

Family Socialization, Gender, and Participation in Sports and Instrumental Music

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According to Erikson (1982), middle childhood is the period in which children develop a sense of industry versus inferiority. In most cultures in the world, it is the time when children begin to learn the skills needed for survival and gainful adult employment. It is also the time when children learn the skills associated with crafts and other valued activities that individuals will engage in for the rest of their lives. It is the time when habits of behavior critical for health and competence in valued domains are solidified. Finally, it is the time when skills are being learned that will form the basis for personal identities and self-esteem. Many theorists have argued that humans need to feel competent, valued, socially connected, and autonomous. Participation in, and mastery of, the skills associated with success in one's culture lay the groundwork for these feelings. In many cultures, middle childhood is the time when such participation and mastery moves outside of the family unit and into the larger cultural frame. This is also a time when children begin their formal schooling and start participating in organized skill-based activities outside of the home. In other cultures, this is the time when children begin to participate in "work" of their society—when they begin training for the adult roles they will be expected to move into when they reach adolescence and adulthood.

Acquiring both valued skills and the motivation for continued engagement in valued activities is critical for children's pathways from childhood to adulthood. As noted earlier, these attributes (skills and motivation) pro-

vide the means to earn a living, to be engaged with other individuals in meaningful and valued activities, and to become connected in a social network that can assist in subsequent developmental tasks, as well as the bases for developing habits of behavior that are critical for life-long health and well-being. Participating in such activities is also critical to children's current well-being because these kinds of activities provide a setting in which children's needs for feeling competent, valued, socially supported, and autonomous can be met. Finally, as noted earlier, participating in such activities lays the groundwork for later identity formation.

In this chapter, we summarize recent work we have done to investigate the role that American parents play in their children's engagement in two major skill-based areas of valued competencies during the middle childhood years. In other reports (Simpkins & Bartko, 2002; Simpkins, Fredricks, Davis-Kean, & Eccles, 2003), we summarize our work on the role of American parents in socializing their children's engagement in school-based activities. The two domains we focus on in this chapter are competitive sports (both team and individual) and instrumental music. We selected these domains because they (a) are skill based, (b) require some instruction in organized settings, (c) are highly valued by some parts of the American culture, (d) can be linked to either adult vocational or avocational development, (e) are sex-typed, and (f) require both parent involvement to initiate and coordinate participation and family resources. We discuss sports participation most extensively in the next section because much more research has been done on this domain than on the instrumental music domain. We hope this chapter stimulates comparable research in the instrumental music domain. We expect that the same theoretical analysis will apply to this music domain and the initial results of our own work confirm that expectation.

GENDER AND ACTIVITY INVOLVEMENT

Although there has been an increase in girls' involvement in athletics since Title IX (Kane & Greendorfer, 1994), girls still participate at lower rates than do boys. In contrast, during the elementary school period, girls are much more likely than boys to participate in out-of-school instrumental music programs and lessons. One hypothesis is that these gendered participation rates are linked to gender differences in confidence in one's athletic and instrumental music competence and in the value attached to participating in sports and instrumental music (see Eccles et al., 1983). Eccles (1993) hypothesized that families contribute to these gender differences in competence and task value beliefs through role modeling, beliefs about their child's abilities and interests, beliefs about the importance of the activity for the child, and the provision of specific experiences in and out of the

home. Although there has been an extensive literature on family socialization of children's self and task beliefs in academic domains (see Eccles, Wigfield, & Schiefele, 1998), the research on family socialization of children's motivation in sports and instrumental music is quite limited (Brustad, 1992; Woolger & Power, 1993). Although this is true of both domains, it is particularly true for instrumental music. In fact, we could not find any studies that addressed the role of American parents in socializing their children's interest and participation in instrumental music. In addition, few of the existing studies of sports have included fathers. Finally, most studies of parent socialization have examined the impact of individual parent factors rather than considering how factors work together to influence children's motivation (Eccles et al., 1998). This study attempts to address these gaps by using pattern-centered analytic techniques instead of variable-centered techniques to examine the influence of mothers' and fathers' beliefs and practices on elementary school children's sport-related and instrumental music-related beliefs and participation.

The elementary school years are an important period to study the process of gender-role socialization. As children's first socializers, parents play a primary role in the creation of gender-differentiated beliefs and values by giving their children the first messages about gender-roles and by providing them with opportunities and experiences that support the development of certain competencies and skills (Eccles, 1993; Eccles et al., 1983). By early elementary school, boys already have higher perceptions of their ability in sports and higher ratings of the value of participating in sports than do girls; the converse is true for instrumental music (Eccles, Wigfield, Harold, & Blumenfeld, 1993). This emergence of gender-differentiated beliefs before extensive exposure to organized activities in either sports or instrumental music suggests that parents are either socializing children into traditional gender stereotypic roles or there are substantial biologically-based gender differences in both competence and interest in sports and instrumental music. Evidence by Eccles and Harold (1991) suggested that part of these early gender differences in sports self and task beliefs and participation reflects the influences of socialization by parents (see also Fredricks & Eccles, 2004).

Athletics and instrumental music are important domains in which to study gender differences and family socialization processes. Because participation in both sports and instrumental music is voluntary, parents can play a particularly important role in shaping children's beliefs and participation. Parents act as gatekeepers by providing children with their first exposure to athletics and instrumental music. If parents do not enroll their children in sports and instrumental music programs at an early age, it is unlikely that their children will have opportunities that support the development of athletic and instrumental music skills and values. In addition, because only a subset of girls and

boys are involved in sports and instrumental music, few have experiences to help them modify their self-perceptions in this domain. As a consequence, stereotypic beliefs favoring boys in sports and girls in instrumental music continue to be prevalent (Greendorfer, 1993).

In this study, we use a pattern-centered analytic technique instead of a variable-centered technique to examine the relation between parents' beliefs and practices and children's motivation and participation in both athletics and instrumental music. The strength of variable-oriented approaches to data analysis is the ability to identify linear relations among variables and to demonstrate that a factor is related to an outcome after accounting for its association with other variables in the model. However, these techniques are less illuminating about complex relations among the predictor variables. In addition, variable-oriented approaches provide only general conclusions about the average effects of variables on the average individual in the sample. Supplementing variable-oriented analyses with person-oriented analyses has been suggested as one way to provide a more comprehensive picture of the relations among variables (Magnusson & Bergman, 1988). This approach uses the pattern of values at the individual level as the main unit of analysis.

THEORETICAL MODEL

We use the socialization component of the Eccles's expectancy-value model as the basis for our analysis (Eccles et al., 1983; Eccles, 1993; Eccles et al., 1998). This model was developed to explain the influence of socializers on individual differences in motivation and choice behaviors. According to Eccles's model, the two most important predictors of choice behaviors are children's expectations for success and task value (see Eccles et al., 1983). Research by Eccles and her colleagues has shown that expectations for success and self-concept of one's ability form a single factor (Eccles & Wigfield, 1995). Applying this model to the athletic domain, children who both perceive that they have high athletic ability and expect to do well in sports activities will be more likely to participate in athletics than children who have less favorable beliefs about their competencies. Eccles and her colleagues have defined task value in terms of four components: (a) intrinsic value (enjoyment of the activity), (b) utility value (usefulness of the task in terms of current and future goals), (c) attainment value (personal importance of doing well at the task), and (d) costs (perceived negative aspects of engaging in the task; Eccles et al., 1983; Wigfield & Eccles, 1992). According to this model, people will have higher rates of athletic participation if they enjoy doing athletic activities, believe that athletics is important to both their short- and long-term goals, believe that sports participation confirms aspects of their self-schemas and identities, and perceive low costs of involve-

ment. Similarly, people will have higher participation in instrumental music activities if they enjoy instrumental music, believe that instrumental music is important to both their short- and long-term goals, believe that instrumental participation confirms key aspects of their self-schemas and personal identities, and perceive low costs of involvement. Individual differences on these self- and task-related beliefs are assumed to be socialized during early and middle childhood.

In her socialization model, Eccles proposed that parents can influence children's competence (self) and value (task) beliefs in the following ways (Eccles, 1993; Eccles et al., 1998): (a) by being a role model either as a coach or teacher or by participating in athletics or instrumental music activities themselves, (b) by interpreting their children's experience and giving children messages that support children's high confidence in their athletic or instrumental music abilities, (c) by providing emotional support for their children's involvement in sports or instrumental music, and (d) by providing positive experiences during either athletic or instrumental music activities. By doing either athletics or instrumental music, parents convey a message about the value they place on sport or instrumental music as well as providing an example of how to do sport or instrumental music. According to social learning theory, parental modeling should increase children's motivation to engage in sport or instrumental music (Bandura, 1986). Parental role modeling is also a likely source in the acquisition of gender-typed beliefs (Maccoby & Jacklin, 1974).

The second way that parents can influence their children's self- and task-perceptions is through their role as expectancy-socializers. Parents help their children to form an impression of their own abilities and task value through their beliefs about their children's athletic and instrumental music abilities and their views about the value of participating in these activity domains. Parents also may influence children's sports and music ability and value beliefs through the way in which they interpret their children's sports and instrumental music experiences, the messages they provide about the nature of sports and instrumental music ability, and the messages they provide about mastery versus performance goals in sports and instrumental music (Eccles & Harold, 1991).

Finally, parents influence children's self-perceptions and activity choices through their provision of specific experiences in and out of the home. This can include doing sports and instrumental music activities with their children, buying athletic or instrumental music equipment and clothing, and arranging for their children's participation in sports and instrumental music activities. Through their role modeling and provision of various forms of emotional and instrumental support, parents can create a structure that either supports or does not support the development of athletic and instrumental music skills and values.

These theoretical arguments are consistent with two other theoretical perspectives: (a) parents as managers of their children's experiences (Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999), and (b) ecological models of the buffering role that parents and families play between children and the larger social world (Bronfenbrenner, 1979). Advocates of a family management perspective focus on what parents do to influence their children's experience in and out of the home rather than on the affective climate and discipline strategies. Until quite recently, developmental psychologists have focused almost exclusively on face-to-face parenting styles in their studies of family influences on development (Maccoby & Martin, 1983). In contrast, scholars like Eccles in psychology (Eccles, 1993) and Furstenberg (Furstenberg et al., 1999) in sociology argue that parents also play a very active role in structuring their children's experiences through a variety of strategies including choosing where to live to determine the school one's children will attend, providing books and reading materials at home, enrolling their children in various out-of-school and in-school programs, and buying a variety of toys and other objects that structure their children's play activities. Some of these techniques are designed to enrich their children's experiences and others are designed to protect their children from dangerous experiences in the neighborhoods in which they live. Research is just beginning on these family management processes.

Bronfenbrenner's (1979) ecological model puts family management into an even more general framework. He argued that a family's interactions with their children are influenced by the worlds in which the family resides. Applying this perspective to the socialization of activity involvement shines a light on the impact of one's social class, religion, ethnicity, nationality, and place of residence on the activities parents are likely to value, the personal and neighborhood resources available to the family to provide various experiences for their children, and the nature of the dangers and opportunities present in the families local ecology to which the parents must adapt their management strategies and goals. These many exogenous influences and the personal inclinations of the parents will impact on the nature of the experiences parents either can or want to provide for their children—leading to extensive diversity in the experiences available to children during their middle childhood years.

RELATED RESEARCH: PARENTS AS ROLE MODELS

According to social learning theory (Bandura, 1986), children of parents who engage in athletic or instrumental activities will have more favorable competence and value beliefs and will engage in more athletics or instru-

mental music because the children will be motivated to imitate their parents. The few studies that have used electronic monitoring devices to track physical activity have documented a strong relation between the physical activity levels of parents and children (Freedson & Evenson, 1991; Moore et al., 1991). Studies using self-report measures of role modeling in the sports domain have been less conclusive. Babkes and Weiss (1999) found that athletes who reported that their mothers and fathers were good role models had higher perceptions of their own competence, enjoyment, and intrinsic motivation; however, they failed to document a significant relation between parents' reported involvement and children's competence and value beliefs. Finally, Dempsey, Kimiecik, and Horn (1993) found that parents' reports of physical activity were not related to children's self-reports of activity level.

Mothers' and fathers' participation in athletics may be particularly important to help girls overcome the stereotypes about gender and the appropriateness of athletic involvement. In support of this hypothesis, female college athletes are more likely to have parents who participate in athletics (Greendorfer, 1983; Weiss & Knoppers, 1982). In addition, parent participation has a stronger effect on girls' than on boys' continued athletic participation (Greyson & Colley, 1986; Weiss & Barber, 1995). In general, these findings support the hypothesis that role modeling, operationalized as parent participation in athletics, is particularly associated with girls' participation in athletics. However, the evidence of more general role-modeling effects is equivocal and more studies are needed. Few studies have examined the impact of parent participation in either sports or instrumental music on children's self and task beliefs. Additionally, it is not clear whether mothers' or fathers' participation is more important to children's sports or instrumental music motivation or participation rates. Filling these gaps is one of the goals of our research.

RELATED RESEARCH: PARENT BELIEFS

Parents' beliefs about their children's ability are hypothesized to play an important role in shaping children's competence and value beliefs (Brustad, 1992; Eccles, 1993; Woolger & Power, 1993). In both cross-sectional and longitudinal studies, researchers have documented a positive link between parents' ratings of children's athletic ability and children's own ratings of their athletic ability (Eccles, 1993; Feldson & Reed, 1986; Fredricks & Eccles, 2002; Jacobs & Eccles, 1992). Fredricks and Eccles (2002) found that mothers' and fathers' ratings of children's sports ability in the elementary school years helped to explain changes in children's sports competence beliefs

from 1st through 12th grade, independent of actual ability differences. In addition, several studies have shown that parents' perceptions of children's competence are related to children's athletic participation (Dempsey et al., 1993; Kimiecik & Horn, 1998; Kimiecik, Horn, & Shurin, 1996). No similar work has been done in the domain of instrumental music.

In both childhood and adolescence, parents report that their sons have more athletic ability than their daughters and that athletics is more important for their sons than for their daughters (Eccles, 1993; Eccles, Jacobs, & Harold, 1990; Greendorfer, 1993; Jacobs & Eccles, 1992). Jacobs and Eccles (1992) found that the sex of one's child moderated the impact of mothers' gender-role stereotypes on their perceptions of their children's athletic ability, which, in turn, predicted children's own self-perceptions. These studies illustrate the importance of parents' gender-stereotypic beliefs in children's sports socialization. In general, these reports have relied primarily on mothers' ratings of ability with only limited research on the influence of fathers' ratings of ability. Additionally, much of this research has examined the influence of parents' beliefs in adolescence, with less information about parents' beliefs in the elementary school years. Finally, no comparable work has been done on instrumental music. This study addresses these limitations.

RELATED RESEARCH: PARENT ENCOURAGEMENT AND PROVISION OF OPPORTUNITIES IN THE HOME

Parental encouragement is an important factor in children's continued activity participation (Brustad, 1996; Eccles, 1993; Eccles & Harold, 1991; Weiss & Knoppers, 1982). In both childhood and adolescence, parents provide less encouragement of athletic activities and fewer opportunities for their daughters than for their sons (Eccles et al., 1990; Greendorfer, Lewko, & Rosengren, 1996). These gender-typed socialization practices are likely to contribute to girls' lower rate of athletic participation. In addition to giving emotional support, parents also influence children's sports participation by providing athletic experiences in and outside the home. Parents can enroll their children in athletic programs, purchase equipment and services to help them develop their skills, and volunteer labor to maintain children's sports programs (Eccles et al., 1990; Green & Chalip, 1998; Howard & Madrigal, 1990). Although there are a variety of ways that parents can be involved in children's sports experience, few studies have tested the relation between these specific parental behaviors and children's self and task beliefs and athletic participation. Finally, no comparable work has been done for instrumental music.

Sample

This study is part of the Childhood and Beyond Study, a larger longitudinal study of the development and socialization of children's achievement-related behavior being conducted by Jacquelynne Eccles and her colleagues at the University of Michigan. This study began in 1987 with three cohorts of children in kindergarten, first, and third grades. Initially, these three cohorts of children were followed for 4 years. For this chapter, we used data collected from parents during the third wave of the larger study when the children were in the second, third, and fifth grades and data collected from children during the fourth wave, when children were in the third, fourth, and sixth grades.

Children were initially recruited through their public school districts in four middle- and working-class communities near Detroit, Michigan. In our analyses, we included only those children whose mothers and fathers both completed surveys ($n = 367$). This sample is primarily European American, with a small number of African Americans, Native Americans, Asians, and Hispanics, reflecting their presence in these school districts. The family income ranged in 1990 from \$10,000 to \$80,000, with the average income between \$50,000 and \$59,000. In general, the families were two-parent intact families (90%). We purposely chose middle-class families for this study to examine the association of parents' socialization practices independent of variations in parents' financial ability to provide out-of-school developmental opportunities for their children. Only one child per family was used in our analyses. Subsequent studies need to test our findings in a more diverse population to assess the extent to which family income, neighborhood conditions, and cultural values influence parents' socialization of their children's interest and participation in such skill-based activities as sports and instrumental music. The major source of diversity in this sample is gender.

Measures

Parent Measures. During Wave 3, the parents reported on a variety of behaviors and beliefs specific to sports and music. We assessed "role modeling" by asking mothers and fathers to report on their own involvement in athletic and instrumental music activities. For athletic activities, we summed time spent in the last week on organized competitive sports, playing sports with friends, and doing athletic activities alone. In addition, both mothers' and fathers' reports of coaching their children's sports team were included as measures of role modeling in sports. Less than 4% of mothers

reported coaching their children's sports team, compared with 27.5% of fathers. Parents' role modeling of instrumental music was measured with a single item: time spent last week playing musical instruments.

To assess "parents' beliefs about their child," mothers and fathers were asked a series of 7-point Likert-type questions about their perceptions of their children's abilities as well as the value they, as parents, attached to their child's participation in sports and instrumental music (alphas ranged from .92 to .95). Parents' perceptions of children's competence were composed of four or five items, with a high score signifying higher competence. Parents' value of children's participation in sports and instrumental music was assessed with four questions in each activity domain (alphas ranged from .83 to .89).

To assess "parents' provision of opportunities," mothers and fathers were asked a series of questions about their provision of items in the home geared toward sports and instrumental music activities. For sports activities, three questions assessed whether parents had bought or rented athletic equipment for their child in the past year, whether they had bought or rented sports books or magazines, and whether there were sports books or magazines in the home. Three similar items were used to measure provision of instrumental musical opportunities including whether there were musical instruments in the home, whether the parents had bought or rented any musical instruments in the last year, and whether they bought or rented any music or dance books, supplies, or clothing in the last year.

In addition, "parents' time involvement with their child" was measured for sports (i.e., play sports) and instrumental music (i.e., play musical instruments) activities. A second component of parents' involvement with their child's musical activities was "parents' attendance at musical concerts with their child." This item included attendance at both rock and classical concerts. Finally, to assess "social support for activities," parents were asked 7-point Likert-type questions about how much they encouraged sports (i.e., playing competitive and noncompetitive sports) and music (i.e., music lessons and playing musical instruments).

Child Measures. At Waves 3 and 4, children completed self-administered questionnaires with a series of questions about their self and task beliefs and their time involvement in competitive sports and instrumental music. Based on factor analysis and theoretical considerations, scales were created to assess beliefs regarding one's competence in sports and instrumental music (alphas ranged from .81 to .89), and one's interest in (alphas ranged from .86 to .92), and perceived importance of, sport and instrumental music activities (alphas ranged from .85 to .89). These scales have excellent face, convergent, and discriminant validity, and strong psychometric properties (Eccles et al., 1993, Wigfield et al., 1997).

In addition, children were asked how often they participated in sports and instrumental musical activities at Waves 3 and 4. Sport participation was measured by two 7-point Likert-type items: how often they played competitive sports with their friends around the neighborhood and how often they played competitive sports on organized teams. Children's participation in instrumental music was assessed by how often they practiced with their musical instrument.

Aptitude. Children's aptitude in sports and music was used in the analyses to control for any possible gender differences and individual differences in actual aptitude. The Bruininks-Oseretsky Test of Motor Proficiency (Bruininks, 1978) assessed children's physical aptitude at Wave 1 (see Fredricks & Eccles, 2002, for details). This test has been widely used to assess the proficiency of individuals' motor performance (Hattie & Edwards, 1987). Children's music aptitude was measured with teachers' reports on the level of children's ability and talent in music at Wave 3 (1 = *very little*; 7 = *a lot*).

RESULTS

We used a pattern-centered approach to group families based on the patterns of their responses to the socialization items. Our analysis was patterned on the research on risk and resiliency. Researchers interested in issues of risk and resiliency have examined the impact of cumulative risk and cumulative promotive and protective factors in the environment on children's academic and psychological functioning (Rutter, 1979; Sameroff, Bartko, Baldwin, Baldwin, & Seifer, 1998). We used a similar approach to create a cumulative score of the number of promotive socialization factors in the home at Wave 3 (when the children were in Grades 2, 3, and 5).

The family promotive factors included the following: (a) parents' ratings of children's sports or instrumental music competence, (b) parents' ratings of value of sports or instrumental music, (c) parents' level of encouragement for involvement in sports or instrumental music, (d) parents' time involvement with child in either sports and instrumental music, (e) parents' purchases of sport or instrumental music activity materials, and (f) parents' own time involvement in sports or instrumental music. Sports promotive factors also included a seventh item: whether the parent coached a team. Music promotive factors included a seventh item: whether the parents attend concerts with their child. To create an index of family level promotive behaviors, mothers' and fathers' behaviors were averaged. Then, parents were given a 1 or 0 for each variable depending on whether they were above or below the top 25% cutoff. A total family supportive activity social-

ization context score for each child was computed by summing the number of promotive factors. This variable indicates how rich a supportive environment was provided for the child in each of these domains by the child's parents. Our goal was not to determine the unique contribution of each parenting behavior (as would be assessed if we had used a regression strategy) but rather to capture the cumulative quality and quantity of support provided by parents to socialize their children's interest and participation in either sports or instrumental music.

Parents' sports promotive factors ranged from 0 to 7, with a mean of 1.76. Because we include families that had data for both parents in these analyses, we had to combine some groups so that there was adequate sample size for further analyses. We combined families with three and four factors, five and six or more factors.

Music promotive factors had a mean of 1.81 and ranged between 0 ($n = 179$) to 7 ($n = 7$). Because of the low frequencies in the top four groups, families with four or more promotive factors were combined for subsequent analyses.

Gender Differences

We examined gender differences in the number of promotive factors. As we expected, girls were overrepresented in the two low sports support type families; in contrast, boys were overrepresented in the two higher sports support family types ($\chi^2 = 70.52, p < .001$; $\chi^2 = 55.17, p < .001$). Forty-five percent of girls, compared with only 17% of the boys, were in families that provided no support for sports involvement (Fig. 2.1). In contrast, only 2% of the girls were in families with four or more sports promotive factors compared to 20% of the boys. Boys and girls also differed on family music promotive factors (Fig. 2.2). As we had expected, girls were underrepresented in the two lowest family types and overrepresented in families with four or more music promotive factors (Lowest: $\chi^2 = 13.87, p < .001$; highest: $\chi^2 = 12.47, p < .001$).

Relation of Number of Family Supports to Child Outcomes

Analysis of covariance (ANCOVA) was used to examine the relations between the number of promotive factors at Wave 3 (Grades 2, 3, and 5) and the standardized scores of children's ability self-concept, interest, importance, and participation at Wave 3 and 1 year later at Wave 4 (grades 3, 4, and 6). We plotted the relations between the number of promotive features and the normalized scores for children's ability self-concept, interest, importance, and participation. In the cross-sectional analyses, children's gen-

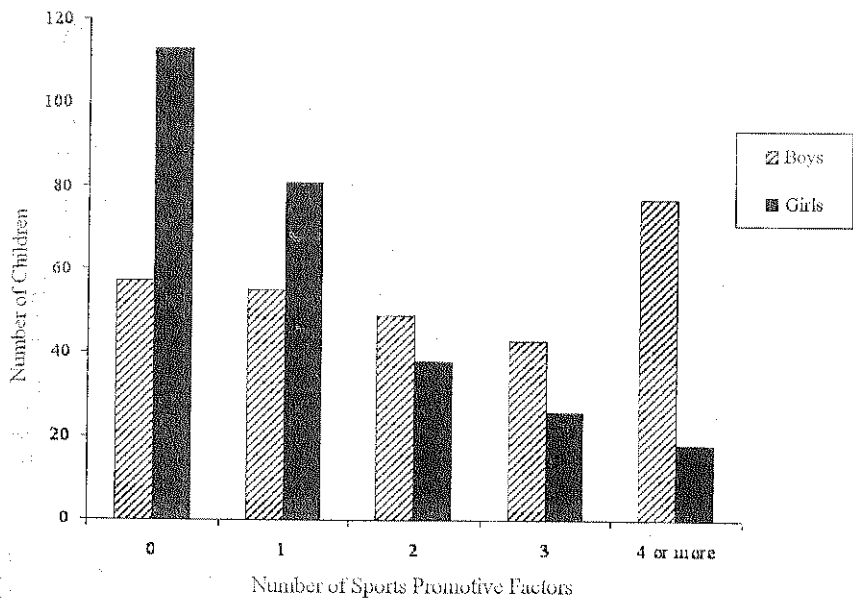


FIG. 2.1. Number of sports promotive factors by child gender.

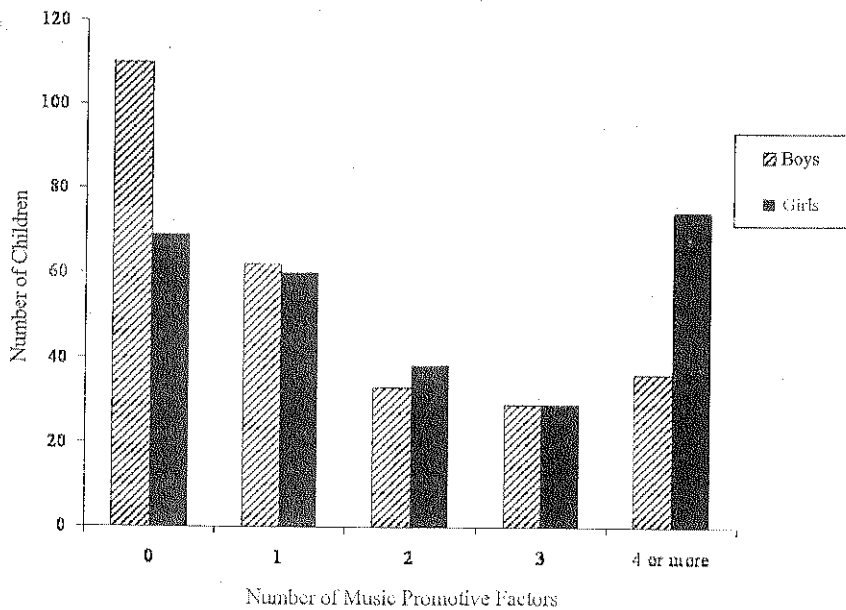


FIG. 2.2. Number of music promotive factors by child gender.

der, grade, and aptitude were included as covariates. In the longitudinal analyses, children's prior level of the dependent variable, gender, grade, and aptitude were included as covariates.

The greater the number of sports promotive features in the family, the higher the children's sports ability self-concept, interest, and importance, and actual participation in sports at both Waves 3 and 4 (Figs. 2.3 and 2.4). In general, these results show a linear relation between the number of promotive factors and children's beliefs and participation, supporting our hypothesis that socialization factors have a cumulative positive relation to children's motivation and participation.

Parental music promotive factors at Wave 3 significantly predicted children's outcomes at Waves 3 and 4 while controlling for children's gender, age, and ability (and Wave 3 outcomes when predicting Wave 4 outcomes). As shown in Figs. 2.5 and 2.6, children's music self-concept, interest in music, feelings of the importance of music, and participation in music activities, significantly increased as parent promotive factors increased—again supporting our hypothesis.

DISCUSSION

This study expands the literature on gender differences, motivation, and parent socialization of children's activity interests and participation by (a) including both mothers and fathers, (b) examining parent socialization in

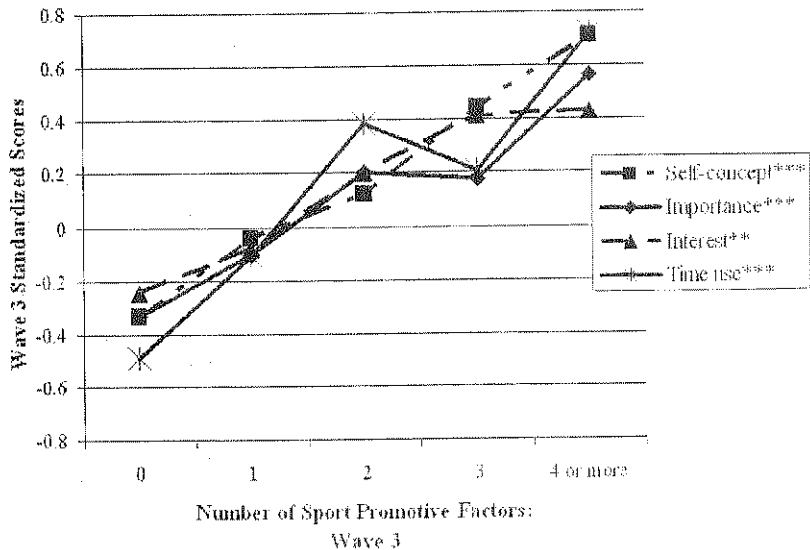


FIG. 2.3. Relation of multiple sports promotive scores at Wave 3 to children's activity-related outcomes at Wave 3.

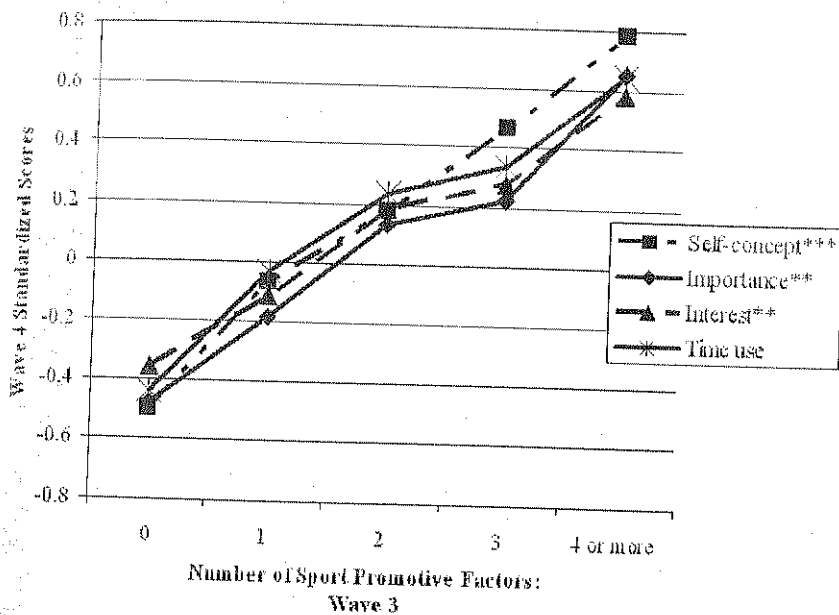


FIG. 2.4. Relation of multiple sports promotive scores at Wave 3 to children's activity-related outcomes at Wave 4.

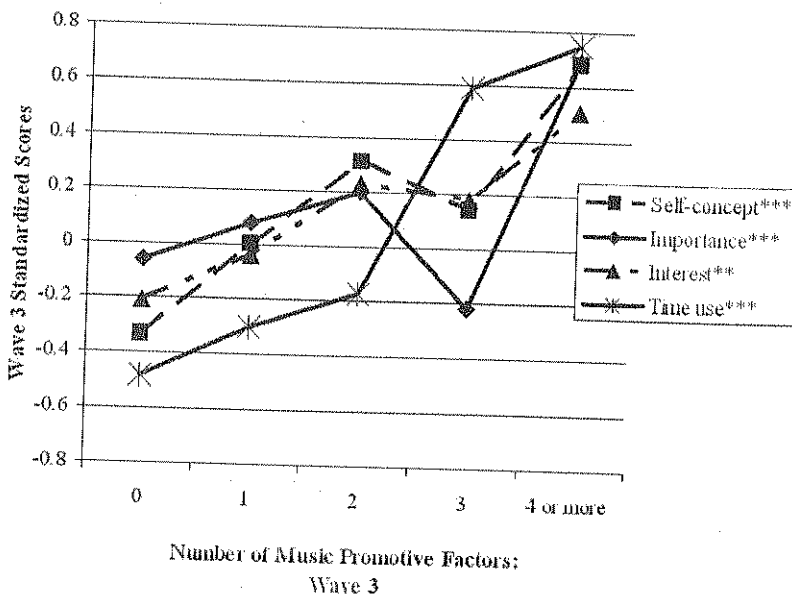


FIG. 2.5. Relation of multiple music promotive scores at Wave 3 to children's activity-related outcomes at Wave 3.

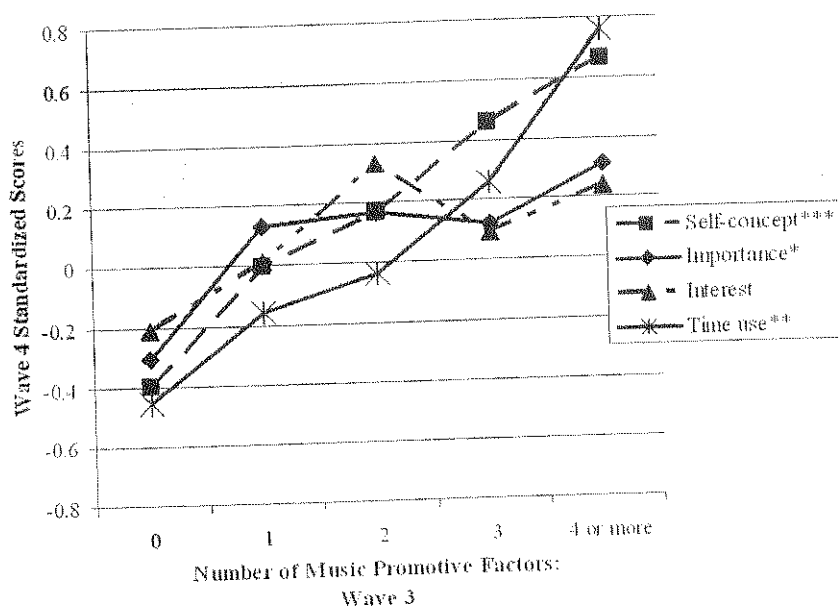


FIG. 2.6. Relation of multiple music promotive scores at Wave 3 to children's activity-related outcomes at Wave 4.

the elementary school years, and (c) using pattern-oriented techniques to examine the relation between a variety of socialization practices and children's beliefs and participation in both sports and instrumental activities.

Gender Differences

Consistent with previous research by Eccles and her colleagues (Eccles et al., 1990; Jacobs & Eccles, 1992), the parents in this study thought that boys were more able at sports and that sports were more important for boys than for girls. Both mothers and fathers of daughters also provided less encouragement, time, and athletic opportunities for their child than did the parents of sons. In general, parents of sons were more likely to create contexts that supported their child's athletic motivation and participation than were parents of daughters. In fact, few families of girls provided multiple promotive sport factors in the home. Exactly the opposite pattern characterized the instrumental music domain: parents provided more support for daughters than for sons in this domain. As would be expected from this pattern of socialization, the girls in this study were more likely than the boys to be interested in and to participate in instrumental music during their elementary school years.

Influence of Parent Socialization on Children's Motivation-Cumulative Supportiveness

Our pattern-centered analyses demonstrated that socialization factors have a cumulative positive effect on children's self and task beliefs for and participation in both competitive sports and instrumental music. These analyses were based on the assumption that socialization depends on the presence of several factors working together rather than independently (Eccles et al., 1998). The larger the number of promotive factors in the family, the higher were perceptions of competence, interest, and importance, and participation over time. These results support the assumption that developmental outcomes can be better understood by examining factors in combination (Magnusson, 1995; Magnusson & Bergman, 1988).

In another set of variable-oriented analyses with these same data, we found a somewhat different pattern of results (for sports results, see Fredricks & Eccles, in press). In these analyses, we used a standard regression technique in which we entered each of the parenting beliefs and practices along with the child's gender, age, and aptitude as predictors of the children's self and task beliefs and participation rates for sports and instrumental music. Consistent with prior work by Eccles and her colleagues about the positive relation between parents' academic competence beliefs and adolescents' own competence beliefs (Eccles & Jacobs, 1986; Eccles et al., 1990; Frome & Eccles, 1998; Jacobs & Eccles, 1992), we found that parents' beliefs about their children's ability and their beliefs about the value of participating in sports or instrumental music were the strongest predictors of both children's domain specific self and task beliefs and the children's actual participation rates. The actual parent behaviors (encouragement, participation, and enrolling their child in domain specific activities) accounted for much lower variance. We believe that these weak or null findings reflect the use of regression-based variable-centered techniques. Variable-oriented approaches test whether each individual socialization factor has a unique impact above and beyond other factors in the model. According to these analyses, parents' behaviors are much less important in socialization than parents' beliefs. However, because parents' behaviors are closely related to their beliefs, it is quite difficult to estimate their unique effect. In fact, we believe that such an approach does not model the underlying processes very well. Instead, we believe that beliefs and behavior operate synergistically with each other to create a climate of support. Regression techniques are not the best way to assess their synergistic influence. We believe that pattern-centered approaches provide a better statistical model of such influences and our findings support this conclusion. Unlike the pattern of results from our regression analyses in which parent behaviors did not uniquely predict their children's interest and participation in either sports

or instrumental music, the cumulative impact of both parent beliefs and behaviors was evident in the pattern-centered analyses: when we grouped families, the socialization factors had a cumulative positive impact on children's beliefs and participation, suggesting that time spent doing sports with their child and other behavioral factors do matter.

As noted earlier, the likely explanation for these differences in findings is the high correlation between parents' beliefs, parents' behaviors, and children's motivation. After taking these high correlations into account, there is less variance to be explained by the other socialization factors. Thus, according to the variable-oriented analyses, some of the other aspects of socialization do not have a unique influence on children's motivation above and beyond their shared variance with parents' beliefs. Another explanation could lie in the fact that pattern-oriented approaches do not necessarily assume linear relations between predictors and outcomes. By using a cut point method, one can identify families who provide extraordinary high levels of support on each of the socialization factors. One can then assess the extent to which families are providing quite high levels of supports across several socialization factors and relate this family level climate construct to changes over time in the children's interest and participation in skill-based activities.

Although this study highlights the importance of parent socialization, several limitations should be noted. We purposely chose a White, working- and middle-class sample to look for variations in parenting among families who could afford to implement their socialization goals. A critical area of future work is how parents with fewer resources support children's athletic and instrumental motivation, as well as their children's interest and competence in other skill areas. The work by Furstenberg et al. (1999) suggested that poor parents in high-risk neighborhoods manage their children's time by either keeping them at home as much as possible or by keeping them in structured centers. Although the former strategy may be quite effective in protecting them from dangers in their neighborhoods, it also precludes them developing their skills in activities that might play a protective role later when they are in secondary school, college, and during adulthood. Work by several scholars (see Eccles & Templeton, 2002) has documented the protective role of participation in organized sports and other skill-based activities during adolescence, particularly for adolescents growing up in low-income families. Participation in such organized and supervised activities increases the probability of graduating from secondary school and going on to college. Participation during the high school years also predicts higher salaries and better jobs during the early adult years, as well as a reduced risk of becoming involved in serious delinquent behaviors. Finally, recent evaluations of welfare-to-work experimental intervention studies suggest that financial sup-

ports to families that are used to enroll their middle childhood children in organized afterschool programs improve the children's academic outcomes during the elementary school years. Together these patterns of results suggest that enrolling one's children in organized, skill-based programs during the middle childhood years increases the odds of successful subsequent outcomes for one's children during adolescence and the early years of adulthood.

Unfortunately, many families living in risky neighborhoods on limited incomes are not able to provide such opportunities for their children. The prevalence of such opportunities in their neighborhoods is quite low, transportation to and from such programs is often limited, and such programs often cost money that these families simply do not have. Recent interest in out-of-school programs either at school or in other community-based centers is providing the impetus for government funding of such programs for young people growing up in low-income families (Eccles & Gootman, 2002). Hopefully, the momentum of support for such programs will continue to grow.

Another limitation of the analyses reported here is the narrow slice of time studied in these children's lives. We only looked at the predictive power of parenting beliefs and behaviors over the course of 1 year during the middle of children's elementary school years. Parents' beliefs and behaviors are present in children's lives from conception on. These beliefs and behaviors likely have substantial cumulative influence over the years. As such, our analyses likely underestimate the influence of parents' beliefs and behaviors on the development of their children's activity-related interests, participation, and competence beliefs.

Furthermore, the analyses we have performed for this chapter focus on estimating the likely influence of parents on children. Yet we know that the relation between children and parents is bidirectional and reciprocal. Children undoubtedly influence parents' beliefs and behaviors about the children's interests and aptitudes. One quality of good parenting is the responsiveness of parents to their children's interests, needs, behaviors, and characteristics. In the future, we will do analyses to model these reciprocal effects. Nonetheless, prior research using cross-lagged structural equation modeling has shown mothers' perceptions of their elementary school children's ability are more strongly related to children's self and task perceptions than vice versa, and that parents' beliefs mediate the association between objective performance information and children's ability self-perceptions and values (Eccles, 1993; Yoon, Wigfield, & Eccles, 1993).

Finally, we used self-report methods to assess socialization. One potential concern is the accuracy of parents' self-reports (Holden & Edwards, 1989; Wachs, 1991). Supplementing these findings reported here with naturalistic observations would be very useful.

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REFERENCES

- Babkes, M. L., & Weiss, M. R. (1999). Parental influence on cognitive and affective responses in children's competitive soccer participation. *Pediatric Exercise Science, 11*, 44-62.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bruininks, R. H. (1978). *Bruininks-Oseretsky Test of Motor Proficiency*. Circle Pines, MN: American Guidance Service.
- Brustad, R. J. (1992). Integrating socialization influences into the study of children's motivation in sport. *Journal of Sport & Exercise Psychology, 14*, 59-77.
- Brustad, R. J. (1996). Parental and peer influences on children's psychological development through sport. In F. L. Smoll & R. E. Smith (Eds.), *Children and youth sport: A biopsychosocial perspective* (pp. 112-124). Dubuque, IA: Brown.
- Dempsey, J. M., Kimiecik, J. C., & Horn, T. S. (1993). Parental influences on children's moderate to vigorous physical activity participation: An expectancy-value approach. *Pediatric Exercise Science, 5*, 151-167.
- Eccles, J., Adler, T. F., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., et al. (1983). Expectations, values and academic behaviors. In J. T. Spence (Ed.), *Achievement and achievement motivation* (pp. 75-146). San Francisco: Freeman.
- Eccles, J. S. (1993). School and family effects of the ontogeny of children's interests, self-perception, and activity choice. In J. Jacobs (Ed.), *Nebraska Symposium on Motivation, 1992: Developmental perspectives on motivation* (pp. 145-208). Lincoln: University of Nebraska Press.
- Eccles, J. S., & Gootman, J. A. (2002). *Community programs to promote youth development*. Washington, DC: National Academy Press.
- Eccles, J. S., & Harold, R. D. (1991). Gender differences in sport involvement: Applying the Eccles' expectancy model. *Journal of Applied Sports Psychology, 3*, 7-35.
- Eccles, J. S., & Jacobs, J. E. (1986). Social forces shape math attitudes and performance. *Signs, 11*, 367-380.
- Eccles, J. S., Jacobs, J. E., & Harold, R. D. (1990). Gender role stereotypes, expectancy effects, and parents' socialization of gender differences. *Journal of Social Issues, 46*(2), 183-201.

- Eccles, J. S., & Wigfield, A. (1995). In the mind of the achiever: The structure of adolescents' achievement task values and expectancy-value beliefs. *Personal and Social Psychology Bulletin*, 21, 215-225.
- Eccles, J. S., Wigfield, A., Harold, R. D., & Blumenfeld, P. (1993). Ontogeny of children's self-perceptions and subjective task values across activity domains during the early elementary school years. *Child Development*, 64, 830-847.
- Eccles, J. S., Wigfield, A., & Schiefele, U. (1998). Motivation to succeed. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3, Social, emotional and personality development* (5th ed., pp. 1017-1094). New York: Wiley.
- Eccles, J. S., & Templeton, J. (2002). Extracurricular and other after-school activities for youth. *Review of Research in Education*, 26, 113-180.
- Erikson, E. H. (1982). *The completed life cycle: A review*. New York: Norton.
- Feldson, R. B., & Reed, M. (1986). The effect of parents on the self-appraisal of children. *Social Psychology Quarterly*, 49, 302-308.
- Fredricks, J. A., & Eccles, J. S. (2002). Children's competence and value beliefs from childhood through adolescence: Growth trajectories in two male-sex-typed domains. *Developmental Psychology*, 38, 519-533.
- Fredricks, J. A., & Eccles, J. S. (2004). Parental influences on youth involvement in sports. In M. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 145-164). Morgantown, WV: Fitness Information Technology.
- Fredricks, J. A., & Eccles, J. S. (in press). Family socialization, gender, motivation, and competitive sport involvement. *Journal of Sport and Exercise Psychology*.
- Freedson, P. S., & Evenson, S. (1991). Familial aggregation in physical activity. *Research Quarterly for Exercise & Sport*, 62, 384-389.
- Frome, P., & Eccles, J. (1998). Parents' influence on children's achievement-related perceptions. *Journal of Personality and Social Psychology*, 2, 435-452.
- Furstenberg, F. F., Cook, T. D., Eccles, J. S., Elder, G. H., & Sameroff, A. (1999). *Managing to make it: Urban families and adolescent success*. Chicago: University of Chicago Press.
- Green, C. B., & Chalip, L. (1998). Antecedents and consequences of parental purchase decision involvement in youth sport. *Leisure Sciences*, 20, 95-109.
- Greendorfer, S. L. (1983). Shaping the female athlete: The impact of the family. In M. A. Boutlier & L. San Giovanni (Eds.), *The sporting women: Feminist and sociological dilemmas* (pp. 135-155). Champaign, IL: Human Kinetics.
- Greendorfer, S. L. (1993). Gender role stereotypes and early childhood socialization. In G. L. Cohen (Ed.), *Women in sport: Issues and controversies* (pp. 3-14). Newbury Park, CA: Sage.
- Greendorfer, S. L., Lewko, J. H., & Rosengren, K. S. (1996). Family and gender-based influences in sport socialization of children and adolescents. In F. L. Smoll & R. E. Smith (Eds.), *Children and youth in sport: A biopsychosocial perspective* (pp. 89-111). Dubuque, IA: Brown.
- Greyson, J. F., & Colley, A. (1986). Concomitants of sport participation in male and female adolescents. *International Journal of Sport Psychology*, 61, 311-318.
- Hattie, J., & Edwards, J. (1987). A review of the Bruininks-Oseretsky Test of Motor Proficiency. *British Journal of Educational Psychology*, 57, 104-113.
- Holden, G., & Edwards, L. (1989). Parental attitudes towards child rearing: Instruments, issues, and implications. *Psychological Bulletin*, 106, 29-58.
- Howard, D., & Madrigal, R. (1990). Who makes the decision: The parent or child? *Journal of Leisure Research*, 22, 244-258.
- Jacobs, J., & Eccles, J. (1992). The impact of mothers' gender stereotypic beliefs on mothers' and children's ability perceptions. *Journal of Personality and Social Psychology*, 63, 932-944.
- Kane, M. J., & Greendorfer, S. L. (1994). The media's role in accommodating and resisting stereotyped images of women in sport. In P. J. Creedon (Ed.), *Women in sports: Challenging cultural values* (pp. 28-44). Newbury Park, CA: Sage.

- Kimiecik, J. C., & Horn, T. S. (1998). Parental beliefs and children's moderate-to-vigorous physical activity. *Research Quarterly for Exercise & Sport*, 69, 163-175.
- Kimiecik, J. C., Horn, T. S., & Shurin, C. S. (1996). Relation among children's beliefs, perceptions of their parents' beliefs, and their moderate-to-vigorous physical activity. *Research Quarterly for Exercise & Sport*, 67, 324-326.
- Maccoby, E. E., & Jacklin, C. N. (1974). *The psychology of sex differences*. Stanford, CA: Stanford University Press.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent-child interaction. In E. M. Hetherington (Ed.), *Handbook of child psychology. Vol. 4: Socialization, personality, and social development* (pp. 1-103). New York: Wiley.
- Magnusson, D. (1995). Individual development: A holistic integrated model. In M. Rutter (Ed.), *Examining lives in context* (pp. 14-60). Washington, DC: American Psychological Association.
- Magnusson, D., & Bergman, L. R. (1988). Individual and variable-based approach to longitudinal research on early risk factors. In M. Rutter (Ed.), *Studies of psychosocial risk: The power of longitudinal data* (pp. 200-220). New York: Cambridge University Press.
- Moore, L. L., Lombardi, D. A., White, M. J., Campbell, D. L., Oliveria, S. A., & Ellison, R. C. (1991). Influence of parents' physical activity levels on activity levels of young children. *Journal of Pediatrics*, 118, 215-219.
- Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. In M. W. Kent & J. E. Rolf (Eds.), *Primary prevention and psychopathology. Vol. 3. Social competence in children* (pp. 49-74). Hanover, NH: University Press of New England.
- Sameroff, A. J., Bartko, T., Baldwin, A., Baldwin, C., & Seifer, R. (1998). Family and social influences on the development of child competence. In M. Lewis & C. Feiring (Eds.), *Families, risk, and competence* (pp. 161-185). Mahwah, NJ: Lawrence Erlbaum Associates.
- Simpkins, S. D., & Bartko, W. T. (2002, August). *Parental socialization of children's information-technology activities*. Paper presented at the annual conference of The International Society for the Study of Behavioral Development, Ottawa, Ontario.
- Simpkins, S. D., Fredricks, J., Davis-Kean, P., & Eccles, J. S. (2003, June). *Healthy minds, healthy habits: The influence of activity involvement in middle childhood*. Paper presented at the MacArthur Foundation's Conference on Middle Childhood, Washington, DC.
- Wachs, T. D. (1991). Environmental considerations in studies with non-extreme groups. In T. Wachs & R. Plomin (Eds.), *Conceptualization and measurement of organism-environment interaction* (pp. 44-67). Washington, DC: American Psychological Association.
- Weiss, M. R., & Barber, H. (1995). Socialization influences of collegiate male athletes: A tale of two decades. *Sex Roles*, 33, 129-140.
- Weiss, M. R., & Knoppers, A. (1982). The influence of socializing agents on female collegiate volleyball players. *Journal of Sport Psychology*, 4, 267-279.
- Wigfield, A., & Eccles, J. (1992). The development of achievement task values: A theoretical analysis. *Developmental Review*, 12, 265-310.
- Wigfield, A., Eccles, J., Yoon, K. S., Harold, R. D., Arbretton, A. J., & Blumenfeld, P. C. (1997). Change in children's competence beliefs and subjective task values across the elementary school years: A three-year study. *Journal of Educational Psychology*, 89, 451-469.
- Woolger, C., & Power, T. G. (1993). Parent and sport socialization: Views from the achievement literature. *Journal of Sport Behavior*, 16, 171-189.
- Yoon, K. S., Wigfield, A., & Eccles, J. S. (1993, April). *Causal relations between mothers' and children's beliefs about math ability: A structural equation model*. Paper presented at the annual meeting of the American Educational Research Association, Atlanta, GA.

DEVELOPMENTAL PATHWAYS THROUGH MIDDLE CHILDHOOD

*Rethinking Contexts
and Diversity as Resources*

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