

2-9-1999

Early Adolescence and Prosocial/Moral Behavior I: The Role of Individual Processes

Richard A. Fabes

Arizona State University, rfabes@asu.edu

Gustavo Carlo

University of Nebraska-Lincoln, carlog@missouri.edu

Kristina Kupanoff

Arizona State University

Deborah Laible

University of Nebraska-Lincoln, del205@lehigh.edu

Follow this and additional works at: <http://digitalcommons.unl.edu/psychfacpub>



Part of the [Psychiatry and Psychology Commons](#)

Fabes, Richard A.; Carlo, Gustavo; Kupanoff, Kristina; and Laible, Deborah, "Early Adolescence and Prosocial/Moral Behavior I: The Role of Individual Processes" (1999). *Faculty Publications, Department of Psychology*. 43.
<http://digitalcommons.unl.edu/psychfacpub/43>

This Article is brought to you for free and open access by the Psychology, Department of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Faculty Publications, Department of Psychology by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Early Adolescence and Prosocial/Moral Behavior I: The Role of Individual Processes

Richard A. Fabes

Arizona State University

Gustavo Carlo

University of Nebraska–Lincoln

Kristina Kupanoff

Arizona State University

Deborah Laible

University of Nebraska–Lincoln

In this introductory article, the purpose of the special issue on prosocial and moral development during early adolescence is presented. This issue is the first of two special issues and focuses on the role that individual processes play in influencing young adolescents' prosocial and moral development. Presented also is a new meta-analysis of data on age and gender differences in prosocial behavior with particular focus on early adolescence. It was found that prosocial behavior during adolescence rarely has been studied, but that there are general increases in prosocial behavior during this time when compared with early age periods. Moreover, gender differences in prosocial behavior (favoring girls) increase during this time. A relatively short review of the individual mechanisms by which these changes occur follow. A call for more research and suggestions for future directions in this research also is provided.

Early adolescence is a period of time when multiple transitions occur. Changes in physical, hormonal, familial, relational, and educational processes all take place within a relatively short period of time. These changes, particularly those associated with puberty, are thought to create a context in which the

Support for Richard Fabes was provided in part by a grant from the National Institute of Mental Health (1 R01 HH55051). Support for Gustavo Carlo was provided by a Layman Grant and a Gallup Research Professorship from the Research Council and the Gallup Research Center, respectively. Funding for Kristina Kupanoff was provided by a Cowden Fellowship Award from the Department of Family Resources and Human Development, Arizona State University.

Published in *Journal of Early Adolescence*, 19:1 (February 1999), pp. 5-16.

Copyright © 1999 Sage Publications, Inc. Used by permission.

demands and challenges placed on youth increase significantly. As a result, a popular stereotype of the transition to adolescence is that this is a period of "storm and stress"—a phase that consists of increased conflict, negativity, reactance, resistance, and defiance to traditional social values and standards (Caissy, 1994; Hall, 1916).

Although this negative stereotype applies to only a small percentage of early adolescents, the perception is one of increased aggression, hostility, and antisocial behaviors. Empirically, it is interesting to note that those types of behaviors have been studied extensively by researchers who are interested in adolescents. In contrast, with the exception of moral reasoning, prosocial and moral behaviors have been studied much less extensively. Yet, according to many theoretical accounts (Eisenberg, 1986; Kohlberg, 1976; Piaget 1932/1965), prosocial and moral behavior increases with age. Thus, it should be expected that young adolescents would show more prosocial behavior (defined as voluntary behaviors that are intended to benefit others) than they did when they were children.

In the articles published in this special issue, empirical evidence regarding prosocial and moral behavior of young adolescents is presented. To ensure that readers are familiar with issues related to the development of prosocial behavior during early adolescence, we present a relatively succinct overview of the individual processes that may play a role in influencing prosocial behavior during this important developmental transition. Space limits our ability to be comprehensive, but it is hoped that this special issue will spur more research and thinking about the ways in which the transition to adolescence influences boys' and girls' tendencies to care for, be concerned about, help, share, and defend others.

AGE-RELATED CHANGES IN PROSOCIAL BEHAVIOR DURING EARLY ADOLESCENCE

The question of age-related changes in prosocial behavior has been the subject of much inquiry (see Eisenberg & Fabes, 1998). However, a coherent picture of these changes has not been forthcoming. To address this, Fabes and Eisenberg (1996) conducted a meta-analysis of age differences in prosocial behavior in studies published between 1974 and 1994. In this analysis, they examined age-related changes in prosocial behavior by categorizing participants into particular age groups that included infants through adolescents. They found that prosocial behavior generally increased with age, with greater increases as the age span between comparisons increased (see Eisenberg & Fabes, 1998). Fabes and Eisenberg, however, did not distinguish and

TABLE 1: Age Differences in Prosocial Behavior in Early and Late Adolescents: Meta-Analytic Results

<i>Age Group Comparison</i>	<i>N</i>	<i>Effect Size</i>	<i>95% Confidence Interval</i>
Early adolescence/preschool	4	.62 ^{ab}	.22/.98
Late adolescence/preschool	9	.74 ^{ab}	.32/1.18
Early adolescence/childhood	17	.23 ^{ab}	.03/.42
Late adolescence/childhood	17	.57 ^{ab}	.40/.74
Early adolescence/late adolescence	7	.17 ^b	-.22/.59
Combined	54	.40 ^{ab}	.26/.54

SOURCE: Data obtained from Fabes and Eisenberg (1996).

NOTE: Positive effect sizes indicate differences favoring greater prosocial behavior for the older age group. Preschool = 3 through 6 years, childhood = 7 through 12 years, early adolescence = 13 through 15 years, late adolescence = 16 through 18 years. Means with different superscripts are significantly different ($p < .05$).

*Effect size differed significantly from zero ($p < .0001$).

compare early and late adolescents to examine whether there are differences during adolescence. To examine this issue, the Fabes and Eisenberg (1996) data were used to reexamine the age group comparisons (see Table 1).

From the 125 studies in which there were specific age-related comparisons, a total of 265 effect sizes were used (2.12 effect sizes per study). Although there is not a single convention as to how to handle the potential problems of nonindependent effect sizes, Fabes and Eisenberg did the following: (a) within any study, only one effect size for each unique combination of sample comparisons in an age group comparison was used, and (b) when more than one effect size within a study was calculated for a specific age group comparison, they randomly selected one of these to be included. When authors reported no significant differences but did not report any data, an effect size of 0 was used.

As can be seen in Table 1, 28 of the 265 effect sizes (11%) of studies included a sample of young adolescents (13 through 15 years). Older adolescents (16 through 18 years) were included in 33 effect sizes (12%). Those data reflect the fact that adolescents generally are not included in studies of prosocial behavior. Comparisons of studies involving adolescents to those including younger age groups revealed that there were significant positive effect sizes (favoring older groups). When early and late adolescents were compared with one another, there was a positive effect size but this did not reach statistical significance. Thus, adolescents generally have been found to be more prosocial than younger children, and this difference appears during early adolescence (see Table 1).

Although not examined here, Fabes and Eisenberg (1996) found that the magnitude of age differences in prosocial behavior varied as a function of the characteristics of the studies. For example, for comparisons of adolescents with younger age groups, age differences were greater when the index of prosocial behavior was sharing or donating than it was when comforting or providing instrumental help. Thus, the results presented here must be interpreted with caution and with the recognition that age differences in prosocial behavior are complex. It also should be noted that there is a need to study prosocial behavior during adolescence (both early and late adolescents) as adolescents represented only 20% of the total effect sizes used in the Fabes and Eisenberg (1996) meta-analysis.

Fabes and Eisenberg (1996) also examined gender differences in prosocial behavior. They examined overall relations with age but did not examine this issue using age group comparisons. To do this, the 272 effect sizes (from 259 studies) included in the Fabes and Eisenberg analysis were used and were broken down by age group (see Table 2). Inspection of Table 2 reveals that across childhood and adolescence, girls were more prosocial than boys and that difference generally increased with age. Importantly, the gender differences in prosocial behavior (favoring girls) increased significantly between childhood and early adolescence (see Eisenberg & Fabes, 1998).

Thus, there are some important changes in prosocial and moral tendencies that occur as children make the transition to adolescence. To adequately address the multitude of changes, we present the articles in two issues—one focusing on individual processes and the other focusing on social/contextual processes. In this first issue, the focus is on the former, and in this article some of the individual factors that contribute to changes in prosocial and moral development during early adolescence are reviewed.

INDIVIDUAL PROCESSES RELATED TO CHANGES IN PROSOCIAL BEHAVIOR DURING EARLY ADOLESCENCE

Pubertal changes. The changes brought on by puberty affect all aspects of young adolescents' functioning. Although a complete review of these changes is beyond the scope of this article (see Connolly, Paikoff, & Buchanan, 1996; Bancroft & Reinisch, 1990 for more detailed reviews), during adolescence children undergo a growth spurt and develop secondary gender characteristics as a result of the activation of hormones. These changes also may influence prosocial and moral behavior. For example, as adolescents achieve more adult-like physical statures, they are now able to do things that they

TABLE 2: Gender Differences in Prosocial Behavior: Meta-Analytic Results

<i>Age Group Comparison</i>	<i>N</i>	<i>Effect Size</i>	<i>95% Confidence Interval</i>
Early childhood (0-6 years)	68	.19 ^{ab}	.12/.28
Childhood (7-12 years)	139	.17 ^{ab}	.13/.22
Early adolescence (13-15 years)	47	.28 ^{ab}	.22/.35
Late adolescence (16-18 years)	18	.35 ^{ab}	.21/.48
Combined	272	.21 ^a	.18/.24

SOURCE: Data obtained from Fabes and Eisenberg (1996).

NOTE: Positive effect sizes indicate differences favoring greater prosocial behavior for girls. Means with different superscripts are significantly different ($p < .05$).

^aEffect size differed significantly from zero ($p < .0001$).

once could not. Increases in size and physical strength allow adolescents to help others in ways they once could not prior to puberty. In addition, as adults perceive young adolescents to be more competent physically, they might be more willing to allow them to help and to be involved in situations in which they were not involved before they reached puberty.

Additionally, puberty is associated with the onset of sexual activity. The hormonal changes at puberty increase an adolescent's sex drive, interest in sex, and sexual arousal (particularly for boys) (Udry & Billy, 1987). This increased interest in romantic and sexual relationships may foster prosocial and moral development by focusing adolescents' attention on intimate relationships and on behaviors that foster and promote intimacy. Helping, caring for, and sharing with a romantic partner are all part of such relationships and provide adolescents with a context to further explore such behaviors. Feelings of love and sexual interest may promote other-oriented emotions, and the experiences gained may increase adolescents' capacity for sympathy and empathy—both of which are important correlates of prosocial and moral behavior (Eisenberg & Fabes, 1991).

Changes involving puberty and its related characteristics also may create conditions that diminish prosocial and moral tendencies. For example, physical maturation, particularly if it occurs exceptionally early or late, can be associated with increased self-consciousness, impulsivity, anxiety, and embarrassment (Alsaker, 1995; Nottelmann, Inoff-Germain, Susman, & Chrousos, 1990). Moreover, there is some evidence that link the hormonal changes associated with puberty with increased aggressiveness, irritability, and mood swings (Connolly et al., 1996; Susman, Nottelmann, Inoff-Germain, & Dorn, 1987). Together, such changes may inhibit an adolescents' tendency to en-

gage or help others, although evidence in support of those changes is inconsistent (Petersen, 1987).

There also is evidence that boys and girls increasingly diverge at the onset of adolescence (Balk, 1995; Galambos, Almeida, & Petersen, 1991). As young adolescents' bodies mature and their interest in dating increases, it may become more important to act in ways that are consistent with gender-role expectations. Boys who do not act masculine enough or girls who do not act feminine enough may be less accepted by their peers. Because of the noticeable physical changes that occur during early adolescence, and others' reactions to those changes, boys and girls may feel compelled to fit into traditional gender roles (Huston & Alvarez, 1990). The idea that adolescents' gender-role behaviors and attitudes become more traditional in early adolescence is referred to as gender intensification (Hill & Lynch, 1983). Whether gender intensification actually occurs is not clear, but puberty may bring about an increase in boys' and girls' adherence to gender-typed norms regarding prosocial behavior and aggression. Such changes may contribute to the gender differences in prosocial behavior that became significantly greater once children reach adolescence (see Table 2).

Perspective taking. *Perspective taking* is defined as the ability or tendency to understand the internal and external states of others, including their social context. Perspective taking is believed to undergo a series of stage-like developmental progressions (Selman, 1980; Shantz, 1983). The stages of perspective taking reflect the transition from egocentric to sociocentric functioning and an eventual understanding of the internal and external states of others and their social context. For example, by about 10 or 12 years of age, children usually overcome the limitations of concrete operational thinking and begin to understand others' and societal perspectives. Because young adolescents become exposed to an increasing array of viewpoints as a result of interactions with peers and authority figures, perspective-taking skills become increasingly important for successful social development during adolescence. Despite inconsistencies in the research (Eisenberg, 1986; Feshbach, 1987), overall significant positive relations between perspective taking and prosocial behaviors have been found (Carlo, Knight, Melby, & Roesch, 1998; Underwood & Moore, 1982). Of particular relevance is that only a few studies have been conducted to examine those relations during early adolescence (Carlo, Knight, et al., 1998).

Moral reasoning. *Moral reasoning* is defined as the ability or tendency to think about and make decisions in situations in which there may be con-

flicting values, norms, rules or laws, needs, or desires. The development of prohibition-oriented morality (Kohlberg, 1976) reflects a transition from egoistic, self-focused concerns to societal and conventional concerns, to universal and ethically principled human concerns. Developmental progressions in prosocial-oriented morality (contexts in which authority figures, formal rules, guidelines, or laws are virtually absent) reflect a similar pattern. However, Eisenberg (1986) has noted that there are frequent references to caring for others (e.g., empathic reasons) during early adolescence.

There is evidence that moral reasoning is associated with prosocial and moral behaviors in adolescence. Higher levels and stages of moral reasoning and other-oriented modes (e.g., needs-oriented) of moral reasoning are related positively to prosocial behaviors (Carlo, Koller, Eisenberg, Da Silva, & Frohlich, 1996; Eisenberg, Carlo, Murphy, & Van Court, 1995). Furthermore, moral reasoning is related negatively to delinquency, cheating, aggression and other forms of antisocial behaviors (Carlo, Koller, & Eisenberg, 1998; Taylor & Walker, 1997). Although studies of these relations in early adolescence are few, the overall evidence for significant relations between moral reasoning and moral behaviors is quite impressive (Eisenberg & Fabes, 1998).

Empathy and related vicarious emotional responses. Most researchers agree that to develop a comprehensive account of prosocial and moral development, theorists need to acknowledge the influence of emotions. For many theorists (Eisenberg, 1986; Hoffman, 1991) the focus of the role of emotions in moral development has been empathy (i.e., feeling the same as another) and other vicarious emotional responses. Empathy and sympathy (i.e., feelings of concern or sorrow for a needy other) have been identified as primary motives for altruism that thwart aggressive behaviors. Furthermore, empathy and sympathy often are differentiated from personal distress, which is self-oriented, aversive, physiologically arousing, and sometimes overwhelming (Eisenberg & Fabes, 1998). The distinction between sympathy and personal distress is important because sympathy has been linked empirically to selflessly-motivated helping, whereas personal distress has been associated with egoistically-motivated helping (Batson, 1998).

Hoffman (1991) and other researchers (e.g., Eisenberg, 1986; Feshbach, 1987) have noted that empathy is composed of both a cognitive and an affective dimension and that the development of empathy closely parallels the development of cognitive skills. According to Hoffman, by late childhood and early adolescence, coinciding with perspective taking and self-concept development, children can empathize with a generalized group of others and

their life situation. This newfound ability to empathize with a group of needy others might predict relatively sophisticated forms of moral behaviors—behaviors that involve groups of people. Thus, the transition between childhood and adolescence may be important in the development of empathy and sympathy and may help to explain relatively sophisticated moral behaviors in adolescence and adulthood. Consistent with this notion, meta-analytic reviews of the literature yield overall positive relations between empathy and prosocial behavior, and overall negative relations between empathy and aggression (Eisenberg & Miller, 1987; Miller & Eisenberg, 1988). However, studies of these relations in early adolescence are few and limited.

Attributions and other cognitive processes. In recent years, there has been increased research on the relations of attributions and other cognitive processes (e.g., perceived competence, task specific cognitive skills) to prosocial and moral behaviors. That work stems from social cognitive theory and the information-processing paradigm that views cognitive development as gradual and linear in nature. Although those approaches have much promise in predicting prosocial and moral behaviors (see Crick & Dodge, 1994; Eisenberg & Fabes, 1998), the bulk of that work has been conducted with young children and has focused on aggressive behaviors (Graham & Juvonen, 1998). Other researchers (Midlarsky & Hannah, 1985; Peterson, 1983) have shown that perceived competence was an important predictor of helping behaviors in young adolescents.

Temperament and personality. There has been an increasing interest in the examination of temperament and personality differences and their relations to prosocial and moral development (Kochanska, 1993). Theorists (e.g., Buss & Plomin, 1984) suggest that those variables are relatively stable across the life span. Eisenberg and Fabes (1992) proposed a model of prosocial and moral development that identifies temperamental dimensions relevant to those behaviors. These theorists have suggested that self-regulatory and physiological arousal processes are associated with prosocial and moral outcomes in children.

There is limited evidence for the association between temperament and prosocial and moral behaviors in early adolescence. Based on the Buss and Plomin temperament approach, Carlo, Roesch, and Melby (1998) found significant relations between temperamental anger (and to a lesser extent, sociability) and prosocial and antisocial behaviors. These studies expand on the previous work with younger children and provide preliminary evidence for the role of temperament and personality on prosocial and moral behaviors in early adolescence.

There is limited evidence of the importance of other personality constructs. Hart and Chmiel (1992) showed that defense mechanisms in early adolescence predicted moral development in adulthood. However, studies of the relations between guilt and shame and moral behaviors in early adolescence are scarce. Tangney, Wagner, Hill-Barlow, Marschall, and Gramzow (1996) presented evidence for the link between those emotions and prosocial and antisocial responding. Similarly, studies of the association between mood and other emotions (e.g., embarrassment) and prosocial and moral behaviors during early adolescence are lacking.

SUMMARY AND CONCLUSIONS

The articles presented in this special issue go a long way toward addressing the complexities associated with understanding the role that individual processes play in influencing prosocial and moral behavior during early adolescence. However, in light of the increased cognitive capacities and newfound social opportunities presented during early adolescence, it is difficult to understand some of the gaps in research on prosocial and moral behaviors during this age period (for a review of studies in moral behaviors with late adolescents see Batson [1998], and Geen [1998]). Several directions for researchers interested in the link between social cognitions and emotions and moral behaviors are possible. First, new conceptions of social cognitions and emotions need to acknowledge the multidimensional nature of these personal tendencies. This will necessitate more fine-grained analyses of the specific components of relatively global constructs such as perspective taking, moral reasoning, and empathy (Carlo, Knight, et al., 1998) and the identification of other sociocognitive skills. Second, more sophisticated research designs (including longitudinal and cross-sectional studies that use laboratory and observational methods) are needed. For example, studies that acknowledge the interactive nature of social cognitions and emotions and puberty will benefit the development of more sophisticated theories of morality. Third, studies that concurrently examine prosocial and antisocial behaviors are needed to account more adequately for moral development. To examine one set of behaviors without examining the other set presents a skewed and limited description of the complexity of adolescents. Furthermore, that approach would help to minimize stereotyped conceptions of adolescents.

We hope that the articles presented in this volume spur more attention to young adolescents' positive social behavior, and their antecedents and correlates. As always, the quality of the work in any area is dependent on the contributions of experts who serve as reviewers. We are fortunate to have

had so many scholars devote their careful attention to these articles. Their comments, suggestions, and feedback are invaluable to the field and to the work that you see in this volume. We are indebted to the following reviewers: Tracy Spinrad (Arizona State University), Ana Estrada (Arizona State University), Scott Gest (Arizona State University), Laura Hanish (Arizona State University), Ellen Thornburg (Tucson, AZ), Jane Bernzweig (University of California, San Francisco), Denise Bodman (Arizona State University), Reed Larson (University of Illinois), Dave Moshman (University of Nebraska–Lincoln), Scott Roesch (UCLA), Ken Rotenberg (Lakehead University), Cynthia Willis-Esqueda (University of Nebraska–Lincoln), and Ray Montemayor (Ohio State University). The efforts of these reviewers go a long way in generating more interest in the development of prosocial and moral behaviors during early adolescence.

REFERENCES

- Alsaker, F. D. (1995). Timing of puberty and reactions of puberty changes. In M. Rutter (Ed.), *Psychosocial disturbances in young people* (pp. 37-82). New York: Cambridge University Press.
- Balk, D. E. (1995). *Adolescent development: Early through late adolescence*. Pacific Grove, CA: Brooks/Cole.
- Bancroft, J., & Reinisch, J. M. (1990). *Adolescence and puberty*. New York: Oxford University Press.
- Batson, C. D. (1998). Altruism and prosocial behavior. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology, Vol. 2* (4th ed., pp. 282-316). Boston: McGraw-Hill.
- Buss, A. H., & Plomin, R. (1984). *Temperament: Early developing personality traits*. Hillsdale, NJ: Lawrence Erlbaum.
- Caissy, G. A. (1994). *Early adolescence*. New York: Insight.
- Carlo, G., Knight, G. P., Melby, J., & Roesch, S. C. (1998). *Understanding social cognitions and behaviors: A meta-analytic review of the role of task-similarity in the relations between perspective taking and prosocial behaviors*. Manuscript submitted for publication.
- Carlo, G., Koller, S. H., & Eisenberg, N. (in press). Prosocial moral reasoning in institutionalized delinquent, orphaned, and noninstitutionalized Brazilian adolescents. *Journal of Adolescent Research*.
- Carlo, G., Koller, S. H., Eisenberg, N., Da Silva, M., & Frohlich, C. (1996). A cross-national study on the relations among prosocial moral reasoning, gender role orientations, and prosocial behaviors. *Developmental Psychology*, 32, 231-240.
- Carlo, G., Roesch, S. C., & Melby, J. (1998). The multiplicative relations of parenting and temperament to prosocial and antisocial behaviors in adolescence. *Journal of Early Adolescence*, 18, 148-170.
- Connolly, S. D., Paikoff, R., & Buchanan, C. M. (1996). Puberty: The interplay of bio-

- logical and psychosocial processes in adolescence. In G. R. Adams & R. Montemayor (Eds.), *Psychosocial development during adolescence* (Vol. 8, pp. 259-299). Thousand Oaks, CA: Sage.
- Crick, N. R., & Dodge, K. A. (1994). A review and reformulation of social information-processing mechanisms in children's social adjustment. *Psychological Bulletin*, 115, 74-101.
- Eisenberg, N. (1986). *Altruistic emotion, cognition and behavior*. Hillsdale, NJ: Lawrence Erlbaum.
- Eisenberg, N., Carlo, G., Murphy, B., & Van Court, P. (1995). Prosocial development in late adolescence: A longitudinal study. *Child Development*, 66, 1179-1197.
- Eisenberg, N., & Fabes, R. A. (1991). Prosocial behavior and empathy: A multimethod developmental perspective. In M. S. Clark (Ed.), *Prosocial behavior* (pp. 34-61). Newbury Park, CA: Sage.
- Eisenberg, N., & Fabes, R. A. (1992). Emotion, regulation, and the development of social competence. In M. S. Clark (Ed.), *Review of personality and social psychology*, vol. 14: Emotion and social behavior (pp. 119-150). Newbury Park, CA: Sage.
- Eisenberg, N., & Fabes, R. A. (1998). Prosocial development. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology*, vol. 3: *Social, emotional, and personality development* (5th ed., pp. 701-778). New York: John Wiley.
- Eisenberg, N., & Miller, P. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin*, 101, 91-119.
- Fabes, R. A., & Eisenberg, N. (1996). *Age and gender differences in prosocial behavior: A metaanalytic examination*. Unpublished manuscript, Arizona State University.
- Feshbach, N. D. (1987). Parental empathy and child adjustment/maladjustment. In N. Eisenberg and J. Strayer (Eds.), *Empathy and its development* (pp. 271-291). New York: Cambridge University Press.
- Galambos, N. L., Almeida, D. M., & Petersen, A. C. (1991). Masculinity, femininity, and gender role attitudes in early adolescence: Exploring gender intensification. *Annual Progress in Child Psychiatry and Child Development*, 40, 77-91.
- Geen, R. G. (1998). Aggression and antisocial behavior. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (Vol. 2, pp. 317-356). Boston: McGraw-Hill.
- Graham, S., & Juvonen, J. (1998). Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology*, 34, 587-599.
- Hall, G. S. (1916). *Adolescence*. New York: Appleton.
- Hart, D., & Chmiel, S. (1992). Influence of defense mechanisms on moral judgment development: A longitudinal study. *Developmental Psychology*, 28, 722-730.
- Hill, J. P., & Lynch, M. E. (1983). The intensification of gender-related role expectations during early adolescence. In J. Brooks-Gunn & A. C. Petersen (Eds.), *Girls at puberty* (pp. 201-228). New York: Plenum.
- Hoffman, M. L. (1991). Empathy, social cognition, and moral action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development*, vol. 1: *Theory* (pp. 275-301). Hillsdale, NJ: Lawrence Erlbaum.

- Huston, A. C., & Alvarez, M. M. (1990). The socialization context of gender role development in early adolescence. In R. Montemayor & G. R. Adams (Eds.), *From childhood to adolescence* (pp. 156-179). Newbury Park, CA: Sage.
- Kochanska, G. (1993). Toward a synthesis of parental socialization and temperament in early development of conscience. *Child Development*, 64, 325-347.
- Kohlberg, L. (1976). Moral stage and moralization: The cognitive-developmental approach. In T. Lickona (Ed.), *Moral development and behavior: Theory, research, and social issues* (pp. 84-107). New York: Holt, Rinehart, & Winston.
- Midlarsky, E., & Hannah, M. E. (1985). Competence, reticence, and helping by children and adolescents. *Developmental Psychology*, 21, 534-541.
- Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behavior. *Psychological Bulletin*, 103, 324-344.
- Nottelmann, E. D., Inoff-Germain, G., Susman, E. J., & Chrousos, G. P. (1990). Hormones and behavior at puberty. In J. Bancroft & J. M. Reinisch (Eds.), *Adolescence and puberty* (pp. 88-123). New York: Oxford University Press.
- Petersen, A. C. (1987). The nature of biological-psychosocial interactions: The sample case of early adolescence. In R. M. Lerner & T. T. Foch (Eds.), *Biological-psychosocial interactions in early adolescence* (pp. 35-62). Hillsdale, NJ: Lawrence Erlbaum.
- Peterson, L. (1983). Influence of age, task competence, and responsibility focus on children's altruism. *Developmental Psychology*, 19, 141-148.
- Piaget, J. (1965). *The moral judgment of the child* (M. Gabain, Trans.). London: Kegan Paul. (Original work published 1932)
- Selman, R. L. (1980). *The growth of interpersonal understanding: Developmental and clinical analyses*. New York: Academic Press.
- Shantz, C. U. (1983). Social cognition. In J. H. Flavell & E. Markman (Eds.), *Handbook of child psychology, vol. 3: Cognitive development* (pp. 556-629). New York: John Wiley.
- Susman, E. J., Nottelmann, E. D., Inoff-Germain, G., & Dorn, L. D. (1987). Hormonal influences on aspects of psychological development during adolescence. *Journal of Adolescent Health Care*, 8, 492-506.
- Taylor, J. H., & Walker, L. J. (1997). Moral climate and the development of moral reasoning: The effects of dyadic discussions between young offenders. *Journal of Moral Education*, 26, 21-43.
- Tangney, J. P., Wagner, P. E., Hill-Barlow, D., Marschall, D. E., & Gramzow, R. (1996). Relation of shame and guilt to constructive versus destructive responses to anger across the lifespan. *Journal of Personality and Social Psychology*, 70, 797-809.
- Udry, J. R., & Billy, J. O. (1987). Initiation of coitus in early adolescence. *American Sociological Review*, 52, 841-855.
- Underwood, B., & Moore, B. (1982). Perspective-taking and altruism. *Psychological Bulletin*, 91, 143-173.