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Chapter 5

SCHOOLS, ACADEMIC MOTIVATION, AND STAGE-ENVIRONMENT FIT

Jacquelynne S. Eccles

From the time individuals first enter school until they complete their formal schooling, children and adolescents spend more time in schools than in any other place outside their homes. Exploring all of the possible ways in which educational institutions influence motivation and development during adolescence is beyond the scope of a single chapter. In this chapter I discuss the ways in which schools influence adolescents' social-emotional and behavioral development through organizational, social, and instructional processes ranging from those based in the immediate, proximal relation between students and the tasks they are asked to perform to the role that principals and the school boards play in setting school-level and district-level policies, which in turn influence the social organization of the entire school community. I discuss at length three examples of the ways in which these multiple organizational levels interact synergistically to influence adolescent development through their impact on the daily experiences that adolescents in the United States encounter as they move through the American school system. The first example focuses on the role of school transitions, the second on the role of curricular tracking, and the third on extracurricular activities. Few of these processes have been studied in countries other than the United States. I assume similar processes are true in other countries, but this remains to be demonstrated empirically.

A DEVELOPMENTAL VIEW OF THE IMPACT OF SCHOOLS ON DEVELOPMENT

Understanding the impact of schools on adolescent development requires a conceptual framework for thinking simultaneously about schools as contexts in which development takes place and about the changing developmental needs of students as they move through the school system. My colleagues and I have been working on such a framework for the last 20 years. In the late 1980s Carol Midgley and I proposed our model of stage-environment fit to guide research on the impact of school transitions on adolescent development (see Eccles & Midgley, 1989; Eccles et al., 1993). We argued that individuals have changing emotional, cognitive, and social needs and personal goals as they mature. Drawing on ideas related to person-environment fit and self-determination theory (e.g., Deci & Ryan, 1985), we argued that schools need to change in developmentally

appropriate ways if they are to provide the kind of social context that will continue to motivate students' interest and engagement as the students mature. To the extent that this does not happen, we predicted that students would disengage first psychologically and then physically from school as they matured into and through adolescence. This should be particularly true as the adolescents acquired more incentives and more power to control their own behavior. I say more about both of these psychological perspectives on the impact of classroom experiences later.

More recently, Robert Roeser and I (see Eccles & Roeser, 1999) proposed a framework for thinking about school influences that dissected the school context into a series of hierarchically ordered, interdependent levels of organization beginning at the most basic level of the classroom and then moving up in complexity to the school as an organizational system embedded in a larger cultural system. In adopting this heuristic, we assumed that (a) schools are systems characterized by multiple levels of regulatory processes (organizational, social, and instructional in nature); (b) these processes are interrelated across levels of analysis; (c) such processes are usually dynamic in nature, sometimes being worked out each day between the various social actors (e.g., teachers and students); (d) these processes change as children move through different school levels (elementary, middle, and high school); and (e) these processes regulate children's and adolescents' cognitive, social-emotional, and behavioral development. In this chapter I focus on the interface between these theoretical frameworks. I begin with a summary of Eccles and Roeser's multilevel description of school contexts.

AN ECOLOGICAL VIEW OF SCHOOLS AND THEIR IMPACT ON DEVELOPMENT DURING ADOLESCENCE

From the location of the school within macroregulatory systems characterized by national, state, and school district laws and educational policies to the miniregulatory systems that involve the minute-to-minute interactions between teachers and individual students, schools are a system of complex, multilevel, regulatory processes. Eccles and Roeser (1999) described these different levels of the school environment in terms of their hierarchical ordering—moving from the student in a classroom, to the school building itself, then to the school district, and finally to the larger communities in which school districts are located. Within each of these levels, we discussed those beliefs and practices that affect students' experiences on a daily basis. At the classroom level, we focused attention on teacher beliefs and instructional practices, teacher-student relationships, the nature and design of tasks and instruction, and the nature and structure of classroom activities and groups. At the level of the school building, we focused attention on organizational climate and such schoolwide practices as academic tracking, school start time, and the provision of extracurricular activities. At the level of the school district, we focused on the between-school grade configurations that create particular school-transition experiences for students. Finally at the level of schools embedded in larger social systems, we discussed such issues as school resources, as well as the linkages of schools with parents and with the labor market.

Eccles and Roeser (1999) further assumed that in any given school setting these multilevel processes are interwoven with one another. Relations between different levels of

organization in the school may be complementary or contradictory and may influence students either directly or indirectly. For instance, a principal may decide that all of his or her teachers should use a particular practice such as cooperative learning. However, the impact of such a decision on the daily experiences of students depends on how well this practice is actually implemented at the classroom level. If done well, students should be seen working successfully in groups on complex, authentic problems. Such a well-implemented school policy is likely to produce gains in self-esteem, interethnic relationships, and achievement among students, especially those of low ability or status (Slavin, 1990). In contrast, if done poorly, chaos can result, leading to far less positive outcomes at the student level. How such a schoolwide instructional policy is implemented depends on many factors including the morale within the school, the relationships between the principal and the teachers, the teachers' understanding and endorsement of the new instructional practice, the way in which the policy change was decided upon, the provision of adequate in-service training, the provision of adequate supports for implementation of new strategies, and the students' willingness to go along with the new practice. Recent debates about the likely impact of national standards testing provide another example of the complex ways in which a new policy—this time a state- or national-level policy—can affect the daily experiences of teachers and students in the classroom and in the school building.

Eccles and Roeser (1999) also assumed that the processes associated with the different levels of school interacting dynamically with each other, rather than static resources or characteristics of the curriculum, teachers, or school per se, influence adolescents' development. In addition, adolescents' own constructions of meaning and interpretations of events within the school environment are critical mediators between school characteristics and students' feelings, beliefs, and behavior.

Finally, in keeping with the stage-environment perspective proposed by Eccles and Midgely (1989), Eccles and Roeser (1999) assumed that these different school-related processes change across the course of children's and adolescents' development as they progress through elementary, middle, and high school. That is, not only are children and adolescents developing, but so too is the whole nature of the schools that they attend. For example, the organizational, social, and instructional processes in schools change as children move from elementary to middle school. Eccles and Midgley argued that these changes are often associated with declines in many adolescents' motivation and behavior. Understanding the interaction of different school features with the developmental needs of adolescents is critical to understanding the role of schooling in young people's development (see Eccles & Midgley, 1989). In the next sections I discuss those characteristics of each level likely to be most important for understanding the impact of schools on adolescent development. I also discuss how school characteristics at each level may also influence group differences in adolescent development, paying particular attention to gender and ethnic group differences within the United States.

LEVEL 1: CLASSROOMS

The most immediate educational environment to the student is the classroom. This is also the level that has received the most attention from educational psychologists. In

this section I review what we know about teacher beliefs, classroom climate, the nature of the academic work itself, and experiences of racial/ethnic discrimination.

Teacher Beliefs

Teacher beliefs have received much attention in educational psychology. In this section I focus on two types of beliefs: Teachers' general sense of their own teaching efficacy and teachers' expectations for specific students in their class.

Teachers' General Sense of Efficacy

When teachers hold high general expectations for student achievement and students perceive these expectations, students learn more, experience a greater sense of self-worth and competence as learners, feel more connected to their teacher and their school, and resist involvement in problem behaviors (Eccles et al. 1993; Lee & Smith, 2001; Roeser, Eccles, & Sameroff, 1998; Rutter, 1983; Weinstein, 1989). Similarly, teachers who feel they are able to reach even the most difficult students and who believe in their ability to affect students' lives communicate such positive expectations and beliefs to their students. Thus, a high sense of general teacher efficacy can enhance students' own confidence in their ability to master academic material, thereby promoting effort investment and achievement as well as a positive emotional relationship with their teacher and greater engagement in school as a social institution (Ashton, 1985; Midgley, Feldlaufer, & Eccles, 1989b). Alternatively, teachers who have low confidence in their teaching efficacy often engage in behaviors that reinforce feelings of incompetence and alienation in their students, increasing the likelihood that their students will develop learned helpless responses to failure in the classroom, depressive affect, anger, and disengagement (see Cole, 1991; Roeser, Eccles, & Freedman-Doan, 1999). Lee and Smith (2001) stressed this aspect of teachers' general beliefs as a critical component for secondary school reform (see also Jackson & Davis, 2000).

As I discuss in more detail later, the prevalence of teachers with a low sense of personal teaching efficacy is higher in junior high and middle schools than in elementary schools and higher in schools that serve high proportions of ethnic minority and poor adolescents than in schools that serve more affluent and higher achieving adolescents (Darling-Hammond, 1997; Eccles, Wigfield, & Schiefele, 1998). This fact alone provides a possible explanation for both average levels of declining school engagement during early to middle adolescence and for social class and ethnic group differences in school engagement.

Differential Teacher Expectations

Equally important are the differential expectations teachers often hold for various individuals within the same classroom and the differential treatments that sometimes accompany these expectations. Beginning with the work by Rosenthal (1969), many researchers have shown that undermining teacher-expectancy effects depend on how teachers structure activities differently, as well as interact differently with, high- and low-expectancy students and on how the students perceive these differences (Brophy, 1985; Cooper, 1979; Eccles & Wigfield, 1985; Weinstein, 1989). Most concerns have been

raised over behaviors that create a self-fulfilling prophecy by undermining the learning and well-being of those students for whom the teachers hold the lowest expectations.

Much work on teacher expectancy effects has focused on differential treatment related to gender, race/ethnic group, and/or social class. Most of this work has documented the small but fairly consistent undermining effects of low teacher expectations on girls (for math and science), on minority children (for all subject areas), and on children from lower-social-class family backgrounds (again for all subject areas) (see Eccles & Wigfield, 1985; Ferguson, 1998; Jussim, Eccles, & Madon, 1996; Valencia, 1991). In addition, Jussim et al. (1996) found that even though these effects are typically quite small, young women, African American adolescents, and students from poorer homes are more subject to both the positive and negative teacher expectancy effects than are other students.

Researchers such as Steele (1992) have linked this form of differential treatment, particularly for African American students, to school disengagement and disidentification (the separation of one's self-esteem from all forms of school-related feedback). Steele argued that African American students become aware of the fact that teachers and other adults have negative stereotypes of African Americans' academic abilities. This awareness (labeled *stereotype threat* by Steele and his colleagues) increases their anxieties, which in turn lead them to disidentify with the school context to protect their self-esteem. It is interesting that recent studies using the same theoretical notions and experimental techniques have shown that Asian students believe that teachers and adults expect them to perform very well and that this belief leads Asian students to perform better on tests when their ethnic identity is made salient (Shih, Pittinsky, & Ambady, 1999). Thus, the psychological processes associated with stereotype threat can either undermine or facilitate performance on standardized tests depending on the nature of commonly held stereotypes about the intellectual strengths and weaknesses of different social groups.

Classroom Climate

Classroom climate refers to the more general character of the classroom and teacher-student relationships within the classroom. In this section I focus on the following aspects of classroom climate: Teacher-student relationships, classroom management, and motivational climate.

Teacher-Student Relationships

Teacher-student relationships are a key component of classroom climate: High-quality teacher-student relationships facilitate academic motivation, school engagement, academic success, self-esteem, and more general socioemotional well-being (Deci & Ryan, 1985; Eccles et al., 1998; Goodenow, 1993; Midgley et al., 1989b; Roeser, Midgley, & Urdan, 1996). Teachers who trust, care about, and are respectful of students provide the social-emotional support that students need to approach, engage, and persist on academic learning tasks and to develop positive achievement-related self-perceptions and values. Feeling emotionally supported is one of the most important characteristics of contexts that support positive development. Correlational studies with adoles-

cents show that students' perceptions of caring teachers enhance their feelings of self-esteem, school belonging, and positive affect in school (Roeser & Eccles, 1998; Roeser et al., 1996).

Declines in both adolescents' perception of emotional support from their teachers and in the adolescents' sense of belonging in their classrooms are quite common as adolescents move from elementary school into secondary schools (Eccles et al., 1998). This shift is particularly troublesome in our highly mobile society in which teachers represent one of the last stable sources of nonparental role models for adolescents. In addition to teaching, teachers in mobile societies such as the United States can provide guidance and assistance when social-emotional or academic problems arise. This role is especially important for promoting developmental competence when conditions in the family and neighborhood cannot or do not provide such supports (Eccles, Lord, & Roeser, 1996; Simmons & Blyth, 1987).

Classroom Management

Work related to classroom management has focused on two general issues: orderliness/predictability and control/autonomy. With regard to orderliness and predictability, the evidence is quite clear: Student achievement and conduct are enhanced when teachers establish smoothly running and efficient procedures for monitoring student progress, providing feedback, enforcing accountability for work completion, and organizing group activities (e.g., Eccles et al., 1998; Pintrich & Schunk, 1996). Unfortunately, such conditions are often absent, particularly in highly stressed and underfunded schools with inexperienced teachers (Darling-Hammond, 1997).

In addition, research on international comparisons of instruction suggest that American teachers are often more lax in their classroom management and provide less systematic and rigorous control over the instructional sequences (Stevenson & Stigler, 1992). Furthermore, this research suggests that these differences in teachers' control-related practices could be a partial explanation for the relatively poor performance of many American youth on international standardized tests of math and science achievement (Schmidt, McKnight, & Raizen, 1997).

Motivational Climate

Several teams of researchers have suggested that teachers engage in a wide range of behaviors that create a pervasive motivational climate in the classroom. For example, Rosenholtz and Simpson (1984) suggested a cluster of general teaching practices (e.g., individualized vs. whole-group instruction, ability grouping practices, and publicness of feedback) that should affect motivation because these practices make ability differences in classrooms especially salient to students (see Mac Iver, 1988). They assumed that these practices affect the motivation of all students by increasing the salience of extrinsic motivators and ego-focused learning goals, leading to greater incidence of social comparison behaviors and increased perception of ability as an entity state rather than an incremental condition. All of these changes reduce the quality of students' motivation and learning. The magnitude of the negative consequences of these shifts, however, should be greatest for low-performing students: As these students become more aware of their relative low standing, they are likely to adopt a variety of ego-protective strategies that unfortunately undermine learning and mastery (Covington, 1992).

More recently, researchers interested in goal theory have proposed a similar set of classroom characteristics (Ames, 1992; E. M. Anderman, & Maehr, 1994; Maehr & Midgley, 1996; Pintrich & Schunk, 1996; Roeser, Midgley, & Maehr, 1994). Goal theorists propose two major achievement goal systems: mastery-oriented goals and performance-oriented goals. Students with mastery-oriented goals focus on learning the material and on their own improvement over time. Students with performance-oriented goals focus on doing better than other students in their class. Goal theorists further argue that a mastery orientation sustains school engagement and achievement better than does a performance orientation (see Ames, 1992; Maehr & Midgley, 1996; Midgley, 2002). Evidence is quite strong for the first prediction and more mixed for the second: The desire to do better than others often has positive rather than negative consequences, whereas the fear of failing (performance-avoidance goal orientation) undermines school performance (see Midgley, 2002). Finally, these theorists suggest that the publicness of feedback, particularly social comparative feedback, and a classroom focus on competition between students undermine mastery motivation and increase performance motivation. The school-reform work of Midgley, Maehr, and their colleagues has shown that social reform efforts to reduce these types of classroom practices, particularly those associated with performance feedback, social comparative grading systems, and ego-focused, competitive motivational strategies have positive consequences for adolescents' academic motivation, persistence on difficult learning tasks, and socioemotional development (e.g., Maehr & Midgley, 1996).

The work on understanding group differences in achievement and achievement choices is another example of an attempt to identify a broad set of classroom characteristics related to motivation. The work on girls and math is one example of this approach. There are sex differences in adolescents' preference for different types of learning contexts that likely interact with subject area to produce sex differences in interest in different subject areas (Eccles, 1989; Hoffmann & Haeussler, 1995). Females appear to respond more positively to math and science instruction if it is taught in a cooperative or individualized manner rather than a competitive manner, if it is taught from an applied or person-centered perspective rather than a theoretical or abstract perspective, if it is taught using a hands-on approach rather than a book-learning approach, and if the teacher avoids sexism in its many subtle forms. The reason given for these effects is the fit between the teaching style, the instructional focus, and females' values, goals, motivational orientations, and learning styles. The few relevant studies support this hypothesis (Eccles & Harold, 1993; Hoffmann & Haeussler, 1995). If such classroom practices are more prevalent in one subject area (e.g., physical science or math) than another (e.g., biological or social science), one would expect sex differences in motivation to study these subject areas. In addition, however, math and physical science do not have to be taught in these ways; more girl-friendly instructional approaches can be used. When they are, girls, as well as boys, are more likely to continue taking courses in these fields and to consider working in these fields when they become adults.

The girl-friendly classroom conclusion is a good example of person-environment fit. Many investigators have suggested that students are maximally motivated to learn in situations that fit well with their interests, current skill level, and psychological needs, so that the material is challenging, interesting, and meaningful (e.g., Csikszentmihalyi, Rathunde, & Whalen, 1993; Eccles et al., 1993; Krapp, Hidi, & Renninger, 1992). Vari-

ations on this theme include aptitude by treatment interactions and theories stressing cultural match or mismatch as one explanation for group differences in school achievement and activity choices (e.g., Fordham & Ogbu, 1986; Suarrez-Orozco & Suarrez-Orozco, 1995; Valencia, 1991). For example, Valencia (1991) concluded that a mismatch of both the values of the school and the materials being taught contributed to the poor performance and high dropout rates among Latino youth in the high school they studied. Deyhle and LeCompte (1999) made a similar argument in their discussion of the poor performance of Native American youth in traditional middle school contexts. The misfit between the needs of young adolescents and the nature of junior high school environments is another example of these person-environment fit dynamics.

The Nature of Academic Work

Academic work is at the heart of the school experience. Two aspects of academic tasks are important: the content of the curriculum and the design of instruction. The nature of academic content has an important impact on students' attention, interest, and cognitive effort. Long ago, Dewey (1902/1990) proposed that academic work that is meaningful to the historical and developmental reality of students' experiences will promote sustained attention, high investment of cognitive and affective resources in learning, and strong identification with educational goals and aims. In general, research supports this hypothesis: Content that provides meaningful exploration is critical given that boredom in school, low interest, and perceived irrelevance of the curriculum are associated with poor attention, diminished achievement, disengagement, and alienation from school (e.g., Finn, 1989; Jackson & Davis, 2000; Larson & Richards, 1989). Curricula that represent the voices, images, and historical experiences of traditionally underrepresented groups are also important (Valencia, 1991). Choosing materials that provide an appropriate level of challenge for a given class, designing learning activities that require diverse cognitive operations (e.g., opinion, following routines, memory, comprehension), structuring lessons so that they build on each other in a systematic fashion, using multiple representations of a given problem, and explicitly teaching students strategies that assist in learning are but a few of the design features that scaffold learning and promote effort investment, interest in learning, and achievement (Blumenfeld, 1992; Deci & Ryan, 1985; Eccles et al., 1998).

Unfortunately, American secondary schools have problems providing each of these types of educational experiences. Recent work by Larson and his colleagues has documented the fact that adolescents are bored most of the time that they are in secondary school classrooms (Larson, 2000; Larson & Richards, 1989). Culturally meaningful learning experiences are rare in many American secondary schools (Fine, 1991; Valencia, 1991). The disconnection of traditional curricula from the experiences of these groups can explain the alienation of some group members from the educational process, sometimes eventuating in school dropout (Fine, 1991; Sheets & Hollins, 1999). Appropriately designed tasks that adequately scaffold learning are also rare in many inner-city and poor schools (Darling-Hammond, 1997).

In addition, from a developmental perspective, there is evidence that the nature of academic work too often does not change over time in ways that are concurrent with the increasing cognitive sophistication, diverse life experiences, and identity needs of

adolescents as they move from the elementary into the secondary school years (Carnegie Council, 1989; Lee & Smith, 2001). As one indication of this, middle school students report the highest rates of boredom when doing schoolwork, especially passive work (e.g., listening to lectures) and in particular classes such as social studies, math, and science (Larson & Richards, 1989). There is also evidence that the *content* of the curriculum taught in schools does not broaden to incorporate either important health or social issues that become increasingly salient as adolescents move through puberty and deal with the identity explorations associated with adolescence (Carnegie Council, 1989). Further, academic work sometimes becomes less, rather than more, complex in terms of the cognitive demands as adolescents move from elementary to junior high school (Eccles et al., 1998). It may be that declines in some adolescents' motivation during the transition to secondary school in part reflect academic work that lacks challenge and meaning commensurate with adolescents' cognitive and emotional needs (Eccles & Midgley, 1989). Recent efforts at middle school reform support this hypothesis: motivation is maintained when middle schools and junior high schools introduce more challenging and meaningful academic work (Jackson & Davis, 2000). I discuss this in more detail later.

Experiences of Racial-Ethnic Discrimination

Researchers interested in the relatively poor academic performance of adolescents from some ethnic/racial groups have suggested another classroom-based experience as critical for adolescent development, namely, experiences of racial/ethnic discrimination (Essed, 1990; Feagin, 1992; Fordham & Ogbu, 1986; Garcia Coll et al., 1996; Rosenbaum, Kulieke, & Rubinowitz, 1988; Ruggiero & Taylor, 1995; Taylor, Casten, Flickinger, Roberts, & Fulmore, 1994; Wong, Eccles, & Sameroff, in press). Two types of discrimination have been discussed: (a) anticipation of future discrimination in the labor market, which might be seen as undermining the long-term benefits of education (Fordham & Ogbu, 1986), and (b) the impact of daily experiences of discrimination on one's mental health and academic motivation (Essed, 1990; Wong et al., in press). Both types are likely to influence adolescent development, but research on these issues is in its infancy. Wong et al. (in press) found that anticipated future discrimination leads to increases in African American youth's motivation to do well in school, which in turn leads to increases in academic performance. In this sample, anticipated future discrimination appeared to motivate the youth to do their very best so that they would be maximally equipped to deal with future discrimination. In contrast, daily experiences of racial discrimination from their peers and teachers led to declines in school engagement and confidence in one's academic competence and grades, along with increases in depression and anger.

Level 1: Summary

The studies of classroom-level influences suggest that development is optimized when students are provided with challenging tasks in a mastery-oriented environment that also provides good emotional and cognitive support, meaningful material to learn and master, and sufficient support for their own autonomy and initiative. Connell and Well-

born (1991), as well as Deci and Ryan (1985), suggested that humans have three basic needs: to feel competent, to feel socially attached, and to have autonomous control in their lives. Further, they hypothesized that individuals develop best in contexts that provide opportunities for each of these needs to be met. Clearly, the types of classroom characteristics that emerge as important for both socioemotional and intellectual development would provide such opportunities.

LEVEL 2: SCHOOL BUILDINGS

Schools are formal organizations and, as such, have characteristics and features that are superordinate to classroom characteristics. These aspects of the whole school environment should impact on adolescents' intellectual, social-emotional, and behavioral development. Important school-level organizational features include school climate and sense of community (Goodenow, 1993; Rutter, 1983) and the relationships among the students themselves. School organizational features also include such schoolwide practices as curricular tracking, start and stop times, and the availability of extracurricular activities.

General Social Climate

Researchers have become interested in the social climate of the entire school. These researchers suggest that schools vary in the climate and general expectations regarding student potential and that such variations affect the development of both teachers and students in very fundamental ways (e.g., Bandura, 1994; Bryk, Lee, & Holland, 1993; Mac Iver, Reuman, & Main, 1995; Rosenbaum et al., 1988; Rutter, Maughan, Mortimore, & Ouston, 1979). For example, in their analysis of higher achievement in Catholic schools, Bryk et al. (1993) discussed how the culture within Catholic schools is fundamentally different from the culture within most public schools in ways that positively affect the motivation of students, parents, and teachers. This culture (school climate) values academics, has high expectations that all students can learn, and affirms the belief that the business of school is learning. Similarly, Lee and Smith (2001) showed that between-school differences in teachers' sense of their own personal efficacy as well as their confidence in the general ability of the teachers at their school to teach all students accounted, in part, for between-school differences in adolescents' high school performance and motivation. Finally, Bandura (1994) documented between-school differences in the general level of teachers' personal efficacy beliefs and argued that these differences translate into teaching practices that undermine the motivation of many students and teachers in the school.

Maehr, Midgley, and their colleagues argued that just as classroom practices give rise to certain achievement goals, so too do schools through particular policies and practices. A school-level emphasis on different achievement goals creates a schoolwide psychological environment that affects students' academic beliefs, affects, and behaviors (e.g., Maehr & Midgley, 1996; Roeser et al., 1996). For example, schools' use of public honor rolls and assemblies for the highest achieving students, class rankings on report cards, differential curricular offerings for students of various ability levels, and so on

all emphasize relative ability, competition, and social comparison in the school and create a school-level ability rather than mastery/task focus. In contrast, through the recognition of academic effort and improvement, rewards for different competencies that extend to all students, and through practices that emphasize learning and task mastery (block scheduling, interdisciplinary curricular teams, cooperative learning), schools can promote a school-level focus on discovery, effort and improvement, and academic mastery. The academic goal focus of a school also has important implications for students' mental health. In a series of studies, Roeser and Eccles found that students' belief that their school is ability-focused leads to declines in students' educational values, achievement, and self-esteem and increases in their anger, depressive symptoms, and school truancy as they move from seventh to eighth grade (Roeser & Eccles, 1998; Roeser et al., 1998). Fiqueira-McDonough (1986) reported similar findings in a study of two high schools that were similar in intake characteristics and achievement outcomes but differed in their academic orientation and rates of delinquent behavior. The high school characterized by a greater emphasis on competition and high grades (ability orientation) had higher delinquency rates, and the students' grades were a major correlate of students' involvement in delinquent behavior (low grades predicted increased delinquent behavior). In contrast, in the school that had more diverse goals and greater interest in non-academic needs, school attachment (valuing of school, liking teachers) was greater on average, and those students with high school attachment engaged in the least delinquent activity.

One final note on school-level academic goal emphases: They are strongly correlated with adolescents' perceptions of the school's social climate. Adolescents who perceive a task orientation in their school also report that their teachers are friendly, caring, and respectful. These factors in turn predict an increased sense of belonging in school among adolescents (see also Goodenow, 1993). In contrast, perceptions of a schoolwide ability orientation are negatively correlated with adolescents' perceptions of caring teachers (Roeser et al., 1996). From the adolescents' perspective, a deemphasis on comparison and competition and an emphasis on effort and improvement are intertwined with their view of caring teachers.

Academic Tracks and Curricular Differentiation

Another important school-level feature relates to academic tracks or curriculum differentiation policies. These terms refer to the regularities in the ways in which schools structure the learning experiences for different types of students (Oakes, Gamoran, & Page, 1992). The practice of providing different educational experiences for students of different ability levels is widespread in American schools. Tracking takes different forms at different grade levels. It includes within-class ability grouping for different subject matters or between-class ability grouping in which different types of students are assigned to different teachers. Within-classroom ability grouping for reading and math is quite common in elementary school. In secondary school, between-class tracking is more widespread and is often linked to the sequencing of specific courses for students bound for different post–secondary school trajectories (e.g., the college prep, general, or vocational tracks). Differentiated curricular experiences for students of different ability levels influence school experiences in two major ways: First, tracking de-

termines the quality and kinds of instruction each student receives (Rosenbaum, 1976, 1980; Oakes et al., 1992), and second, it determines exposure to different peers and thus, to a certain degree, the nature of social relationships that youth form in school (Fuligni, Eccles, & Barber, 1995).

Despite years of research on the impact of tracking practices, few strong and definitive answers have emerged (see Fuligni et al., 1995; Gamoran & Mare, 1989; Kulik & Kulik, 1987; Slavin, 1990). The results vary depending on the outcome assessed, the group studied, the length of the study, the control groups used for comparison, and the specific nature of the context in which these practices are manifest. The best justification for these practices, derived from a person-environment fit perspective, is the belief that students are more motivated to learn if the material is adapted to their current competence level. There is some evidence to support this view for students placed in high ability and gifted classrooms, high within-class ability groups, and college tracks (Dreeben & Barr, 1988; Fuligni et al., 1995; Gamoran & Mare, 1989; Kulik & Kulik, 1987; Pallas, Entwisle, Alexander, & Stluka, 1994).

The results for adolescents placed in low-ability and noncollege tracks are usually inconsistent with this hypothesis. By and large, the effects found for this group of students are negative (Dreeben & Barr, 1988; Pallas et al., 1994; Rosenbaum, 1976, 1980; Rosenbaum et al., 1988; Vanfossen, Jones, & Spade, 1987). Low-track placement predicts poor attitudes toward school, feelings of incompetence, and problem behaviors both within school (nonattendance, crime, misconduct) and in the broader community (drug use, arrests); it also predicts lower educational attainments (Oakes et al., 1992). These negative effects reflect the fact that students placed in the lower tracks are often provided with inferior educational experience and support.

Ability grouping also has an impact on students' peer groups: Between-classroom ability grouping and curricular tracking increase the extent of contact among adolescents with similar levels of achievement and engagement with school. For those doing poorly in school, tracking is likely to facilitate friendships among students who are similarly alienated from school and are more likely to engage in risky or delinquent behaviors (Dryfoos, 1990). Dishion, McCord, and Poulin (1999) showed experimentally how such collecting of alienated adolescents increases their involvement in problem behaviors. This collecting of adolescents with poor achievement or adjustment histories also places additional discipline burdens on the teachers who teach these classes (Oakes et al., 1992), making such classes unpopular with the teachers as well as the students and decreasing the likelihood that the teachers with the most experience will allow themselves to be assigned to these classes.

Concerns have also been raised about the way students get placed in different classes and how difficult it is for students to change tracks once initial placements have been made. These issues are important both early in a child's school career (e.g., Entwisle & Alexander, 1993) and later in adolescence, when course placement is linked directly to the kinds of educational options that are available to the student after high school. Minority youth, particularly African American and Latino boys, are more likely to be assigned to low-ability classes and non-college-bound curricular tracks than are other groups; furthermore, careful assessment of the placements has shown that many of these youth were incorrectly assigned to these classes (Dornbusch, 1994; Oakes et al.,

1992). The consequences of such misassignment are great. It has long-term consequences for students' ability to go to college once they complete secondary school.

Extracurricular Activities

There is growing interest in the role of extracurricular activities in adolescent development. Some people are interested because these activities can fill time and thus decrease the time available for adolescents to get in trouble. For example, in communities where few structured opportunities for after-school activities exist (especially poor urban communities), adolescents are most likely to be involved in high-risk behaviors such as substance use, crime, violence, and sexual activity during the period between 2 and 8 P.M. Providing structured activities either at school or within community organizations after school when many adolescents have no adults at home to supervise them is an important consideration in preventing adolescents from engaging in high-risk behaviors (Carnegie Council, 1989; Eccles & Gootman, 2001).

Others are interested in the potential benefits of such activities for adolescent development (Carnegie Corporation of New York, 1992; Eccles & Gootman, 2001). There is a positive link between adolescents' extracurricular activities and both educational outcomes (e.g., high school completion, adult educational attainment, occupation, and income) and positive youth development (better mental health and lower rates of involvement in delinquent activities), even after controlling for social class and ability (Barber, Eccles, & Stone, 2001; Eccles & Barber, 1999; Larson & Kleiber, 1993; Mahoney & Cairns, 1997; McNeal, 1995; Otto & Alwin, 1977). Participation in sports, in particular, has been linked to lower likelihood of school dropout, higher rates of college attendance, greater educational attainment by age 25, and higher occupational attainment at least through the 20s (Barber et al., 2001; Deeter, 1990; Eccles & Barber, 1999; McNeal, 1995), especially among low-achieving and blue-collar male athletes (Holland & Andre, 1987). Participation in school-based extracurricular activities has also been linked to increases on such positive developmental outcomes as high school GPA, strong school engagement, and high educational aspirations (Eccles & Barber, 1999; Lamborn, Brown, Mounts, & Steinberg, 1992; Newmann, Wehlage, & Lamborn, 1992). Similarly, participation in high school extracurricular activities and out-of-school volunteer activities predicts high levels of adult participation in the political process and other types of volunteer activities, continued sport engagement, and better physical and mental health (Glancy, Willits, & Farrell, 1986; Youniss, McLellan, & Yates, 1997; Youniss, Yates, & Su, 1997).

In contrast to these positive associations, sports has also been linked to increased rates of school deviance and drug and alcohol use (e.g., Eccles & Barber, 1999; Lamborn, Brown, Mounts, & Steinberg, 1992). These results suggest that participation in organized extracurricular activities can have both positive and negative effects. Why?

Several investigators have offered explanations for the positive results associated with participation: Rehberg (1969) suggested the importance of association with academically oriented peers, exposure to academic values, enhanced self-esteem, generalization of a high sense of personal efficacy, and superior career guidance and encouragement. Coleman (1961) stressed the values and norms associated with the different

peer clusters engaged in various types of extracurricular activities. Otto and Alwin (1977) added skill and attitude acquisition (both interpersonal and personal) and increased membership in important social networks.

More recently, investigators have focused on the links among peer group formation, identity formation, and activity involvement (Eccles & Barber, 1999). For example, Eckert (1989) explored the link between the peer group identity formation and both in- and out-of-school activity involvement. As one moves into and through adolescence, individuals become identified with particular groups of friends or crowds (see also Brown, 1990). Being a member of one of these crowds helps structure both what one does with one's time and the kinds of values and norms to which one is exposed. Over time, the coalescence of one's personal identity, one's peer group, and the kinds of activities one participates in as a consequence of both one's identity and one's peer group can shape the nature of one's developmental pathway into adulthood.

This strong link between activity participation and peer group membership also provides an explanation for the negative influences of sports participation on drug and alcohol use. Knowing what an adolescent is doing often tells us a lot about who the adolescent is with: It is very likely that participation in organized activity settings directly affects adolescents' peer groups precisely because such participation structures a substantial amount of peer group interaction. One's coparticipants become one's peer crowd. And such peer crowds often develop an activity-based culture, providing adolescents with the opportunity to identify with a group having a shared sense of style and commitment. Involvement in a school organization or sports links an adolescent to a set of similar peers, provides shared experiences and goals, and can reinforce friendships between peers. In turn, these experiences should influence identity formation as well as other aspects of adolescent development.

What is important from a school-building perspective is that schools differ in the extent to which they provide positive extracurricular activities for their students. Researchers who study the advantages of small schools often point to the fact that more students get to participate in extracurricular activities in small schools because there are fewer bodies to fill all of the available slots (Elder & Conger, 2000). Large schools have an overabundance of students to fill all of the available activity slots. The situation is even worse in poor, large secondary schools that have had to cut extracurricular activities to stay within their budgets. Recently, federal and state initiatives have emerged to help increase the availability of after-school programs that are housed in school buildings. Unfortunately, most of this money is going to elementary school and middle school programs rather than high schools (Eccles & Gootman, 2001).

Summary of School-Level Effects

In this section I reviewed the impact of several features of the whole school on adolescent development. These features included school climate, curricular tracking practices, and the availability of extracurricular activities. There is very strong evidence that each of these schoolwide characteristics impacts adolescent development. Often, between-school variations on these characteristics result from school district policies or financial constraints that are beyond the control of the building's principal and staff. Reform

efforts, however, have shown that changes can be created in each of these domains and that such changes can have a positive impact on the development of the adolescents attending the reformed school.

LEVEL 3: SCHOOL DISTRICTS AND SECONDARY SCHOOL TRANSITIONS

School transitions are an excellent example of how the multiple levels of schools interact to affect development. All school districts must decide how they will group the grade levels within the various school buildings. One common arrangement is to group children in kindergarten through 6th grade in elementary schools, young adolescents in grades 7 through 9 in junior high schools, and older adolescents in grades 10 through 12 in senior high schools. Another common arrangement places the transitions after grades 5 and 8, creating elementary schools, middle schools, and senior high schools. The third popular arrangement groups young people in grades K–8 in one school and then grades 9–12 in a high school. In each of these arrangements the students typically move to a new and often larger building at each of the major transition points. These move typically also involve increased bussing and exposure to a much more diverse student body. In this section I discuss two of these transitions: the transition from elementary to middle or junior high school and the transition from middle or junior high school to high school. Because most of the empirical work has focused on the junior high–middle school transition, I emphasize this transition.

The Middle-Grades School Transition

There is substantial evidence of declines in academic motivation and achievement across the early-adolescence years (approximately ages 11–14; E. M. Anderman & Maehr, 1994; Eccles & Midgley, 1989; Eccles et al., 1993; Maehr & Midgley, 1996). These declines often coincide with the transition into either middle school or junior high school. For example, there is a marked decline in some early adolescents' school grades as they move into junior high school (Simmons & Blyth, 1987). Similar declines occur for such motivational constructs as interest in school (Epstein & McPartland, 1976), intrinsic motivation (Harter, 1981), self-concepts/self-perceptions and confidence in one's intellectual abilities (Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991), mastery goal orientation (E. M. Anderman & Midgley, 1997), and a sense of belonging at school (L. H. Anderman, 1999). There are also increases in test anxiety (Wigfield & Eccles, 1989), focus on self-evaluation rather than task mastery (Nicholls, 1990), focus on performance goals (E. M. Anderman & Midgley, 1997), and both truancy and school dropout (Rosenbaum, 1976). Although these changes are not extreme for most adolescents, there is sufficient evidence of declines in various indicators of academic motivation, behavior, and self-perception over the early adolescent years to make one wonder what is happening (see Eccles & Midgley, 1989). Further, although few studies have gathered information on ethnic or social-class differences in these declines, academic failure and dropout are especially problematic among some ethnic groups and among

youth from communities and families of low socioeconomic status. It is probable then that these groups are particularly likely to show these declines in academic motivation and self-perception as they move into and through the secondary school years.

Several explanations have been offered for these seemingly negative changes in academic motivation: Some point to the intrapsychic upheaval associated with young adolescent development (see Arnett, 1999). Others point to the simultaneous occurrence of several life changes. For example, Simmons and Blyth (1987) attributed these declines, particularly among females, to the coincidence of the junior high school transition with pubertal development. Still others point to the nature of the junior high school environment itself rather than the transition per se.

Extending person-environment fit theory (see Hunt, 1975) into a developmental perspective (stage-environment fit theory), Eccles and Midgley (1989) proposed that these negative developmental changes result from the fact that traditional junior high schools do not provide developmentally appropriate educational environments for young adolescents. The authors suggested that different types of educational environments are needed for different age groups to meet developmental needs and foster continued developmental growth. Exposure to the developmentally appropriate environment would facilitate both motivation and continued growth; in contrast, exposure to developmentally inappropriate environments, especially developmentally regressive environments, should create a particularly poor person-environment fit, which should lead to declines in motivation as well as detachment from the goals of the institution. What is critical to this argument is that the transition itself is *not* the cause of the declines; instead, it is the nature of the school into which the students move. Within this framework, the right kinds of middle school reforms can be quite effective at reducing these declines.

Two approaches have been used to study the middle school transition: one focused on more global school-level characteristics such as school size, degree of departmentalization, and extent of bureaucratization and the other on more specific classroom and motivational dynamics.

The first type is best exemplified by the work of Simmons and Blyth (1987). They pointed out that most junior high schools are substantially larger than elementary schools and that instruction is more likely to be organized departmentally. As a result, junior high school teachers typically teach several different groups of students, making it very difficult for students to form a close relationship with any school-affiliated adult precisely at the point in development when there is a great need for guidance and support from nonfamilial adults. Such changes in student-teacher relationships are also likely to undermine the sense of community and trust between students and teachers, leading to a lowered sense of efficacy among the teachers, an increased reliance on authoritarian control practices by the teachers, and an increased sense of alienation among the students. Finally, such changes are likely to decrease the probability that any particular student's difficulties will be noticed early enough to get the student necessary help, thus increasing the likelihood that students on the edge will be allowed to slip onto negative motivational and performance trajectories, leading to increased school failure and dropout.

The latter is best exemplified by the work of Eccles and Midgley and by the studies on middle school reform initiated by the Carnegie Foundation after their report *Turn-*

ing Points (Carnegie Council, 1989; Jackson & Davis, 2000). These scholars have looked at several specific aspects of the classroom and school environment and have shown that negative changes in these aspects of student' experiences at school as they make the middle or junior high school transition are linked to the declines in school motivation and engagement. They have also shown that changing these aspects of the middle school environment can be effective in reducing the declines in school engagement often associated with this school transition (E. M. Anderman, Maehr, & Midgley, 1999; Maehr & Midgley, 1996).

Grade-Related Differences in Teacher Beliefs

Differences in all types of teacher beliefs have been shown in studies comparing elementary and middle grades teachers. For example, junior high school teachers on average have lower confidence in their own teaching efficacy than do elementary school teachers (i.e., their ability to teach and influence all of the students in their classes; Feldlaufer, Midgley, & Eccles, 1988; Midgley, Feldlaufer, & Eccles, 1989a). An equally troubling difference occurs for teachers' views of their roles in their students' lives. For example, Roeser and Midgley (1997) found that with increasing grade level, middle school (6th to 8th grades) teachers are less likely to endorse the notion that students' mental health concerns are part of the teacher role. Thus, at a time when adolescents need academic and social-emotional guidance and support from both parents and nonparental adults (i.e., during early adolescence), teachers appear less likely to be able to provide such support given the number of students they teach, their educational training, and the size of secondary schools. This creates holes in the safety net available to adolescents at a time when they are in particularly acute need of adult support and guidance (Simmons & Blyth, 1987). It is not surprising that the most at-risk youth often fall through these holes.

Grade-Related Differences in Authority Relationships

Despite the increasing maturity of students, junior high school teachers place a greater emphasis on teacher control and discipline and provide fewer opportunities for student decision making, choice, and self-management than do elementary school teachers (e.g., Feldlaufer et al., 1988; Midgley & Feldlaufer, 1987). Both stage-environment fit theory (Eccles et al., 1993) and self-determination theory suggest that these practices will create a mismatch between young adolescents' desires for autonomy and control and their perceptions of the opportunities in their learning environments; this mismatch is predicted to lead to a decline in the adolescents' intrinsic motivation and interest in school. Evidence supports this prediction (Mac Iver & Reuman, 1988).

Grade-Related Differences in Affective Relationships

Junior high and middle school classrooms are often characterized by a less personal and positive teacher-student relationship than are elementary school classrooms (Feldlaufer et al., 1988; Midgley, Feldlaufer, & Eccles, 1988). Given the association of classroom climate and student motivation reviewed earlier, it should not be surprising that moving into a less supportive classroom leads to a decline in these young adolescents' interest in the subject matter being taught in that classroom, particularly among the low achieving students (Midgley et al., 1988).

Grade-Related Differences in Grading Practices

There is no stronger predictor of students' self-confidence and efficacy than the grades they receive. If academic marks decline with the junior high or middle school transition, then adolescents' self-perceptions and academic motivation should also decline. In fact, junior high school teachers do use stricter and more social comparison–based standards than do elementary school teachers to assess student competency and to evaluate student performance, leading to a drop in grades for many young adolescents as they make the transition to junior high school (Eccles & Midgley, 1989; Finger & Silverman, 1966; Simmons & Blyth, 1987). It is interesting that this decline in grades is not matched by a decline in the adolescents' scores on standardized achievement tests, suggesting 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 such a decline in grades might do to young adolescents' self-confidence and motivation. Although Simmons and Blyth (1987) did not look at this specific question, they did document the impact of this grade drop on subsequent school performance and dropout. Even after controlling for a youth's performance prior to the school transition, the magnitude of the grade drop following the transition into either junior high school or middle school was a major predictor of leaving school early in both studies (see also Roderick, 1993).

Grade-Related Differences in Motivational Goal Context

Several of the changes just noted are linked together in goal theory. Classroom practices related to grading practices, support for autonomy, and instructional organization affect the relative salience of mastery versus performance goals that students adopt as they engage in the learning tasks at school. Given changes associated with these practices, it is not surprising that both teachers and students think that their school environment is becoming increasingly focused on competition, relative ability, and social comparison as the young adolescents progress from elementary to middle or junior high school (Midgley, Anderman, & Hicks, 1995; Roeser, Midgley, & Maehr, 1994). The types of changes associated with the middle-grades school transition should precipitate greater focus on performance goals. In support of this prediction, Midgley et al. (1995) found that both teachers and students indicated that performance-focused goals were more prevalent and task-focused goals were less prevalent in the middle school classrooms than in the elementary school classrooms. In addition, the elementary school teachers reported using task-focused instructional strategies more frequently than did the middle school teachers. Finally, at both grade levels the extent to which teachers were task-focused predicted the students' and the teachers' sense of personal efficacy. Thus, it is no surprise that personal efficacy was lower among the middle school participants than among the elementary school participants.

Anderman, Maehr, and Midgley (1999) extended this work by comparing two groups of young adolescents: a group who moved into a middle school that emphasized task-focused instructional practices and a group who moved into a middle school that emphasized more traditional performance/ability-focused instructional practices. Although these two groups of students did not differ in their motivational goals prior to

the school transition, they did after the transition. As predicted, the adolescents who moved into the first type of middle school were less likely to show an increase in their extrinsic motivational and performance-oriented motivational goals.

Summary

Changes such as those just reviewed are likely to have a negative effect on many children's motivational orientation toward school at any grade level. However, Eccles and Midgley (1989) argued that these types of school environmental changes are particularly harmful at early adolescence given what is known about psychological development during this stage of life. Evidence from a variety of sources suggests that early adolescent development is characterized by increases in desire for autonomy, peer orientation, self-focus and self-consciousness, salience of identity issues, concern over heterosexual relationships, and capacity for abstract cognitive activity (see Brown, 1990; Eccles & Midgley, 1989; Keating, 1990; Simmons & Blyth, 1987; Wigfield, Eccles, & Pintrich, 1996). Simmons and Blyth (1987) argued that adolescents need safe, intellectually challenging environments to adapt to these shifts. In light of these needs, the environmental changes often associated with transition to junior high school are likely to be especially harmful in that they emphasize competition, social comparison, a performance-goal orientation rather than a mastery-goal orientation, and self-assessment of ability at a time of heightened self-focus; they decrease decision making and choice at a time when the desire for control is growing; and they disrupt the opportunity for a close relationship between students and teachers at a time when adolescents may be in special need of close adult relationships outside of the home. The nature of these environmental changes, coupled with the normal course of individual development, is likely to result in a developmental mismatch so that the fit between the young adolescent and the classroom environment is particularly poor, increasing the risk of negative motivational outcomes, especially for adolescents who are having difficulty succeeding in school academically.

The High School Transition

Although there is less work on the transition to high school, the existing work suggests quite similar problems (Coleman & Hoffer, 1987; Jencks & Brown, 1975; Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). For example, high schools are typically even larger and more bureaucratic than are junior high schools and middle schools. Bryk, Lee, and Smith (1989) provided numerous examples of how the sense of community among teachers and students is undermined by the size and bureaucratic structure of most high schools. There is little opportunity for students and teachers to get to know each other, and, likely as a consequence, there is distrust between them and little attachment to a common set of goals and values. There is also little opportunity for the students to form mentor-like relationships with nonfamilial adults, and little effort is made to make instruction relevant to the students. Such environments are likely to undermine further the motivation and involvement of many students, especially those not doing particularly well academically, those not enrolled in the favored classes, and

those who are alienated from the values of the adults in the high school. These hypotheses need to be tested.

The few available studies provide initial support (see Lee & Smith, 2001). For example, Fine (1991) documented how secondary school practices cumulate to drive out students who are not doing very well academically. Similarly, studies of ethnic minority youth provide extensive evidence that alienating and noninclusive high school practices undermine the school engagement and achievement of students of color (e.g., Darling-Hammond, 1997; Deyhle & LeCompte, 1999; Ferguson, 1998; Jackson & Davis, 2000; Lee, Bryk, & Smith, 1993; Suarrez-Orozco & Suarrez-Orozco, 1995; Taylor et al., 1994; Valencia, 1991).

Recent work by Midgley and her colleagues provides additional support. In a longitudinal study of adolescents from elementary school to high school, they were able to look at the impact of both the middle school and the high school transition. They found less evidence of negative changes in school experiences as the students moved into the middle school than when they moved into the high school. As one would expect with the stage-environment fit theory, they found that the motivational declines were associated with the high school rather than the middle school transition (see chapters in Midgley, 2002). They concluded that middle school reform efforts have been effective in changing the middle school environment in ways that support rather than undermine the young adolescents' school engagement and motivation. Further, they concluded that reform is now needed at the high school level. These reforms look very much like the reforms that were advocated for the middle school years.

Most large public high schools also organize instruction around curricular tracks that sort students into different groups. As a result, there is even greater diversity in the educational experiences of high school students than of middle grades students; unfortunately, this diversity is often associated more with the students' social class and ethnic group than with differences in the students' talents and interests (Lee & Bryk, 1989). As a result, curricular tracking has served to reinforce social stratification rather than foster optimal education for all students, particularly in large schools (Dornbusch, 1994; Lee & Bryk, 1989). Lee and Bryk (1989) documented that average school achievement levels do not benefit from this curricular tracking. Quite the contrary—evidence comparing Catholic high schools with public high schools suggests that average school achievement levels are increased when all students are required to take the same challenging curriculum. This conclusion is true even after one has controlled for student selectivity factors. A more thorough examination of how the organization and structure of our high schools influence cognitive, motivational, and achievement outcomes is needed.

Summary

In this section I summarized the evidence related to the impact of school transitions on development. As one would expect, given what we now know about the ecological nature of the junior high school transition, many early adolescents, particularly the low achievers and the highly anxious, experience great difficulty with this transition. In many ways, this transition can be characterized as a developmentally regressive shift in

one's school context. Consistent with our stage-environment fit perspective, such a shift has negative consequences for many youth's school engagement and performance. Also consistent with our stage-environment fit perspective, there are now an increasing number of intervention studies showing that the junior high school transition does not have to yield negative consequences for vulnerable youth. Educational institutions for the middle grades can be designed in a developmentally progressive manner; when they are, the majority of early adolescents gain from this school transition. Finally, emerging evidence on the senior high school transition suggests that reforms are badly needed at this level.

LEVEL 4: SCHOOLS AS EMBEDDED ORGANIZATIONS IN LARGER COMMUNITY

The most distal aspect of school influence on adolescent development lies in the fact that schools are embedded in much larger social systems. Characteristics of the communities and the nations in which schools are placed influence everything about what goes on in the school building itself. Discussing all of the macro influences is beyond the scope of a single chapter. In this section I focus on two macro characteristics: school resources and the link of schools to the labor market.

School Resources

Certainly student composition issues such as the number of low-ability students or the percent of minority students can affect both the internal organization and the climate of the school, which, in turn, can impact the educational and behavioral outcomes of the students (e.g., Rutter et al., 1979). School resources in terms of adequate materials, a safe environment, and continuity of teaching staff are also important for adolescents' learning and well-being. School district–level variations in such school resources are likely a major contributor to the continuing inequity in educational outcomes for several minority groups in the United States.

About 37% of African American youth and 32% of Latino youth, compared to 5% of European American and 22% of Asian youth, are enrolled in the 47 largest city school districts in this country; in addition, African American and Latino youth attend some of the poorest school districts in this country. In turn, 28% of the youth enrolled in city schools live in poverty, and 55% are eligible for free or reduced-cost lunch, suggesting that class may be as important (or more important) as race in the differences that emerge. Teachers in these schools report feeling less safe than do teachers in other school districts, dropout rates are highest, and achievement levels at all grades are the lowest (Council of the Great City Schools, 1992). Finally, schools that serve these populations are less likely than schools serving more advantaged populations to offer either high-quality remedial services or advanced courses and courses that facilitate the acquisition of higher order thinking skills and active learning strategies. Even adolescents who are extremely motivated may find it difficult to perform well under these educational circumstances.

Link to the Labor Market

I end this discussion of schools with a very brief discussion of the links between school and the labor market. In the United States this link is typically part of what we call vocational education. Reviewing this very extensive field is beyond the scope of one chapter, but it is important in a chapter focused on the impact of schools on adolescent development to acknowledge the role schools play in preparing youth to make the transition from school into the labor market.

Several scholars have recently refocused attention on this issue. These scholars include Stephen and Mary Agnes Hamilton, James Rosenbaum, and Jeylan Mortimer. By explicitly comparing the American vocational-educational systems with the German systems, the Hamiltons have highlighted the inadequacies of the former (Hamilton & Hamilton, 1999). The American vocational-educational system is often not well connected to the labor market; in contrast, the German vocational-educational system has been very well connected, making it much easier for non-college-bound youth in Germany to move directly into well-paying career-ladder jobs once they have finished their educational training. A well-connected apprenticeship experience is one of the most distinguishing features of the German system (see Heinz, 1999, for fuller discussion). In the United States, junior colleges sometimes provide the bridge between secondary school and work (Grubb, 1999; Rosenbaum, 1999). In addition, some youth in the United States are able to piece together an informal apprenticeship-like experience that helps them make a smoother transition (Mortimer & Johnson, 1999).

What we are missing, however, is a well-designed national policy regarding the role that secondary schools should play in helping non-college-bound youth make a successful transition to the labor market. Consequently, many American youth leave high school poorly trained for jobs that can provide wages high enough to support a family (Grubb, 1999; Rosenbaum, 1999; William T. Grant Commission, 1988).

SUMMARY AND CONCLUSIONS

I have outlined many ways in which schools affect the development of adolescents and stressed the need to take both a systems-level and a developmental perspective on schools. I began by pointing out how the multiple levels of school organization interact to shape the day-to-day experiences of adolescents and teachers. I also stressed the interface of schools as complex changing institutions with the developmental trajectories of individuals. To understand how schools influence development, one needs to understand change at both the individual and the institutional level. Stage-environment fit theory provides an excellent example of the linking of these two developmental trajectories. Imagine two trajectories: one at the school level and one at the individual level. Schools change in many ways over the grade levels. The nature of these changes can be developmentally appropriate or inappropriate in terms of the extent to which they foster continued development toward the transition into adulthood and maturity. Youth travel through this changing context as they move from grade to grade and from school to school. Similarly, youth develop and change as they get older. They also have assumptions about their increasing maturity and the privileges it ought to afford them.

Optimal development is most likely when these two trajectories of change are in synchrony with each other—that is, when the changes in the context mesh well with, and perhaps even slightly precede, the patterns of change occurring at the individual level.

I also discussed the many ways in which experiences at school are influenced by the larger cultural and social milieu in which schools are nested. Culturally shared beliefs influence how we fund our schools, what and how we teach, and how we design school policy at all levels. These policies, in turn, influence the types of connections that schools have with families, communities, higher educational institutions, the labor market, and the daily experiences of youth in the schools they attend. On some levels, our schools are succeeding very well in supporting both learning and positive youth development for many groups of people. At other levels, schools are not supporting optimal learning or preparation for adult development for many young people. Adolescents of color, particularly African Americans, Latinos, and Native Americans, still perform less well than European Americans and some groups of Asian Americans (for discussions see, e.g., Jencks & Phillips, 1998; Steinberg, Dornbusch, & Brown, 1992; Suarrez-Orozco & Suarrez-Orozco, 1995; Valencia, 1991).

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