perceived risk on the part of the subject. Individuals supposedly have an optimum or ideal risk level for each expected value level. In this theory, risk is thought to be a function of the probability of losing and the amount to be lost (the prospect of loss). Individuals tend to be attracted by gain and repelled by loss or failure. The portfolio theory is deterministic in that it implies a distribution of choices over alternatives. Each individual has an ideal or most preferred level of risk and tends to select behaviors that are the closest to this ideal risk level. The results of their study supported several of the assumptions of the theory in that individuals have a single-peaked preference or ideal preference for each level of expected value. The experimenters also found that expected values were maximized when risk changes occurred and were not in conflict with the changes in expected value. When the risk changes and the expected value did conflict, expected value was not maximized.

Other studies involving risk-taking behavior have tried to investigate to see if there are age and sex differences. Lindgran (1969) stated that men, in our culture, are expected to be more adventurous and to take more risk than women. Slovic (1966) showed that boys were bolder than girls after the age of ten and that this tendency seemed to be fairly consistent up to age 16.

Risk taking has also been hypothesized to be affected by different cognitive styles (Kopfstein, 1973). Kopfstein used Kagan's (1966) Matching Familiar Figures (MFF) task to measure

the children's tendency to have a reflective or impulsive cognitive style. The MFF task involves the child looking at one standard stimulus line drawing. He must point to the identical drawing among six alternatives. The child is scored on his response latency (the time from exposure to response) and the number of errors on each of 12 trials.

The children scoring below the group median on response time and above the group median on errors were considered impulsive. The children scoring above the median on response time and below the median on errors were considered reflective. After the MFF task was completed, Kopfstein used a "toggle-switch" task to measure risk taking by the children. The child had to examine the probabilities of success and failure associated with alternative behaviors he might perform and then decide which choice he would make. Kopfstein predicted that impulsive children would take more risk than reflective children, but found that there was a very small, insignificant relationship between the cognitive styles and risk-taking behavior of children.

Many investigations have focused on decision making in relation to risk-taking behavior. Lee (1971) stated that risk-taking tendencies may be an important determiner of an individual's behavior in many situations. Lindzey and Aronson (1969) reported that man weighs the alternatives open to him in a given situation and makes the decision he believes will give him the maximum pleasure and minimum pain. In 1973, McGinnis and Berg attempted to show that risk taking decreases with increasing potential

loss and increases with gains not subject to loss. A child's decision time in the risk-taking task increases with the possibility of loss but not necessarily the magnitude of loss. Other studies in this area include Atthowe (1960) and Payne (1973). Atthowe reported that increased risk leads to a subsequent increase in the decision time of an individual. Payne did an interpretive review of the literature on individual decision making under risk and discussed two fundamental viewpoints. The first was decision making under risk as a form of information-processing behavior and the second was risky decision behavior similar to other forms of judgment behavior. Some models of decision making concentrate on the moments of the distribution (expected value, variance, etc.) while others are based on basic risk dimensions (probability of winning, probability of losing, etc.).

All the prior studies describe the many psychological variables as they are related to risk taking. The purpose of the present study was to investigate the relationship between self-esteem and risk-taking behavior in elementary school children. Little has been reported on this relationship, though much has been studied about self-esteem. Self-esteem has been related to cooperative and competitive behavior (Vance & Richmond, 1975) and academic achievement (Coopersmith, 1959, 1967; Primavera, Simon, & Primavera, 1974). Maslow (1970) stated in Motivation and Personality that satisfying the needs of self-esteem will lead to feelings of self-confidence, worth, usefulness, adequacy, and importance. If these needs are not met, the individual feels inferior, weak, and is basically discouraged. These unmet needs

result in low self-esteem. In dealing with self-esteem of children, Purkey (1970) points out that a child views himself and his world by the way others see him. This perception affects the child's behavior because his behavior is connected with the way he sees himself and the world around him. A child's self-esteem consists of all the ideas and value feelings he has about himself (Schwartz, 1974).

Coopersmith (1959) developed a method of assessing self-esteem. He constructed a Self-Esteem Inventory (SEI) involving responses of "Like Me" or "Unlike Me" to 50 items. It is a subjective self-rating scale that includes questions from many areas of experience such as home, school, friends, and other social activities. Spatz and Johnson (1973) investigated the SEI's internal consistency and found a coefficient of .81 for fifth grade students and .85 for seventh grade students.

The one study that was found including both self-esteem and risk-taking variables was reported by Fullerton (1972). This study involved testing and multiple correlations of self-disclosure, self-esteem, and risk taking. The experimenter stated that self-esteem is a subjective experience that an individual conveys to others in verbal and other overt expressive behaviors. Risk taking was said to involve some uncertainty of achieving the desirable goals with a prospect of failure. Two methods of measuring each construct were used, a self-rating scale and a behavioral measure. With two measures Fullerton was able to analyze the construct's convergent and discriminant validity with elementary school children. Fullerton used 104

fifth and sixth grade children randomly selected from four California elementary schools in middle class districts. Also, each child had been previously identified as mentally gifted (IQ of 130 or better). Fullerton measured each child on the six tests and ratings, and intercorrelated these scores. He also used the Coopersmith SEI as the self-rating of the children's self-esteem and a Behavior Rating Form for the behavioral measure. Risk was measured by pencil and paper tasks called "What Is Your Opinion?" which is a revision of the Choice Dilemma Questionnaire, and "Some of My Interest and Plans Test."

In comparing self-esteem and risk taking, Fullerton stated that high self-esteem individuals are more actively involved with their peers and are more independent. They experience less anxiety and trust themselves more which in turn leads them to set significantly higher goals for themselves than the medium or low self-esteem students. These higher expectations of themselves and their goals give some rationale for their taking more risk than the low self-esteem children. Fullerton used many different comparisons from the scores he collected. His results supported the convergent validity of the self-esteem measures but showed less convergence in the risk-taking measures. This same information applies to the results of discriminant validity of the tests of these three personality constructs. Fullerton tended to just demonstrate the convergent and discriminant validity of these tests, rather than explaining the real relationship between the constructs. In his study, Fullerton also stressed self-disclosure more than self-esteem and risk taking.

He stated that further investigations are needed involving these constructs, possibly under different testing conditions.

The present study is an attempt to provide information concerning the relationship between self-esteem and risk taking. The subjects were sixth grade children but not necessarily mentally gifted. All levels of intelligence were included. Self-esteem was measured by Coopersmith's SEI, and risk taking was measured by a bead choice task which was presented individually to each child and not in a group situation as used by Fullerton. At present, evidence of the relationship between self-esteem and risk taking is scarce. Fullerton (1972) presented the idea that high self-esteem children would take more risk than low self-esteem children, yet his results did not stress this relationship. Fullerton seemed to treat this relationship as rather minor and emphasized self-disclosure as his major consideration. The present study intended to elaborate on Fullerton's implications on self-esteem and risk taking. Based upon Atkinson's theory and research, it was hypothesized that high self-esteem children would take significantly more moderate risk than medium or low self-esteem children.

CHAPTER II

METHOD

Subjects

The subjects were 80 students (33 boys and 47 girls) from the sixth grade classes at St. Bethlehem Elementary School. This is a medium sized rural school. This age group was chosen because these students' personalities should be relatively well formed at this time and they are generally capable of understanding the instructions and statements of the Coopersmith SEI. All the children were asked and encouraged to participate in the study. They were given notes to take to their parents for approval to be tested (see Appendix A). All the children with parental permission were tested on both measures and later assigned to one of three categories of self-esteem.

Apparatus

Self-Esteem Measure. The Coopersmith SEI, which was reworded in 1959 to use with children age nine and above, was used to measure self-esteem. The questionnaire consists of 58 items, with eight items making up the lie scale. The remaining items are concerned with the students' perception in four areas: (a) parents, (b) peers, (c) school, and (d) self. The questionnaire was administered in a group setting, one classroom at a time. The students responded to each statement as either "Like Me" or "Unlike Me." One point was given for each item checked in the positive direction. This included items

designating high self-esteem checked in the "Like Me" column and items designating low self-esteem checked in the "Unlike Me" column. This test has a built in lie scale. If four or more of these questions were answered incorrectly, the student's data was eliminated from the rest of the study. The SEI's statements were placed on tape to control for reading differences since many of the students would not have been able to read and understand the statements to which they were to respond. (The teachers reported that many of the students would have difficulty understanding and responding to the statements if they had to read them.) Using the tape allowed all the students to hear the statements with the same voice inflections and helped to control misunderstanding by incorrectly reading the sentences. The tape also presented each child with a uniform amount of time between statements. To help reduce talking and discussions between and within classes, all the SEI's were given successively on the same day during a two hour block. (See Appendix D)

Risk-Taking Measure. A game was used to measure the willingness of each child to take risks. It was administered individually in an enclosed area with only the subject and the experimenter present. The game consisted of five transparent containers, each containing ten black and white beads. Each container differed in the exact ratio between the white and black beads. Container one contained nine white beads and one black bead which represented a nine-out-of-ten chance of winning. The second container had seven white and three black beads representing a seven-out-of-ten chance of winning. The third container

represented a fifty-fifty chance with five beads of each color. The fourth container contained three white and seven black beads representing a three-out-of-ten chance of winning. The last container represented a one-out-of-ten chance of winning with one white and nine black beads. Candy was used as the incentive or reward. The students received one piece of candy if they chose container one and drew out a white bead. They received two pieces for container two and a white bead, three for container three, and so on. In other words, as the probability of winning decreased, the amount of reward increased.

Procedure

Permission for student participation was acquired from the Montgomery County School Board and the principal of the St. Bethlehem Elementary School. The principal was informed specifically of the purpose and procedures of the research. In a discussion with the sixth grade teachers, the procedure and purpose was explained, and their assistance was solicited. All of the teachers appeared eager and enthusiastic to cooperate with the study. Each classroom was visited and an explanation was given to the students concerning the purpose of the study and to elicit their help (see Appendix B). Each child was given a letter requesting parental permission to participate and was instructed to return the letter to their teacher as soon as possible, preferably the next day and no later than five days after receiving the letter. Within the time limit, 91 of the permission letters were returned. All the children, with permission to participate, were given the SEI. The remaining

students were seated in a designated area in the classroom and instructed to work on individual assignments. The SEI was administered by classrooms. As stated previously, the statements were taped as a control for several variables. The students were instructed that there were no right or wrong answers but to respond to each statement as being "Like Me" or "Unlike Me." Examples were given so the students would better understand the basis of responding. The students were provided with pencils and were told to mark column "A" on the computer form if their answer was "Like Me" and column "B" if their answer was "Unlike Me." Each statement was read twice with pauses between them to allow for responding. Prior to beginning, statement number 37, "I really don't like being a boy-girl," was explained. Then the students were asked if there were any general questions, and instructed that once the test began no questions would be answered (see Appendix C for more detailed instructions). All the students began and ended at the same time. When the students finished the questionnaire, their answer sheets and pencils were collected, and the students returned to their classroom activities.

The tests were computer scored after all the risk assessments were completed to control for possible experimenter bias. By computing the standard deviation and mean, the three categories were set up. One standard deviation above the mean marked the beginning of the high self-esteem group, and one standard deviation below the mean was the top score for the low self-esteem group. Those falling between one standard deviation below and

one standard deviation above the mean were the medium self-esteem group. Using the lie scale of the SEI, the responses of those students who inappropriately checked four or more of these statements were not used in the data computation.

The risk-taking behavior was measured individually two days later. Each child was called from his classroom to come to a testing area consisting of a large partition, a table, two chairs, and the risk-taking game. Two areas were set up in the hall outside the classroom doors. Each student was greeted and seated in front of a table containing the risk game. Once the subject was seated, he was instructed as to the procedure of the game. The chances for winning and exactly what could be won was also explained to the student. Each student was informed that if he pulled out a white bead from the chosen container, he would win the related prize. If he pulled out a black bead, he would win nothing (for more explicit instructions see Appendix E). The student was then asked to choose the container from which he wished to select a bead. This choice was recorded on the data sheet. The beads were then poured into an empty opaque container, and the student was asked to reach in and take out one bead. If it was white, he won the candy. If black, he did not. After the entire procedure was completed he was sent back to his class and asked to send out the next student. The students were called out in a random order so as to control for student anticipation. The entire risk-taking procedure was repeated until all the students had a measurement of their risk-taking behavior recorded on the data sheet. Since

two experimenters were used, a prepared speech was developed to introduce the game to each student to control presentation differences. The two games were identical and were developed to control for the distances and relationships between each container and the student, so as to keep from influencing the student to choose a container that happened to be out of line or closer to him. In an attempt to control talking and explanation of the procedure, all the students were tested the same day. They were each given a ticket showing the amount of candy they had won, ranging from zero to five pieces. This was to keep them from showing the candy and starting investigations into what was going on. The children were asked to conceal their tickets and not repeat what they had done because it was very important that everyone would have the same knowledge of the procedure and the same chance as the first person. The students were instructed that they would be able to trade in their tickets for their prizes when everyone had finished the game. At the end of the day, after testing was completed, everyone that had participated in the study received at least one piece of candy, regardless if they had won or not. The experimenter suggested this and the students voted that all should receive some candy. Those that had won received the amount on their tickets. The candy was distributed in a manner that did not reveal which students had won a reward. Each student handed the experimenter his ticket and one or more pieces of candy was given to him. During this time, the students were told the purpose of the study and that the results would be available at a later date if they or their parents were interested.

CHAPTER III

RESULTS

Self-Esteem

The mean and standard deviation of the SEI scores were determined and used to designate the three self-esteem groups (N = 80, M = 30.15, SD = 8.53). The high self-esteem group (N = 15) consisted of all scores one standard deviation or more above the mean. The low self-esteem group (N = 11) consisted of all scores one standard deviation or more below the mean. The medium self-esteem group (N = 54) consisted of all scores between one standard deviation below and above the mean. Eleven student's scores were dropped before computation due to having four or more incorrect responses on the lie scale.

Risk Taking

Each student's choice of containers in the risk-taking game was recorded and interpreted in the following manner: Moderate risk was defined as the .5 probability of winning (Container three). This was the optimum strategy choice, in that there was a 50 percent chance of winning and also receiving a substantial reward. The other containers either involved lower probabilities of winning or less reward to win. Non-moderate risk was defined as choices on either extreme (Low risk = .9 & .7 probability choices [Containers one and two], and high risk = .3 & .1 probability choices [Containers four and five]). The means and standard deviations of the risk-taking

levels for the self-esteem groups were calculated and are presented in Table 1.

Test of the Hypothesis

In order to test the hypothesis, an analysis of variance was computed to analyze the relationship between the self-esteem groups and the risk-taking behavior of the sixth grade students. The results of the analysis revealed no significant differences between the three different self-esteem groups, $F(2, 77) = .095$, $p > .05$.

Table 2 presents the percentages of the risk-taking choices made in each of the three self-esteem groups. This table shows that 47% of the high self-esteem students chose the moderate risk choice, whereas only 24% and 9% of the medium and low self-esteem groups, respectively, chose the .5 probability of risk. These percentages are in the direction predicted by the hypothesis, although not significant.

TABLE 1
Mean and Standard Deviation of Risk-Taking
Levels for the Self-Esteem Groups

Self-Esteem Group	M	SD
Low (N = 11)	.63	.18
Medium (N = 54)	.65	.20
High (N = 15)	.66	.17
Total (N = 80)	.65	.18

TABLE 2
 Percentage of Risk-Taking Choices
 Per Self-Esteem Group

Self-Esteem Group	Risk-Taking Levels		
	Low	Moderate	High
Low	73(8)	9(1)	18(2)
Medium	67(36)	24(13)	9(5)
High	53(8)	47(7)	0(0)

Note. The numbers in parentheses indicate the number of students choosing that level.

CHAPTER IV

DISCUSSION

The statistical results of the present study suggest that there are no significant differences between the three self-esteem groups on their risk-taking behavior. The hypothesis that the high self-esteem children would take significantly more moderate risks was not supported by this analysis. There is some encouraging data concerning the proposed relationship. When the percentages of responses per self-esteem group are considered, there seems to be differences between the different groups, though further investigations would have to be conducted to support this generalization.

One possible explanation for these contradictory results is based on the risk-taking measure used in the present study. Because of the small number of choices in the game, there was an averaging of the results. All of the groups tended to have the overall average of .65. This affected the statistical analysis and obviously revealed no significant differences. It is suggested that if more choices were included, some of this averaging could be avoided. In addition, increasing the number of subjects in the low and high self-esteem groups would also increase the power of the statistical analysis.

There was some concern, prior to testing, about using candy or rewards. It was felt the children may merely seek to get the most candy and not consider the risk factor involved. This

did not seem to have an influence on the children's choices. From observations, it seemed that most of the students carefully thought out the possibilities before making their response. If anything, the children actually chose more conservatively by choosing the smaller reward containers in the risk-taking game.

Much research has shown that there is a lack of consistency and validity in risk-taking measures. Slovic (1964) stated that he felt one reason for these negative results was that risk taking is a multidimensional concept and that each different method may be measuring different combinations of these dimensions. It has also been reported that risk-taking measures are too subjective in nature. This makes it difficult to distinguish the extent to which risk taking is determined by individual differences in the perceptions of the risk or by differences in the reactions to that perceived risk. Kogan and Wallach (1960, 1964, 1967) and Wallach, Kogan, and Bem (1964) also studied the validity of risk-taking measures and emphasized the fluctuation of risk-taking levels. All of these results seem to point to the difficulty in assessing risk and the possibility of errors or misrepresentations in the resulting data. This difficulty of risk measurement could help explain some of the problems in the obtained results of the present study.

In review, the hypothesis that high self-esteem students would take more moderate risks was not confirmed. A possible explanation was offered and discussed. It is still believed that the high self-esteem children are more confident in taking

risks and are more motivated to perform well on tasks in order to maintain their self-images. Coopersmith (1967) stated that medium self-esteem individuals are not encouraged or required to extend their efforts but are supported for whatever efforts they do exert. This implies that these children would take more limited risks. He also reported that the medium self-esteem individuals were somewhat more anxious than high self-esteem individuals, and this could inhibit their willingness to take risks. The low self-esteem students appear to display greater anxiety, poorer self-estimates, and negative expectations, so it would seem to be less probable that these students would consider the kinds of risky decisions predicted for the more confident, high self-esteem students.

More research is needed before any definite conclusions about the effects self-esteem may have on risk taking can be reached. Using a different or improved risk-taking measure, it should be possible to replicate this study and further investigate the implications of the proposition offered in the present investigation.

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APPENDIX A

PARENTAL PERMISSION LETTER

Dear Parents:

I am a graduate student at Austin Peay State University and am interested in doing research with elementary school children. I am presently looking at two aspects of children: (1) the child's perception of himself (self-esteem) and (2) the child's tendency to choose between different levels of attractive alternatives (risk taking). I would like to include your child in my study. The individual results of this study will be kept confidential and will not affect your child's grades or school work in any way. Your cooperation will be greatly appreciated. Please sign this form on the designated line if you will allow your child to answer a questionnaire and participate in this study.

Sincere thanks,

Nancy C. Young

I give my permission for _____ to participate
Child's Name
in this study.

Parent's Signature

APPENDIX B

INTRODUCTION - COVER STORY

"I am Nancy Young and am a student at Austin Peay State University. Many of you may already know me because I have worked at St. Bethlehem before. I want your help with something that is extremely important to me. I think you will enjoy it. I've talked with your teachers and they seem to think you will. It's short, easy, and you will get to play a game where you will make a choice of what you want to do. I really want all of you to participate. How many of you would like to help me? Please raise your hand. Great! I will need your parent's permission before I can take you out of your classes even just for a few minutes. I have some permission slips that I want you to take home and have your parents sign. They will tell your parents about what we'll be doing and there are lines for them to sign your name and theirs. It is very important that you bring these back tomorrow because I will need them all before I can start. How many will remember to bring them back tomorrow? Please raise your hands. I'm going to enjoy working with you and want to thank you for your help."

"Remember it's very important that you bring the permission slips back tomorrow and give them to your teacher. Also, please only fold them once in half and not wad them up. This will help me when I check them. Thank you!"

APPENDIX C

INSTRUCTIONS - SELF-ESTEEM INVENTORY

"I am passing out some answer sheets and first want every one of you to put your name and homeroom teacher's name on this sheet. I want you to answer some questions about yourself. This is not a test and it will not be graded A, B, C, . . . It's just to give me some information about each of you. Some sentences are going to be played on the tape recorder. Each sentence will be read twice, so listen carefully, and put your answer down quickly. You will have to stay quiet so you and the others around you can hear. When you hear the sentence, ask yourself, 'Is this sentence like me or unlike me?' There are no right or wrong answers to these sentences. Just answer each of them as being 'Like Me' or 'Unlike Me.' If the sentence says how you usually feel and is like you, blacken in column 'A' on your answer sheet for a 'Like Me' response. (Write 'Like Me' mark column 'A' on the black board.) If the sentence is not like you usually feel, blacken in column 'B' on your answer sheet for an 'Unlike Me' response. (Write 'Unlike Me' mark column 'B' on the board.) An example of this could be a sentence like 'I like hotdogs.' I could answer this as 'Like Me,' because I do like hotdogs, but if someone did not like hotdogs, he would have to put 'Unlike Me' because he could not honestly say that he liked hotdogs. Please make your marks on the answer sheet dark, and if you erase, do it real good."

"One sentence that needs a little explaining says: 'I really don't like being a boy-girl.' If you are a boy, this means 'I really don't like being a boy.' If you are a girl, it means 'I really don't like being a girl.' Are there any questions before we begin? (Pause) Remember to mark column 'A' if it is like you and column 'B' if it is unlike or not like you. Please put an answer down for every sentence. Ready!"

ON TAPE: "Listen carefully to each sentence because each will only be read two times. Mark each statement as being like you or unlike you. Column 'A' is for 'Like Me' and column 'B' for 'Unlike Me.' We are now ready to begin. (Start sentences.)

APPENDIX D

COOPERSMITH SELF-ESTEEM INVENTORY (SEI)

1. I spend a lot of time daydreaming.
2. I'm pretty sure of myself.
3. I often wish I were someone else.
4. I'm easy to like.
5. My parents and I have a lot of fun together.
- *6. I never worry about anything.
7. I find it very hard to talk in front of the class.
8. I wish I were younger.
9. There are lots of things about myself I'd change if I could.
10. I can make up my mind without too much trouble.
11. I'm a lot of fun to be with.
12. I get upset easily at home.
- *13. I always do the right thing.
14. I'm proud of my school work.
15. Someone always has to tell me what to do.
16. It takes me a long time to get used to anything new.
17. I'm often sorry for the things I do.
18. I'm popular with kids my own age.
19. My parents usually consider my feelings.
- *20. I'm never unhappy.
21. I'm doing the best work I can.
22. I give in very easily.

23. I can usually take care of myself.
24. I'm pretty happy.
25. I would rather play with children younger than me.
26. My parents expect too much of me.
- *27. I like everyone I know.
28. I like to be called on in class.
29. I understand myself.
30. It's pretty tough to be me.
31. Things are all mixed up in my life.
32. Kids usually follow my ideas.
33. No one pays much attention to me at home.
- *34. I never get scolded.
35. I'm not doing as well in school as I'd like to.
36. I can make up my mind and stick to it.
37. I really don't like being a boy - girl.
38. I have a low opinion of myself.
39. I don't like to be with other people.
40. There are many times when I'd like to leave home.
- *41. I'm never shy.
42. I often feel upset in school.
43. I often feel ashamed of myself.
44. I'm not as nice looking as most people.
45. If I have something to say I usually say it.
46. Kids pick on me very often.
47. My parents understand me.
- *48. I always tell the truth.

49. My teacher makes me feel I'm not good enough.
50. I don't care what happens to me.
51. I'm a failure.
52. I get upset easily when I'm scolded.
53. Most people are better liked than I am.
54. I usually feel as if my parents are pushing me.
- *55. I always know what to say to people.
56. I often get discouraged in school.
57. Things usually don't bother me.
58. I can't be depended on.

*These are the sentences that make up the lie scale.

(All these sentences were taped and played to the students.

They were to respond to each of them as being "Like Me" or "Unlike Me.")

APPENDIX E

INSTRUCTIONS - RISK-TAKING GAME

"This is the game you've been waiting for. You get to choose what you want to do and may even win a prize. You see the five containers in front of you. Each one has ten beads in it, but they each have different numbers of black and white beads. The first container (point to each container) has nine white and one black bead. This means that nine out of ten times you will pick a white bead and win a prize. The second container has seven white and three black beads, which means that seven out of ten times you will pick a white bead. The third has five of each color and you have a 50-50 chance of getting a white bead. The fourth container has three white and seven black, with a three out of ten chance of picking a white bead. The last container has only one white and nine black beads, with a one out of ten chance of getting the white bead. You have the best chances with container number one and less chances as you go up to five, BUT you win a larger prize if you choose a harder container. Do you understand your chances of winning with each container? (Pause) I want you to choose one container and I will pour those beads into this empty container (show the container). Then I want you to reach in and take out one bead. If it is a white bead, you will win the prize that goes with that container. If it is black, you won't win anything. YOU HAVE TO HAVE A WHITE BEAD TO WIN. The prizes are: One

37

piece of candy for the first container, two pieces for the second, three pieces for the third, four pieces for the fourth, and five pieces for the fifth container. Think it over and pick out the container you want to try."

(After the student makes his choice and picks out the bead, he will be given a ticket to be redeemed later for his prize.)

"I'm going to give you a ticket that says how many pieces of candy you won. When I finish with all the sixth graders, I will come in and let you trade your ticket for your prize. Be very careful and keep up with it until this afternoon. Please put it up and don't let anyone else see it. I want you to keep what we did a secret so everyone will have the same chance that you did. Please don't tell your friends. Just say you played a game and they'll find out when they come out. Do you think you can keep this secret until this afternoon? Please try real hard. It's real important. Thanks for helping and I'll see you later this afternoon." (When the student went back to his classroom he was asked to inform the next child to come out and to which station.)