Health Risks and Developmental Transitions During Adolescence

Edited by

JOHN SCHULENBERG
University of Michigan

JENNIFER L. MAGGS
University of Arizona

KLAUS HURRELMANN
University of Bielefeld

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Jacquelynne S. Eccles, Sarah E. Lord, Robert W. Roeser, Bonnie L. Barber, and Debra M. Hernandez Jozefowicz

By whatever criteria one uses, many of America's adolescents are not succeeding. Between 15% and 30% drop out before completing high school (Office of Educational Research and Improvement, 1988); a substantial number consume alcohol and other drugs on a regular basis (Johnston, O'Malley, & Bachman, 1994); increasing numbers of youth experience serious social, emotional, and behavioral problems (Kazdin, 1993; Rutter, 1995); and many others are disenchanted with school and education (Dryfoos, 1990). Many of these problems begin to appear during the early adolescent years (Carnegie Council on Adolescent Development, 1989). Why? Several investigators have suggested that the transition to junior high school may contribute to the emergence of these problems (Eccles et al., 1993; Simmons & Blyth, 1987). This transition occurs at a time when most young adolescents are also experiencing the physical, psychological, and social changes associated with puberty, including the new role demands presented by parents, peers, and teachers. Moreover, the school environments of traditional junior high schools are usually quite different from those of elementary schools. Several investigators have argued that these differences undermine healthy development for many youth (e.g., Eccles et al., 1993; Simmons & Blyth, 1987). The first part of this chapter focuses on this hypothesis.

Difficulties with this transition, however, are not universal. Hirsch and Rapkin (1987), for example, found no change in self-esteem in students making the transition from sixth grade into a junior high school (see also Fenzel & Blyth, 1986; Hawkins & Berndt, 1985; Nottelmann, 1987). Although some of the discrepancies in findings undoubtedly reflect variations across studies in populations, school environments, and methodology, it is also likely that indi-

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vidual differences in young adolescents' responses to the transition to junior high school are important. For example, Simmons and Blyth (1987) found that girls already involved in dating and showing the most advanced pubertal development were most at risk for negative changes in their self-esteem in conjunction with the transition to junior high school (see also Hirsch & Rapkin, 1987). Similarly, Midgley, Feldlaufer, and Eccles (1988a, 1989) found more extreme negative effects of the junior high school transition on low-achieving rather than on high-achieving students. Thus, although some adolescents adapt well to the transition, others find it more difficult. In the second section of this chapter, we discuss factors that might account for individual differences in early adolescents' response to the junior high school transition. In the final section, we present data on the long-term sequelae of individual differences in adolescents' response to the junior high school transition. We argue that individual differences in adjustment to the transition to junior high school can launch adolescents on developmental trajectories that can influence their later adjustment.

General Developmental Changes in Adolescents' School Motivation and Self-Confidence: A Case of Stage–Environment Mismatch

Several investigators have reported mean level declines in such motivational constructs as interest in school (Epstein & McPartland, 1976), intrinsic motivation (Harter, 1981), and self-concepts and self-esteem (Eccles et al., 1989; Eccles, Midgley, & Adler, 1984; Simmons & Blyth, 1987; Wigfield, Eccles, Mac Iver, & Reuman, 1991) in conjunction with the junior high school transition. There is also evidence of similarly timed increases in such negative motivational and behavioral characteristics as focus on self-evaluation rather than task mastery (Maehr & Anderman, 1993; Midgley, Anderman, & Hicks, 1995; Nicholls, 1980; Roeser, Midgley, & Maehr, 1994), test anxiety, and both truancy and dropping out of school (Rosenbaum, 1976; see Eccles et al., 1984, for a full review). Finally, several investigators have found a marked decline in some young adolescents' school grades as they move into junior high school – the magnitude of which predicts subsequent school failure and dropping out (e.g., Roderick, 1991; Simmons & Blyth, 1987). Although these changes are not extreme for most adolescents, there is sufficient evidence of a gradual decline in various indicators to make one wonder what is happening (see Eccles & Midgley, 1989, for review).

A variety of explanations have been offered. Some scholars attribute these declines to the intrapsychic upheaval assumed to be associated with early pubertal development (e.g., Freud, 1969; Hamburg, 1974). Others have suggested that they result from the coincidence of multiple life changes. For example, drawing on cumulative stress theory, Simmons and her colleagues

suggest that declines in motivation result from the fact that adolescents making the transition to junior high school at the end of Grade 6 (average age, 12) must cope with two major transitions: pubertal change and school change (e.g., Blyth, Simmons, & Carlton-Ford, 1983; Simmons & Blyth, 1987; see also Crockett, Petersen, Graber, Schulenberg, & Ebata, 1989).[1] Simmons and her colleagues tested the hypothesis that early adolescents making a school transition are at greater risk for negative outcomes than early adolescents who only have to cope with pubertal change during this developmental period. Specifically, they compared the pattern of changes on several indicators of adjustment for two groups of adolescents: a group who moved from sixth (age 12) to seventh grade (age 13) in the same building complex (i.e., a K–8 school building), and a group who went from a K–6 school building to a different junior high school building that included Grades 7 through 9. This design unconfounds age, grade, and the time of transition into a new school environment.

Simmons and her colleagues found clear evidence, especially among girls, of greater negative change between sixth and seventh grades for those adolescents making the junior high school transition (i.e., those in a K–6 to 7–9 system) than for those remaining in the same school setting (i.e., those in a K–8 system). The fact that the junior high school transition effects were especially marked for girls was interpreted as additional support for the cumulative stress theory because girls are more likely to be experiencing both a school transition and pubertal change at this age.

We obtained a similar pattern of results using the data from the National Educational Longitudinal Study. We compared eighth graders in K–8 school systems with eighth graders in either junior high school systems (systems with K–6, 7–9, and 10–12 grade buildings) or middle school systems (systems with a K–5, 6–8, and 9–12 grade clustering configuration). The eighth-grade students in the K–8 systems looked better on several motivational indicators, such as self-esteem, coming to class prepared, and attending school on a regular basis, than the students in the other two school systems (Eccles, Lord, & Midgley, 1991). In addition, the eighth-grade teachers in the K–8 system reported fewer student problems, less truancy, and more student engagement than teachers in the other school systems. Clearly, both young adolescents and their teachers fare better in K–8 school systems than in either junior high school or middle school systems. Why?

Several investigators have suggested that the changing nature of the educational environments experienced by many young adolescents help explain both these school system differences and the mean level declines in motivation associated with the junior high school transition (e.g., Eccles, 1993; Eccles et al., 1984; Eccles & Midgley, 1989; Lee, Statuto, & Kedar-Voivodas, 1983; Lipsitz, 1981; Midgley, 1993; Simmons & Blyth, 1987). Drawing on person–environment fit theory (see Hunt, 1975), Eccles and Midgley (1989) proposed

that these motivational and behavioral declines could result from the fact that junior high schools are not providing appropriate educational environments for many young adolescents. According to person-environment theory, behavior, motivation and mental health are influenced by the fit between the characteristics individuals bring to their social environments and the characteristics of these social environments. Individuals are not likely to do very well, or be very motivated, if they are in social environments that do not fit their psychological needs. If the social environments in the typical American junior high school do not fit well the psychological needs of adolescents, then person-environment fit theory predicts a decline in adolescents' motivation, interest, performance, and behavior as they move into this environment. Furthermore, Eccles and Midgley (1989) argued that this effect should be even more marked if the young adolescents experience a fundamental change in their school environment when they move into a junior high school or middle school, that is, if the environment of the junior high school or middle school fits their psychological needs less well than the environment of the elementary school.

Is there any evidence that such a negative change in the school environment occurs with the transition to junior high school? Yes. For example, Simmons and Blyth (1987) enumerated the following types of macro-level changes: increased school size, increased bureaucratic organization, increased departmentalization, and decreased teacher-student individual contact and opportunity for close relationships with teachers. Simmons and Blyth suggested that such changes put young adolescents at risk in several ways. Because early adolescence is a period of exploration, youth are likely to try out various behaviors and identities. Although such experimentation is both healthy and normal, it can also be quite risky. Successful passage through this period of experimentation requires a tight safety net carefully monitored by caring adults – adults who provide opportunities for experimentation without letting the youth seriously mortgage their futures in the process (see Carnegie Council on Adolescent Development, 1989). Clearly, the large, bureaucratic structure of the typical junior high and middle school is ill suited to such a task. In addition, Higgins and Parsons (1983) suggested that the increased size results in the disruption of one's peer network at a time when peer relations are especially important. Each of these characteristics of the junior high school transition could have detrimental effects on young adolescents, especially those already somewhat at risk due to psychological, social, or academic problems.

There is also evidence of negative changes at the classroom level. First, junior high school classrooms, compared to elementary school classrooms, tend to be characterized by a greater emphasis on teacher control and discipline, and by fewer opportunities for student decision making, choice, and self-management (e.g., Brophy & Everston, 1976; Midgley & Feldlaufer, 1987; Midgley, Feldlaufer, & Eccles, 1988a; Moos, 1979). Such differences in the opportunity for participation in decision making and self-control are likely to be especially problematic for young adolescents. This is a time in development when youth begin to think of themselves as young adults. It is also a time when they increase their exploration of possible identities. Adolescents believe they are becoming more responsible and, consequently, deserving of greater adult respect. Presumably, the adults responsible for their socialization would also like to encourage them to become more responsible for themselves as they move toward adulthood. And in fact, this is what typically happens across the elementary school grades (see Eccles & Midgley, 1989). Unfortunately, the evidence suggests that this developmentally appropriate progression is disrupted by the transition to junior high school. According to stage–environment fit theory, such a developmentally regressive disruption is likely to undermine the motivation and engagement of the young adolescents experiencing the change.

Second, junior high school classrooms, compared to elementary school classrooms, are characterized by less personal and positive teacher–student relationships (see Eccles & Midgley, 1989; Feldlaufer, Midgley, & Eccles, 1988; Midgley, Feldlaufer, & Eccles, 1988b). Such a shift in the quality of student–teacher relationships is also likely to be especially detrimental at early adolescence. As adolescents begin to explore their own identity, they are prone to question the values and expectations of their parents. In more stable social groups, young adolescents often have the opportunity to do this questioning with supportive nonparental adults such as religious counselors, neighbors, and relatives. In our highly mobile, culturally diverse society, such opportunities are not as readily available. Teachers are the one stable source of nonparental adults left for many American youth. Unfortunately, the sheer size and bureaucratic nature of most junior high schools, coupled with the stereotypes we hold regarding the negative characteristics of adolescents, lead teachers to distrust their students and to withdraw from them emotionally (see Eccles et al., 1993; Miller et al., 1990). Consequently, these youth have little choice but to turn to peers as nonparental guides in their exploration of alternative identities. Evidence from a variety of sources suggests that this can be a very risky venture (e.g., Elliott, Huizinga, & Menard, 1989; Jessor & Jessor, 1977). The reduced opportunity for close relationships between students and junior high school teachers has another unfortunate consequence for young adolescents: It decreases the likelihood that teachers will be able to identify students on the verge of getting into serious trouble and get these students the help they need. This way, the holes in the safety net may become too big to prevent unnecessary failures.

Third, junior high school teachers, again compared to elementary school teachers, tend to feel less effective as teachers, especially for low-ability students. For example, the seventh-grade junior high teachers discussed by Midg-

ley et al. (1988b) expressed much less confidence in their teaching efficacy than sixth-grade elementary school teachers in the same school districts. This decline in teachers' sense of efficacy in teaching less competent students could help explain why it is precisely these students who give up on themselves following the junior high school transition (Lord, Eccles, & McCarthy, 1994; Midgley et al., 1989).

Finally, junior high school teachers appear to use a more competitive standard in judging students' competence and in grading their performance than do elementary school teachers (see Eccles & Midgley, 1989). There is no stronger predictor of students' self-confidence and sense of personal efficacy for school work than the grades they receive (Eccles, 1983). If grades change, then we would expect to see a concomitant shift in the adolescents' self-perceptions and academic motivation. And in fact, this is what happens. For example, Simmons and Blyth (1987) found a greater drop in grades between sixth and seventh grades for adolescents making the junior high school transition at this point than for adolescents enrolled in K–8 schools. Furthermore, this decline in grades was not matched by a decline in the adolescents' scores on standardized achievement tests, supporting the conclusion that the decline reflects a change in grading practices rather than a change in the rate of the students' learning (Kavrell & Petersen, 1984). Imagine what this decline in grades could do to young adolescents' self-confidence, especially in light of the fact that the material they are being tested on is not likely to be more intellectually challenging.

Changes such as those just reviewed are likely to have a negative effect on many indices of students' school-related motivation at any grade level. But Eccles and Midgley (1989) have argued that these types of changes are particularly harmful at early adolescence given what is known about psychological development during this stage of life, namely, that early adolescent development is characterized by increases in the desire for autonomy, peer orientation, self-focus and self-consciousness, salience of identity issues, concern over intimate relationships, and capacity for abstract cognitive activity (see Simmons & Blyth, 1987). Simmons and Blyth (1987) have argued that adolescents need a reasonably safe as well as an intellectually challenging environment to adapt to these shifts – an environment that provides a "zone of comfort" as well as challenging new opportunities for growth. In light of these needs, the environmental changes often associated with the transition to junior high school seem especially harmful in that they disrupt the possibility of close personal relationships between youth and nonfamilial adults at a time when youth have an increased need for precisely this type of social support. These environmental changes emphasize competition, social comparison, and ability self-assessment at a time of heightened self-focus; they decrease decision making and choice at a time when the desire for self-control and respect from adults is growing; and they disrupt peer social networks at a time when adolescents are especially concerned with peer relationships and social acceptance. Thus, at a time when identity-relevant questions such as "Who am I?" "Where do I belong?" and "How do I fit in?" are most salient for young teens, the social environment of junior high school may become a venue for anonymity or alienation, rather than a place of support and guidance that serves to assist youth in their unfolding development.

In sum, we believe that the nature of these environmental changes, coupled with the normal course of development, is likely to result in a developmental mismatch. That is, the fit between early adolescents' needs and the opportunities provided to them in their school environment deteriorates as early adolescents move into junior high school, and this lack of fit increases the risk of negative motivational outcomes, especially for those adolescents who are already having academic difficulties.

To test these predictions, we conducted a large-scale longitudinal study of the impact of changes in the school and classroom environments on adolescents' achievement-related beliefs, motives, values, self-evaluations, affective reactions, and behaviors (the Michigan Study of Adolescent Life Transitions – MSALT). The first 2 years of this study focused intensively on the junior high school transition. Although all of the adolescents made this transition between Grades 6 and 7 and all districts had a K–6, 7–9, 10–12 grade structure at the time of this study, we purposely selected 12 school districts in southeastern Michigan that differed in the nature of the junior high school environment along the dimensions reviewed earlier. The data summarized in this part of the chapter come from the first 2 years of this study, during which time questionnaires were administered at school during the fall and spring terms of 2 consecutive school years: the students' sixth- and seventh-grade years.

Approximately 1,500 young adolescents participated at all four waves of the first 2 years of this study. The median family income for these students was approximately $30,000 per year in 1983. Most families would be classified as working or middle class based on their occupation, education, and family income; most lived in working- and middle-class communities surrounding Detroit. Seventy-five percent of the mothers reported being married, 8% reported being remarried, and 13% reported being separated or divorced. Eighty-five percent of the sample were White, 8% were African American, and the remaining 7% were a mix of other ethnic groups.

By and large, our findings support the prediction that changes in school experiences like those described previously are linked to declines in motivation and self-esteem (see Eccles et al., 1993; Eccles, Lord, & Roeser, in press; Midgley et al., 1988a, 1989, for full descriptions). For example, as predicted, the adolescents who moved from a high-efficacy sixth-grade teacher to a low-efficacy seventh-grade teacher ended their first year in junior high school with lower expectancies for themselves in math, lower perceptions of their performance in math, and higher perceptions of the difficulty of math than adoles-

cents who experienced no change in teacher efficacy or who had moved from low- to high-efficacy teachers as they made the junior high school transition. Also, as we had predicted, teacher efficacy beliefs had a much stronger impact on the low-achieving adolescents' beliefs than on the high-achieving adolescents' beliefs. By the end of the junior high school year, the confidence of those low-achieving adolescents who had moved from high- to low-efficacy teachers had declined dramatically. It is also important to note that the decline in self-confidence and efficacy for learning math was not characteristic of either the low- or high-achieving adolescents who moved into a high-teacher-efficacy classroom in seventh grade, suggesting that the decline is not a general feature of early adolescent development. Rather, it seems to be a consequence of the fact that so many young adolescents experience a debilitating shift in their classroom environments as they make the junior high school transition (Midgley et al., 1989).

Similarly, we found that changes in the affective relationship between students and teachers also predicted changes in the adolescents' motivation. As we had expected, it was the young adolescents who moved from elementary teachers they perceived to be high in support to teachers they perceived to be low in support who showed the decline in the value they attached to math. In contrast, the young adolescents who moved from teachers they perceived to be low in support to junior high school teachers they perceived to be high in support showed an increase in the value they attached to math. Again, it was the low-achieving students who were at particularly high risk when they moved to less facilitative classroom environments after the transition (Midgley et al., 1988a).

It is important to note that in both of these studies many more students experienced the developmentally regressive pattern of change over the junior high school transition than experienced the developmentally appropriate pattern of change. More specifically, based on median splits that characterized sixth- and seventh-grade teachers as either high or low in teaching efficacy, 42% of the students went from a sixth-grade teacher with a high sense of efficacy to a seventh-grade teacher with a low sense of efficacy. This compared to 9% of the students who went from a low-efficacy sixth-grade teacher to a high-efficacy teacher and 13% who had a high-efficacy teacher in both years. Futhermore, 21% of the students went from a supportive sixth-grade teacher to an unsupportive seventh-grade teacher, compared to the 15% who moved from an unsupportive sixth-grade teacher to a supportive seventh-grade teacher.

Individual Differences in the Adjustment to School Transitions During Early Adolescence

More central to the concerns of this chapter, the MSALT study also provides strong support for the existence of individual differences in adolescents' response to the junior high school transition. In both the study on the impact of changes in teacher efficacy and the study on the impact of changes in student–teacher relationships, low-achieving students were more negatively affected by the change than high-achieving students. In this section, we explore the issue of individual differences in response to the junior high school transition more thoroughly.

Both Simmons and Blyth (1987) and Fenzel (1991) have analyzed the transition to junior high school in terms of stress and coping. From this perspective, transitions are considered stressful events in that they tap the individual's resources for adaptation. Within the stress and coping literature (e.g., Garmezy, 1983; Rutter, 1981), differences in individuals' responses to stressful life events are assumed to result from the balance between the protective and risk factors that individuals have at their disposal. Protective factors buffer against the potentially anxiety-producing or adverse effects of life or environmental transitions, whereas risk factors tend to exacerbate these effects.

We have now completed a set of analyses of the MSALT data based on an application of the risk–protective factors paradigm to the junior high school transition (Lord et al., 1994). We investigated both psychological and general family environment factors as potential moderators of adolescents' responses to the junior high school transition. The psychological factors we examined included adolescents' ability self-concepts, worries, and self-consciousness; the family environmental factors included decision-making opportunities and developmental attunement to the needs of adolescents. The rationale for each of these sets of moderators is summarized in the following subsection, along with a summary of our findings.

Psychological Protective and Risk Factors

In thinking about the psychological protective and risk factors most likely to affect adjustment to the junior high school transition, we decided to focus on a set of constructs directly related to the school setting. In terms of protective factors, several investigators have suggested that personal coping resources are key influences on individuals' adjustment to stressful situations such as school transitions. Personal coping resources typically include a set of relatively stable personality, attitudinal, and cognitive dispositions that promote effective adaptation (Fenzel, 1991). The personal coping resources that seem most likely to buffer against the detrimental effects of a stressful school transition include a sense of autonomy, a sense of personal efficacy, and confidence in one's competence (Bandura, 1986; Compas, 1987; Garmezy, 1983; Harter, 1990).

Several studies point to the relevance of perceptions of one's competencies for understanding the changes in self-esteem associated with major life changes such as the junior high school transition. For example, in Bohrnstedt and

Felson (1983), adolescents' perceived academic and athletic competence were predictive of high self-esteem. Similarly, Harter (1990) has shown that perceived competence in academic, social, athletic, and physical appearance domains is related to high self-esteem, with confidence in one's physical appearance and social competence having the strongest relations. Other studies have focused on the protective role that actual abilities play. This work demonstrates that sixth-grade success in academic and social domains predicts increases in self-esteem following the junior high school transition (e.g., Hirsch & Rapkin, 1987; Simmons & Blyth, 1987; Simmons, Burgeson, Carlton-Ford, & Blyth, 1987).

Achievement-related worries and self-consciousness seem the most likely candidates as psychological risk factors for the junior high school transition adjustment process. Elkind and Bower (1979) have shown that self-consciousness is negatively related to self-esteem. Similarly, several studies indicate that anxiety about one's performance in the academic and social domains is negatively related to adolescents' school performance (e.g., Payne, Smith, & Payne, 1983; Willig, Harnisch, Hill, & Maehr, 1983). Eccles and her colleagues have suggested that both anxiety and self-consciousness may be particularly detrimental as the early adolescent is forced to adjust to a new school environment characterized by increased rigor in grading, less variety in evaluation techniques, and an increase in social comparison among students (Eccles & Midgley, 1989; Feldlaufer et al., 1988). Furthermore, these detrimental effects are likely to be especially salient during early adolescence because this developmental period is characterized by increased self-focus and self-consciousness (e.g., Eccles et al., 1984; Elkind & Bower, 1979; Eccles & Midgley, 1989).

Support for these hypotheses concerning risk and protective factors associated with the junior high school transition is provided in a recent study we conducted (Lord et al., 1994). In this study, we tested the relation of sixth-grade indicators of these psychological protective and risk factors (e.g., competence beliefs, anxieties, self-consciousness) to several indicators of adjustment to the junior high school transition. By and large, the results supported our hypotheses. These results are reviewed more fully later.

Family Protective and Risk Factors

In thinking about the possible impact of the family environment on adolescents' adaptation to the junior high school transition, it is useful to consider the salient developmental tasks confronting adolescents during this time. A central task of adolescence is developing a sense of oneself as an autonomous individual while at the same time retaining a good relationship with one's parents (Blos, 1979; Eccles et al., 1993; Steinberg, 1990). In keeping with our stage–environment fit perspective, we have focused on the fit between early

adolescents' family environment and adolescents' developmental needs in terms of support for increasingly autonomous decision making and self-direction (e.g., Eccles et al., 1993; see also Hunt, 1975). Similar to our earlier discussion regarding the importance of fit in the school environment, person–environment fit theory suggests that the fit between adolescents' need for autonomy and the amount of control their parents exert over their decision making should affect their motivation and sense of satisfaction with their environment. Adopting a developmental framework, we assume that the fit between desire for self-control and opportunities for self-control is likely to change as the individual develops, unless the environment changes at the same rate and in the appropriate direction. As adolescents mature, they are likely to desire more self-control and more opportunities for decision making. When they enter early adolescence, the rate of increase in this desire for control over one's own life likely accelerates, increasing the need for the family to renegotiate the power balance between parent and child (Collins, 1990; Eccles, Miller-Buchanan, et al., 1991; Hill, 1988; Montemayor, 1986; Steinberg, 1990). It seems plausible that those parents who are able to adjust to the adolescent's changing needs with relatively little conflict will provide a better match between the early adolescent and the family environment. This better match should then serve as a protective factor in the adolescent's developmental trajectory.

In support of this hypothesis, researchers have shown that family environments that provide adolescents with opportunities for personal autonomy and involvement in family decision making are associated with positive outcomes such as increased self-esteem and self-reliance, greater satisfaction with school and student–teacher relations, positive school adjustment, advanced moral reasoning, and a mastery orientation toward problem solving in the classroom (e.g., Epstein & McPartland, 1977; Flanagan, 1985, 1986, 1989; Yee, 1986, 1987; Yee & Flanagan, 1985). Conversely, a parenting style that is coercive, authoritarian, and not attuned to the adolescent's need for more decision-making opportunities is associated with greater self-consciousness and lower self-confidence (Leahy, 1981; Ryan & Lynch, 1989; Yee & Flanagan, 1985).

Consistent with this perspective, the period of early adolescence has been acknowledged by developmentalists (e.g., Collins, 1990; Eccles et al., 1993; Hill, 1988; Paikoff & Brooks-Gunn, 1991; Steinberg, 1990), family sociologists (e.g., Aldous, 1977), and clinicians (e.g., Blos, 1979) as a time of transition that requires a renegotiation of family rules and roles for successful adaptation. Research and clinical evidence suggest that the family's ability to adapt to the changing needs of the early adolescent has implications for the process of identity formation (Grotevant, 1983), for the development of psychopathology such as eating disorders (Minuchin, Rosman, & Baker, 1978), and possibly for how the early adolescent negotiates the transition to junior high school

(Eccles, Miller-Buchanan, et al., 1991; Eccles et al., 1993). It is reasonable to postulate that family environments that are responsive and developmentally sensitive to the needs of early adolescents serve as protective factors for the transition to junior high school. To test these hypotheses, we examined adolescents' perceptions of the family environment with regard to two general dimensions: parent–adolescent mismatch related to issues of autonomy and control and the provision of decision-making opportunities (Lord et al., 1994). The results of the analyses using these measures are summarized below.

Risk and Protective Factors During the Junior High School Transition: Findings of the Lord, Eccles, and McCarthy Study

Lord et al. (1994) tested the hypotheses outlined previously using the following indicators of protective and risk factors as predictors of adjustment outcomes at both the beginning (Wave 3) and end (Wave 4) of the seventh-grade school year: sixth-grade school achievement level, perceptions of one's own abilities, worries about one's abilities and self-consciousness, and the two ratings of their family environment. Here we focus only on the results for changes in self-esteem because self-esteem is widely acknowledged as central to adolescents' general psychological adjustment (see Harter, 1985, 1990). We believe changes in self-esteem provide a global indicator of the reactivity of the self-system to the junior high school transition. Wave 2 self-esteem (measured with Harter's Self-Worth Scale, 1982), collected during the spring of the students' sixth grade prior to the transition, was entered into the regression equation first in order to test the impact of the other predictors on *change* in self-esteem from Wave 2 to Waves 3 and 4. Because of the importance of achievement level as a general protective factor (e.g., Rae-Grant, Thomas, Offord, & Boyle, 1989), teacher-rated academic ability was also included as a control. By controlling for both Wave 2 self-esteem and academic ability, these regression models tested the extent to which our other predictors were associated with a gain or loss in self-esteem between the end of sixth grade and the beginning (or end) of the seventh-grade year, controlling for prior achievement level.

The other predictors, all collected in the spring of the sixth grade, were then entered in two sets: the psychological protections and risks (e.g., ability self-concepts, worries) and then the family protections and risks (e.g., involvement in decision making, lack of developmental attunement between parent and child). Finally, given the evidence of greater vulnerability for females during this transition (Simmons & Blyth, 1987), gender was entered at the last step.

Psychological Protective and Risk Factors. As expected, both sixth-grade self-esteem and sixth-grade academic performance measures were related to seventh-grade self-esteem (also measured with Harter's Self-Worth Scale) in the fall and spring, suggesting considerable stability in self-esteem across these time periods. However, sixth-grade academic performance was not a significant predictor of self-esteem change between Wave 2 and Wave 3 or 4. As predicted, the psychological protective factors were associated with positive change in self-esteem. This was particularly true for the adolescents' ratings of their physical attractiveness, their math ability, and their peer social ability. Also, as hypothesized, the psychological risk factors were associated with declines in self-esteem over the junior high school transition. This was particularly true for social and academic self-consciousness.

That confidence in one's peer-related social skills and one's physical attractiveness, coupled with low social self-consciousness, emerged as salient contributors to adolescents' adjustment to junior high school probably reflects the impact of the changing roles adolescents take on at this particular period of life. Several investigators have suggested that there is an increased emphasis at this time, by both peers and families, on physical appearance, social presentation, and popularity with the opposite sex (Higgins & Parsons, 1983; Hill & Lynch, 1983). Coupled with the new and much larger social environment of the junior high setting, confidence in one's competence in peer social relationships and in one's physical attractiveness may be particularly important protective factors.

The salience of physical appearance for self-esteem across the transition to junior high can also be problematic, particularly for females. Given that the standards for female physical attractiveness in the United States are outside the normal range of variation, excessive focus on physical attractiveness may propel some adolescent females toward the extreme efforts linked with eating disorders in order to make their bodies fit these unrealistic societal standards.

Family Protective and Risk Factors. As predicted, the perception that one's parents are too controlling and intrusive was associated with a decline in self-esteem. In contrast, the perception that one's family provides sufficient opportunities for engagement in family decision making was associated with an increase in self-esteem across the junior high school transition.

Female Gender as a Risk Factor. Gender added little to the predictive power of the regression equation at Wave 3. In contrast, at Wave 4, gender had a negative relation to self-esteem change, indicating that males' self-esteem increased more than that of females even after controlling for all of the other measures. Given that this effect did not occur between Waves 2 and 3, these results suggest that the decline has more to do with the conjoint effect of early adolescent development and the school transition than with the junior high school transition per se. This conclusion is consistent with the

reports of several other studies on female development during the early adolescent period (e.g., AAUW, 1992; Brown & Gilligan, 1992; Simmons & Blyth, 1987).

Summary. The results of the Lord et al. (1994) study are consistent with our predictions based on stage–environment fit theory. Adolescents who experience good support for decision making at home and who think their parents provide them with sufficient autonomy respond to the junior high school transition with gains in their self-esteem. Similarly, consistent with other discussions of the role of risk and protective factors during adolescence (e.g., Compas, 1987, 1994; Masten et al., 1988; Maughan, 1988), those adolescents who had relatively high levels of self-esteem prior to the junior high school transition, and who were confident of their academic competencies and physical attractiveness, experienced gains in self-esteem following the junior high school transition. In the next section, we build on this work by looking at individual differences in the short- and long-term consequences of self-esteem change in response to the junior high school transition.

Profiles of Adjustment to the Junior High School Transition

The junior high transition is a developmentally normative contextual change that can serve as a turning point for early adolescents. It is a transition that can launch early adolescents on alternative developmental pathways. Adolescents differ in how they respond to this transition, and not all individuals experience difficulty as they move from the elementary to the junior high school environment. For some, the transition provides opportunities for growth and positive development, whereas for others, the challenges of this school transition, amid a variety of concurrent biopsychosocial changes, appear to undermine their sense of self-worth. As a result, some adolescents may shift to developmental pathways that can have quite negative long-term consequences, mediated by disengagement from school, increased psychological distress, and/or engagement in risky and potentially dangerous activities. We address this issue in the remainder of this chapter.

First, in an effort to understand how different students adjust to the demands of the junior high school transition, we examine a profile of indices of psychological and behavioral functioning both before and after the transition. Next, we examine the long-term sequelae of individual differences in adolescents' response to this school transition. Is the junior high school transition a turning point in the developmental trajectories of adolescents? Does a decline in self-esteem at this point predispose an adolescent to a more negative high school trajectory?

In order to understand how students who manifest different patterns of response to the junior high school transition look on a variety of contemporaneous and long-term indices of psychosocial adjustment and well-being, we created three groups of students based on change in their self-esteem. These groups were created by regressing Wave 3 self-esteem on Wave 2 self-esteem and saving the residuals – which represent a change in adolescents' self-esteem over the junior high school transition. The residual scores ranged from −1.82 to 1.84, with negative values reflecting a decline in self esteem across the transition and positive values reflecting an increase in self-esteem from Wave 2 to Wave 3. The adolescents were grouped into one of three categories based on cut points on the residual score at ±.5 standard deviation – yielding 553 decreasers, 888 no changers, and 595 increasers.

We selected change in self-esteem as our central indicator of these early adolescents' reactivity to the junior high school transition for two reasons. First, self-esteem is related conceptually and empirically to one's feelings of personal competence and valuing of various activity domains (see Bohrnstedt & Felson, 1983; Eccles, 1983; Harter, 1990; Simmons & Blyth, 1987), to social-emotional functioning (Covington, 1992; Petersen et al., 1993), and to behavioral outcomes (e.g., Owens, 1994; Rosenberg, Schooler, & Schoenbach, 1989). Because we wanted to examine academic, social-emotional, and behavioral outcomes in this report, we thought that self-esteem provided the best single construct from which to predict changes in these other domains of functioning. Second, changes in self-beliefs, values, and emotions related to academics that are linked to self-esteem (e.g., competence beliefs, self-consciousness) are known to change, often in negative directions, as a function of the transition to junior high school (see Eccles & Midgley, 1989; Eccles et al., 1984; Harter, Whitesell, & Kowalski, 1992). Thus, we expect self-esteem to be a good proximal indictor of these other self-system changes that reflect, at least in part, students' reactivity to the junior high school transition.

Profiles of Self-Esteem Change. In order to test whether or not grouping students by self-esteem served our purpose of describing a general pattern of response to the school transition, we compared our three groups (decreasers, no changers, and increasers) on a variety of other personal and psychological characteristics. To differentiate these groups further for our assessments of short- and long-term adjustment, we divided each of the three self-esteem change groups into high and low achievers based on a median split of the sixth-grade math teacher's rating of the student's academic ability relative to other students in the class. The number of students, girls and boys, and high and low achievers present in each of the self-esteem change groups during Waves 1–6 are presented in Table 11.1. Focusing on the Wave 1–4 column only, one can see that females are overrepresented in both of the two decreaser groups, and in the high-achieving no-change group (significantly so based on a chi-square analysis, $p < .01$).

Table 11.1. *Self-esteem change group cell numbers and participation rate by achievement group and gender*

Self-esteem change group	Waves 1–4 6th–7th grade	Wave 5 10th grade	Wave 6 12th grade
Decliners	553	206 (36%)	241 (44%)
High achievement			
Females	149	68 (46%)	74 (50%)
Males	86	39 (45%)	45 (52%)
Low achievement			
Females	172	64 (37%)	77 (45%)
Males	146	35 (24%)	45 (31%)
Same	888	364 (41%)	415 (47%)
High achievement			
Females	236	113 (48%)	122 (52%)
Males	196	85 (43%)	98 (50%)
Low achievement			
Females	231	94 (41%)	104 (45%)
Males	225	72 (32%)	91 (40%)
Inclines	595	243 (41%)	275 (46%)
High achievement			
Females	156	77 (49%)	81 (52%)
Males	149	64 (43%)	71 (48%)
Low achievement			
Females	141	51 (36%)	57 (40%)
Males	149	51 (35%)	66 (44%)

Note: Numbers in parentheses represent the percentage of adolescents remaining from the original sample at Waves 1–4.

Our next step was to describe the profiles of adjustment of the different groups of students across the span of their sixth and seventh grades on other indicators. Using multivariate analysis of variance techniques (MANOVA), we examined how the three groups differed in terms of psychological characteristics that were assessed around the transition event. These characteristics included the criterion measure of self-esteem, self-reports of anxiety, self-consciousness, school engagement, and teacher ratings of adolescents' general resourcefulness. Gender, academic achievement (high versus low), and self-esteem change group (decliners, no change, increasers) were included as between-subject factors; times of measurement (Waves 1–4) was the within-subjects factor. The measures are summarized in Appendix A.

For purpose of this chapter, we focus primarily on the effects involving both wave and self-esteem change group (SE Change). Figure 11.1 illustrates the results for self-esteem across Waves 1–4 (SE Change by Time $F[6, 1{,}880] = 266$, $p < .001$; eta-squared = .23). What is most interesting in this figure is the fact that the three change groups have quite similar self-esteem ratings prior to

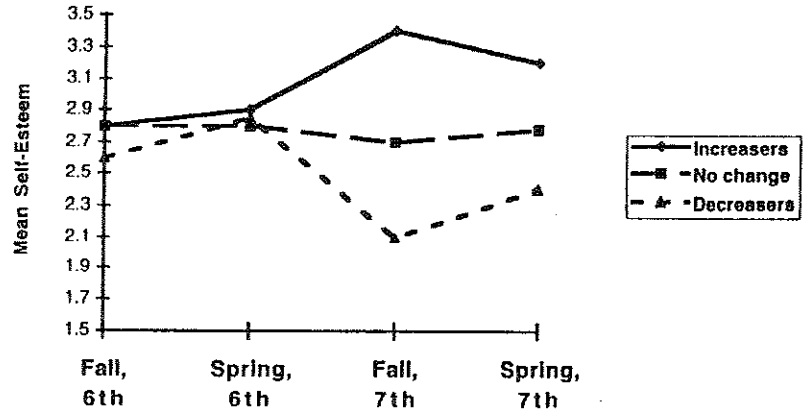

Figure 11.1. Self-esteem changes across sixth and seventh grades.

the junior high school transition (in the fall and spring of their sixth-grade year). The marked divergence immediately following the transition reflects the way the groups were created. However, this divergence persists across the seventh-grade school year to Wave 4, when the three groups are still significantly different from one another ($p < .001$). The other results from this MANOVA are consistent with findings reported elsewhere on this sample. As reported in Eccles et al. (1989), there is a curvilinear main effect ($F[3, 1{,}884] = 38.8$, $p < .001$; eta-squared = .02) for time, with self-esteem increasing from fall to spring during the sixth grade, then falling sharply across the transition to junior high school (Waves 2 to 3) and recovering somewhat by the end of the seventh grade. The magnitude of this pattern, however, differed for females and males (Time by Gender $F[3, 1{,}885] = 23.3$, $p < .001$; eta-squared = .01), with females showing a more marked decline following the transition than males. The pattern also differed across the two achievement groups, with the low achievers showing less within-year increase in self-esteem in both grades than the high achievers (Time by Achievement Group $F[3, 1{,}885] = 5.5$, $p < .01$; eta-squared = .003). As we discuss later, the significant group differences we found here for changes in self-esteem are significant not only at the end of seventh grade but also later, during the high school years. Whatever it is about the response to the junior high school transition that separates these groups from one another at grade 7 appears to have long-term consequences for development during the adolescent period.

Profiles of Anxiety Change. Next, we compared these groups on measures of psychological adjustment. Given our previous work on risk and protective factors associated with the junior high school transition (Lord et al., 1994), we examined how adolescents in each of the three self-esteem change groups

looked in terms of their academic anxiety in math and their feeling of social self-consciousness. Math anxiety (measured at all four waves; see Appendix A) assessed the extent to which students felt nervous or worried either before or during tests in mathematics (alphas ≥ .85). Social self-consciousness (measured at Waves 2 and 4) assessed students' concerns about how others perceived them or how well they thought they were liked on meeting significant others (alphas ≥ .80). Again, although we included gender, achievement group, and self-esteem change group as the between-subject factors and wave as the within-subject factors in these analyses, we focus only on the results involving self-esteem change group and time.

The analyses of math anxiety yielded significant main effects for change group, gender, achievement group, and time. The SE change by time effect was not significant, however. As one would expect, females reported more math anxiety than males ($F[1, 1,846] = 75.4, p < .001$; eta-squared = .04), and low-achieving students reported more math anxiety than high-achieving students ($F[1, 1,846] = 68.1, p < .001$; eta-squared = .04). More relevant to this chapter, although all students reported declining levels of math anxiety across the four waves ($F[3, 1,845] = 76.9, p < .001$; eta-squared = .04), students whose self-esteem declined over the transition to junior high school reported more anxiety about math at all waves than did those students whose self-esteem either increased or did not change across the transition ($F[3, 1,846] = 40.2, p < .001$; eta-squared; = .04). This difference did not increase over time, suggesting that school-related anxiety is more of a precursor of SE change than a concomitant response to the transition. Consistent with this interpretation, recall that math anxiety was one of the significant predictors of self-esteem change in the Lord et al. (1994) study.

Similar results were obtained for the social self-consciousness measures. Significant effects for both self-esteem change group and gender for adolescents's social self-consciousness were found. Both females ($F[1, 1,885] = 61.6, p < .001$) and students whose self-esteem declined ($F[2, 1,885) = 15.1, p < .001$) across the transition were more self-conscious in social situations than their peers at both time points. Additionally, there was also a small, significant time by change group effect (eta-squared = .004), which is illustrated in Figure 11.2. Although there was a general decline in social self-consciousness across the sixth to seventh grade time span, the magnitude of this decline varied slightly across the three self-esteem change groups: Those students who experienced an increase in self-esteem across the transition to junior high school also experienced a significantly greater decline in social self-consciousness from Wave 2 to Wave 4. So, unlike the effects for math anxiety, social self-consciousness appears to serve as both a protective factor for self-esteem change (Lord et al., 1994) and an indicator of the response to the junior high school transition. The results suggest that adolescents whose self-esteem goes up with the transition to junior high school experience gains in other positive

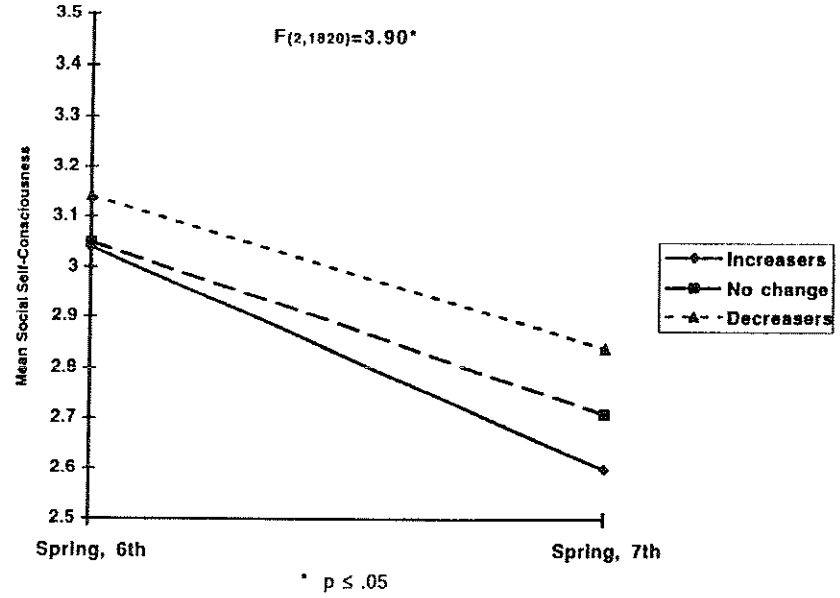

Figure 11.2. Time by self-esteem change group effect for social self-consciousness across the transition to junior high school.

psychological characteristics, such as self-assurance and comfort with themselves in social situations. This protective relation may be particularly important during the adolescent years, when multiple changes and pressures from peers can result in social awkwardness and insecurity.

Social-Emotional Adjustment at the End of Seventh Grade. To assess social-emotional functioning at the end of seventh grade, we examined both psychological and behavioral indicators of adjustment. First, as a primary indicator of psychological adjustment, we selected depressive affect. It is well established that the prevalence of depressive symptomatology increases during the adolescent years, particularly for females (e.g., Petersen et al., 1993). It is also believed that this change may be related to early adolescents' adjustment to school changes amid a variety of other life changes (Simmons & Blyth, 1987). To assess adolescents' social-emotional functioning in terms of depressed symptomatology, we used a three-item scale that assessed the frequency of adolescents' feelings of unhappiness, sadness, depression, or loneliness. Items were derived from the SCL-90 and had good internal reliability (alpha ≥ 70).

We also examined indicators of two other types of change adolescents often experience. The early adolescent years are a time when peer cliques and the desire for acceptability and belonging become more salient. This shift

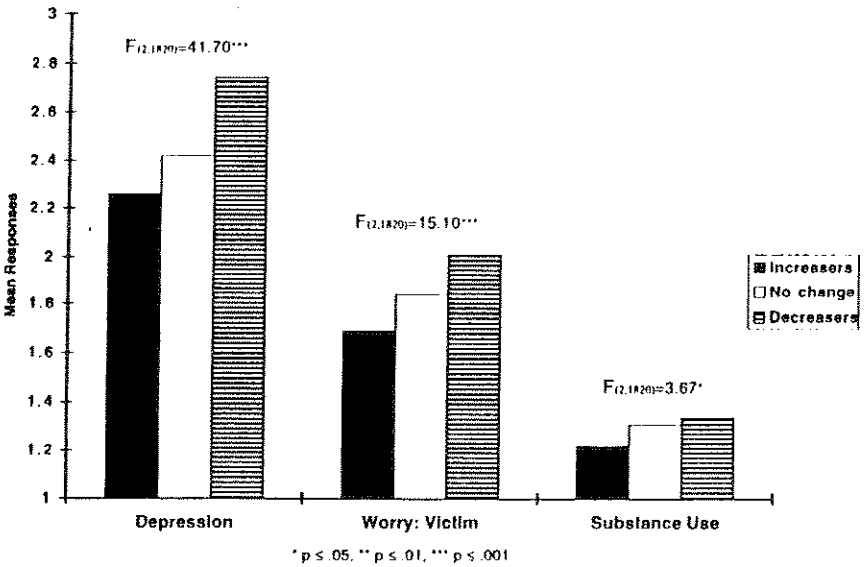

Figure 11.3. Adjustment at the end of seventh grade.

can have both positive and negative consequences (e.g., Brown, 1990; Fuligni & Eccles, 1993). We have focused on two possible negative consequences of an increased orientation toward peers: increased pressure for involvement in risky behaviors, such as drug or alcohol use (Elliott et al., 1989), and increased peer–peer violence and victimization (Simmons & Blyth, 1987).

In order to assess our hypothesis that individual differences in changes in self-esteem across the transition to junior high school are associated with corresponding differences in adjustment posttransition, a series of MANOVAs was conducted, with the adjustment indicators as dependent measures and self-esteem change group, achievement group, and gender as between-subject factors. Since these variables were not measured at Waves 1–3, we could not test for longitudinal change during early adolescence in these outcomes. The results of these MANOVAs are summarized here, and the means for the three significant self-esteem change group effects are illustrated in Figure 11.3. Consistent with previous literature (e.g., Elliott et al., 1989; Kazdin, 1993; Petersen et al., 1993), females reported more frequent depressive symptoms than males ($F[1, 1,820] = 75.6$, $p < .001$; eta-squared = .04). There were also main effects for achievement group for each of the three adjustment indicators: High achievers reported significantly fewer depressive symptoms ($F[1, 1,820] = 6.44$, $p < .01$; eta-squared = .003), less alcohol and drug use ($F[1, 1,820] = 26.4$, $p < .001$; eta-squared = .01), and less

victimization ($F[1, 1,820] = 22.8$, $p < .001$; eta-squared = .01) than their low-achieving counterparts.

More central to the premise of this chapter, however, are the findings for the three self-esteem change groups. Individual differences in self-esteem change across the transition to junior high school were systematically related to group differences in depressive symptoms ($F[2, 1,820] = 41.7$, $p < .001$; eta-squared = .05), feelings of peer victimization ($F[2, 1,820] = 15.1$, $p < .001$; eta-squared = .02), and alcohol/drug/cigarette use ($F[2, 1,820] = 3.67$, $p < .03$; eta-squared = .005) at the end of seventh grade. Univariate one-way analyses were conducted to determine the precise nature of these group differences. Early adolescents who experienced a decrease in self-esteem across the junior high transition reported significantly more depressive symptomatology at the end of seventh grade than did those who experienced an increase in self-esteem across the transition. Adolescents whose self-esteem did not change across the transition reported fewer depressive symptoms than the decreasers and more symptoms than those whose self-esteem increased across the transition.

The picture was similar for the adolescents' reports of feeling victimized. Early adolescents who experienced an increase in self-esteem across the transition were significantly better off at the end of seventh grade than those whose self-esteem did not change across the transition. This latter group, in turn, reported less peer victimization than adolescents whose self-esteem declined across the transition from sixth to seventh grade.

The results for substance use were less marked but still statistically significant. Early adolescents who experienced an increase in self-esteem across the transition into seventh grade reported significantly less involvement in substance use relative to the other change groups. These results suggest that a positive change in self-esteem at the onset of junior high school may have a buffering or protective effect on the adolescent's substance use later during that year.

As one final indicator of social-emotional adjustment, we assessed whether adolescents across our SE Change groups differed in terms of their seventh-grade math teachers' rating of their psychological resourcefulness (tolerance for frustration, getting along with others, helping others with school work, etc.; see Appendix A for details) at both Waves 3 and 4. There was a significant SE Change group effect ($F[2, 1,820] = 12.5$, $p < .001$; eta-squared = .01). Students who experienced a drop in self-esteem across the transition to seventh grade were rated as significantly less resourceful in both the fall and spring of seventh grade than were those whose self-esteem increased or stayed the same across the transition.

Academic Adjustment at the End of Seventh Grade. Another aspect of adjustment we examined was students' level of engagement with school. Although the relations among academic motivation, achievement, and mental health

during adolescence are not highly developed in the literature, given that school is a focal life arena for early adolescents, it is likely that academic engagement and achievement are critical to continued patterns of personal adjustment during this period of development (e.g., Maughan, 1988). School commitment and achievement can serve as protective factors against the emergence of negative outcomes that appear later in adolescence, such as problem behaviors, affiliation with negative peers, and mental health problems (Achenbach, Howell, Quay, & Conners, 1991; Compas, 1994; Cowen, 1991; Dryfoos, 1990; Rae-Grant et al., 1989). Conversely, academic underachievement and alienation in early adolescence are likely to be risk factors for later adjustment (e.g., Dryfoos, 1990; Cairns, Cairns, & Neckerman, 1989; Finn, 1989; Offord & Fleming, 1995; Owens, 1994).

For example, in a recent study of 1,500 adolescents and their families (Roeser, Lord, & Eccles, 1994), we found a strong association between school alienation, academic competence, motivation, and mental health during early adolescence. In this study, groups of adolescents were differentiated by their self-reports of alienation from academics (e.g., not liking school; devaluing the importance of a good education), school disengagement (e.g., belief that classes are boring, school is a waste of time), and behavioral alienation (skipping classes, failing a class). Relative to those seventh graders who were not alienated, the profile of measures that differentiated adolescents who were highly alienated from school included both adolescent self-reports and parent reports of lower academic values and ability self-concepts, lower self-esteem and less personal resourcefulness, and higher anger and depressive symptomatology. Highly alienated students also reported less social support, poor overall evaluations of the quality of their schools, and more negative teacher expectancies for them in school.

Another worrisome set of differences also distinguished the three groups: Relative to low-alienated students, high-alienated adolescents reported being involved in peer groups with more antisocial characteristics (e.g., involvement in drugs, vandalism, gangs, unprotected sex) and fewer prosocial characteristics (e.g., value school, good education). These findings are particularly troubling given evidence that adolescents who are alienated from conventional groups (e.g., school and family) often establish strong social bonds with antisocial peer groups in order to obtain a sense of belonging (see Elliott et al., 1989; Fuligni & Eccles, 1993).

Given the importance of school engagement for adolescents' future choices and options, as well as its relation to other domains of functioning, we wanted to assess how adolescents in each of the three self-esteem change groups differed in terms of their engagement with school. As an indicator of school disengagement, we used the adolescents' self-ratings of how frequently they had engaged in various disruptive or unethical behaviors at school during the previous 3 weeks (e.g., be verbally or physically harsh to another student,

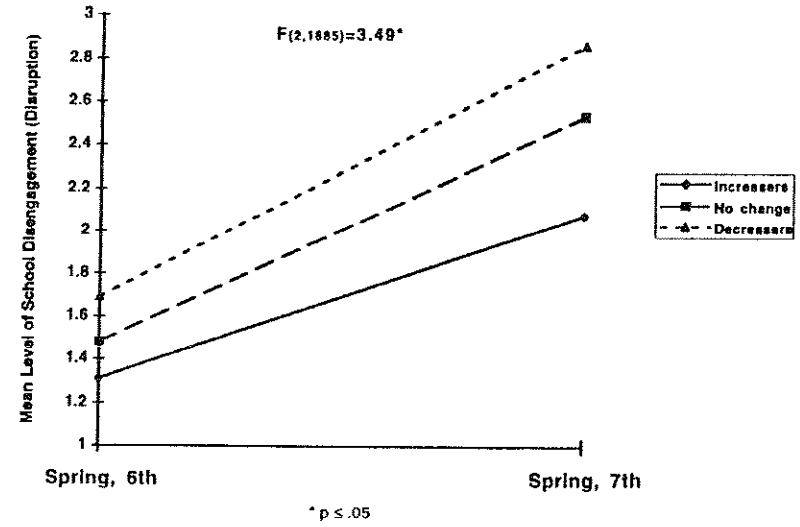

Figure 11.4. Time by self-esteem change group effect for school disengagement across the transition to junior high school.

vandalizing school property, disrupting class, and cheating – measured at the end of sixth and seventh grades). A repeated-measures MANOVA was conducted to determine whether there were differences between the change groups in terms of these indicators of the adolescents' engagement with school. Between-subject results indicated that there were change group, gender, and achievement main effects. In general, early adolescents whose self-esteem declined across the transition to junior high school exhibited greater school disengagement than did those whose self-esteem increased over the transition at both waves ($F[2, 1{,}820] = 10.7$, $p < .001$; eta-squared = .01). In addition, males and low achievers reported more school disengagement than females and high achievers at both waves ($p < .01$ in each case at each wave; eta-squared = .03 and .003, respectively).

More pertinent to our predictions, however, are the within-subject results. There was a significant time effect for school disengagement, as assessed at the end of sixth and seventh grades: In general, students became more disengaged from school over this time span. Pertinent to our predictions was the finding that the nature of this change depended on the pattern of change in adolescents' self-esteem. Students whose self-esteem increased across the transition to junior high school showed markedly smaller increases in their level of school disruption than did those whose self-esteem declined across the same transition. This pattern is presented in Figure 11.4. Positive adjustment to the junior high school transition may serve a protective role in the development of

chool problem behaviors, some of which seem to be fairly common during arly adolescence (e.g., Offord & Fleming, 1995).

We found additional support for the risk/protective role of the self-esteem hange across the transition and school behavior. SE Change group status was eliably associated with levels of truancy from school and end-of-year academ- grades. Students who experienced a decrease in self-esteem across the ransition also reported more truancy (i.e., skipped classes, skipped school) han those whose self-esteem either did not change or increased across the ransition ($F[2, 1,820] = 6.50$, $p < .001$; eta-squared = .01). This change group ffect was more pronounced for males than for females ($F[2, 1,820] = 2.98$, $< .05$). Students whose self-esteem decreased across the transition also had ower mathematics grades than the SE Increasers ($F[2, 1,138] = 3.03$, $p < .05$; ta-squared = .01).

ummary. In summary, these results, which included multiple indices of func- oning, lend support to our assertion that change in self-esteem across the ransition to junior high school is a valid indicator of early adolescents' more eneral adjustment to this normative transition. Our change groups differed in redictable ways on several related indicators of adjustment, such that tudents who experienced a decline in self-esteem during this time also videnced more negative patterns of adjustment in terms of their own reports f anxiety and mental health, their teachers' reports of their personal esourcefulness and ego resilience, their engagement with academics and ehavior at school, and their academic marks.

Using these profiles of adjustment to the junior high school transition as a oint of departure, we now turn to the question of the longer-term conse- uences of this adjustment to the transition. Does the direction of change in elf-esteem across the transition to junior high school predict later adjust- ent? What are the short- and long-term sequelae of the transition to junior igh school? Does the positive or negative transition to junior high school set he adolescent on a developmental trajectory, that is, does this transition serve s a protective purpose, or does it put the adolescent at risk for a trajectory oward maladaptive adjustment?

ong-term Sequelae of Individual Differences in dolescents' Response to the Junior High School Transition

n this section, we address the issue of whether or not adolescents' adjustment o the junior high transition has long-term implications for their psychological nd behavioral adjustment later in adolescence. To do this, we examine the ssociation of our junior high self-esteem change groups with various indica- ors of social-emotional and behavioral adjustment in 10th and 12th grades. pproximately 900 of the students from the initial four waves of the study also rovided us with data during their 10th- and 12th-grade years.[2] A series

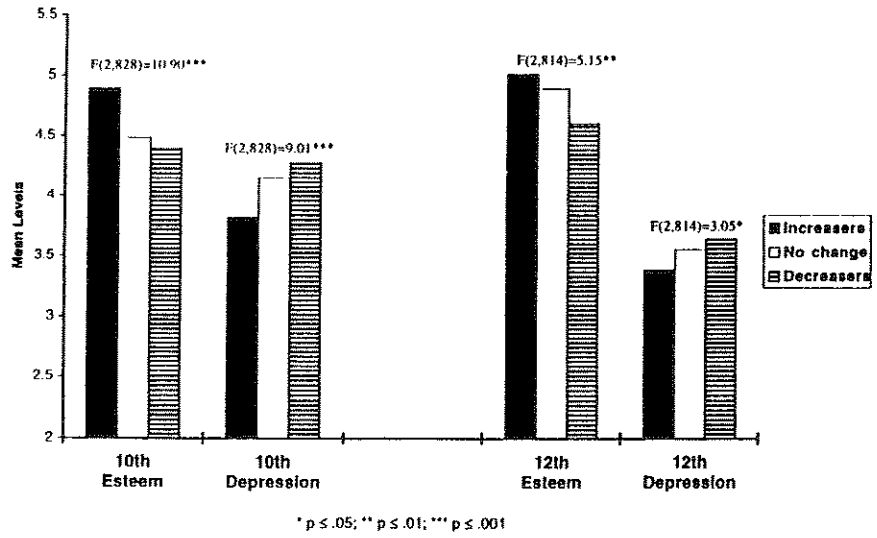

Figure 11.5. Adjustment during high school.

of MANOVAs were conducted using 10th- and 12th-grade self-esteem and depressive symptoms, and 12th-grade academic achievement and drug/alcohol use as dependent measures.

Implications of the Transition for Later Adjustment During High School

Social-Emotional Indices of Adjustment in 10th Grade. Consistent with our earlier findings and with existing literature, males reported significantly higher self-esteem ($F[1,828] = 11.5$, $p < .001$; eta-squared = .01) and fewer depressive symptoms ($F[1,828] = 102.7$, $p < .001$; eta-squared = .11) than females. But more pertinent to the central premise of this chapter, and consistent with our hypotheses, adolescents' social-emotional functioning depended on their junior high school self-esteem change group. As shown in Figure 11.5, adolescents whose self-esteem increased during the transition into junior high school reported significantly higher self-esteem in 10th grade than did those who had experienced a decline in self-esteem going into junior high (eta-squared = .03). Adolescents whose self-esteem had increased also reported significantly fewer depressive symptoms than those whose self-esteem had decreased (eta-squared = .02).

Social-Emotional Indices of Adjustment in 12th Grade. As was true in 10th grade, adolescents whose self-esteem had increased during the transition into junior high school reported significantly higher self-esteem (see Figure 11.5) in

12th grade than those who had experienced a decline in self-esteem going into junior high (eta-squared = .01). Females also reported lower self-esteem than males ($F[1,814] = 9.24$, $p < .001$; eta-squared = .01).

Similarly, as was true in 10th grade, adolescents whose self-esteem had increased during the junior high school transition reported significantly fewer depressive symptoms in 12th grade than those whose self-esteem had dropped (eta-squared = .01). In addition, the amount of variance in reported depressive symptoms that was explained by the self-esteem change group was substantially higher in 12th grade (8%) than in 10th grade (2%), despite the increased time that had elapsed since the junior high school transition. This suggests that the effect of an adolescent's response to the junior high school transition was not attenuating across time.

Behavioral Indicators of Adjustment in 12th grade. We also examined three main indicators of behavioral adjustment during the adolescents' 12th-grade school year: academic achievement, students' graduation status (being on track to graduate in 1990 versus being delayed), and use of alcohol and drugs. As expected, students whose self-esteem had decreased across the transition to 7th grade had significantly lower grade point averages (GPAs) in 12th grade than those whose self-esteem had increased ($F[2, 1,138] = 3.21$, $p < .05$; eta-squared = .01). In addition, there was a significant change group by gender interaction for 12th grade GPA ($F[2, 1,138] = 4.51$, $p < .01$; eta-squared = .01): Boys in the decreasing or no-change self-esteem groups had significantly poorer overall GPAs than girls in these groups.

Next, we examined whether or not students were on time in meeting their graduation requirements for their expected 1990 graduation date. Table 11.2 presents the numbers and percentages of students who did not graduate on time at the end of the 1990 school year. Some of these students eventually dropped out, entered alternative education programs, or graduated at some point after 1990. Chi-square analyses yielded a trend at the .10 level of significance for self-esteem change group membership by 12th-grade graduation status. Students in the declining self-esteem group, particularly those in the low-achiever group, were slightly overrepresented in the nongraduation group.

Next, we examined the substance use measures. Unlike the results for the psychological and academic variables, the patterns of associations involving drug and alcohol use were quite complex. We focus here on the one effect that is particularly intriguing given the issues outlined in this chapter: the result for drug use (see Appendix A for details on the measure). Several researchers now suggest that alcohol and drug use is a very complex behavior in adolescents. For some youth, it is linked with other indicators of problematic development; for others, it appears to be linked more with healthy exploratory behaviors (Maggs, chapter 13, this volume; Maggs, Almeida, & Galambos, 1995; Schulenberg et al., 1996). Our results suggest a similar complexity. As

Table 11.2. *Self-esteem change group cell numbers and nongraduation status during 12th grade by achievement group and gender*

Self-esteem change group	Number of students set to graduate at the end of the 1990 school year	Number of students not set to graduate at the end of the 1990 school year
Decreasers	304	32 (11%)
High achievement		
Females	97	4 (4%)
Males	57	3 (5%)
Low achievement		
Females	87	12 (14%)
Males	63	13 (21%)
Same	535	48 (9%)
High achievement		
Females	153	6 (4%)
Males	127	7 (6%)
Low achievement		
Females	135	13 (10%)
Males	120	22 (18%)
Increasers	358	21 (6%)
High achievement		
Females	102	3 (3%)
Males	99	3 (3%)
Low achievement		
Females	69	7 (10%)
Males	88	8 (9%)
Missing Data	1,787	

Note: Nongraduation status during the 1990 school year contains several categories, including students who dropped out, enrolled in an alternative program, or fell behind in meeting graduation requirements.

Note: Numbers in parentheses represent the percentage of students in each group who had valid data but who did not graduate from 12th grade on time.

pictured in Figure 11.6, we found a significant interaction between self-esteem change group and achievement level in predicting this substance use construct in 12th grade (eta-squared = .02). Among the low achievers, those whose self-esteem increased across the transition reported the most drug use. In contrast, among the high achievers, the decreasers reported the most frequent drug use. And in fact, this latter group stood out among all groups in terms of the frequency with which it reported drug use. Similar results were found for alcohol use, including a significant self-esteem change group by achievement level interaction ($F[2,756] = 4.07$, $p < .05$; eta-squared = .01). The high achievers who experienced a decline in self-esteem across the transition reported more frequent alcohol use than low achievers whose self-esteem had also declined during the transition. Within the low-achieving group, those

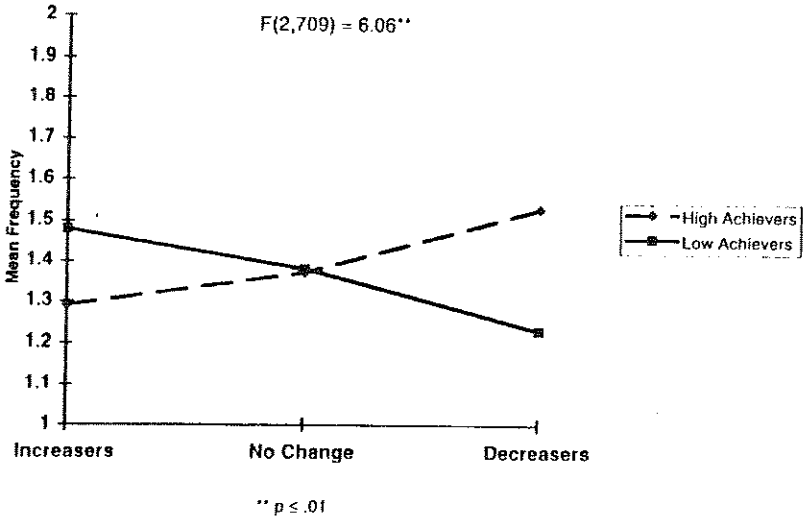

Figure 11.6. Achievement by self-esteem change group effect for 12th-grade drug use.

students whose self-esteem had decreased across the transition reported the least frequent use of alcohol during 12th grade.

Overall, among the low-achieving adolescents, those whose self-esteem increased during the transition to junior high school reported the most frequent use of alcohol and drugs in 12th grade. One possible explanation for this pattern of results is that these adolescents became increasingly disengaged from school and moved toward a pattern of peer affiliations characterized by the use of alcohol and drugs. This group of students may represent those who place more value on the increased social network of the junior high experience, gain feelings of self-worth more from these affiliations than from school, and become the "partiers" of the school. We are in the process of conducting further analyses to characterize more clearly the nature of this group of adolescents and their peer network.

The results for both high- and low-achieving students whose self-esteem decreased across the transition are a bit more complex. Post hoc analyses were conducted to explore the nature of the drug and alcohol use findings in more detail. We suspected that one explanation for differences in the substance use of the high- and low-achieving decreasers might lie in the sample distribution of students in these groups by the time they got to the end of high school. Indeed, chi-square analyses revealed an overrepresentation of high achievers in the decreasers group by 12th grade, based on the fact that a sizable proportion of the low-achieving decliners were not available for assessment at this time for a variety of reasons (enrolled in alternative programs, dropped out of school, fallen behind grade level, etc.).

Although such variation in attrition could account in part for this difference, it is also likely that the results for the high-achieving SE decreasers have substantive meaning as well. To explore this possibility, we ran several additional analyses to describe this group more fully. First, in order to see how different the high-achieving students whose self-esteem declined were from the other two groups of high achievers, we compared these three groups with each other on measures of mental health and grades in 12th grade. High-achieving adolescents in the SE decreaser group were significantly more depressed ($F[2, 507] = 5.6, p < .004$) than those in the SE increaser group and continued to have significantly lower self-esteem ($F[2, 507] = 8.2, p < .001$) than adolescents in both of the other two high-achieving groups. In contrast, these youth continued to have just as high grades as those in the other two groups (and higher than those of the low-achieving groups: $F[1, 182] = 48.3$, $p < .001$, eta-squared = .21). Next, we compared the high and low achievers within the SE decreasers group. These two groups differed only on their GPA (see the previous statistic), not on their self-reports of depression and self-esteem. Finally, we checked back to see if this group of high achievers had stood out in their drug and alcohol use at earlier waves, and found that they did not in the same manner as they did during 12th grade. This suggests that the higher rates of reported substance use among these adolescents may be unique to their situation in Grade 12.

In many ways, this high-achieving group of adolescents appears to have experienced quite negative consequences of their junior high school transition. Despite their high achievement in Grade 6 and their continued relatively high academic achievement throughout junior and senior high school, their self-esteem was undermined by the junior high school transition and remained low throughout their high school years. These students are now facing another major school transition: out of high school and potentially into college. Perhaps these prospects are particularly difficult for them psychologically, and they are turning to drugs and alcohol to cope with the associated stress. We are currently conducting further analyses to characterize the nature of these students' experiences more clearly and to discern patterns of continuity/discontinuity vis-à-vis a proclivity toward substance use. Furthermore, we are interested in understanding the developmental trajectories of the low-achieving, decreasing self-esteem adolescents who did not appear to use substances as much in the face of their difficulties. Further elucidation of the mechanisms involved in these processes could help guide the development of prevention and intervention strategies for this important area of concern in adolescence.

Conclusion

We began this chapter with a review of the evidence of a decline in school motivation and attachment during early adolescence. We outlined a theoreti-

cal perspective, the stage–environment fit perspective, for understanding how changes in school context might contribute to this decline. Stage–environment fit theory suggests that the fit between an individual's psychological needs and the opportunities afforded by the school environment (as well as other contexts) that serve to meet these needs influences an adolescent's motivation and attachment to the school. We focused on two specific psychological needs: (1) the increasing need for autonomy and participation in decisions regarding one's experiences and (2) the continuing need for strong social supports and close, trusting relationships with adults. For example, we argued that the perceived match between adolescents' desires for autonomy and democratic participation in decision making at home and in school is likely to decrease to the extent that these environments do not respond to these needs in a developmentally appropriate manner. Furthermore, we argued that adolescents who are not afforded opportunities for autonomy and decision making at home and in school at a level appropriate to their developmental stage are more likely to develop a negative view both of the particular social context and of themselves. Similarly, to the extent that the quality of social relationships with teachers deteriorate as young adolescents move into junior high school, the mismatch between their social needs and the opportunity for positive, healthy relationships with adults at school may increase, causing young adolescents to turn away from the adults in the school as a source of emotional support.

In the first section, we summarized the support we found for these hypotheses. In particular, we provided evidence of developmentally regressive changes in the school environments that many adolescents experience as they make the transition to junior high school, as well as the predicted negative impacts of these changes on aspects of adolescent development. Finally, we summarized findings suggesting that family and school environments that are responsive and developmentally sensitive to these changes in young adolescents' needs and desires can serve a protective function during the transition to junior high school.

In the second section, we focused on individual differences in adolescents' coping with the junior high school transition. Although this transition can be stressful for many adolescents, particularly those who experience developmentally regressive changes in the social context both at school and at home, many adolescents survive the transition quite well. Consistent with predictions based on both stage–environment fit theory, as well as with other research on risk and resilience (e.g., Jessor, 1993; Masten et al., 1988; Maughan, 1988), those adolescents who experienced good support for decision making at home, who felt that their parents respected them, and who had confidence in their academic and social skills adjusted best to the junior high school transition.

In the final section, we reported results related to the short- and long-term

sequelae of the junior high school transition. The results provide consistent evidence that the self-esteem change experienced during the transition to junior high school is related to different subsequent developmental pathways. Although we have yet to investigate fully the processes that likely underlie these associations, the evidence is clear that the three SE Change groups we created are different from each other in consistent ways both at the end of 7th grade and later, in 10th and 12th grades. Adolescents who experience an increase in self-esteem as they make the junior high school transition report better psychological adjustment at the end of seventh grade and later, during their high school years, than those who experience a decrease in self-esteem in conjunction with the junior high school transition. These results are particularly interesting given the fact that these two groups of adolescents did not differ in self-esteem during the sixth-grade school year just prior to the junior high school transition. Our results provide compelling evidence that the junior high transition is a pivotal period for many young adolescents. In the future, we will explore what it is about these youth that make them differentially responsive to the junior high school transition, as well as the social-environmental experiences at home, with peers, and at school that may have contributed to the differing patterns of change in self-evaluation and personal adjustment during this critical life period. Finally, we plan to explore the processes that underlie the continuity across time in the differences we observed between these three groups of adolescents in order to develop recommendations for appropriate prevention and intervention programs.

Appendix A

*Scale Summaries and Sample Items**

Waves 1–4

Teacher-Rated Resourcefulness — *5 items, Alpha = .76*
(1 = rarely, 3 = often)
This student gives up when faced with a difficult academic problem or situation (R).
This student handles stress and frustration well.

Social Self-consciousness — *2 items, Alpha = .80*
(1 = not at all true of me, 4 = very true of me)
When I meet new people my age, I wonder what they'll think of me.

Math Anxiety — *5 items, Alpha = .85*
(1 = not at all nervous, 7 = very nervous)
Before you take a test in math, how nervous do you get?

Depressive Symptoms — *5 items, Alpha = .70*
(1 = never, 5 = very often)
How often do you feel unhappy, sad, or depressed?

ctimization — *2 items, Alpha = .55*
= never, 5 = very often)
ow often do you worry about getting picked on or beaten by other kids at school?

hool Disruption — *5 items, Alpha = .79*
-12 or more times)
the last 3 weeks at school, about how many times did you wise off and disrupt a class?

hool Truancy — *3 items, Alpha = .71*
-12 or more times)
the last 3 weeks at school, about how many times did you skip a class?
ice this past January, how many times have you not come to school when
u were supposed to?

bstance Use — *3 items, Alpha = .67*
= never, 5 = very often; 0–12 or more times)
ow often do you drink alcohol or use illicit drugs outside of school?
the last 3 weeks at school, about how many times did you bring alcohol or drugs to school?
-12 or more times)

ves 5–6
pressive Symptoms — *3 items, Alpha = .70*
= never, 7 = daily)
ow often do you feel unhappy, sad, depressed?

ug Use — *4 items, Alpha = .75*
= never, 7 = 21 or more times)
ink about the last 6 months. About how often in those 6 months did you do the things listed
low?
ing alcohol or drugs to school
l drugs

cohol Use — *2 items, Alpha = .94*
= never, 7 = 21 or more times)
ink about the last 6 months. About how often in those 6 months did you do the things listed
ow?
t drunk
ink alcohol

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lphas presented here are representative of the scale's reliability at each wave in which it was asured. The alphas presented are taken from the first time of measurement that a particular le was assessed.

otes

n the public school system in the United States, an intermediate school structure called *junior igh school or middle school* exists between elementary schools that serve children and high chools that serve older adolescents. This school structure requires most early adolescents to nake a transition into an intermediate school environment during their early adolescent years vhile they are also experiencing pubertal change.

The sample size is reduced in 10th grade because half of the school districts were eliminated rom the study. This was due to a lack of sufficient funds to follow the entire sample into and

through high school. Districts that were eliminated during Wave 5 included a school district that had the greatest minority representation (primarily African Americans). Thus, minority students were underrepresented during Wave 5. However, in 12th grade, this demographically diverse district was again included in the sample. By reintroducing this district during Wave 6, there was no differential attribution or distortion of the sample due to community/demographic characteristics at this time.

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12 Transition Into Part-Time Work: Health Risks and Opportunities

Michael D. Finch, Jeylan T. Mortimer, and Seongryeol Ryu

Introduction

In prior generations, American youth typically had limited work experience prior to leaving school; when they did have paid jobs, their work was usually sporadic and informal, in the homes of neighbors, relatives, and friends. Youth sometimes held more formal jobs (in nonhousehold settings) during the summer months, but most did not do this kind of work when school was in session. In contrast, in the contemporary United States, almost all adolescents work at some time during high school. A recent national study (Manning, 1990) showed that 70% of 16- to 18-year-olds were employed during the preceding month; the median number of hours worked was 17.5. Bachman and Schulenberg's (1993) study of 71,863 high school seniors in the annual Monitoring the Future surveys showed that 75% of boys and 73% of girls did paid work; 47% of the employed boys and 38% of the employed girls worked more than 20 hours per week.

Though very little systematic research has focused on informal work or on summer jobs (Greenberger & Steinberg, 1981), there is an apparent consensus that these kinds of employment are not detrimental for youth; instead, they are viewed as rather salutary. Indeed, babysitting may be one of the most desirable teenage jobs (Greenberger & Steinberg, 1981; Mortimer, Finch, Shanahan, & Ryu, 1992a). Youth who do informal work in private households generally have considerable discretion over the number and scheduling of work hours; friendly and supportive relationships with employers, who are neighbors and sometimes family friends and relatives; and sometimes even permission to attend to other tasks, such as homework, while working. In contrast, formal work usually imposes firmer temporal constraints with respect to the total hours worked, as well as the scheduling of that time, and more formal employer–employee relations. In summer jobs, youth can benefit from all the work world has to offer – opportunities to learn about how to get and

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Book Prospectus

"Creating and Supporting Intense Youth Involvement in Athletics and the Arts"

Edited by Jacquelynne Eccles, Jennifer Fredricks, and Corinne Alfeld-Liro
University of Michigan

Introduction

The disengagement of talented youth from activities such as athletics, music, and the arts during adolescence has generated much concern among researchers and practitioners (e.g., Eccles, Blumenfeld, Wigfield & Harold, 1990; Huston, 1992). Why do some adolescents continue to develop their expertise, while others lose interest in the activities in which they are talented? The proposed book outlines findings from one single qualitative study with talented adolescents that examines the socialization and motivational that influence this trend towards declining commitment.

This disengagement, especially by those who showed promise in early childhood, is particularly troubling because of the potential loss of talent and skill for both the individual and society (Eccles & Alfeld-Liro, in press). Moreover, the evidence of the benefits of involvement in organized activities in adolescence further underscores the importance of understanding the motivational and socialization factors that influence decisions about involvement (Carnegie Council, 1992). However, despite these benefits, there is some concern over the effects on young people of too much involvement. For instance, recent media attention has focused on "super kids", who feel the need to participate and excel in multiple activities. Their school work, as well as mental and physical health, may be compromised by this level of involvement. Thus, there is a need for research on how young people can reap the benefits of participation in these activities without also incurring the costs.

This question is of both theoretical and practical interest because so many youth spend significant amounts of time and place considerable importance on these types of activities. Several scholars have begun to explore the constructs of commitment and engagement in an attempt to understand the antecedents and consequences of intense involvement in these settings and the factors that influence the disengagement process (e. g., Newmann, 1992; Scanlan, Carpenter, Schimdt, Simons & Keeler, 1993). Such work can provide insight into what factors support talented youths' persistence in developing their skills. An understanding of the factors that help youth to maintain commitment can also help practitioners to create environments that encourage greater involvement by youth.

This interest in intense involvement in non-academic domains has come from diverse quarters. Sports psychologists have focused on the factors that influence the development of commitment of elite-level athletes (Scanlan et al., 1993) and the factors that influence why youth withdraw from athletics (Gould, 1987). In addition, developmental and educational psychologists have examined the influence of involvement in an extracurricular activity on indicators of academic achievement and adjustment (e.g., Holland & Andre, 1987; Marsh, 1992). The final body of work that is applicable is the research on talent development. For example, Bloom (1985) conducted a retrospective study of Olympic swimmers, concert pianists, world famous artists, and eminent mathematicians to examine the development of elite talent. In addition, Czikszentmihalyi and his colleagues (1993) interviewed adolescents who showed exceptional promise in arts, athletics, mathematics, and music to examine how they spent their time and how they felt when participating in their activity.

Of these literatures, this latter research on talent development by Bloom ("Developing Talent in Young People") and Czikszentmihalyi ("Talented Teens") is the most comparable to our work. However, our sample is less restricted in the levels of talent considered and broader in its discussion of adolescents with a range of talent, not just at the elite level. Because of our broader discussion, the findings presented in our book would potentially be more relevant for policy as well as more interesting to the public at large. Further, while other studies have focused primarily on how individuals feel when participating in their talent activity, or how the family affects talent development, our study takes into account the larger social context. We acknowledge that talent is only one part of non-elite but highly involved adolescents' lives and that there may be both costs and benefits to participation. Therefore, we examine the reciprocal influences between adolescents' activity involvement and their developmental context, including school, family, peers, and other activities and interests. Finally, our work is different because it takes a longitudinal development of activity involvement from the early years to decisions about post-high school involvement.

Our study

This book will be based on work from a subsample of a large, longitudinal study of activity choice in childhood and adolescence, conducted by Jacquelynne Eccles and her colleagues at the University of Michigan. In this smaller study, we conducted semi-structured interviews with 41 adolescents who had exhibited talent in athletics, music, drama, dance, and the arts in early childhood, and their parents. We define talent as self-reports of high competence, value, and time involvement in middle childhood. The interviews covered issues about (1) how the young people became involved in their

activity, (2) why they continued, (3) what their plans were for the future, (4) how their involvement affected their families and vice-versa, (5) the role of significant others such as teachers, coaches, and peers on involvement, and (6) the reciprocal influence of extracurricular involvement and school.

Our findings suggest that adolescence is a critical period to examine the socialization and motivational factors that support intense involvement, because it is the time when many of the youth begin to question their commitment to these domains. We found that parents, teachers, and coaches needed to provide talented adolescents with appropriate levels of support and challenge that matched their developmental needs. Peers also played a positive function in supporting the continued involvement of talented adolescents in their talent activity, though there were differences in opportunities for peer relationships between in-school and out-of-school activities. Finally, we developed a model to explain the process by which adolescents decide whether or not and at what level to continue their activity in adolescence. This process seemed to be a dynamic interplay between the individual's motivation and the opportunities provided in the activity.

Audience

The proposed volume would be of considerable interest to a wide audience. For instance, scholars who do research on talent, positive youth development, time use, and the influence of peers, parents, and teachers on individual's motivation and skill development would find our report informative. Educational psychologists would also be interested in our discussion motivation theory and the information on the influence of extracurricular participation on school performance. Further, sports psychologists would be interested in the findings concerning why youth leave sports and the discussion regarding parents and coaches influence on persistence in sport.

In addition to being relevant to a research audience, we feel our book would also be of interest to parents, educators and youth leaders interested in promoting adolescents' involvement in structured activities. The style would be descriptive and non-technical, primarily because of the nature of qualitative research, and would therefore appeal to an educated lay audience. Practitioners who work with youth, such as secondary school teachers and administrators, athletic coaches, and music, drama, and art teachers, would be interested in the information on how to create more effective programs for talent development. Finally, we hope to convince policymakers that it is important to continue to fund youth programs in athletics and the arts both in and out of school.

Timeline

Because all of the contributing authors are our colleagues at University of Michigan, it will be easier to collect and edit all portions of the book than if the contributors

were scattered around the country. Although we have drafts of a good portion of the chapters in the proposed book because they have already been presented as conference papers (see attached), these will need to be revised in order to fit within the flow of a book. In addition, the new portions will need to be written. We anticipate that we will be able to forward all completed portions to the publisher by December 1, 1999.

Structure of the Book

The book will include 11 chapters, including an introduction chapter, a methods chapter, and a discussion/conclusions chapter, as well as 8 chapters (approximately 20-30 pages each), covering various themes in the results of our study. The total length of the book will be about 300-350 pages. This book will be divided into four sections. Section 1 will include the introduction to the study and a description of the methods of data collection and analysis. Section 2 will include various chapters on sources of influence on talent development. Section 3 will include case studies of interesting individuals and profiles that emerged during analysis. Finally, section 4 will outline the conclusions from our study and implications for policy.

In the outline below, we have placed an asterisk beside those chapters that we have included with this proposal in a draft (conference presentations) format that will need to be revised for this book.

[See outline on next page]

Conclusion

While there has been a tendency to focus on adolescence as a period of risk and negative outcomes, researchers have recently highlighted the need for work on contexts that promote positive youth development. This book will begin to open up discussions of how to encourage commitment to extracurricular activities as a way to promote successful development trajectories from childhood to adulthood. Finally, we believe that this book will provide researchers and practitioners with a valuable resource for understanding and implementing practices that support intense involvement.

Outline

Part 1: Overview

Introduction: The Benefits of Intense Youth Involvement in Athletics and the Arts
(Jacquelynne Eccles)

Method: Our Qualitative Interview Study*
(Corinne Alfeld-Liro, Jennifer Fredricks, and Helen Patrick)

Part 2: Sources of Influence

The Early Years: How Children Become Involved in Athletics and the Arts
(Ludmila Hruda and Jennifer Fredricks)

The Dynamic Between Adolescents' Motivation, Identity, and Opportunities*
(Jennifer Fredricks and Corinne Alfeld-Liro)

The Role of Peers in Commitment to Developing Talent in Adolescence*
(Helen Patrick and Allison Ryan)

Nurturing Talent: The Role of Parents*
(Corinne Alfeld-Liro and Ludmilla Hruday)

Nurturing Talent: The Role of Teachers and Coaches*
(Corinne Alfeld-Liro and Jennifer Fredricks)

Reciprocal Influences of School and Extracurricular Activities
(Ludmila Hruda and Jennifer Fredricks)

Part 3: Case-Centered Approach

Girls in Sports and Boys in the Arts: An Exploration of Gender Across Domains
(Jennifer Fredricks)

A Case Study of High and Low Commitment
(Corinne ALfeld-Liro)

Part 4: Conclusions /Implications for Policy

Creating and Supporting Intense Youth Involvement in Athletics and the Arts
(Jacquelynne Eccles)

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