



Moral reasoning in gifted and average I.Q. third and fourth graders  
by Susan Milesnick Sager

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in  
Home Economics  
Montana State University  
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**Abstract:**

This study was designed to examine the relationship between academic giftedness and the development of moral reasoning. Gifted students are perceived by many to be superior in all aspects of their development, including the development of moral reasoning, although empirical data to support such a belief has not been conclusively demonstrated.

Six story pairs developed by Elkind and Dabek to vary intentionality with either personal injury or property damage were group administered to 104 third and fourth graders. Fifty-two of these students had been previously identified as gifted.

Results failed to demonstrate any significant over-all effects on moral reasoning for identification of giftedness although two story pairs did indicate some significant differences. In the story pair where disobedience remained constant, gifted boys judged personal injury to be more serious than property damage significantly more often than did average I.Q. boys. While this does reflect a variation in judgment, it is not viewed as a developmental difference since the personal injury/property damage variable does not measure a developmental trend. A significant developmental difference was demonstrated only in the moral judgments of fourth graders in the story pair where accidental personal injury is compared to disobedient property damage. Significantly more gifted fourth graders made judgments based on intentionality than did average I.Q. fourth graders in this instance.

A significant sex difference was found to exist in the judgment of guilt when personal injury or property damage resulted from accidental behavior. Significantly more girls judged on the basis of intentionality in this instance than did boys. This difference was evidenced by comparing gifted boys to gifted girls and by comparing fourth grade boys to fourth grade girls.

Advanced moral reasoning by gifted students was not evidenced in the current study. Further research is necessary to determine the exact nature of the cognitive-moral development relationship.

Such research should include a wider span of ages and more specific criteria for identification of individual cognitive levels than the current study. An instrument such as the new simplified, group-administrable equivalent to the Moral Judgment Interview developed by Gibbs and colleagues is recommended.

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of

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APPROVAL

of a thesis submitted by

Susan Milesnick Sager

This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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## ABSTRACT

This study was designed to examine the relationship between academic giftedness and the development of moral reasoning. Gifted students are perceived by many to be superior in all aspects of their development, including the development of moral reasoning, although empirical data to support such a belief has not been conclusively demonstrated.

Six story pairs developed by Elkind and Dabek to vary intentionality with either personal injury or property damage were group administered to 104 third and fourth graders. Fifty-two of these students had been previously identified as gifted.

Results failed to demonstrate any significant over-all effects on moral reasoning for identification of giftedness although two story pairs did indicate some significant differences. In the story pair where disobedience remained constant, gifted boys judged personal injury to be more serious than property damage significantly more often than did average I.Q. boys. While this does reflect a variation in judgment, it is not viewed as a developmental difference since the personal injury/property damage variable does not measure a developmental trend. A significant developmental difference was demonstrated only in the moral judgments of fourth graders in the story pair where accidental personal injury is compared to disobedient property damage. Significantly more gifted fourth graders made judgments based on intentionality than did average I.Q. fourth graders in this instance.

A significant sex difference was found to exist in the judgment of guilt when personal injury or property damage resulted from accidental behavior. Significantly more girls judged on the basis of intentionality in this instance than did boys. This difference was evidenced by comparing gifted boys to gifted girls and by comparing fourth grade boys to fourth grade girls.

Advanced moral reasoning by gifted students was not evidenced in the current study. Further research is necessary to determine the exact nature of the cognitive-moral development relationship. Such research should include a wider span of ages and more specific criteria for identification of individual cognitive levels than the current study. An instrument such as the new simplified, group-administrable equivalent to the Moral Judgment Interview developed by Gibbs and colleagues is recommended.

## CHAPTER 1

## INTRODUCTION

Within the past decade there has simultaneously arisen increased interest in implementing programs of education for moral reasoning within the schools and in supporting the unique talents and potentials of gifted students. Educators of the gifted are confronting the issue of meeting the specific needs of the gifted in the development of programs which foster reasoning. However, little has been done to substantiate the special abilities and needs gifted students possess in the realm of moral reasoning.

Parents of the gifted often mistakenly believe that their child's heightened intellectual potential automatically gives the child the ability to process moral dilemmas on his/her own (Buescher, 1979). Fenton and colleagues (1976) concluded that cognitive development is necessary but not sufficient for mature moral judgment. Kohlberg (cited in Buescher, 1979, p. 15) noted that "factors outside cognitive development guide children more in their moral development than anyone first imagined." "Social and economic factors, parental background and community mores may be just as influential in defining moral development as the child's cognitive capacity," according to Buescher (1979, p. 14).

The present study was instigated to contribute to the theoretical basis regarding the development of moral reasoning in gifted

children. The research conducted on moral reasoning in the gifted is contradictory (Boehm, 1962; Kohlberg, 1975). The question addressed in the current study is whether gifted children reason differently in moral dilemmas than they do their average I.Q. peers.

### Review of the Literature

#### Theories of the Development of Moral Reasoning

The two primary sources of moral reasoning theories have been developed by Piaget (1965) and Kohlberg (1968, 1975, 1976). Current research in moral development has tended to follow one of these two theories.

Piaget (1965), initiating research on moral reasoning, made the first attempt to define stages of moral reasoning in children. Through observations and actual interviews with children, he identified stages of moral reasoning based, in part, upon how much consideration the child gives to intentionality when making moral judgments. Piaget (1965) identified two types of morality: morality of constraint and morality of cooperation. Morality of constraint (heteronomous morality), wherein behavior is evaluated in terms of objective consequences, was found by Piaget to exist until the child is about 7 or 8 (Boehm, 1962; Piaget, 1932; Yates and Yates, 1979). Even though the child may be aware of intention, guilt is determined not on intention but on quantity of damage (Ginsburg and Opper, 1969). Piaget calls this "moral realism" since the child bases his decision on material or "real" results (Ginsburg and Opper, 1969). Morality of cooperation (autonomous morality) emerges at about age

10 and reflects the child's increased ability to distinguish between subject (intention) and object (consequence) (Boehm, 1962; Piaget, 1932; Yates and Yates, 1979). In the intermediary stage, the child "internalizes rules without evaluating them." (Boehm, 1962).

Beginning in 1955, Kohlberg (1976) used a longitudinal and cross-cultural study in a cognitive-developmental approach to further explore the validity of Piaget's stages. Kohlberg (1975) originally identified six stages of moral development. An important concept in his approach is that moral stages are "structures of moral reasoning" to be distinguished from the "content of moral judgment," (Kohlberg, 1975, p. 157). His theory relies not on the specific judgment by an individual regarding what is appropriate behavior in a particular dilemma, but on why certain behaviors in that dilemma are viewed as more moral than others. In Kohlberg's concept, the level of moral reasoning of any individual at a particular stage remains constant regardless of the particular social-moral dilemma presented.

#### Moral Reasoning in Gifted Children

Conflicting conclusions have been drawn from the research that has been conducted relating moral reasoning to intellectual ability or giftedness. Boehm (1962) reported that when using Piaget's methodology and story pairs, high I.Q. children gave more high level (intention-based rather than consequence-based) responses at a younger age than average I.Q. children.

Kohlberg reports conflicting results and offers his explanation of the relative influence of intellectual ability on moral reasoning:

"Maturity of moral judgment is not highly correlated with I.Q. or verbal intelligence (correlations are only in the 30's, accounting for 10% of the variance). . . Since moral reasoning clearly is reasoning, advanced moral reasoning depends upon advanced logical reasoning; a person's logical stage puts a certain ceiling on the moral stage he can attain." (1975, p. 157)

Gifted children were found by Getzels and Jackson (1962) to have a "heightened sense of morality and righteousness." The actual moral reasoning of the gifted has not been clarified or explored through research.

#### Replication and Analysis of Intentionality Studies

Piaget (1965) used subjective-objective responsibility (intentionality) as a measure of heteronomous or autonomous morality. Replication of Piaget's studies have indicated that a variety of methodological factors influence children's intentionality decisions. Intentionality is usually presented with vignettes about a pair of children, one operating with good intentions but producing substantial negative outcome, the other creating less negative results while engaging in disobedient behavior. Refinement of techniques and/or story presentations has indicated that even young children (4 to 6 as compared to Piaget's 7 or 8 years of age) can use intentionality as a basis for their moral judgments (Armsby, 1971; Chandler, et. al., 1973; Elkind and Dabek, 1977; Gutkin, 1972; Moran and O'Brien, 1980).

According to Lickona (1976), subjective-objective responsibility is only one of nine dimensions that can be used to distinguish moralities of heteronomy and autonomy. Larson and Kurdek

(1979) administered three different types of moral indices measuring various dimensions of moral reasoning. The types of indices compared were positive justice reasoning (appropriate rewards or punishment for behaviors), social-moral dilemma (why certain behaviors in a particular situation are perceived as more moral than others) and story character culpability (which child in vignette is more to blame). Although results show that for all three indices, level of moral reasoning increased with grade level, inconsistent scores were found both within and among the three modes of presentation.

The influence of order effects of presentation was substantiated by Feldman and his colleagues (1976). When damage information was presented last, damage was deemed more salient than intention, but when motive was presented last, it is used more in reaching decisions. Although Yates and Yates (1979) conclude that the dominating factor in decision making by young children is the final item of presentation, they also report that older children and adults can process all information presented regardless of order of presentation. Nelson (1980) notes that when stories are presented verbally, information following negative cues has diminished impact on pre-schoolers' moral judgments. However, when stories are presented verbally with accompanying pictures, judgments are more likely to be influenced by both good and bad outcomes and motives.

In finding that even young children can make moral judgments on the basis of motives rather than consequence, Armsby (1971) attributes the variance from Piaget's finding to the fact that Piaget did not allow for separation of purposeful-accidental acts. Hardeman

and Peisach (1980) examined non-intentional responses made by young children in an effort to classify them. They found that the most important factor in children's responses stemmed from their early expectation of consistency in their environment.

Only recently, has the variable of property damage versus personal injury been analyzed as a factor influencing moral reasoning (Berg-Cross, 1975; Elkind and Dabek, 1977). In a single-story method Berg-Cross (1975) found that children at the age of six regarded personal injury as more punishable than property damage. However, she did not examine the effects of age, intentionality and type of damage in a systematic way (Elkind and Dabek, 1977). Elkind and Dabek (1977) also found children judged personal injury to be more serious than property damage. Moran's (1980) findings suggest that intention may be more salient to a child if the story portrays intended damage to another person rather than to property.

The manner of presentation can influence the measurement of moral reasoning. Presentation can be in the form of social-moral dilemmas used by Kohlberg and his colleagues, story pairs, or other forms such as Damon's positive justice reasoning (Larson and Kurdek 1979). If the story character culpability presentation is selected, a multitude of factors such as order effect, separation of purposeful or accidental acts, personal injury or property damage, and method of presentation must be controlled for.

### Statement of the Problem

Due to the paucity of research regarding the development of moral reasoning in gifted children and the need for such information in planning to meet the needs of the gifted child, a pilot study was conducted by Sager and Donaghy (1982). In order to determine what kinds of reasoning high I.Q. (120 and above) children use in making moral decisions, story pairs developed by Elkind and Dabek (1977) were used. The high I.Q. children sampled were found to make intention-based decisions at a younger age than Dabek's average group. In addition, the children did not consistently conform to the premise of Elkind and Dabek (1977) that children regard personal injury to be more serious than property damage. Therefore, the present study addresses not only a comparative analysis of the reasoning of the gifted versus the average I.Q. child, but also attempts to determine whether type of damage presented is a salient factor in reaching moral decisions.

### Hypotheses

In an effort to determine 1) whether identified gifted third and fourth graders differ from their average peers in development of moral reasoning and 2) whether all children regard personal injury as more serious than property damage, the following predictions were made:

1. When intentionality is held constant, both gifted and average I.Q. children will judge personal injury to be more serious than property damage.



2. With type of damage (personal or property) held constant, intentional damage will be judged to be more serious by both gifted and average I.Q. children.
3. With type of damage and intentionality co-varying, younger children will tend to judge on the basis of damage incurred and older children on the basis of intentionality.
4. The shift in judgment (from basis of damage to basis of intentionality) will occur at the same age in average and gifted children.

## CHAPTER 2

## METHOD

Subjects

One hundred and four third and fourth grade children attending Bozeman, Montana Public Schools were the subjects of this study. All subjects attended regular third or fourth grade classrooms. Half of the subjects also participated in the school's enrichment program for gifted students for one and one half hours each week. Average age for third grade was 8 years 7 months and for fourth grade was 9 years 7 months.

Twenty-two third graders and thirty-five fourth graders were identified as being gifted. The term "gifted" as used in this study referred to only those students identified as gifted according to the district's criteria. The criteria for inclusion in the enrichment program for gifted learners was based on a matrix of three factors as shown in Table 1.

Table 1. Criteria for Inclusion in the Enrichment Program for Gifted Learners

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<u>Possible Points</u>	<u>Factor</u>
1-5 pts.	Intelligence - 95th percentile or above on standardized group administered I.Q. test
1-5 pts.	Achievement - 95th percentile or above standardized achievement score in the area of reading, math or science.
<u>1-5 pts.</u>	Teacher recommendation - of motivational factors
13-15 pts.	Required for inclusion in the enrichment program for gifted learners.

---

The category of average I.Q. students in this study included all regular classroom students except those identified as gifted. Since inclusion in the gifted program as is shown on Table 1 required very high scores in at least two of the three areas of the matrix, there were some high I.Q., high achieving, or highly motivated students who were not included in the category of "identified gifted". It is, therefore, possible that such a student might have been included in the category of "average I.Q. student" in this study.

All identified gifted third graders (N=22) and thirty randomly selected gifted fourth graders were included in the study. Gifted students were matched according to age and sex with average I.Q. peers. The average I.Q. students included as subjects were from two third grade and two fourth grade randomly selected classrooms from

throughout the district. The subjects were white middle-class children. Table 2 shows the breakdown of subjects in the study.

Table 2. Subjects

<u>Grade Level</u>	<u>I.Q. Level</u>	
	<u>Gifted</u>	<u>Average I.Q.</u>
third grade	22 students	22 students
fourth grade	30 students	30 students

#### Stimulus Materials

Six story pairs developed by Elkind and Dabek (1977) and designed to measure the development of moral reasoning in kindergarten, second, and fourth grade children were used in the current study (see Appendix A). In a pilot study (Sager and Donaghy, 1982), the story pairs were administered to approximately 30 Gallatin County second and fourth graders. Based upon the poor recall of Story Pair 4 by the children in the pilot study, the story pair was revised, checked for content validity, tested for recall, and included in its revised form in the current study. The revision involved a single substitution reflecting damage that was demonstrated to be more environmentally relevant than the damage in the original story pair.

Dabek and Elkind's (1977) story pairs were selected for this study because they present two kinds of intention (intentional and unintentional) and two types of damage (personal injury and property damage) in all possible combinations. In this study the following operational definitions were used: "intentional damage" or

"negative intentions" were terms used when a story character involved in some disobedient behavior caused damage to occur, and "unintentional damage" or "positive intentions" were terms used to identify situations in which damage occurred when the story character was obediently involved in an activity that nevertheless results in some negative consequence. All stories were approximately 35 words in length and were pilot tested by Elkind and Dabek (1977) for comparability.

#### Procedure for Data Collection

The story pairs were group administered by the enrichment program teacher to the gifted students, and by the classroom teachers of the randomly selected classes of average I.Q. students. In instances of duplication, where classroom teachers and the enrichment program teacher both administered the story pairs to the same child, only the first answer sheet completed by the child was included in the study. Specific instructions were provided to all instrument administrators to provide consistency in the reading of the story pairs (see Appendix A). Teachers read each set of story pairs and then asked the subjects to circle the name of the child who was more to blame and should have been punished more and asked them to write why that child was more to blame. Teachers instructed children to record SAME on their answer sheet only if they felt both children were exactly equally guilty. After each story pair was read, teachers asked if students had any questions, answered questions of informational recall, and reread story pairs when requested.

### Coding (Scoring) of Data

Coding of responses was accomplished in the following manner. In Story Pairs 1 and 2 where intentionality is held constant, responses were coded into three categories: property damage is more serious, personal injury is more serious, or both are equally serious. In Story Pairs 3 and 4 where damage is held constant, responses were coded into three categories: intentional damage is more blameful, unintentional damage is more blameful, or both are equally blameful. In Story Pairs 5 and 6, where intentions and damage co-vary, responses were coded into three categories: intention is more salient than type of damage, type of damage is more salient than intention, or both are equally important. Responses to the question "Why?" were recorded for narrative purposes and were not included in the statistical analysis of data. See Appendix B for sample scorecard.

Two independent raters using the pilot study data established an interrater reliability of .96 based on the above procedure for coding the data.

### Analysis of Data

Data were analyzed to determine the possible effects of grade level (third or fourth), sex of child, identification of giftedness (gifted or average I.Q.), intention (intentional or unintentional), basis of judgment (intention or consequence or no difference), and damage caused (personal injury, property damage or no difference).

Chi square was used to test the differences between groups. Significance level was set at the .05 level.

## CHAPTER 3

## RESULTS

Each story pair was first analyzed to determine the main effects of grade, sex and I.Q. on moral reasoning. These main effects are summarized in Tables 8 and 9 (Appendix C). Responses were compiled according to the following categories: third grade gifted girls, third grade gifted boys, third grade average I.Q. girls, third grade average I.Q. boys, fourth grade gifted girls, fourth grade gifted boys, fourth grade average I. Q. girls, and fourth grade average I.Q. boys (Table 3). However, when responses were categorized this way, category sizes were then too small to appropriately use chi square. Therefore, categories were combined for the sake of comparison into twelve categories such as fourth grade boys (both gifted and average) versus fourth grade girls (both gifted and average) or fourth grade average (both girls and boys) versus fourth grade gifted (both girls and boys). Since number of subjects per group varied, results are reported in proportions for convenience of visual comparison (Appendix C, Tables 11, 12, and 13).

In any instances where reasons cited were not consistent with the factual information presented, that answer (both actual response and reason) was considered unscorable. Ten such instances of inconsistency or failure to select a child guilty for a particular story



Table 3. Responses to all story pairs by grade, sex, and giftedness by proportion.

	3rd Grade				4th Grade				Total
	Gifted		Average		Gifted		Average		
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
N=	12	10	12	10	15	15	15	15	104
<u>Story Pair 1</u>									
(Disobedience)									
Personal Injury	.83	.80	.42	.70	.80	.50	.53	.60	.64
Property Damage	.08	.20	.33	.10	.13	.21	.40	.13	.20
Same	.08	-	.25	.20	.07	.29	.07	.27	.16
<u>Story Pair 2</u>									
(Obedience)									
Personal Injury	1.00	.80	.83	.50	.87	.43	.73	.53	.71
Property Damage	-	.20	-	-	.07	.21	.14	.07	.09
Same	-	-	.17	.50	.06	.36	.13	.40	.20
<u>Story Pair 3</u>									
(Personal Injury)									
Obedience	-	-	-	-	-	-	-	-	-
Disobedience	1.00	.90	.92	.90	1.00	1.00	1.00	1.00	.97
Same	-	.10	.08	.10	-	-	-	-	.03
<u>Story Pair 4</u>									
(Property Damage)									
Obedience	-	-	.08	-	-	-	-	-	.01
Disobedience	1.00	1.00	.92	.70	1.00	1.00	.93	1.00	.95
Same	-	-	-	.30	-	-	.07	-	.04
<u>Story Pair 5</u>									
Disobedient									
Personal Injury	1.00	1.00	.92	.67	1.00	.87	.93	.93	.92
Obedient									
Property Damage	-	-	-	.11	-	.06	.07	-	.03
Same	-	-	.08	.22	-	.07	-	.07	.05
<u>Story Pair 6</u>									
Disobedient									
Property Damage	.83	.60	.75	.70	.86	1.00	.79	.67	.78
Obedient									
Personal Injury	.17	.30	.25	.20	.14	-	.21	.33	.20
Same	-	.10	-	.10	-	-	-	-	.02

pair occurred. At least one but no more than two such instances involved each of the six story pairs. Inconsistencies noted were found at each of the grade, sex, and identification of giftedness levels with no particular trends.

The frequencies in the chi square cells did not always add up to the total N because of unscorable responses. Percentages are computed on the basis of total N scoreable.

Due to ceiling effects created when the majority of all subjects responded in the same manner for a story pair, some cells of the chi square are empty, especially when making cross-comparisons by group. Since chi square is inappropriate when any cells are empty, its use was not attempted in those instances. When computed, chi square values are reported in the appropriate tables.

#### Story Pairs 1 and 2

##### Decisions

Story Pairs 1 and 2 were used to determine whether all children regard personal injury to be more serious than property damage when intention remains constant. As hypothesized, for all groups, personal injury was regarded as more culpable than property damage (Table 4). In Story Pair 1 where the injury or damage resulted in the course of disobedient behavior, no significant main effect differences were found (Table 4). In Story Pair 2, where the injury or damage accidentally resulted from obedient behavior, a significant difference was found between boys and girls (Table 4). While both boys and girls tended to find personal injury to be more culpable than

Table 4. Main order effects by N for Story Pairs 1 and 2.

	3rd Grade	4th Grade	Gifted	Average	Boys	Girls
N=	44	60	52	52	54	50
<u>Story Pair 1</u> (Disobedience)						
Personal Injury	30	36	37	29	35	31
Property Damage	8	13	8	13	13	8
Same	6	10	6	10	6	10
$X^2=$	$X^2 = .51$		$X^2 = 3.18$		$X^2 = 1.84$	
<u>Story Pair 2</u> (Obedience)						
Personal Injury	34	38	38	34	45	27
Property Damage	2	7	6	3	3	6
Same	7	14	6	15	5	16
$X^2=$	$X^2 = 4.61$		$X^2 = 5.03$		$X^2 = 11.12^{**}$	

\*\*Note for all tables:

$X^2$  values > 5.99 reflect significance at .05 level for 2 df

$X^2$  values are not computed where any observed cell values are 0

\*\*Significant at .05 level.

property damage (85% and 55% respectively), boys chose 'Same' less often than did girls. No significant interactions were found for grade and identification of giftedness.

Interaction effects of grade by sex and giftedness, of sex by grade and giftedness, of giftedness by sex and grade were analyzed and are summarized in Appendix C, Tables 11, 12, and 13. In Story Pair 1 the only significant cross-comparison found was between average I.Q. boys and gifted boys (Table 5). Both groups of boys found personal injury to be more culpable than property damage although the margin of difference was very narrow for average I.Q. boys. Only 48% of the average I.Q. boys found the child causing injury to be more to blame.

Table 5. Significant interaction for age, sex, or giftedness by N in Story Pairs 1 and 2.

	Boys		4th Grade		Gifted	
	Gifted	Average	Boys	Girls	Boys	Girls
	27	27	30	30	27	25
<u>Story Pair 1</u>						
(Disobedience)						
Personal Injury	22	13				
Property Damage	3	10				
Same	2	4				
$X^2 =$	$X^2 = 6.04^{**}$					
<u>Story Pair 2</u>						
(Obedience)						
Personal Injury			24	14	24	14
Property Damage			3	4	1	5
Same			3	11	1	5
$X^2 =$			$X^2 = 7.33^{**}$		$X^2 = 7.89^{**}$	

\*\*Significant at .05 level.

Significant differences were found in comparing the effect of sex and grade and of sex and giftedness when using Story Pair 2 where injury or damage was accidentally caused by an obedient child (Table 5). When comparing fourth grade boys to fourth grade girls, 80% and 48% respectively found the child causing injury to be more to blame. When comparing gifted boys and gifted girls, 92% and 58%, respectively, deemed personal injury to be more serious. The gifted girls chose 'Same' 38% of the time.

Story Pair 1 and 2 were compared to find whether type of intention (positive or negative) is a salient factor influencing moral reasoning. The difference found between Story Pair 1 and 2 was not significant at the .05 level (Appendix C, Table 14).

Since the difference between personal injury and property damage reflects a value judgment and not a developmental progression, no

differences had been anticipated by grade, sex, or giftedness. Reasons cited by the subjects may, however, represent a developmental trend. Reasons cited for decisions were next examined to determine if any differences exist according to grade, sex, or identification of giftedness.

#### Reasons for Decisions

In Story Pair 1, during disobedient behavior, Steven caused personal injury (bloody nose) and Jimmy caused property damage (his brother's record) while engaged in disobedient behavior. Some of the reasons stated by children who considered Steven more to blame included causing hurt or hurting a person rather than a thing (N=35), simple repetition of story facts (N=15), projection of further possible injury such as "could have caused brain damage" (N=11), and irreplacability of a nose (N=6). Reasons cited for Jimmy's guilt were that a nose will heal and/or a record is irreparably broken (N=7), concerns for Jimmy's brother such as "Jimmy's brother cannot listen to the record," "Jimmy's brother will probably cry a long time," (N=3), because it was a favorite (N=3), financial concerns (N=3), a bloody nose doesn't hurt (N=2) and "if it were mine, I would be madder" (N=1). Reasons for 'Same' included both were disobedient (N=11), both caused about the same damage (N=3), and answer was too general to further classify (N=2).

An analysis to determine similarities or differences in reasons was conducted. Reasons cited for Story Pair 1 by various categories were found to be scattered across all categories for grade, sex, and

identification of giftedness. Only 13% of the gifted children choosing Steven responded with repetition of story facts while 34% of the average I.Q. children did so. Hurt or importance of a person as compared to a thing was cited by 65% of the gifted children and only 38% of the average I.Q. children who perceived Steven to be more to blame. Five of the 6 children citing that a record can be replaced while a nose cannot were fourth graders. Six of the 7 children projecting possible further injury were also fourth graders. Of those who found property damage to be more blameful, 6 of the 7 who cited irreparability of a broken record were fourth graders. Otherwise no significant trends were found by group for those finding Jimmy to be more to blame. Although "both children were disobedient" versus "both caused about the same damage" reflect different bases for blame (intentionality versus damage caused respectively), there were no significant differences between groups for either response.

Similar reasons were cited for Story Pair 2. Reasons for blamefulness of Jane (who caused the broken arm) included hurting a person and not a thing (N=20), repetition of facts (N=17), financial concerns (N=12), an arm is irreplaceable (N=10), more serious injury may have resulted (N=6), and Jane was not being careful (N=6). Regarding Paula's guilt the only reasons cited by more than one child were financial concerns (N=4) and Paula wasn't careful (N=2). Reasons accompanying 'Same' responses included both were accidents (N=9), both were expensive (N=7), and neither was careful (N=3):

Three trends observed seem to be related to grade, sex, or level of giftedness. All 10 children citing the irreplaceability of a

broken arm belong to the gifted group and 13 of the 15 children citing financial concerns were fourth graders. Significantly more girls than boys and more fourth graders than third graders chose 'Same' reponse for Story Pair 2 and cited "both were accidents" or "neither was careful" as the reason. This represents intention-based rather than consequence-based response and is developmental in nature.

It is interesting to note that when disobedience was a factor (as in Story Pair 1), financial concerns on the part of the children were negligible although financial concerns seemed to be an important factor in accidentally caused damage where it was cited by a total of 23 children. Although 12 children responded that injury was worse than property damage and 7 responded 'Same' it appears that all 23 children were actually deciding on the same "damage caused" basis although they perceived the two damages to have discrepant financial values.

#### Story Pairs 3 and 4

##### Decisions

Story Pairs 3 and 4 reflect children's perception of culpability when injury or damage remains constant and intentionality varies. In Story Pairs 3 and 4, 97% and 95% of the children respectively found the child with negative intentions to be to blame (Table 3). No significant differences were found by grade, sex, or identification of giftedness. The only group where less than 90% considered the child with negative intentions to be more to blame was the group of third grade average I.Q. girls where 30% recorded 'Same'

responses for Story Pair 4. Due to small group size (N=10), further analysis was not possible.

#### Reasons for Decisions

The fact that one child was disobedient, sometimes coupled with the fact that the other child was trying to help, accounts for the majority of reasons cited by all groups for both Story Pair 3 and 4. No other trends were noted in the reasons cited for either Story Pair. When 'Same' was cited, it was because both broke or hurt the same thing.

#### Story Pairs 5 and 6

#### Decisions

Story Pairs 5 and 6 were designed to test the hypothesis that younger children will tend to judge on the basis of injury or damage caused while older children will judge on basis of intentionality when positive and negative intentions are combined with personal injury and property damage. In Story Pair 5, negative intentions resulted in personal injury and positive intentions resulted in property damage. Ninety-two percent of all children deemed intentional ~~property damage~~ <sup>personal injury</sup> to be more blameful (Table 3). While more girls than boys found the unintentional property damage to be more blameful or both children to be equally to blame, the difference was not significant.

In Story Pair 6, where unintentional personal injury was compared to intentional property damage, results were less clearly



based on intentionality. Only 78% of the children judged solely on the basis of intentionality when positive intentions resulted in personal injury. When data was analyzed according to main effects for grade, sex and identification of giftedness, no significant differences were found. However, when examined for cross comparisons of grade, sex, and giftedness, a significant difference was observed for level of giftedness in fourth graders (Table 6). Since neither fourth grade gifted nor average I.Q. students recorded 'Same' responses, a 2x2 chi square rather than a 3x2 chi square was utilized to analyze data.

Table 6. Significant grade by giftedness interaction by N in Story Pair 6.

	N=	4th Grade	
		Gifted	Average
Story Pair 6		30	30
Disobedient Property Damage		27	21
Obedient Personal Injury		2	8
Same		-	-
$\chi^2 =$		$\chi^2 = 4.36^{**}$	

\* Note: Since both 'Same' cells were empty, a 2 x 2 chi square was used. Values > 3.84 are significant at .05 level for 1 df.  
 \*\*Significant at .05 level.

When comparing Story Pair 5 to Story Pair 6, a significant difference exists indicating that children in the current study were able to consider both intentionality and damage caused when reaching moral decisions (Table 7).

Table 7. Comparison of Story Pairs 5 and 6 by total N.

	Story Pair 5	Story Pair 6
	Disobedient Personal Injury vs. Obedient Property Damage	Disobedient Property Damage vs. Obedient Personal Injury
Intention	94	80
Damage	3	17 20
Same	5	5 2
	$X^2 = 10.92^{**}$	

\*\*Significant at .05 level.

#### Reasons for Decisions

In Story Pair 5, 72 children reported Jim (who caused a bumped head) to be more to blame because he disobeyed, while 14 found him to be more guilty because he hurt someone. These reasons were cited by all groups of grade, sex, and identification of giftedness. Projection of further possible injuries such as "could have caused a concussion" was cited by 7 children, 5 of whom were third grade boys. No other trends were noted.

In Story Pair 6, Mary disobediently cut her sister's shirt and Sarah cut her sister's finger when helping. The most frequent reasons cited for Mary's blamefulness were Mary's disobedience (N=70), Sarah's helpfulness (N=7), simple repetition of story facts (N=6), and financial concerns (N=5). Reasons cited by those who found Sarah to be more to blame included she hurt a person (N=7), repetition of factual information (N=5), and a shirt can be replaced and/or a cut hand cannot (N=3). The only particular trend that appeared for any reason cited was that gifted fourth graders tallied 5 of the 7 responses of Sarah's helpfulness.

Hypothesis 3 stated that when injury or damage caused both vary with intentionality, younger children will judge according to damage caused and older children according to intentionality. In Story Pair 5, 92% of the children including both third and fourth graders based their decision on intentionality. Due to this ceiling effect, this story pair cannot be legitimately used to test the hypothesis. In Story Pair 6, both third and fourth graders tended to decide guilt based on intentionality although by a smaller percentage (78%) than for Story Pair 5. Seventy-two percent of the third graders and 80% of the fourth graders made intentionality-based judgments. While these results show a slight trend toward older children intentionality-based decisions, this result is not stastically significant.

Hypothesis 4 stated that a shift in judgment (from damage-based to intention-based judgments) according to grade level would occur at the same age in gifted and average I.Q. students. Since Story Pairs 5 and 6 failed to confirm a significant shift from damage-based judgments to intentionality-based judgments, an evaluation of Hypothesis 4 on that basis could not be conducted. In reviewing all story pairs presented for main order effects of grade, sex and identification of giftedness, only one story pair presented any significant difference. That difference was in Story Pair 2 and involved a difference between boys and girls. There was no significant main effect difference found according to level of giftedness in any of the six story pairs.

When considering the interaction of grade, sex, and I.Q. effects for all six story pairs, only four instances of significance were

observed. Only two of those reflected differences according to level of giftedness. Gifted boys deemed personal injury as more culpable than did average boys in Story Pair 1 where negative intentions were constant. Since injury versus damage does not reflect a developmental phenomenon, this reflects merely a difference in reasoning rather than a developmental difference in moral reasoning. The only developmental difference noted was in Story Pair 6 where damage and intentionality both varied and gifted fourth grade students relied more heavily on intentionality than did fourth grade average I.Q. students.

## CHAPTER 4

## DISCUSSION

In analyzing the data, it was found that when intentions were constant, personal injury was deemed by all groups of children to be more serious than property damage. When damage or injury was held constant, intentional damage was deemed more serious than unintentional damage by all groups of children. These findings support Hypotheses 1 and 2.

DeRemer (1979) found children of all ages take both intention and consequence into account when making moral judgments. Grueneich (1982) reports data supporting the developmental trend in children's use of increasing integration of both consequence and intention rather than a developmental progression from strictly consequence-based to strictly intention-based decision making. He states one of the weaknesses of the story pair method is that it does not adequately test to what extent children are able to integrate both intention and consequence in making judgments. In the present study, no systematic method of analysis was developed to determine the extent to which individual children integrated both factors in reaching their decisions. A significant difference was found to exist between Story Pairs 5 and 6 where damage and injury respectively were caused in the course of disobedient behavior. This appears to indicate that a majority of both third and fourth grade children in the present study

must have considered both intention and consequence to at least some extent.

### Age

More fourth graders than third graders used intentionality as the basis for judgment when intention and damage both varied. However, this difference in judgment was not significant at the .05 level. Hence, Hypothesis 3 was not supported.

While other moral reasoning studies have shown significant differences in moral reasoning using age as a variable, most have encompassed a wider age-span than the current study. According to Piaget (1965), the stage of incipient cooperation spans the ages of approximately 7-11. The subjects of this study (average ages 8 years, 7 months and 9 years, 7 months) fall near the midpoint of this stage. This may explain the lack of variance for age.

### Order Effect of Presentation

Grueneich (1982) analyzed how the order of information presented affects children's moral judgment. Using both single-story ratings and story pairs, he found dramatic order effects for third graders when the story pair method was used. When intention information preceded consequence information, 25% of the children's choices were intention-based, whereas 71% of the children's choices were intention-based when intention information followed consequence information. This order effect was not demonstrated in the current study, where in all instances, at least 78% of both third and fourth graders

reached intention-based decisions although intention was presented first in all story pairs.

### Sex

Unanticipated sex differences were found to occur in Story Pair 2 where boys judged personal injury to be more serious than property damage. Significantly more girls found both characters to be equally blameful because they both caused accidents or had not been careful. An inspection of the reasoning employed reveals that these girls were making intention-based rather than damage-based decisions. It is interesting to note that a similar sex difference was not evidenced in Story Pair 1 where one character disobediently caused personal injury and the other property damage.

In using the same story pairs, Elkind and Dabek (1977) had found no differences according to sex. However, they forced a dichotomous response, not allowing for 'Same' responses.

Krebs and Gillmore (1982, pg. 880) assessed stages of cognitive development, role-taking ability and moral development in children aged 5 to 14. In their investigation, females scored higher than males on moral development. The relationship between sex and moral development was "weak but statistically significant" with the strongest sex difference at age 10. They reported "these findings are consistent with past findings that suggest females tend to pass through the first stages of moral development earlier than males."

### Moral Reasoning and I.Q.

No overall significant differences were found in moral reasoning relative to I.Q. However, in Story Pair 1, gifted boys deemed the disobedient character causing personal injury to be more to blame than did average I.Q. boys. In Story Pair 6, significantly more fourth grade gifted children decided culpability on the basis of intentionality than did fourth grade average I.Q. children. Several possible factors may relate to these phenomena. These include the relation of formal operational thought to moral reasoning, the relation of formal operational thought to I.Q., the relation of I.Q. to moral reasoning and factors other than logical reasoning which may influence moral reasoning.

### The Relationship Between Logical Reasoning and Moral Development

Piaget and Inhelder (1969) espoused a theory of "functional unity" wherein children pass through all stages of development (cognitive, social and moral) at roughly the same time. Kohlberg (1969, pg. 1071) made the distinction that cognitive development is necessary but not sufficient for moral development. His premise is not that moral judgment stages are cognitive per se, but that the "existence of moral stages implies that moral development has a basic cognitive structural component."

Walker (1980) studied 64 elementary children in Kohlberg's Stage 2 of moral development. He found that all but one child scored at a higher or an equivalent stage of cognitive development than level of



role taking ability and at a higher or equivalent stage of role taking ability than level of moral development. In contrast, Krebs and Gillmore (1982) reported instances of data indicating role taking ability superior to cognitive development as well as instances of moral reasoning at a higher level than role taking ability.

#### Relationship Between Formal Operational Thought or Logical Reasoning and Intelligence

Logical thought or cognitive development levels have been determined through the use of a wide variety of measurements such as conservation, seriation, and/or correlation tasks. Cognitive development is equated with formal operational thought in some studies and intelligence in others. Differences found between various studies of the cognitive/moral relationship are likely to be partially attributable to this variance in measurement procedures.

DeVries and Kohlberg (1977) found that Piagetian tasks measure significantly different tasks than general intelligence. Kuhn and colleagues (1977) used Piaget's pendulum and correlation tasks to assess formal operations. They found "only about 60% of adults are able to consistently use formal operational reasoning, and that many adults with high I.Q. are in this group," (Kuhn et. al., 1977, cited in DeVries and Kohlberg, 1977, pg. 126). In Krebs and Gillmore's (1982, pg. 880) investigation of 5-14 year-olds, I.Q. was found to be "correlated .49 ( $p < .001$ ) with cognitive development as measured on a series of conservation and seriation tests."

### Relationship Between Intelligence and Moral Reasoning

No significant over-all relationship between giftedness and moral judgment was found in the present study. This finding is at variance with the findings of Karnes and Brown (1981), Rorvik (1980) and Haan (1980) who found cognitive development and moral judgment to be related. Rorvik's study of 228 sixth graders utilized both Kohlberg's dilemmas and Piaget's stories in written form. He found a significant relation between level of moral judgment and intelligence. "The correlation is  $r=.51$  ( $t=8.89$ ,  $p<.001$ )," (Rorvik, 1980, pg. 117). Haan and colleagues (1982, pg. 249), in a re-analysis of Kuhn's information, reported "moderately positive raw correlations between moral scores and I.Q., ranging from .19 to .33 for Kohlberg morality."

Krebs and Gillmore (1982, pg. 880) found the correlation between I.Q. and moral development to vary according to I.Q. level. Their results shows "the correlation between I.Q. and moral development was .51 (26)  $p<.004$  for children with I.Q. scores below the sample mean, and .19 (25) for the children with I.Q. scores equal to or greater than the sample mean." This low correlation at higher I.Q. levels may partially explain the lack of difference found between gifted and average I.Q. students in this study.

### Limitations of the Study

As with any study, the current study is subject to limitations.

These include:

1. Participants in the study were a convenience sample of previously identified gifted children and therefore were at least third grade and their previous identification of giftedness had to be adhered to. The average I.Q. classification may have included some high I.Q. children.
2. Ceiling effects precluded statistical analysis for Story Pairs 3 and 4 and limited possible variability in the remaining story pairs, especially Story Pair 5.
3. Story pairs were group administered for convenience and thus reasons cited are limited to the writing ability of the students involved and did not allow for further explanation or examiner questioning.
4. No standardized developmental scale appropriate to the story pairs has been established which precludes analysis of such data in any form other than descriptive.

## CHAPTER 5

## CONCLUSIONS

In summary, this investigation suggests that when other factors are held constant, children rate 1) personal injury to be more culpable than property damage, and 2) damage caused in the course of disobedient behavior to be more blameful than accidental damage. Less clear was the relationship found for grade level and I.Q. Although more fourth graders than third graders and more gifted students than average I.Q. students made judgments based on intentionality rather than on damage caused, these results were not statistically significant. Unexpected differences for sex were also found in one story pair.

The development of moral reasoning appears to be related to a variety of factors. The relative importance of those factors is yet to be conclusively determined. Of importance to parents and educators of academically gifted students is whether those students surpass their peers in their development of moral reasoning as has been often believed. The failure of the current study to confirm this notion of advanced moral development raises practical as well as theoretical implications. If we are to tap the potentials of our most able students, we must first understand what processes are relevant to the development of moral reasoning.

The story pair form of presentation admittedly limits the type of response that may be given but is relatively easy to administer and score. The story dilemma form of presentation allows open-ended responses that may be used to place respondents at a particular stage of moral reasoning. Stage construct can then be used to analyze comparative relationships between moral reasoning and other factors such as formal logical thought. However, administration of story dilemmas is time-consuming and requires considerable training and expense.

Recently, Gibbs and his colleagues (1982) have constructed and validated a simplified, group administerable equivalent to the Moral Judgment Interview. Such an instrument holds promising possibilities for conducting further research.

Further studies should include examination of a wider age span to determine if there are critical ages in moral development and testing of a broader spectrum of cognitive levels. Access to information regarding each individual student's level of cognitive and moral development will yield greater possibilities for comparative analysis than those to which the current study was limited. The relationships between all aspects of cognitive development and moral development and the evolution of that relationship as the child develops should be the focus of future research.

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APPENDICES

APPENDIX A

STIMULUS MATERIALS

Story Pairs<sup>\*</sup>Story Pair 1:

Personal injury (intentional): Steven's mother has told him that he is not allowed to play ball in the house. Steven is playing with the ball in the house, he throws the ball in the air, and it hits his brother in the face and gives him a bloody nose.

Property damage (intentional): Jimmy's mother has told him that he is not allowed to play ball in the house. Jimmy throws the ball in the living room and it breaks his brother's favorite record.

Story Pair 2:

Personal injury (unintentional): Jane is playing with a ball in the park. She throws the ball in the air and while running to catch it, she bumps into a friend and breaks her friend's arm.

Property damage (unintentional): Paula is playing with a ball in the park. She throws the ball and when it comes down it hits and breaks her friend's glasses that are on the bench.

Story Pair 3:

Personal injury (unintentional): Chuck and his brother are helping their mother bake cookies. Chuck opens the oven door for his mother and his brother, who is standing too close to him, burns his hand on the oven door.

Personal injury (intentional): Michael's mother told him that he is not allowed to use the oven when she is not there. Michael decides to bake some cookies while his mother is out shopping. Michael lights a match, and his brother, who is standing too close, burns his hand.

Story Pair 4:

Property damage (unintentional): Carol is helping to clean her sister's room. She is carrying her sister's favorite mirror and she trips and the mirror falls to the ground and breaks.

Property damage (intentional): Lynne is trying to reach for some records that her sister has asked her not to use. As she leans over to get them, she knocks down a mirror that is her sister's favorite and it falls to the ground and breaks.

Story Pairs (continued)Story Pair 5:

Personal injury (intentional): Jim's father told him not to ride his brother's new bicycle that day. He and his friend, Sam rode to the candy store and on the way back, Jim bumped into Sam and Sam fell off his bike and hurt his head.

Property damage (unintentional): Larry's brother said Larry could play with his new football that day. Larry threw the ball up in the air and it landed on a nail and made a big hole in it.

Story Pair 6:

Property damage (intentional): Mary's mother does not allow her to use her sharp scissors when she is not there to help. Mary takes the scissors when her mother is out shopping, starts to cut a piece of old cloth for an art project, but later she finds out it is her sister's shirt.

Personal injury (unintentional): Sarah is helping her mother sew some Halloween costumes. She asks her sister to hold the material in place while she cuts a piece of it. However, Sarah's hand slips and she cuts her sister's finger.

\* Story Pairs were developed by Elkind and Dabek (1977) and were used with permission. Story Pair 4 has been revised.

## Student Answer Sheet

Name \_\_\_\_\_

Directions: For each story pair, circle the name of the child who is more to blame and who should be punished more. In the space after the name, tell why.

Circle the name.Tell why.Pair 1

- a) Steven
- b) Jimmy

Pair 2

- a) Jane
- b) Paula

Pair 3

- a) Chuck
- b) Michael

Pair 4

- a) Carol
- b) Lynne

Pair 5

- a) Jim
- b) Larry

Pair 6

- a) Mary
- b) Sarah

Boy or Girl \_\_\_\_\_

Date of Birth \_\_\_\_\_

## Administration of Story Pairs - Sample

Today we are going to help a teacher who is trying to learn more about how children learn to make decisions. Your help is needed. I will be reading some pairs of stories about boys and girls your age. Then I will ask you some questions about the children in the stories and you will write the answers on your answer sheets. The answer sheets will help you to remember the children's names.

Each time I will read stories about two children and after both stories, I will ask you which child was more to blame for what happened in the story. Please circle the name of the child that you think is more to blame. (If you were to punish the children for what happened, which child would you punish more?) After you have circled the name of the child who was more to blame, please write why you think that child was naughtier. It is very important that you circle the name of the child more to blame and tell why.

If you think both children were exactly just as naughty or exactly the same to blame, you may write Same on your answer sheet and tell why you think they are the same. If you think one child is even a little bit more to blame than the other, circle the name and tell why.

## READ STORY PAIRS

The first stories I am going to read you are about Steven and Jimmy. Please listen carefully. (READ STORY PAIR I)

Repeat directions. Ask if any child would like to have the stories repeated. If yes, read story pairs again. After first story pair please walk around room to make sure everyone has the idea.



APPENDIX B

SAMPLE SCORECARD

SAMPLE SCORE CARD

Child <u>I.D.#</u>	Sex ___	Age in <u>Months</u>	Grade ___	I.Q. ___	Story <u>Pair 1</u>	Story <u>Pair 2</u>	Story <u>Pair 3</u>	Story <u>Pair 4</u>	Story <u>Pair 5</u>	Story <u>Pair 6</u>
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Sex -- 1 = Boy, 2 = Girl

Grade -- 3 = Third, 4 = Fourth

I.Q. -- 1 = Gifted, 2 = Average I.Q.

Story Pairs 1-6

1 = First Child in Pair More to Blame

2 = Second Child in Pair More to Blame

3 = Both Children are Equally to Blame

0 = Child did not Respond

APPENDIX C

RESULTS

Table 8. Summary data for main effect for all story pairs by N.

	3rd Grade	4th Grade	Gifted	Average	Boys	Girls	Total
N=	44	60	52	52	54	50	104
<u>Story Pair 1</u> (Disobedience)							
Personal Injury	30	36	37	29	35	31	66
Property Damage	8	13	8	13	13	8	21
Same	6	10	6	10	6	10	16
<u>Story Pair 2</u> (Obedience)							
Personal Injury	34	38	38	34	45	27	72
Property Damage	2	7	3 <sup>b</sup>	3	3	6	9
Same	7	14	6	15	5	4/6	21
					$X^2 = 11.12^{***}$		
<u>Story Pair 3</u> (Personal Injury)							
Obedience	-	-	-	-	-	-	-
Disobedience	41	58	51	48	51	48	99
Same	3	-	1	2	1	2	3
<u>Story Pair 4</u> (Property Damage)							
Obedience	1	-	-	1	1	-	1
Disobedience	40	58	52	46	52	46	98
Same	3	1	-	4	1	3	4
<u>Story Pair 5</u> Disobedience							
Personal Injury	39	55	50	44	51	43	94
Obedience							
Property Damage	1	2	1	2	1	2	3
Same	3	2	1	4	1	4	5
<u>Story Pair 6</u> Disobedience							
Property Damage	32	48	43	37	42	38	80
Obedience							
Personal Injury	10	10	7	13	10	10	20
Same	2	-	1	1	-	2	2

\*NOTE FOR ALL TABLES:

$X^2$  values > 5.99 reflect significance at .05 level for 2 df  
 $X^2$  value is not computed where any observed cell value is 0.

\*\*Significant at .05 level.

Table 9. Summary data for main effect for all story pairs by proportion.

	3rd Grade	4th Grade	Gifted	Average	Boys	Girls	Total
N=	44	60	52	52	54	50	
<u>Story Pair 1</u> (Disobedience)							
Personal Injury	.68	.61	.72	.56	.63	.65	.64
Property Damage	.18	.22	.16	.25	.16	.24	.20
Same	.14	.17	.12	.19	.21	.11	.16
<u>Story Pair 2</u> (Obedience)							
Personal Injury	.79	.64	.76	.65	.55	.85	.71
Property Damage	.05	.12	.12	.06	.12	.06	.09
Same	.16	.24	.12	.29	.33	.09	.20
<u>Story Pair 3</u> (Personal Injury)							
Obedience	-	-	-	-	-	-	-
Disobedience	.93	1.00	.98	.96	.96	.98	.97
Same	.07	-	.02	.04	.04	.02	.03
<u>Story Pair 4</u> (Property Damage)							
Obedience	.02	-	-	.02	-	.02	.01
Disobedience	.91	.98	1.00	.90	.94	.96	.95
Same	.07	.02	-	.08	.06	.02	.04
<u>Story Pair 5</u> Disobedience							
Personal Injury	.91	.93	.96	.88	.88	.96	.92
Obedience							
Property Damage	.02	.03	.02	.04	.04	.02	.03
Same	.07	.03	.02	.08	.08	.02	.05
<u>Story Pair 6</u> Disobedience							
Property Damage	.73	.83	.84	.73	.76	.81	.78
Obedience							
Personal Injury	.23	.17	.14	.25	.20	.19	.20
Same	.04	-	.02	.02	.04	-	.02

\*\*Significant at .05 level.

Boys  
girls

Table 10. Summary data for all story pairs by grade, sex and giftedness by N.

	3rd Grade				4th Grade				Total
	Gifted		Average		Gifted		Average		
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
N=	12	10	12	10	15	15	15	15	104
<u>Story Pair 1</u>									
(Disobedience)									
Personal Injury	10	8	5	7	12	7	8	9	66
Property Damage	1	2	4	1	2	3	6	2	21
Same	1	-	3	2	1	4	1	4	16
<u>Story Pair 2</u>									
(Obedience)									
Personal Injury	11	8	10	5	13	6	11	8	72
Property Damage	-	2	-	-	1	3	2	1	9
Same	-	-	2	5	1	5	2	6	21
<u>Story Pair 3</u>									
(Personal Injury)									
Obedience	-	-	-	-	-	-	-	-	-
Disobedience	12	9	11	9	15	15	13	15	99
Same	-	1	1	1	-	-	-	-	3
<u>Story Pair 4</u>									
(Property Damage)									
Obedience	-	-	1	-	-	-	-	-	1
Disobedience	12	10	11	7	15	15	14	14	98
Same	-	-	-	3	-	-	1	-	4
<u>Story Pair 5</u>									
Disobedient									
Personal Injury	12	10	11	6	15	13	13	14	94
Obedient									
Property Damage	-	-	-	1	-	1	1	-	3
Same	-	-	1	2	-	1	-	1	5
<u>Story Pair 6</u>									
Disobedient									
Property Damage	10	6	9	7	12	15	11	10	80
Obedient									
Personal Injury	2	3	3	2	2	-	3	5	20
Same	-	1	-	1	-	-	-	-	2

Table 11. Summary data by N and proportion for interactions by grade level.

	Gifted		Average		Boys Gifted		Girls Average		
	3rd	4th	3rd	4th	3rd	4th	3rd	4th	
	N=	22	30	22	30	24	30	20	30
<u>Story Pair 1</u>									
Personal Injury	18 (.82)	19 (.66)	12 (.55)	17 (.57)	15 (.63)	20 (.67)	15 (.75)	16 (.55)	
Property Damage	3 (.14)	5 (.17)	5 (.23)	8 (.27)	5 (.21)	8 (.27)	3 (.15)	5 (.17)	
Same	1 (.04)	5 (.17)	5 (.23)	5 (.17)	4 (.17)	2 (.7)	2 (.10)	8 (.28)	
<u>Story Pair 2</u>									
Personal Injury	10 (.90)	19 (.66)	15 (.68)	19 (.63)	21 (.91)	24 (.80)	13 (.65)	14 (.48)	
Property Damage	2 (.10)	4 (.14)	- -	3 (.10)	- -	3 (.10)	2 (.10)	4 (.14)	
Same	- -	7 (.32)	8 (.27)	2 (.09)	2 (.09)	3 (.10)	5 (.25)	11 (.38)	
<u>Story Pair 3</u>									
Disobedience	21 (.95)	30 (1.00)	20 (.91)	28 (1.00)	23 (.96)	28 (1.00)	18 (.90)	30 (1.00)	
Obedience	- -	- -	- -	- -	- -	- -	- -	- -	
Same	1 (.05)	- -	2 (.09)	- -	1 (.04)	- -	2 (.10)	- -	
<u>Story Pair 4</u>									
Disobedience	22 (1.00)	30 (1.00)	18 (.82)	28 (.97)	23 (.96)	29 (.97)	17 (.85)	29 (1.00)	
Obedience	- -	- -	1 (.05)	- -	1 (.04)	- -	- -	- -	
Same	- -	- -	3 (.14)	1 (.03)	- -	1 (.03)	3 (.15)	- -	
<u>Story Pair 5</u>									
Disobedience	22 (1.00)	28 (.93)	17 (.81)	27 (.93)	23 (.96)	28 (.97)	16 (.84)	27 (.96)	
Obedience	- -	1 (.03)	1 (.05)	1 (.03)	- -	1 (.03)	1 (.05)	- -	
Same	- -	1 (.03)	3 (.14)	1 (.03)	1 (.04)	- -	2 (.11)	1 (.04)	
<u>Story Pair 6</u>									
Disobedience	16 (.73)	27 (.93)	16 (.73)	21 (.72)	19 (.79)	23 (.82)	13 (.65)	25 (.83)	
Obedience	5 (.23)	2 (.07)	5 (.23)	8 (.28)	5 (.21)	5 (.18)	5 (.25)	5 (.17)	
Same	1 (.05)	- -	1 (.05)	- -	- -	- -	2 (.10)	- -	

\*\*Significant at .05 level.

Table 12. Summary data by N and proportion for interactions by sex.

	3rd Grade		4th Grade		Gifted		Average	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
N=	24	20	30	30	27	25	27	25
<u>Story Pair 1</u>								
Personal Injury	15 (.63)	15 (.75)	20 (.67)	16 (.55)	22 (.81)	15 (.63)	13 (.48)	16 (.64)
Property Damage	5 (.21)	3 (.15)	8 (.27)	5 (.17)	3 (.11)	5 (.21)	10 (.37)	3 (.12)
Same	4 (.17)	2 (.10)	2 (.07)	8 (.28)	2 (.07)	4 (.17)	4 (.15)	6 (.24)
<u>Story Pair 2</u>								
Personal Injury	21 (.91)	13 (.65)	24 (.80)	14 (.48)	24 (.92)	14 (.58)	21 (.78)	13 (.52)
Property Damage	-	2 (.10)	3 (.10)	4 (.14)	1 (.04)	5 (.21)	2 (.07)	1 (.04)
Same	2 (.09)	5 (.25)	3 (.10)	11 (.38)	1 (.04)	5 (.21)	4 (.15)	11 (.44)
			**		**			
<u>Story Pair 3</u>								
Disobedience	23 (.93)	18 (.90)	28 (1.00)	30 (1.00)	27 (1.00)	24 (.96)	24 (.96)	24 (.96)
Obedience	-	-	-	-	-	-	-	-
Same	1 (.04)	2 (.10)	-	-	-	1 (.04)	1 (.04)	1 (.04)
<u>Story Pair 4</u>								
Disobedience	23 (.96)	17 (.85)	29 (.97)	29 (1.00)	27 (1.00)	25 (1.00)	25 (.93)	21 (.88)
Obedience	1 (.04)	-	-	-	-	-	1 (.04)	-
Same	-	3 (.15)	1 (.03)	-	-	-	1 (.04)	3 (.13)
<u>Story Pair 5</u>								
Disobedience	23 (.96)	16 (.84)	28 (.97)	27 (.96)	27 (1.00)	23 (.92)	24 (.92)	20 (.83)
Obedience	-	1 (.05)	1 (.03)	-	-	1 (.04)	1 (.04)	1 (.04)
Same	1 (.04)	2 (.11)	-	1 (.04)	-	1 (.04)	1 (.04)	3 (.13)
<u>Story Pair 6</u>								
Disobedience	19 (.79)	13 (.65)	23 (.83)	25 (.83)	22 (.85)	21 (.84)	20 (.77)	17 (.68)
Obedience	5 (.21)	5 (.25)	5 (.18)	5 (.17)	4 (.15)	3 (.12)	6 (.23)	7 (.28)
Same	-	2 (.10)	-	-	-	1 (.04)	-	1 (.04)

\*\*Significant at .05 level.



Table 13. Summary data by N and proportion for interactions by giftedness

	3rd Grade		4th Grade		Boys		Girls		
	Gifted	Average	Gifted	Average	Gifted	Average	Gifted	Average	
N=	22	22	30	30	27	27	25	25	
<u>Story Pair 1</u>									
Personal Injury	18 (.82)	12 (.55)	19 (.66)	17 (.57)	22 (.81)	<sup>13</sup> 15 (.48)	<sup>15</sup> 13 (.63)	16 (.64)	
Property Damage	3 (.14)	5 (.23)	5 (.17)	8 (.27)	3 (.11)	10 (.37)	5 (.21)	3 (.12)	
Same	1 (.04)	5 (.23)	5 (.17)	4 (.17)	2 (.07)	4 (.15)	4 (.17)	6 (.24)	
**									
<u>Story Pair 2</u>									
Personal Injury	19 (.90)	15 (.68)	19 (.66)	19 (.63)	24 (.92)	21 (.78)	14 (.58)	13 (.52)	
Property Damage	2 (.10)	-	4 (.14)	3 (.10)	1 (.04)	2 (.07)	5 (.21)	1 (.04)	
Same	-	7 (.32)	6 (.21)	8 (.27)	1 (.04)	4 (.15)	5 (.21)	11 (.44)	
<u>Story Pair 3</u>									
Disobedience	21 (.95)	20 (.91)	30 (1.00)	28 (1.00)	27 (1.00)	24 (.96)	24 (.96)	24 (.96)	
Obedience	-	-	-	-	-	-	-	-	
Same	1 (.05)	2 (.09)	-	-	-	1 (.04)	1 (.04)	1 (.04)	
<u>Story Pair 4</u>									
Disobedience	22 (1.00)	18 (.92)	30 (1.00)	28 (.97)	27 (1.00)	25 (.93)	25 (1.00)	21 (.88)	
Obedience	-	1 (.05)	-	-	-	1 (.04)	-	-	
Same	-	3 (.14)	-	1 (.03)	-	1 (.04)	-	3 (.13)	
<u>Story Pair 5</u>									
Disobedience	22 (1.00)	17 (.81)	28 (.93)	27 (.93)	27 (1.00)	24 (.92)	23 (.92)	20 (.83)	
Obedience	-	1 (.05)	1 (.03)	1 (.03)	-	1 (.04)	1 (.04)	1 (.04)	
Same	-	3 (.14)	1 (.03)	1 (.03)	-	1 (.04)	1 (.04)	3 (.13)	
<u>Story Pair 6</u>									
Disobedience	16 (.73)	16 (.73)	27 (.93)	21 (.72)	22 (.85)	20 (.77)	21 (.84)	17 (.68)	
Obedience	5 (.23)	5 (.23)	2 (.07)	8 (.28)	4 (.15)	6 (.23)	3 (.12)	7 (.28)	
Same	1 (.05)	1 (.05)	-	-	-	-	1 (.04)	1 (.04)	

\*\*Significant at .05 level.

Table 14. Comparison of Story Pairs 1 and 2 by total N.

	Story Pair 1 (Disobedience)	Story Pair 2 (Obedience)
Injury	66	72
Damage	21	9
Same	16	21

$$\chi^2 = 5.57^*$$

\* $\chi^2$  value less than 5.99 not significant at .05 level.

APPENDIX D

LETTERS OF PERMISSION

PERMISSION TO USE STORY PAIRS



TUFTS UNIVERSITY

Eliot-Pearson Department of Child Study  
Office of the Chairman

September 3, 1982

Susan K. Sager  
c/o Dr. Susan Workman  
Department of Home Economics  
Montana State University  
Bozeman, Montana 59717

Dear Susan Sager,

Thank you for your letter of August 1 and please excuse my tardy reply. I was, of course, pleased with your interest in my work and you certainly have permission to use the personal injury/property damage stories. I would appreciate your sending me any further results you obtain.

Sincerely,

*David Elkind*  
David Elkind

DE/lrc

## LETTER REQUESTING PARTICIPATION IN STUDY

217 So. 10th  
Bozeman, MT 59715  
October 5, 1982

Dr. Bryan Dunn  
Assistant Superintendent of Instruction  
Bozeman Public Schools  
Bozeman, MT 59715

Dear Dr. Dunn:

As a home economics child development graduate student at Montana State University, I am seeking the cooperation of the Bozeman Public Schools in completing my master's thesis on moral reasoning in gifted and average I.Q. third and fourth graders. My work is being directed by Dr. Susan Workman, my graduate advisor and has the approval of the Department of Home Economics.

While the special skills and abilities of the gifted have gained increased attention in recent years, very little has been studied about the development of moral reasoning in gifted children. Proposed is a comparative study to determine whether there are any differences in the moral reasoning of identified gifted learners versus their average peers. This study uses a series of story pairs designed by Drs. David Elkind and Ruth Dabek that have been previously pilot tested on Gallatin County children.

Your school is being asked to participate because you have an already established program for gifted learners that would allow for group administration of the story pairs and because of the willingness of teachers contacted thus far to participate. Ideally, 30 gifted and 30 average children at each the third and fourth grade levels would be questioned, or however many gifted students are identified at each grade level would be matched with average peers.

School participation would involve the Zoom teacher and the classroom teacher reading the sets of story pairs to the children and asking them to record on the answer sheet which child was most to blame and why. Administration of the story pairs should take no more than 20-30 minutes time. Only the child's sex and age need be reported to the researcher. Names are on the answersheet solely for the purpose of assisting the teacher in getting correct birthdates for each child. Child names could be removed prior to giving the completed answer sheets to the researcher.

Please refer to the enclosed copies of story pairs, sample answer sheet, specific hypothesis to be tested and the consent form. Please feel free to ask any questions you may have. My campus phone is 994-4321, Ext. 39 and my home phone is 586-6960.

Thank you for your interest and cooperation in this study.

Sincerely,

Susan Sager

LETTER OF CONSENT TO PARTICIPATE

CONSENT FORM

TITLE OF PROJECT: Moral Reasoning in Gifted and Average I.Q. Third and Fourth Graders

NAME OF RESEARCHER: Susan Sager

I, Buc Quinn, verify that I am authorized to give consent for Barra School to participate in the above mentioned research project and that I have been informed of the following items.

- 1) I have been informed of the general description of the project, its purpose and benefits;
2) I have been given an explanation as to why our school has been asked to participate;
3) I have been given an explanation of the school's specific involvement and potential risks, if any;
4) I understand that as a participating school, we may withdraw from the experiment at any time that we desire;
5) I have been given the opportunity to ask questions about the experiment from the principal investigator and these questions have been answered to my satisfaction.

Signature: Buc Quinn

Please list any special restrictions you wish to make.

Subject to approval by Joe Danaghy & Mike McGuire

