

**Empathy, Altruism, and Moral Development  
in Home Schooled Children**

by

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## **Empathy, Altruism, and Moral Development in Home Schooled Children**

Parents choose to home school their children for all sorts of reasons. Research on home schooling has reported more than 40 reasons that at least one family has endorsed, from safety concerns to religious convictions (Gray, 1993; Gustafson, 1988; Hetzel, Long, & Jackson, 2001; Howell, 1989; Mayberry, 1989; Rakestraw, 1988; Ray, 2004; Resetar, 1990). And the reasons parents *begin* to home school are not necessarily the same as the reasons they *continue* to home school—their motives evolve and mature over time (Gray, 1993; Resetar, 1990). To impose order on the diverse and shifting array of reasons parents give for teaching their children at home, researchers have generally agreed that home schoolers can be classified into three groups: idealogues, pedagogues, and socio-relational home schoolers (Gustafson, 1988; Howell, 1989; Mayberry, 1988, 1989; Mayberry & Knowles, 1989; Van Galen, 1987, 1991).

### **Idealogues, Pedagogues, and Socio-Relational Home Schoolers**

Idealogues home school to embed their children's education within a particular framework of values and beliefs (Gustafson, 1988; Howell, 1989; Johnson, 1991; Mayberry, 1988, 1989; Mayberry & Knowles, 1989; Ray, 1990a; Van Galen, 1987, 1991). They argue that education cannot (and should not) be divorced from religious, philosophical, social, and political assumptions, but they disagree with the ideology they see permeating public education. These parents home school to harmonize their children's education with the values and beliefs they affirm. Certainly many of the home

schoolers identified as idealogues are Christians. But research has also described Jewish, Muslim, Buddhist, and New Age home schoolers, among others (Mayberry, 1988, 1989; Ray, 1990b, 1997, 2004). Although their belief systems may differ, idealogues share a common goal—they want their children to come to think and act in accordance with the ideals they are being taught.

Pedagogues home school to give their children the highest quality academic instruction possible (Gustafson, 1988; Howell, 1989; Mayberry, 1988, 1989; Mayberry & Knowles, 1989; Van Galen, 1987, 1991). They are critical of public education not because of its ideology but because of its mediocrity. They say that it is not challenging enough, that too much time is wasted on nonacademic activities, and that the environment is not conducive to learning. “Mass-produced” education, they argue, is inefficient, inflexible, and frankly, boring. These parents home school because of the freedom it affords to teach creatively, to tailor their curriculum to their children’s interests and abilities, to proceed at their children’s own pace, and to preserve their children’s natural interest in learning. Such a description may give the impression that all pedagogues are the lucky (and perhaps a little pushy) parents of whiz kids. Some are, of course, but many pedagogues home school because their children have special educational needs that may not be (or have not been) managed well in a conventional school (Duffy, 1999, 2002; Duvall, Ward, Delquadri, & Greenwood, 1997; Ensign, 2000; Fuller, 1989). Others believe children learn best from an informal “unschooling” approach (e.g., Holt, 1982). Pedagogues, like idealogues, are a diverse group, home schooling for different reasons and in different ways depending on the unique needs of

their children. But they, too, have a common goal—they want to give their children every chance for academic success.

Socio-relational home schoolers teach at home to nurture their children's social development and promote close family relationships (Gustafson, 1988; Howell, 1989; Mayberry & Knowles, 1989). They describe public schools as rigid, authoritarian institutions where pressure to conform and negative peer interactions can stifle children's individuality and damage their self esteem. They also say conventional schooling can disrupt and fragment family life through the stress, fatigue, and hectic schedules it occasions. From the perspective of these parents, the "social environment of formal schools is actually a compelling argument for operating a home school" (Mayberry, Knowles, Ray, & Marlow, 1995, p. 3). Socio-relational home schoolers want to provide positive socialization experiences for their children, support their personal growth, and safeguard their self esteem.

Although this classification scheme is useful, parents rarely home school for only one reason—most have ideological, pedagogical, *and* socio-relational reasons for home schooling in mind, mixed in different proportions (Gray, 1993; Howell, 1989; Ray, 1990b, 1997, 2004). But typically one aspect of their children's development is preeminent in their thinking: moral development for ideologues, academic achievement for pedagogues, and social development for socio-relational home schoolers.

### **"The Mismeasure of Home Schooling Effectiveness"**

Research on the effectiveness of home schooling has so far emphasized academic achievement and social development. Although this research shows that home schooled children are doing well (e.g., Medlin, 2000; Ray, 2002; Rudner, 1999),

Cizek (1993, 1994) calls it “the mismeasure of home schooling effectiveness” (1993, p. 1). Cizek argues that the primary reason most parents decide to home school is “their desire to address the perceived spiritual, moral, or religious needs of their children” (1993, p. 2). Nevertheless, he says, “home education research has focused on *nearly everything except* ... moral and spiritual outcomes” (1993, p. 2) and should turn to “a different, more relevant line of inquiry” (1993, p. 3).

It is true that there has been very little research targeting home schooled children’s moral and spiritual development. Moral development is typically analyzed in terms of moral thinking and moral behavior. Only a few studies have examined moral thinking in home schooled children. Manuel (2000) used the well known *Defining Issues Test* (Rest, Thoma, Davison, Robbins, & Swanson, 1974) to measure moral reasoning—how children decide what is right and what is wrong—in home schooled children and children attending public schools. She found no difference between the two groups. Ohman (2001), however, found that college freshmen who had been home schooled in high school scored higher on a test of “business ethics” than other students. And in a creative and unusual study, Knafle and Wescott (2000) showed that home schooled children preferred a “forgiveness” ending to the *Cinderella* story (Cinderella finds handsome lords for the wicked stepsisters to marry so they can live in the castle with her—happily ever after, of course) instead of a “retribution” ending (birds peck out the wicked stepsisters’ eyes on Cinderella’s wedding day) more than children attending conventional schools did.

McEntire (in press) examined moral (or perhaps more correctly, immoral) behavior, and reported that home schooled adolescents were less likely than their peers

to use illegal drugs, gamble, lie to an adult, abuse alcohol, or attempt suicide.

Romanowski found that home schooled teens who enter public schools struggle with the dishonesty, profanity, and materialism they find there (Romanowski, 2002).

Galloway (1998; Galloway & Sutton, 1997) reported that college students who had been home schooled in high school received fewer disciplinary actions than other students, and Ray (2004) found that adults who were home schooled as children were less likely than the general population to have been convicted of a crime. On a more positive (but perhaps also more generic) note, home schooled children have been found to be friendly, polite, cooperative, and mature (Shyers, 1992; Smedley, 1992) and to grow up to be involved citizens in their communities (Ray, 2004; Smith & Sikkink, 1999).

Spiritual development has been addressed by examining religious attitudes and behaviors. As a group, home schooled children tend to be strongly committed to orthodox Christian beliefs (Wartes, 1990). Adults who were home schooled as children are likely to be involved in churches and other religious organizations and ministries (Galloway, 1998; Galloway & Sutton, 1997; Holzmann as cited in McEntire, in press; Ray, 2004), and to describe their religious beliefs as very important (Knowles & Muchmore, 1995; Ray, 2004). Their religious attitudes and behaviors are, in fact, much like those of their parents (e.g., Ray, 1997; 2002). In one study, 94% of adults who were home schooled as children agreed that “my religious beliefs are basically the same as those of my parents” (Ray, 2004, p. 42).

### **The Present Research**

The purpose of the present study was to compare empathy, altruism, moral reasoning, and prosocial behavior in home schooled children and children attending

public schools, and to assess attitudes toward religion and values in their parents. Empathy was defined in terms of four components: taking the perspective of others, sympathetic concern for others, feeling distress at others' misfortunes, and becoming emotionally involved in books and movies (Litvack-Miller, 1991; Litvack-Miller, McDougall, & Romney, 1997). Altruism was defined as being willing to help others even though it may require self sacrifice to do so (Piliavin & Charng, 1990). Moral reasoning was defined in terms of Kohlberg's stages (Kohlberg, 1969). Kohlberg theorized that thinking about ethical issues passes through six stages. Young children, he said, simply obey authority figures to avoid punishment. This childish reasoning gradually progresses to a sophisticated morality based on abstract, universal, ethical principles such as an appreciation for the inherent dignity and worth of human life. Kohlberg's work has been criticized, modified, extended, and reinterpreted (e.g., Puka, 1991, 1994), but nevertheless remains one of the most influential theories of moral development. Prosocial behavior was defined as actions that evidence honesty, cooperation, generosity, and other positive traits.

### **Hypotheses**

It was hypothesized that home schooling parents would be more concerned with teaching their children their values and religious beliefs, and more convinced that their children's education reinforced this endeavor, than public school parents. It was also expected that home schooling parents would report more frequent prosocial behavior in their children than public school parents. Finally, it was hypothesized that home schooled children would score higher on tests of empathy and altruism, and would use higher levels of moral reasoning, than public school children.

## Method

### *Participants*

Eighty children from grades 3 through 5 and their parents participated in this study. The home school group consisted of 13 boys and 17 girls with an average age of 9.9 years. There were 8 third graders, 10 fourth graders, and 12 fifth graders in this group. None had ever attended a public school. The public school group consisted of 20 boys and 30 girls with an average age of 9.7 years. There were 15 third graders, 24 fourth graders, and 11 fifth graders in this group. None of these children had ever been home schooled.

There was no attempt to match home school and public school participants—it was recognized that there would be differences between the two groups that could influence the results of this study. For example, all the home schooled children were Caucasian, whereas only 83% of the public school children were. All but one of the home schooling families were Protestant, while in the public school group, 34% were Protestant, 43% were Catholic, and 23% had either another religious affiliation or none at all. However, the modal income level for both home schooling and public school families was the same—\$50,000-75,000 per year—and a chi-square analysis revealed no systematic difference between the groups in the proportion of families at each income level.

### *Materials*

Parents reported their attitudes toward religion and values and rated their children's prosocial behavior in a brief questionnaire. Children completed measures of empathy, altruism, moral reasoning, and socially desirable responding.



**Parent Questionnaire.** Parents completed a questionnaire recording demographic information and how many years their children had attended either public school or home school. The questionnaire included eight items concerned with parents' attitudes toward religion and values, such as "My religious faith is very important to me" and "It is very important to me to teach my child the values I believe in." Parents responded using a five-point scale ranging from "strongly agree" to "strongly disagree." Point values ranging from 1 to 5 were assigned to responses such that higher scores indicated stronger agreement.

This questionnaire also asked parents to rate their children's prosocial behavior. Using a five-point scale ranging from "very often" to "never," parents responded to eight items, such as "My child tells the truth" and "My child offers help to children who are in need of it." Point values ranging from 1 to 5 were assigned to each response and these values were summed to yield a total score, with higher scores indicating greater frequency of prosocial behavior.

**Empathy.** The Interpersonal Reactivity Index (Davis, 1980, 1982), originally designed to measure empathy in adults, was adapted for use with children by Litvack-Miller (1991; Litvack-Miller, McDougall, & Romney, 1997). The resulting adaptation, designated the A-IRI, consisted of 28 items, such as "It is easy for me to feel sorry for other people" and "I try to understand my friends better by imagining what things are like for them." Children responded using a five-point scale anchored by "Not at all like me" at one end and "Exactly like me" at the other. Responses were assigned point values ranging from 1 to 5, with items worded negatively reverse-scored, so that higher scores indicated greater levels of empathy.

The A-IRI comprised four subscales, each corresponding to one of the aspects of empathy revealed by factor analysis of both adults' and children's data (Davis, 1980, 1982; Litvack-Miller, 1991; Litvack-Miller, McDougall, & Romney, 1997). The Perspective Taking subscale (eight items) assessed children's tendency to take another's point of view. The Empathic Concern subscale (three items) measured whether children expressed compassion for others. The Personal Distress subscale (eight items) assessed children's tendency to feel uncomfortable when exposed to people who are suffering. The Fantasy subscale (three items) measured whether children became emotionally involved in such things as books they read or movies they watched. The index also yielded a total score (all the subscales plus an additional six items).

For a group of second, fourth, and sixth grade children, test-retest reliability coefficients for A-IRI subscale scores were found to range from .58 to .64. Internal consistency coefficients ranged from .44 to .61 (Litvack-Miller, 1991).

**Altruism.** The altruism measure, also developed by Litvack-Miller (1991; Litvack-Miller, McDougall, & Romney, 1997), required children to read six short stories depicting a child who must decide whether or not to help someone in need. After reading each story, children were asked to indicate from a list of three choices what they would do if they were the child in the story. For example, in one story, a boy on his way to soccer practice meets an elderly woman who has dropped her bag of groceries. If he helps her pick up her groceries, he will be late for practice and his coach will be displeased. The three responses children had to choose from were: go on to practice without helping, go on to practice and tell the coach about the woman, or stop and help

the woman. As none of these stories concerned school in any way, they were thought to apply equally to home schooled children and children attending a conventional school.

In three of the stories the main character was a boy, while in the other three the main character was a girl. In addition to the elderly woman, those needing help included a little boy, a little girl, a friend (with a name that could be either a boy's or a girl's name), a stranger, and a puppy. In each story, the three possible responses were: not helping at all; offering effortless, token help; or providing unselfish, effective help. These three responses were assigned point values of 1, 2, and 3 respectively for each of the six stories. Thus total scores could range from 6 to 18, with higher scores indicating higher levels of altruism.

Litvack-Miller (1991; Litvack-Miller, McDougall, & Romney, 1997) did not report reliability data for this measure.

**Moral Reasoning.** A scale of Kohlberg's (1969) stages of moral reasoning, based in part on Carroll's (1974) measure, was devised by the researchers. This scale consisted of two stories describing moral dilemmas. The first story was a retelling in children's language of the well known dilemma in which a man must decide whether or not to steal a drug to save his sick wife's life. In the second story, a girl is sworn to secrecy by her friend, who then reveals that she has stolen some money. The girl must decide whether or not to break her promise to her friend and tell an adult about the theft.

Children first decided upon a solution to the dilemma—the man should steal the drug or not, the girl should tell an adult or not. Then they chose from a list of five arguments the one that best agreed with their reasons for their decision. Each of these

arguments was designed to reflect one of Kohlberg's stages of moral reasoning, with stages 5 and 6 combined into a single "principled thinking" stage (Carroll, 1974; Carroll & Rest, 1981). For example, the stage 1 reason to steal the drug was, "If he lets his wife die, he'll get into trouble. He'll be blamed for not trying hard enough to save her life. He might even be punished for letting her die." The stage 5/6 reason for the same decision was, "He should take the drug because it is better to save someone's life than it is to obey the law. Life is more important than property." Thus each of the dilemmas yielded two responses: the solution to the dilemma and the level of moral reasoning used to justify that solution.

No reliability data were available for this measure.

**Socially Desirable Responding.** Socially desirable responding—the tendency to present oneself in an exclusively positive light—can bias self-report measures such as those used in this study. A test of socially desirable responding developed by Litvack-Miller (1991; Litvack-Miller, McDougall, & Romney, 1997) was, therefore, included as a validity check. This test consisted of ten target items intermingled with ten distractor items. Target items described exemplary behaviors, such as "I am very polite" and "I tell the truth." Children responded by indicating whether the item described the way they are "sometimes," "usually," or "always." "Always" answers for target items were taken to indicate socially desirable responding. Thus scores could range from 0 to 10, with higher scores indicating more socially desirable responding.

Litvack-Miller (1991; Litvack-Miller, McDougall, & Romney, 1997) did not report reliability data for this measure.

**Procedure**

Homeschooling families were recruited through two Christian home school support groups, one in Central Florida and one in suburban Fort Lauderdale, Florida—both relatively affluent areas. Public school families were recruited through a public elementary school in suburban Fort Lauderdale, Florida. This medium-sized school enjoyed a very good reputation locally, both for academics and for student conduct. The study was described to home schooling families at the support groups' regularly scheduled meetings, and materials were then distributed to families who agreed to participate. Home schooled children and their parents completed the materials at home, and then returned them to the researchers by mail. Public school parents were informed of the study through a letter sent home with all the children in one classroom at each grade level tested. The children of parents who agreed to participate completed their materials in their classrooms during regular school hours. Parent questionnaires were sent home from school with the children, who then returned completed questionnaires to their teachers for later collection by the researchers.

**Results****Parent Questionnaire**

Mean scores for the eight parent questionnaire items concerned with religion and values are presented in Table 1. For all of the questions except one, home schooling parents' scores were higher than those of public school parents, indicating stronger agreement with each statement. A multivariate analysis of variance (MANOVA) with group as the factor and the religion and values items as the dependent variables produced a significant group effect:  $F(8, 64)=21.61, p<.001$ . Subsequent univariate

tests showed that the two groups differed significantly on every item except the last, “I want my child to decide for him/herself what values to believe in.” A closer look revealed that the percentage of parents in each group who agreed with this last item was almost identical (home school—57%, public school—60%).

Table 2 shows the group means for the sum of parents’ ratings of their children’s prosocial behavior. Ratings for home schooled children were higher than those of public school children, and girls’ were slightly higher than boys’. An analysis of variance (ANOVA) was calculated with group and gender as the factors and total prosocial behavior ratings as the dependent variable. The group effect approached significance:  $F(1, 76)=3.74, p=.057$ . The gender effect and the Group X Gender interaction were not significant.

### **Empathy**

Mean A-IRI subscale and total scores are found in Table 3. Although there were no conspicuous differences between home schooled children and public school children, girls generally scored higher than boys. A MANOVA was computed with group and gender as the factors and the four A-IRI subscale scores as the dependent variables. The group effect was not significant. The gender effect approached significance— $F(4, 73)=2.48, p=.051$ —primarily due to variance in the Perspective Taking and Empathic Concern subscales. The Group X Gender interaction was not significant. An ANOVA was calculated with group and gender as the factors and A-IRI total scores as the dependent variable. Once again, the group effect was not significant. The gender effect, however, was:  $F(1, 76)=5.41, p=.023$ . The Group X Gender interaction was not significant.

## **Altruism**

As Table 4 reveals, home schooled children's altruism scores were consistently higher than those of public school children, and once again, girls' scores were higher than boys'. An ANOVA with group and gender as the factors and altruism scores as the dependent variable yielded a significant group effect:  $F(1, 75)=6.54, p=.013$ . The gender effect approached significance:  $F(1, 75)=3.02, p=.086$ . The Group X Gender interaction was not significant.

## **Moral Reasoning**

The two moral dilemmas used to measure moral reasoning were analyzed separately. In the first dilemma, all of the home schooled children and 86% of the public school children agreed that the man should not steal the drug to save his wife's life. The remaining 14% of the public school children said he should steal the drug. A chi-square analysis showed that this difference in response frequency between the two groups was significant:  $X^2=4.60, p=.032$ . In the second dilemma, most of the children in both groups decided that the girl should tell an adult about the theft. Only three home schooled children and two public school children said she should keep her promise not to tell. A chi-square analysis showed that this difference in response frequency between the two groups was not significant.

Table 5 presents mean levels of moral reasoning of the arguments children endorsed to justify their solution to each dilemma. For the first dilemma, home schooled boys' scores were slightly higher, and home schooled girls' a little lower, than those of public school children. However, an ANOVA with group and gender as the factors and level of moral reasoning as the dependent variable produced no significant effects. For

the second dilemma, means for home schooled children were higher than those of public school children, but boys and girls did not differ. An ANOVA with group and gender as the factors and level of moral reasoning as the dependent variable yielded a group effect that approached significance:  $F(1, 76)=3.74, p=.057$ . The gender effect and the Group X Gender interaction were not significant.

### **Socially Desirable Responding**

As Table 6 shows, public school children had higher socially desirable responding scores than home schooled children, and girls had higher scores than boys. An ANOVA with group and gender as the factors and socially desirable responding scores as the dependent variable revealed a significant group effect:  $F(1, 74)=9.72, p=.003$ . The gender effect approached significance:  $F(1, 74)=3.87, p=.053$ . The Group X Gender interaction was not significant.

### **Relationships among the Measures**

There were few significant correlations among the dependent variables. Across both groups of children, altruism scores were correlated with Perspective Taking ( $r=.34, p=.002$ ) and Empathic Concern ( $r=.24, p=.034$ ) A-IRI subscale scores, with A-IRI total scores ( $r=.30, p=.008$ ), and with socially desirable responding scores ( $r=.27, p=.015$ ). Socially desirable responding scores were also significantly correlated with A-IRI Perspective Taking scores ( $r=.28, p=.013$ ) and with prosocial behavior ratings ( $r=.26, p=.024$ ). Table 7 shows that prosocial behavior ratings were related to all of the parent questionnaire items concerning attitudes toward religion and values except one, which approached significance.



## Discussion

Home schooling parents were more concerned with teaching their children their values and religious beliefs, and more convinced that their children's education reinforced this endeavor, than public school parents. They were also more confident that their children had embraced the values encompassed in their education. The two groups of parents did not differ, however, concerning whether they wanted their children to decide for themselves what values to believe in. Compared to public school parents, home schooling parents reported slightly more prosocial behavior in their children. In general, the attitudes toward religion and values expressed by home schooling parents were positively related to children's prosocial behavior.

Although home schooled children and public school children did not differ in empathy, girls were more empathetic than boys because girls were more willing to take the perspective of others and more likely to feel sympathetic concern for others. In general, children who were more empathetic were also more altruistic. Home schooled children were more altruistic than public school children, however, and girls were perhaps more so than boys. Home schooled children also endorsed a slightly higher level of moral reasoning to justify their solution to a moral dilemma than public school children. Public school children were more likely than home schooled children to present themselves in an exclusively positive light. If public school children responded similarly on the other measures, their empathy, altruism, and moral reasoning scores may have been inflated, causing smaller differences between the two groups of children than would otherwise be the case. Also, boys were perhaps less likely to respond in a socially desirable way than girls.

Do these results mean that home schooled children consistently behave more morally and altruistically than other children? Not necessarily, even though their parents suggested that they do. Advanced moral reasoning and sincere altruistic intent, unfortunately, do not always lead to principled and unselfish acts. And parents, of course, are not the most impartial observers of their own children's behavior. This research does suggest, however, that there may be *motivational* differences (see Piliavin & Charng, 1990) between home schooled children and children attending public schools. And home schooled children are apparently willing to describe their own behavior more realistically than other children. If real, these would be important differences, but they would not necessarily lead to differences in children's actions. Besides verifying these differences, therefore, subsequent research should focus on overt behavior, such as offering comfort to a child who is sad or hurt, refusing to cheat in a game, sharing toys, donating money, and letting others go first. Also, more objective techniques of measurement should be used, such as a proven behavior rating system and observations taken in different situations by naive, independent observers.

Two negative results of this study are worth considering briefly. First, although home schooled children scored higher in altruism than public school children, and although altruism and empathy were related, there was no difference between the groups in empathy scores. These results could mean that home schooled children more readily translate empathetic thoughts and feelings into altruistic intent than public school children. Or perhaps altruism is based not only on an empathetic understanding of others but also on an ethic of unselfishness that parents teach their children. Thus altruistic intent, at least in children, may be only partly a response to internal motivation—

—it may also involve conformity to an external standard. And perhaps home schooling parents teach this standard more successfully than public school parents. These possible explanations are, of course, purely speculative. Clearly this, too, is an issue for future research to address.

Second, although home schooling parents were more concerned with teaching their values to their children, they did not differ from public school parents in their response to the statement, “I want my child to decide for him/herself what values to believe in.” Obviously, teaching values does not mean dogmatic indoctrination for home schooling parents any more than it does for public school parents. Instead, it would seem that home schooling parents intentionally communicate their values and beliefs to their children—in school and out—trusting that their children will freely adopt them as their own in time.

In conclusion, this study suggests that home schooling can help parents foster their children’s moral development, just as previous research suggests that it can support academic and social development. Whether parents’ goals for their children are primarily ideological, pedagogical, or socio-relational, home schooling can be an effective educational choice.

## References

- Carroll, James L., & Rest, James R. (1981). Development in moral judgment as indicated by rejection of lower-stage statements. *Journal of Research in Personality, 15*, 538-544.
- Carroll, James L. (1974). *Children's judgments of statements exemplifying different moral stages*. Unpublished doctoral dissertation, University of Minnesota.
- Cizek, Gregory J. (1993). The mismeasure of home schooling effectiveness. *Home School Researcher, 9*(3), 1-4.
- Cizek, Gregory J. (1994, Winter). Religious education in home schools: Goals/outcome mismatch? *Religious Education, 89*(1), 43-51.
- Davis, Mark H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalogue of Selected Documents in Psychology, 10*(4), 85.
- Davis, Mark H. (1982). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.
- Duffy, Jane G. (2002). Home schooling children with special needs: A descriptive study. *Home School Researcher, 15*(2), 1-13.
- Duffy, Jane G. (1999, Winter). Home schooling and students in special education: Sorting out the options for parents. *Preventing School Failure*, pp. 57-63.
- Duvall, Steven F., Ward, D. Lawrence, Delquadri, Joseph C., & Greenwood, Charles R. (1997, May). An exploratory study of home school instructional environments and their effects on basic skill of students with learning disabilities. *Education and Treatment of Children, 20*, 150-172.

- Ensign, Jacque. (2000). Defying the stereotypes of special education: Home school students. *Peabody Journal of Education*, 75(1-2), 147-158.
- Fuller, Norma D. (1989). Home school: For some an option, for others an imperative. *Home School Researcher*, 5(4), 7-10.
- Galloway, Rhonda S. (1998, June). *The home schooled students' potential for success in college*. Paper presented at the Florida Homeschool Convention, Orlando, FL.
- Galloway, Rhonda S. & Sutton, Joseph P. (1997, October). *College success of students from three high school settings: Christian school, home school, and public school*. Paper presented at the National Christian Home Educators Leadership Conference, Boston, MA.
- Gray, Steven (1993). Why some parents choose to home school. *Home School Researcher*, 9(4), 1-12.
- Gustafson, Sonia K. (1988). A study of home schooling: Parental motivation and goals. *Home School Researcher*, 4(2), 4-12.
- Hetzel, June, Long, Michael, & Jackson, Michelle. (2001). Factors that influence parents to homeschool in Southern California. *Home School Researcher*, 14(4), 1-11.
- Holt, John. (1981). *Teach your own*. New York: Delacorte Press.
- Howell, Judy R. (1989). Reasons for selecting home schooling in the Chattanooga, Tennessee vicinity. *Home School Researcher*, 5(2), 11-14.
- Johnson, Kathie. (1991). Socialization practices of Christian home school educators in the state of Virginia. *Home School Researcher*, 7(1), 9-16.

- Knafle, June D., & Wescott, Alice L. (2000). Public, private, and home school children's views of forgiveness and retribution in *Cinderella*. *Home School Researcher*, 14(1), 15-23.
- Knowles, J. Gary & Muchmore, James A. (1995). Yep! We're grown-up home-schooled kids and we're doing just fine, thank you! *Journal of Research on Christian Education*, 4(1), 35-56.
- Kohlberg, Lawrence. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of Socialization Theory and Research* (pp. 347-480). San Francisco: Rand McNally.
- Litvack-Miller, Willa. (1991). *The structure and development of dispositional empathy during middle childhood and its relationship to prosocial behavior*. Unpublished doctoral dissertation, University of Calgary.
- Litvack-Miller, Willa, McDougall, Daniel, & Romney, David M. (1997). The structure of empathy during middle childhood and its relationship to prosocial behavior. *Genetic, Social, and General Psychology Monographs*, 123, 303-324.
- Manuel, Laura L. (2000). *The moral development of home schooled and public schooled adolescents*. Unpublished doctoral dissertation, University of Northern Colorado.
- Mayberry, Maralee. (1988). Why home schooling? A profile of four categories of home schoolers. *Home School Researcher*, 4(3), 7-14.
- Mayberry, Maralee. (1989). Home-based education in the United States: Demographics, motivations and educational implications. *Educational Review*, 41, 171-180.

- Mayberry, Maralee, & Knowles, J. Gary. (1989). Family unit objectives of parents who teach their children: Ideological and pedagogical orientations to home schooling. *Urban Review, 21*, 209-225.
- Mayberry, Maralee, Knowles, J. Gary, Ray, Brian D. & Marlow, Stacey. (1995). *Home schooling: Parents as educators*. Thousand Oaks, CA: Corwin Press.
- McEntire, T. Wayne. (in press). Religious outcomes in conventionally schooled and home schooled youth. *Home School Researcher*.
- Medlin, Richard G. (2000). Home schooling and the question of socialization. *Peabody Journal of Education, 75*(1-2), 107-123.
- Ohman, Paul J. (2001). *The effects of public schools, private Christian schools, and home schools on the business ethics values of selected college freshmen*. Unpublished doctoral dissertation, Nova Southeastern University.
- Pilivian, Jane A., & Charng, Hong-Wen. (1990). Altruism: A review of recent theory and research. *Annual Review of Sociology, 16*, 27-65.
- Puka, Bill. (1991). Toward the redevelopment of Kohlberg's theory: Preserving essential structure, removing controversial content. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development: Vol. 1. Theory* (pp. 373-393). Hillsdale, NJ: Lawrence Erlbaum.
- Puka, Bill (Ed.). (1994). *The great justice debate: Kohlberg criticism*. New York: Garland.
- Rakestraw, Jennie. F. (1988). Home schooling in Alabama. *Home School Researcher, 4*(4), 1-6.

- Ray, Brian D. (1990a). *Social capital, value consistency, and the achievement outcomes of home education*. Paper presented at the annual meeting of the American Educational Research Association. Boston.
- Ray, Brian D. (1990b). *A nationwide study of home education: Family characteristics, legal matters, and student achievement*. Salem, OR: NHERI Publications.
- Ray, Brian D. (1997). *Strengths of their own*. Salem, OR: NHERI Publications.
- Ray, Brian D. (2000). *Worldwide guide to homeschooling*. Nashville: Broadman and Holman.
- Ray, Brian D. (2004). *Home educated and now adults: Their community and civic involvement, views about homeschooling, and other traits*. Salem, OR: NHERI Publications.
- Resetar, Mark. An exploratory study of the rationales parents have for home schooling. *Home School Researcher*, 6(2), 1-7.
- Rest, James R., Thoma, Steve, Davison, Mark, Robbins, Stephen & Swanson, David. (1979). *Defining Issues Test*. Minneapolis: Center for the Study of Ethical Development.
- Romanowski, Michael H. (2002). Home-schooled students' perceptions of the transition to public school: Struggles, adjustments, and issues. *Home School Researcher*, 15(1), 1-12.
- Rudner, Lawrence M. (1999). Scholastic achievement and demographic characteristics of home school students in 1998. *Education Policy Analysis Archives* [on-line], 7(8). Available: [epaa.asu.edu](http://epaa.asu.edu).



- Shyers, Lawrence E. (1992a). A comparison of social adjustment between home and traditionally schooled students. Unpublished doctoral dissertation, University of Florida, Gainesville.
- Smedley, Thomas C. (1992). Socialization of home school children. *Home School Researcher*, 8(3), 9-16.
- Smith, Christian, & Sikkink, David. (1999, April). Is private schooling privatizing? *First Things*, 92, 16-20.
- Van Galen, Jane A. (1987). Explaining home education: Parents' accounts of their decisions to teach their own children. *Urban Review*, 19, 161-177.
- Van Galen, Jane A. (1991). Idealogues and pedagogues: Parents who teach their children at home. In J. Van Galen & M. A. Pitman (Eds.), *Home Schooling: Political, Historical, and Pedagogical Perspectives* (pp. 63-76). Norwood, NJ: Ablex.
- Wartes, Jon. (1990). Recent results from the Washington Homeschool Research Project. *Home School Researcher*, 6(4), 1-7.

Table 1. Means and Standard Deviations for the Eight Parent Questionnaire Items  
Concerned with Religion and Values

<b>Parent Questionnaire Item</b>	<b>Home School Parents</b>	<b>Public School Parents</b>
My religious faith is very important to me	5.00 (0.00)	3.68 (1.10)
Religious faith is very important to my child	4.79 (0.42)	3.44 (1.05)
I attend religious services two or three times a week	4.32 (0.98)	1.83 (0.91)
It is very important to me to provide religious instruction for my child	4.89 (0.31)	3.62 (1.21)
My child agrees with my values	4.64 (0.49)	4.20 (0.67)
My child's school reinforces the values I try to teach him/her	4.85 (0.37)	3.92 (0.84)
It is very important to me to teach my child the values I believe in	4.93 (0.26)	4.54 (0.71)
I want my child to decide for him/herself what values to believe in	3.36 (1.66)	3.45 (1.30)

Table 2. Means and Standard Deviations for Total Prosocial Behavior Ratings

	<b>Prosocial Behavior Ratings</b>
<b>Home School Boys</b>	27.08 (1.98)
<b>Home School Girls</b>	27.56 (2.85)
<b>Public School Boys</b>	24.10 (3.35)
<b>Public School Girls</b>	26.30 (2.76)

Table 3. Means and Standard Deviations for A-IRI Subscale and Total Scores

	<b>Perspective Taking</b>	<b>Empathic Concern</b>	<b>Personal Distress</b>	<b>Fantasy</b>	<b>Total</b>
<b>Home School Boys</b>	2.96 (0.73)	3.92 (0.96)	2.63 (0.40)	2.46 (1.07)	3.05 (0.49)
<b>Home School Girls</b>	3.45 (0.51)	4.04 (0.69)	2.90 (0.62)	2.94 (1.24)	3.30 (0.37)
<b>Public School Boys</b>	2.95 (0.65)	3.73 (0.66)	2.84 (0.70)	2.60 (1.42)	3.06 (0.51)
<b>Public School Girls</b>	3.42 (0.78)	4.26 (0.64)	2.99 (0.73)	2.67 (1.12)	3.32 (0.47)

Table 4. Means and Standard Deviations for Altruism Scores

	<b>Altruism</b>
<b>Home School Boys</b>	17.00 (1.08)
<b>Home School Girls</b>	17.62 (0.62)
<b>Public School Boys</b>	16.05 (2.14)
<b>Public School Girls</b>	16.70 (1.60)

Table 5. Means and Standard Deviations for Level of Moral Reasoning Scores

	<b>Level of Moral Reasoning for Dilemma 1</b>	<b>Level of Moral Reasoning for Dilemma 2</b>
<b>Home School Boys</b>	4.15 (1.07)	4.54 (0.78)
<b>Home School Girls</b>	3.53 (1.12)	4.53 (1.07)
<b>Public School Boys</b>	3.63 (1.12)	3.95 (1.47)
<b>Public School Girls</b>	3.97 (0.72)	3.93 (1.48)

Table 6. Means and Standard Deviations for Socially Desirable Responding Scores

	<b>Socially Desirable Responding</b>
<b>Home School Boys</b>	2.92 (1.66)
<b>Home School Girls</b>	3.63 (2.75)
<b>Public School Boys</b>	3.85 (2.76)
<b>Public School Girls</b>	4.63 (2.22)

Table 7. Correlations between the Eight Parent Questionnaire Items Concerned with Religion and Values and Total Prosocial Behavior Ratings

Parent Questionnaire Item	Correlation with Total Behavior Ratings
My religious faith is very important to me	$r = .41$ $p < .001$
Religious faith is very important to my child	$r = .37$ $p = .001$
I attend religious services two or three times a week	$r = .22$ $p = .053$
It is very important to me to provide religious instruction for my child	$r = .24$ $p = .039$
My child agrees with my values	$r = .39$ $p < .001$
My child's school reinforces the values I try to teach him/her	$r = .31$ $p = .007$
It is very important to me to teach my child the values I believe in	$r = .38$ $p = .001$
I want my child to decide for him/herself what values to believe in	$r = .23$ $p = .045$

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REFERENCE:

Kingston, S. T. & Medlin, R. G. (2006). Empathy, altruism, and moral development in homeschooled children. *Home School Researcher*, 16 (4), 1-10.