SCHOOL AND NON-SCHOOL INFLUENCES ON MOTIVATION AND ACHIEVEMENT

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We review four bodies of research relevant to investing in children. First, we review what we know about the development of motivation. As motivational psychologists, we believe that children's performance in and out of school is greatly influenced by their motivation to learn and their willingness to engage in productive learning activities. If we are to design effective programs to help children acquire the soft skills and the knowledge they need to make a successful transition to adulthood, we need to understand the motivational bases underlying children's willingness to participate and fully engage in such programs. Next we review what we know about the classroom-level school influences on motivation and learning. We end the chapter with a discussion of peer influences and out of school activity influences. We had intended to include a discussion of parents and neighborhoods but these topics are being covered in other chapters. In addition, we ran out of room.

Motivational Bases of Competence Development

Over the years, psychologists have proposed many different components of academic motivation. In an effort to systematize this vast literature, Eccles, Wigfield, & Schiefele (1997) suggested that one could group these various components under four basic questions: Can I succeed at this task? Do I want to do this task? Why am I doing this task? and What do I have to do to succeed at this task? They hypothesized that the answers to these questions would determine engagement with academic tasks as well as general commitment to the educational goals of parents and teachers.

Children and adolescents who develop positive, productive answers to these questions are likely to engage in their school work and to thrive in their school settings. Children and adolescents who develop less positive and/or less effective answers to these questions are likely to experience school failure and to withdraw their psychological attachments from the activities associated with school - increasing the likelihood that they will turn to less productive and more risky activity settings for their psychological nurturance. In the first part of this chapter, we focus on the first three of these questions.

Can I Succeed at This Task?

Several theorist have proposed constructs linked to this question. We focus on those related to ability self-perceptions and expectations of success. These include such expectancy-related theories as Eccles et al.'s expectancy-value theory, Bandura's self-efficacy, and various control theories. The empirical evidence linking these beliefs to task engagement and learning is quite strong and won't be reviewed here (see Eccles et al., 1998). What is important to note, however, is that there is a general decline in these believes as children pass through elementary and secondary school. For some, this decline begins as soon as they enter school; for others is begins later in elementary school and then accelerates as the children enter and then pass through secondary school. The negative implication of these declines for children's and then adolescents' engagement in school are a major concern for educational policy makers.

Expectancy Theories

Eccles et al. Expectancy - Value Theory. Eccles and her colleagues have elaborated and tested one expectancy - value model of achievement-related choices and engagement, (e.g., Eccles, 1987; Eccles et al., 1983; Eccles, Adler, & Meece, 1984; Eccles & Wigfield, 1995; Meece, Wigfield, & Eccles, 1990; Wigfield & Eccles, 1992). The most recent version of this model is depicted in Figure 1. In this model expectancies and values are assumed to influence performance, persistence, and task choice directly. Expectancies and values are assumed to be influenced by task-specific beliefs such as perceptions of one's own competence, perceptions of the difficulty of different task, and individuals' goals and self-schema. These social cognitive variables, in turn, are influenced by individuals' perceptions of other peoples'

attitudes and expectations for them, by their own interpretations of their previous achievement outcomes, and by their affective memories of, or affective expectations about, similar tasks. Individuals' task-perceptions and interpretations of their past outcomes are assumed to be influenced by socializer's behaviors and beliefs, by the individuals' own histories of success and failure, and by the broader cultural milieu and unique historical events.

--Insert Figure 1 about here-

In this expectancy - value model, ability beliefs are conceived as broad beliefs about competence in a given domain, in contrast to one's expectancies for success on a specific upcoming task. Consequently, Eccles et al. (1983) defined expectancies for success as children's beliefs about how well they would do on either immediate or future tasks and beliefs about ability as children's evaluations of their more general level competence in different areas. However, their empirical work has shown that children and adolescents do not distinguish between these two different levels of beliefs: The children's responses to these two types of scales always load together on the same factor (Eccles & Wigfield, 1995). Apparently, even though these constructs are theoretically distinguishable from each other, in real-world achievement situations they are highly related and empirically indistinguishable.

Self-Efficacy Theory

Bandura (1977, 1997) has also proposed a social cognitive model of motivated behavior that emphasizes the role of perceptions of efficacy and human agency in determining individuals' achievement strivings. Bandura (1977) defined self-efficacy as individuals' confidence in their ability to organize and execute a given course of action to solve a problem or accomplish a task. In his recent writings (e.g., Bandura, 1997), he characterizes self-efficacy as a multidimensional construct that can vary in strength, generality, and level (or difficulty). That is, some people have a strong sense of self-efficacy and others do not; some individuals' efficacy beliefs encompass many situations whereas others have narrow efficacy beliefs; and some individuals believe they are efficacious even on the most difficult tasks, whereas others do not.

As in Eccles' expectancy - value theory, Bandura's self-efficacy theory focuses on expectancies for success. Bandura distinguished between two kinds of expectancy beliefs: (a) outcome expectations (beliefs regarding which behaviors are likely lead to specific outcomes, e.g., studying hard increases the chances of doing well on tests), and (b) efficacy expectations (beliefs about whether one can effectively perform the behaviors necessary to produce the outcome, e.g., I will be able to study hard enough to do well on the next test). Furthermore, Bandura proposed that efficacy expectations are the major determinant of goal setting, activity choice, willingness to expend effort, and persistence (see Bandura, 1997). By and large, the evidence supports this prediction. For example, high personal academic expectations (i.e., high efficacy expectations) predict subsequent performance, course enrollment and occupational choice for all ethnic groups studied (see Gurin & Epps, 1974; Schunk, 1991; Zimmerman, et al., 1992).

Bandura (1977, 1997) proposed that individuals' efficacy expectations (also called perceived self-efficacy) are determined by four things: Previous performance (people who succeed will develop a stronger sense of personal efficacy than those who do not); vicarious learning (watching a model succeed on a task will improve one's own self-efficacy regarding the task); verbal encouragement by others, and the level of one's physiological reaction to a task or situation. Bandura primarily analyzed physiological reactions in terms of their negative consequences: when individuals are over-aroused and anxious, the self-efficacy will be lower.

The Development of Competence -Related/Expectancy Beliefs

Most of the work on the development of children's achievement-related beliefs has looked at the development of children's ability and expectancy-related beliefs (e.g., see Eccles, et al., 1997; Stipek & Mac Iver, 1989). Researchers have studied three kinds of age-related changes in these beliefs: change in the mean levels of children's responses to specific scales, change in the factor structure of these responses, and change in children's understanding of these concepts. We focus on the first. We also discuss various ways of assessing and describing longitudinal patterns of change at the level of the individual. However, it is essential to understand exactly how children of different ages think about

competence and ability before we can interpret the age differences in their responses to our scales, we briefly discuss this third type of change.

Changes in Children's Understanding of Competence-Related Beliefs. Several researchers have investigated children's understanding of competence-related beliefs, focusing primarily on children's understanding of ability and intelligence. For example, Nicholls and his colleagues asked children questions about ability, intelligence, effort, and task difficulty, and how different levels of performance can occur when children exert similar effort (e.g., Nicholls, 1990; Nicholls et al., 1990). They found four relatively distinct levels of reasoning: At level one (ages 5 to 6), effort, ability, and performance are not clearly differentiated in terms of cause and effect. At level two (ages 7 to 9), effort is seen as the primary cause of performance outcomes. At level three (ages 9 to 12), children begin to differentiate ability and effort as causes of outcomes, but they do not always apply this distinction. Finally, at level four, adolescents clearly differentiate ability and effort, and understand the notion of ability as capacity; they also believe that ability can limit the effects of additional effort on performance, that ability and effort are often related to each other in a compensatory manner, and, consequently, that a successful outcome that required a great deal of effort may reflect limited ability.

Dweck and her colleagues (e. g., Dweck & Elliott, 1983; Dweck & Leggett, 1988) have also discussed how children view ability. In their view, children hold one of two views of intelligence or ability: An entity view that intelligence is a stable trait, or an incremental view that intelligence is changeable and can be increased through effort. Like Nicholls (1990), Dweck stressed how children's conceptions of ability and intelligence have important motivational consequences, particularly when children experience failure. Believing that ability is an entity increases the debilitating effects of failure. Children holding this view likely believe they have little chance of ever doing well, because their ability cannot be improved after failure. In contrast, believing that effort can improve performance should protect children from a learned helpless response to failure precisely because these children should continue to try even if they are not doing well on a given task. Although much less work has been done on the impact of an entity versus an incremental view of intelligence on children when they are doing well, some evidence suggests that an entity view can undermine learning and

motivation even when one is doing well: In particular, children with an entity view of intelligence tend to avoid challenging tasks in order to insure their continued success (see Dweck & Leggett, 1988).

Dweck and her colleagues have done less developmental work than Nicholls and his colleagues. Consequently, we know less about the age-related changes in children's endorsement of entity versus incremental views of intelligence. Nicholls' work suggests that younger children should be less likely to believe ability is stable or fixed; and by and large evidence supports this prediction (see Eccles et al., 1997). Nonetheless, both Heyman, Dweck, & Cain (1993) and, Burhans and Dweck (1995) found that some quite young children do have doubts about their ability to do certain tasks, even if they try hard.

Change in the Mean Level of Children's Competence-Related Beliefs. Several researchers have found that children's competence-related beliefs for different tasks decline across the elementary school years and into the middle school years (see Dweck & Elliott, 1983; Eccles et al., 1984; Eccles & Midgley, 1989; Stipek & Mac Iver, 1989). To illustrate, in Nicholls (1979), most first graders ranked themselves near the top of the class in reading ability, and there was essentially no correlation between their ability ratings and their performance level. In contrast, the 12 year olds' ratings were more dispersed, and their correlation with school grades was .70 or higher. Similar results have emerged in cross-sectional and longitudinal studies of children's competence beliefs in a variety of academic and non-academic domains by Eccles and her colleagues (e.g., Eccles et al. 1993; Wigfield et al. 1998) by and Marsh (1989). These declines, particularly for math , often continue into and through secondary school (Eccles et al., 1983; Eccles et al., 1989; Wigfield et al., 1991).

Some of the findings from our work are summarized in Figure 2, which illustrates the longitudinal changes in elementary school children's ability self-concepts for math, English, and sports. A set of predominantly white middle class children (N=615) initially in grades K, 1st, and 3rd were given a written survey in their classrooms each year for three consecutive years. Together these three cohorts provide a picture of the developmental changes in ability self-concepts over the entire elementary school period. The survey included measures of their ability self-concepts in math, English, and sports. Scales were composed of several items responded to on a seven point Likert scale

anchored with verbal labels at the extreme endpoints and the midpoint (see Eccles et al., 1993 and Wigfield et al., 1998 for full details). We have aggregated the data across cohorts to produce a single age-linked function for each domain.

-Insert Figure 2 about here -

Figure 2 illustrates a clear decline in children's ability self-concepts in reading from grade 1 through grade 4, followed by a slight upturn between grades 5 and 6. Ability self-concepts in both math and sports follow a similar though less extreme picture with the biggest declines occurring between grades 1 and 2. Follow-up data from these same children suggest that these declines continue into the early junior high school years and then asymptote across the transition into junior high school.

Similar results have been found in the Michigan Study in Adolescent Life Transitions (MSALT, see Eccles et al, 1989 and Wigfield et al, 1991 for details of study). These students were studied at four time points over the junior high school transition (two times in the sixth grade and two times in the seventh grade). Students' confidence in their math and English abilities and self-esteem were assessed at each time point. Confidence in both academic domains showed a marked decline over this school transition and continued to decline during the first year of junior high school. Self-esteem also showed a marked drop over the school transition followed by a partial rebound during the seventh grade school year (Wigfield et al., 1991).

Expectancies for success also decrease during the elementary school years. In most laboratory-type studies, 4 and 5 year old children's expect to do quite well on a specific task, even after repeatedly failure (e.g., Parsons & Ruble, 1977; Stipek, 1984). Across the elementary school years, the mean levels of children's expectancies for success both decline and become more sensitive to both success and failure experiences. Consequently, both competence beliefs and expectancies become more accurate or realistic in terms of their relation to actual performance history (see Eccles, Midgley, & Adler, 1984, Parsons & Ruble, 1972, 1977; Stipek, 1984).

In contrast to research based on self-report measures, researchers using either different kinds of questions, or observing young children's reactions to their performance on different tasks have found that not all young children are optimistic about their abilities. In a study by Heyman, Dweck, and

Cain (1993), for example, some preschool children reacted quite negatively to failure. Similarly, in Stipek, Recchia, and McClintic (1992), children as young as 2 react both behaviorally and emotionally to failure experiences.

In summary, there is a drop in children's ability self-concepts and expectations for success over the elementary school years. In part this drop reflects the initially high, and often unrealistic, expectations of kindergarten and first grade children. Stipek (1984) has argued that young children's optimistic expectancies reflect hoped for outcomes rather than real expectations; in contrast, Parsons and Ruble (1977) suggested that, because young children's skills do in fact improve rapidly, high expectancies for future success may be based on experience (see also Dweck & Elliott, 1983, Eccles et al., 1984). As the rate of improvement slows, children may learn that current failures are more predictive of subsequent performance. Other changes are also likely contribute to this decline - changes such as increased exposure to failure feedback, increased ability to integrate success and failure information across time to form expectations more closely linked with experience, increased ability to use social comparison information, and increased exposure to teachers' expectations.

Some of these changes are directly linked to the transition into elementary school. Entrance into elementary school and then the transition from kindergarten to first grade introduces several systematic changes in children's social worlds. First, classes are age stratified, making within-age ability social comparison much easier. Second, formal evaluations of competence by "experts" begins. Third, formal ability grouping begins usually with reading group assignment. Fourth, peers have the opportunity to play a much more constant and salient role in children' lives. Each of these changes should impact children's motivational development. Such changes could contribute to the increase in children's response to failure feedback as they move from preschool and kindergarten into the first grade (Parsons & Ruble, 1972, 1977; Stipek, 1984). Parents' expectations for, and perceptions of, their children's academic competence are also influenced by report card marks and standardized test scores given out during the early elementary school years, particularly for mathematics (Alexander & Entwisle, 1988; Arbreton & Eccles, 1994). But more systematic studies of the effects of transition into elementary school, and transitions from kindergarten to first grade, are needed.

There are significant long term consequences of children's experiences in the first grade, particularly experiences associated with ability grouping and within-class differential teacher treatment. For example, teachers use a variety of information to assign first graders to reading groups including temperamental characteristics like interest and persistence, race, gender, and social class (e.g., Alexander, Dauber & Entwisle, 1993; Brophy & Good, 1974). Alexander et al. (1993) demonstrated that differences in first grade reading group placement and teacher-student interactions have a significant effect (after controlling for initial individual differences in competence) on motivation and achievement several years later. Furthermore, these effects are mediated by both differential instruction and the exaggerating impact of ability-group placement on parents' and teachers' views of the children's abilities, talents, and motivation (Pallas et al. 1994).

Control Theories

Control theorists have also proposed motivational components related to the question "Can I succeed" that are related to other aspects of social development, such as, individual's feelings of efficacy and industry, and general mental health. More specifically, these theorists propose that individuals with a strong sense of internal locus of control will be more likely to engage in, and succeed at, academic tasks and will feel better about themselves more generally than will children with an external locus of control. Empirical work has confirmed these predictions (see Weisz, 1984 for reviews of this evidence). In addition, contemporary control theorists have elaborated broader conceptual models of control. Connell (1985), for example, added unknown control as a third control belief category (in addition to internal [one's own effort and ability] and external control[luck and powerful others]) and argued that younger children are particularly likely to use this category.

Connell and Wellborn (1991) then integrated control beliefs into a broader theoretical framework in which they proposed three basic psychological needs for competence, autonomy, and relatedness (see also Ryan, 1992). They linked control beliefs to competence needs: Children who believe they can control their achievement outcomes should feel more competent. They hypothesized that the extent to which these three needs are fulfilled is influenced by the following contextual characteristics: the amount of structure, the degree of autonomy provided, and the level of involvement

in the children's activities. Finally, they proposed that the ways in which these three psychological needs are fulfilled determine engagement in different activities. When the psychological needs are fulfilled, children will be fully engaged. When one or more of the needs is not fulfilled, children will become disaffected (see Connell, Spencer, & Aber, 1994; Skinner & Belmont, 1993, for supportive evidence). In this way, Connell and Wellborn have linked control beliefs to more general psychological functioning.

In summary, children's competence beliefs and expectancies for success become more negative as they get older, at least through early adolescence. The negative changes in children's achievement beliefs have been explained in two ways: (1) Because children become much better at understanding, interpreting, and integrating the evaluative feedback they receive, and engage in more social comparison with their peers, many children should become more accurate or realistic in their self-assessments, leading some to become relatively more negative (see Dweck & Elliott, 1983; Higgins & Eccles Parsons, 1983; Nicholls, 1984; Parson & Ruble, 1977; Ruble, 1983; Shakely & Tucker, 1979; Stipek & Mac Iver, 1989), and (2) Because school environment changes in ways that make evaluation more salient and competition between students more likely, some children's self-assessments will decline as they get older (e.g., see Eccles, Midgley, & Adler, 1984; Eccles & Midgley, 1989; Stipek & Daniels, 1988). For example, there has been some speculation that the declines in ability self-concepts between grades 2 and 4 reflect changes in teachers' grading practices and stress on competition among students at about the third grade. However, evidence regarding this type of change is not yet widely available.

Theories Concerned With the Question "Do I Want to Do This Task?"

Although theories dealing with competence, expectancy, and control beliefs provide powerful explanations of individuals' performance on different kinds of achievement tasks, these theories do not systematically address another important motivational question: Does the individual <u>want</u> to do the task? Even if people are certain they can do a task, they may not want to engage in it. The theories presented in this section focus on this aspect of motivation.

Eccles, Wigfield, and Colleagues' Work on Subjective Task Values

Eccles and her colleagues have elaborated the concept of task value. Building on earlier work on achievement values (e.g., Battle, 1966), intrinsic and extrinsic motivation (e.g., Deci, 1975), and Rokeach's (1979) view that values are shared beliefs about desired end-states, Eccles et al. (1983) outlined four motivational components of task value: attainment value, intrinsic value, utility value, and cost: They defined attainment value in terms of the personal importance of doing well on the task and the relevance of engaging in a task for confirming or disconfirming salient aspects of one's self-schema; intrinsic value in terms of the enjoyment the individual gets from performing the activity, or the subjective interest the individual has in the subject; utility value in terms of how well a task relates to current and future goals, such as career goals. A task can have positive value to a person because it facilitates important future goals, even if he or she is not interested in task for its own sake. For instance, students often take classes that they do not particularly enjoy but that they need to take to pursue other interests, to please their parents, or to be with their friends. Finally, they conceptualized cost in terms of the negative aspects of engaging in the task, such as performance anxiety and fear of both failure and success as well as the amount of effort that is needed to succeed and the lost opportunities that result from making one choice rather than another.

Eccles and her colleagues have conducted extensive empirical tests of different aspects of this model. For example, they have shown that ability self-concepts and performance expectancies predict performance in mathematics and English, whereas task values predict course plans and enrollment decisions in mathematics, physics, and English and involvement in sport activities even after controlling for prior performance levels (Eccles, 1984; Eccles et al. 1983; Eccles, Barber et al, 1995; Eccles Adler, & Meece, 1984; Eccles & Harold, 1991). They have also shown that both expectancies and values predict career choices (see Eccles, et al. in press).

Development of subjective task values. There has been much less work on the development of subjective task values during the middle childhood years. Eccles, Wigfield, and their colleagues have examined change in the structure of children's task values, as well as mean level change in children's valuing of different activities. Even young children distinguish between their competence beliefs and

their task values. In Eccles et al. (1993), Eccles and Wigfield (1995) and Wigfield et al. (1998), children's competence-expectancy beliefs and subjective values within the domains of math, reading, and sports formed distinct factors at all grade levels from first through twelfth. Thus, even during the very early elementary grades children appear to have distinct beliefs about what they are good at and what they value.

As with competence-related beliefs, studies generally show age-related declines in children's valuing of certain academic tasks (e.g. Eccles et al., 1983, 1993; Eccles & Midgley, 1989; Wigfield & Eccles, 1992). For instance, in longitudinal analysis of elementary school children, beliefs about the usefulness and importance of math, reading, instrumental music, and sports activities decreased over time (Wigfield et al., 1998). In contrast, the children's interest decreased only for reading and instrumental music - not for either math or sports. The data for interest in math, reading and sports is illustrated in Figure 3.

-Insert Figure 3-

Using data from other samples, the decline in valuing of math continues through high school (Eccles, 1984). Eccles et al. (1989) and Wigfield et al., (1991) also found that children's ratings of both the importance of math and English and their liking of these school subjects decreased across the transition to junior high school. In math, students' importance ratings continued to decline across seventh grade, whereas their importance ratings of English increased somewhat during seventh grade.

A related developmental question is how children's developing competence beliefs relate to their developing subjective task values? According to both the Eccles et al. model and Bandura's self-efficacy theory, ability self-concepts should influence the development of task values. In support of this prediction, Mac Iver, Stipek, and Daniels (1991) found that changes in junior high school students' competence beliefs over a semester predicted change in children's interest much more strongly than vice versa. Does the same causal ordering occur in younger children? Recall that Bandura (1997) argued that interests emerge out of one's sense of self-efficacy and that children should be more interested in challenging than in easy tasks. Taking a more developmental perspective, Wigfield (1994) proposed that initially young children's competence and task value beliefs are likely to be relatively

independent of each other. This independence would mean that children might pursue some activities in which they are interested regardless of how good or bad they think they are at the activity. Over time, particularly in the achievement domain, children may begin to attach more value to activities on which they do well for several reasons: First, through the processes associated with classical conditioning, the positive affect one experiences when one does well should become attached to activities yielding success (see Eccles, 1984). Second, lowering the value one attaches to activities that one is having difficulty with can be an effective way to maintain a positive global sense of efficacy and self-esteem (see Eccles, Wigfield, & Blumenfeld, 1984; Eccles, 1984; Harter, 1990). Thus, at some point the two kinds of beliefs should become positively related to one another. In partial support of this view, Wigfield and colleagues (1998) found that relations between children's competence beliefs and subjective values in different domains indeed are stronger in older than younger elementary school-aged children. The causal direction of this relation, however, has not yet been tested empirically.

Interest Theories

Closely related to the intrinsic interest component of subjective task value is the work on "interest" (Alexander, Kulikovich, & Jettison, 1994; Hidi, 1990; Renninger, Hidi & Krapp, 1992; Schiefele, 1991). Researchers in this tradition differentiate between individual and situational interest. Individual interest is a relatively stable evaluative orientation towards certain domains; situational interest is an emotional state aroused by specific features of an activity or a task. Two aspects or components of individual interest are distinguishable (Schiefele, 1991): feeling-related and value-related valences. Feeling-related valences refer to the feelings that are associated with an object or an activity itself - feelings like involvement, stimulation, or flow. Value-related valences refer to the attribution of personal significance or importance to an object. In addition, both feeling-related and value-related valences are directly related to the object or task rather than to the relation of this object or task to other objects or task. For example, if students associate mathematics with high personal significance because mathematics can help them get prestigious jobs, then we would not speak of interest. Although feeling-related and value-related valences are highly correlated (Schiefele, 1997), it is useful to differentiate between them because some individual interests are based primarily

on feelings, while other interests based on more personal significance (see Eccles, 1984; Wigfield & Eccles, 1992). Further research is necessary to validate this assumption.

Much of the research on individual interest has focused on its relation to the quality of learning (see reviews by Alexander et al., 1994; , Renninger, Hidi & Krapp, 1992, and Schiefele, 1997). In general, there are significant but moderate relations between interest and text learning. More importantly, interest is more strongly related to indicators of deep-level learning (e.g., recall of main ideas, coherence of recall, responding to deeper comprehension questions, representation of meaning) than to surface-level learning (e.g., responding to simple questions, verbatim representation of text; Schiefele, in press b; Schiefele & Krapp, in press) .

Most of the research on situational interest has focused on the characteristics of academic tasks that create interest. (e.g., see Hidi 1990; Teigen, 1987). Among others, the following text features arouse situational interest: personal relevance, novelty, activity level, and comprehensibility (Hidi 1990). Empirical evidence has provided strong support for the relation between situational interest and text comprehension and recall (see reviews by Schiefele, 1997; Wade, 1992).

Developmental changes in interest. Based on Piaget's (1948) theory, Travers (1978) analyzed the earliest phase of interest development. He assumed that only "universal" interests would be evident in very young children, for example, the infant's search for structure. Later, depending on the general cognitive development of the child, these universal interests should become more differentiated and individualized. According to Roe and Siegelmann (1964), the earliest differentiation occurs between interest in the world of physical objects versus interest in the world of people. Todt (1990) argued that this early differentiation eventually leads to individual differences in interests in the social vs. the natural sciences.

The next phase of interest development - between 3 and 8 years of age - is characterized by the formation of gender-specific interests. According to Kohlberg (1966), the acquisition of gender identity leads to gender-specific behaviors, attitudes, and interests. Children strive to behave consistently with themselves and, thus, evaluate "male" and "female" activities or objects differently. Activities or objects that are consistent with the children's gender identity will be more positively evaluated

than other activities or objects. As a consequence, boys and girls develop gender role stereotypes interests (see Eccles, 1987; Eccles & Bryan, 1994; Ruble & Martin, 1997).

Like the work of Eccles and colleagues discussed earlier, several European researchers have found that interest in different subject areas school declines continuously during the school years. This is especially true for the natural sciences (e.g., Baumert, 1995; Hedelin & Sjiberg, 1989; Lehrke, Hoffmann, & Gardner, 1985). For example, Hedelin and Sjîberg (1989) investigated students in grades 1 through 9 of the Swedish comprehensive school. Similar to the findings of Eccles, Wigfield, and their colleagues in studies of American children (e.g., Eccles et al., 1993; Wigfield et al., 1991), the students' ratings of their interest in mathematics and Swedish reading and writing declined over time, especially in mathematics. These researchers have identified a number of instructional variables that contribute positively or negatively to interest in school mathematics and science such as: clarity of presentation, monitoring of what happens in the classroom, supportive behavior, cognitively stimulating experiences, and achievement pressure (e.g., Baumert, 1995; Eder, 1992; Lehrke, 1992).

Intrinsic Motivation Theories

The theories described in this section deal with the distinction between intrinsic motivation and extrinsic motivation. When individuals are intrinsically motivated they do activities for their own sake and out of interest in the activity. When extrinsically motivated, individuals do activities for instrumental or other reasons, such as receiving a reward.

Self-determination theory. Over the last 25 years, many studies have documented the debilitating effects of extrinsic incentives and pressures on the motivation to perform even inherently interesting activities (e.g., see Amabile, Hill, Hennessey & Tighe, 1994; Deci, 1975, Deci & Ryan, 1985; Lepper, 1988). Interest in intrinsic motivation has grown out of two theoretical traditions: (1) Traditions that assume that humans are motivated to maintain an optimal level of stimulation (Hebb, 1982), and (2) and traditions that posit that basic needs for competence (White, 1959) and personal causation or self-determination (deCharms, 1968) underlie intrinsically motivated behavior. Deci and Ryan (1985) integrated these two traditions into their theory of self-determination. In addition, they argued that intrinsic motivation is maintained only when actors feels competent and self-determined.

Evidence that intrinsic motivation is reduced by exerting external control and by giving negative competence feedback supports this hypothesis (see Deci and Ryan, 1985). Deci and Ryan (1985) argued, however, that the basic needs for competence and self-determination also play a role in more extrinsically motivated behavior. Consider, for example, a student who consciously and without any external pressure selects a specific major because it will help him earn a lot of money. This student is guided by his basic needs for competence and self-determination but his choice of major is based on reasons totally extrinsic to the major itself. Finally, Deci and Ryan (1985) postulated that a basic need for interpersonal relatedness explains why people turn external goals into internal goals through internalization.

Individual difference theories of intrinsic motivation. Until recently intrinsic motivation researchers like Deci and Ryan and Csikszentmihalyi have dealt with conditions, components, and consequences of intrinsic motivation without making a distinction between intrinsic motivation as a state versus intrinsic motivation as a trait-like characteristic. However, interest in trait-like individual differences in intrinsic motivation has increased recently, particularly among educational and sport psychologists (see Amabile et al., 1994; Gottfried, 1990; Nicholls, 1984, 1989; Schiefele, 1997). These researchers define this enduring intrinsic motivational orientations in terms of three components: (1) preference for hard or challenging tasks, (2) learning that is driven by curiosity or interest, and (3) striving for competence and mastery. The second component is most central to the idea of intrinsic motivation. Both preference for hard tasks and striving for competence can be linked to either extrinsic or more general need achievement motivation. Nonetheless, empirical findings suggest that the three components are highly correlated. In addition, evidence suggests that high levels of trait-like intrinsic motivation facilitate positive emotional experience (Matsumoto & Sanders, 1988), self-esteem (Ryan, Connell & Deci, 1985), mastery-oriented coping with failure (Dweck, 1975), high academic achievement (Benware & Deci, 1984; Schiefele & Schreyer, 1994), and use of appropriate learning strategies (Schiefele & Schreyer, 1994).

Developmental changes in intrinsic motivation. Researchers in both Europe and the U.S.A. have found that intrinsic motivation in general and, for different subjects in particular, declines over

the elementary school years (Harter, 1981; Helmke, 1993). The transition from elementary to middle school also results in a decrease in intrinsic motivation and interest in different school subjects (see Eccles, Wigfield, Midgley et al., 1993). Such changes are likely to lead to decreased school engagement. The possible origins of these declines has not been studied but it is likely they similar to the causes of declines in expectations and ability-related self-confidence - namely, shifts in the nature of instruction across grade levels, cumulative experiences of failure, and increasing cognitive sophistication.

Why Am I Doing This?

The last area of motivation related to issues of engagement is the new work in goal theory. This work focuses on why children think they are engaging in particular achievement-related activities and what they hope to accomplish through their engagement. Although this work has progressed independently, it has strong theoretical links to the work discussed earlier on the valuing of an activity and on intrinsic versus extrinsic motivation. We include it in this chapter because individual differences in goals are likely to affect both persistence and engagement, as well as the relations of performance outcomes and engagement to mental health and ability self-concepts. In addition, goal theories are currently very popular among researchers interested in both the determinants of performance and task choice (e.g., Butler, 1989a, 1989b), and the restructuring of schools to enhance motivation (e.g., Ames, 1992; Maehr & Midgley, 1991).

Goal Theories

Recently, researchers have become interested in children's achievement goals and their relation to achievement behavior (see Ames & Ames, 1989; Locke & Latham, 1990; Meece, 1991, 1994). Several different approaches have emerged. For instance, Bandura (1986) and Schunk (1990, 1991) focus on goals' proximity, specificity, and level of challenge and have shown that specific, proximal, and somewhat challenging goals promote both self-efficacy and improved performance. Other researchers have defined and investigated broader goal orientations (e.g., Ames, 1992; Blumenfeld, 1992; Butler, 1993; Dweck & Leggett, 1988; Nicholls, 1984). For example, Nicholls and his colleagues (e.g., Nicholls, 1979; Nicholls et al., 1990) defined two major kinds of motivationally relevant goal patterns or orientations: ego-involved goals and task-involved goals. Individuals with ego-involved goals seek to

maximize favorable evaluations of their competence and minimize negative evaluations of competence. Questions like "Will I look smart?" and "Can I outperform others?" reflect ego-involved goals. In contrast, with task-involved goals, individuals focus on mastering tasks and increasing one's competence. Questions such as "How can I do this task?" and "What will I learn?" reflect task-involved goals. Dweck and her colleagues provide a complementary analysis distinguishing between performance goals (like ego-involved goals), and learning goals (like task-involved goals) (e.g., Dweck and Elliott, 1983; and Dweck and Leggett, 1988). Similarly, Ames (1992) distinguishes between the association of performance (like ego-involved) goals and mastery goals (like task-focused goals) with both performance and task choice. With ego-involved (or performance) goals, children try to outperform others, and are more likely to do tasks they know they can do. Task-involved (or mastery-oriented) children choose challenging tasks and are more concerned with their own progress than with outperforming others.

Other researchers (e.g., Ford, 1992; Wentzel, 1991) have adopted a more complex perspective on goals and motivation, arguing that there are many different kinds of goals individuals can have in achievement settings. For example, Ford proposed a complex theory based on the assumption that humans are goal directed and self organized (e.g., Ford, 1992; Ford & Nichols, 1987). He defined goals as desired end states people try to attain through the cognitive, affective and biochemical regulation of their behavior. Furthermore, Ford considered goals to be only one part of motivation; in his model, motivation is the product of goals, emotions, and personal agency beliefs. Ford (1992, Ford & Nichols, 1987) outlined an extensive taxonomy of goals. Ford and Nichols distinguished most broadly between within person goals, which concern desired within-person consequences, and person-environment goals, which concern the relationship between persons and their environment. Similar to Rokeach's (1979) human values and Eccles' attainment value (Eccles, 1983), the within-person goals include affective goals (e.g., happiness, physical well-being), cognitive goals (e.g., exploration, intellectual creativity), and subjective organization goals (e.g., unity, transcendence). These goals include self-assertive goals such as self-determination and individuality, integrative social relationship goals such as

belongingness and social responsibility, and task goals such as mastery, material gain, and safety. Finally, Ford (1992) derived a set of principles for optimizing motivation.

Development of children's goals. To date there has been surprisingly little empirical work on how children's goals develop. Nicholls (1979, 1984, 1990) suggested and documented that both task goals and ego goals are already developed by second grade (Nicholls et al., 1990). However, Nicholls (1989) also suggested that the ego-goal orientation becomes more prominent for many children as they get older, in part because of developmental changes in their conceptions of ability and, in part, because of systematic changes in school context.

Dweck and her colleagues (e.g., Dweck & Elliott, 1983; Dweck & Leggett, 1988) also predicted that performance goals should get more prominent as children go through school for two reasons: (1) they develop a more entity view of intelligence as they get older and (2) children holding an entity view of intelligence are more likely to adopt performance goals.

Developmental studies of multiple goals are badly needed. Neither Wentzel or Ford, the major theorists in this area, have done such work. Thus, we know very little about how these kinds of multiple goals emerge during childhood and whether the relation of these different goals to performance varies across age and context.

Summary. In this section, we have reviewed the evidence for changes in children's goals for doing school work. Because interest in this area of motivation is fairly recent, much less empirical and theoretical work has been done on developmental changes - most of the work has focused instead on individual differences in goal orientation. But the little available developmental work reveals a pattern of change not unlike the patterns discussed earlier for expectancy-related beliefs and values. At the population level, there appears to be an increase in ego-focused goals and competitive motivation. Given what we know about individual differences in goal orientation, such a shift is likely to lead at least some children (particularly those doing poorly in school) to disengage from school as they get older.

In the next section, we focus more directly on work directly linking motivational constructs to healthy functioning. Much of this work has grown out of concern over particular motivational problems

like test anxiety and learned helplessness. We discuss this work first. More recently, researchers have been studying the link between motivational constructs and mental functioning directly. We discuss this work second.

The Development of Motivational Problems

Many children begin to experience motivational problems during the elementary school years. These problems include lack of confidence in one's abilities, anxiety, and the belief that one can not control one's achievement outcomes. In this section, we focus on the motivational problems that have received the most research attention: test anxiety and learned helplessness.

Test Anxiety

Anxiety has long been an important topic in motivational research (see Weiner, 1992). Early research in this area was conducted by Sarason, Hill, and their colleagues using the Test Anxiety Scale for Children. In one of the first longitudinal studies, Hill and Sarason (1966) found that anxiety both increases across the elementary and junior high school years and becomes more negatively related to subsequent grades and test scores. They also found that highly anxious children's achievement test scores were up to two years behind those of their low anxious peers and that girls' anxiety scores were higher than boys'. These researchers also determined that test anxiety is a serious problem for many children: For example, Hill and Wigfield (1984) estimated that as many as 10 million children and adolescents in the USA experience significant evaluation anxiety.

Researchers (e.g., Dusek, 1980; Hill & Wigfield, 1984; Wigfield & Eccles, 1989) postulate that high anxiety emerges when parents have overly high expectations and put too much pressure on their children; to date few studies have tested this proposition. Anxiety continues to develop in school as children face more frequent evaluation, social comparison, and (for some) experiences of failure; to the extent that schools emphasize these characteristics, anxiety becomes a problem for more children as they get older (Hill & Wigfield, 1984).

The nature of anxiety may also change with age. Typically, researchers in this area distinguish between two components of anxiety: a worry component and an emotional/physical component. Wigfield and Eccles (1989) proposed that anxiety initially may be characterized more by

emotionality, but as children develop cognitively, the worry aspect of anxiety should become increasingly salient. This proposal also remains to be tested, but we do know that worry is a major component of the thought processes of highly anxious fifth and sixth graders (Freedman-Doan, 1994).

Anxiety Intervention Programs. Many programs to reduce anxiety have been developed (see Wigfield & Eccles, 1989). Earlier intervention programs emphasized the emotionality aspect of anxiety and focused on various relaxation and desensitization techniques. Although these programs did succeed in reducing anxiety, they did not always lead to improved performance, and the studies had serious methodological flaws. Anxiety intervention programs linked to the worry aspect of anxiety focus on changing the negative, self-deprecating thoughts of anxious individuals and replacing them with more positive, task-focused thoughts. These programs have been more successful both in lowering anxiety and improving performance .

An important issue that has not been adequately addressed is how programs should be tailored for different-aged children. This consideration is particularly important for elementary school-aged children (see Wigfield & Eccles, 1989). Further, because children's anxiety depends so much on the kinds of evaluations they experience in school, changes in school testing and other evaluation practices could help reduce anxiety.

Learned Helplessness

As defined by Dweck and Goetz (1978), "learned helplessness ... exists when an individual perceives the termination of failure to be independent of his responses" (p. 157). Learned helplessness has been related to individuals' attributions for success and failure: helpless individuals are more likely to attribute their failures to uncontrollable factors, such as lack of ability, and their successes to unstable factors (see Dweck & Goetz, 1978). Dweck and her colleagues have documented several interesting differences between helpless and more mastery oriented children's responses to failure: When confronted by difficulty (or failure), mastery oriented children persist, stay focused on the task, and sometimes even use more sophisticated strategies. In contrast, helpless children's performance deteriorates, they ruminate about their difficulties, often begin to attribute their failures to lack of

ability. Further, helpless children adopt an entity view that their intelligence is fixed, whereas mastery oriented children adopt an incremental view of intelligence.

Fincham and Cain (1986) provided a developmental analysis of helplessness. Citing Weisz's (1984) work, they noted the difficulties that young children have distinguishing between contingent and non-contingent events; thus young children may not be aware of which achievement outcomes they control and which they do not. They also noted that because young children do not understand the differences between ability and effort as causes of performance, it is not likely that young children will show the differential attributional patterns linked to mastery-orientation versus learned helplessness. They concluded that researchers need to look at how children's understanding of contingencies, estimations of their own competence, and attributions for their outcomes work together in determining children's evaluations of their achievement outcomes. This kind of theoretically integrative work on learned helplessness has not yet been undertaken.

Instead, there are a few studies of age differences in learned helpless behavior. For example, consistent with the suggestion of Fincham and Cain (1986), Rholes et al. (1980) found that younger children did not show the same decrements in performance in response to failure as some older children do (see also Parsons & Ruble, 1972; Eccles-Parsons, 1982). However, Dweck and her colleagues' recent work (see Burhans & Dweck, 1995) shows that some young (5 and 6 year old) children respond quite negatively to failure feedback, judging themselves to be bad people (see also Stipek et al., 1992). These rather troubling findings show that negative responses to failure can develop quite early on. But does this mean that some very young children already have an entity view of intelligence and are attributing their failures to lack of this entity? Burhans and Dweck do not think so. Instead, they proposed that young children's helplessness is based on their belief that their worth as a person is based on their performance.

But what produces learned helplessness in children, even at these early ages? Dweck and Goetz (1978) proposed that it depends on the kinds of feedback children receive from parents and teachers about their achievement outcomes, in particular whether children receive feedback that their failures are due to lack of ability. Recently, Hokoda and Fincham (1995) found that mothers of

helpless third grade children (in comparison to mothers of mastery-oriented children) gave fewer positive affective comments to their children, were more likely to respond to their children's lack of confidence in their ability by telling them to quit, were less responsive to their children's bids for help, and did not focus them on mastery goals. Dweck and Goetz argued further that girls may be more likely than boys to receive negative ability feedback in elementary school classrooms (see Dweck, Davidson, Nelson, & Enna, 1978 for evidence supporting this view), and so are more likely to develop helplessness. Although some other researchers have not replicated Dweck et al.'s (1978) classroom findings regarding sex differences in feedback to children (e.g., Eccles et al., 1983), it is likely that children who receive feedback that their failures are due to lack of ability will be more likely to develop helplessness.

Alleviating Learned Helplessness. There are numerous studies designed to alleviate learned helplessness by changing attributions for success and failure so that learned helpless children learn to attribute failure to lack of effort rather than to lack of ability (see review by Forsterling, 1985). Various training techniques (including operant conditioning and providing specific attributional feedback) have been used successfully in changing children's failure attributions from lack of ability to lack of effort, improving their task persistence, and performance (e.g., Dweck, 1975). Two problems with these approaches have been noted. First, what if the child is already trying very hard? Then the attribution re-training may be counter productive. Second, telling children to "try harder" without providing specific strategies that are designed to improve their performance is likely to back fire -- children may put in massive amounts of effort and still not succeed if they don't know how to apply that effort. Therefore, some researchers (e.g., Borkowski et al., 1990) now advocate using strategy retraining in combination with attribution retraining so that the lower achieving and/or learned helpless children are provided with specific ways to remedy their achievement problems. Borkowski and his colleagues, for example, have shown that a combined program of strategy instruction and attribution re-training is more effective than strategy instruction alone in increasing reading motivation and performance in underachieving students (e.g., Borkowski & Muthukrisna, 1995; Paris & Byrnes, 1989; Pressley & El-Dinary, 1993).

Self-Efficacy Training. Self-efficacy training has also been used to alleviate learned helplessness. For example, Schunk and his colleagues have conducted several studies designed to improve elementary school-aged children's (often low-achieving children) math, reading and writing performance through skill training, enhancement of self-efficacy, attribution re-training, and training children how to set goals (see Schunk, 1994). Modeling often is an important aspect of the training. A number of findings have emerged from this work. First, the training increases both children's performance and their sense of self-efficacy. Second, attributing children's success to ability has a stronger impact on their self-efficacy than does either effort feedback, or ability and effort feedback (e.g., Schunk, 1983). However, the effects of this kind of attributional feedback vary across different groups of children (see Schunk, 1994). Third, training children to set proximal, specific, and somewhat challenging goals enhances their self-efficacy and performance. Fourth, training that emphasizes process goals (analogous to task or learning goals) increases self-efficacy and skills in writing more than an emphasis on product (ego) goals; however, this is not true for reading (see Schunk 1991, 1994). Finally, like the work of Borkowski and his colleagues, Schunk and his colleagues have found that combining strategy training, goal emphases, and feedback to show children how various strategies relate to their performance has a strong effect on subsequent self-efficacy and skill development.

Summary

In summary, work on anxiety and helplessness shows that some children suffer from motivational problems that can debilitate their performance in achievement situations. Although most of the work in developmental and educational psychology has focused on these two problems, there likely are other important motivational problems as well. In particular, some children may set maladaptive achievement goals, others may have difficulties regulating their achievement behaviors, and still others come to de-value achievement. More comprehensive work on these kinds of motivational problems and how they affect children's achievement is needed.

Researchers interested in the remediation of these motivational difficulties have turned increasingly to programs targeting both cognitive and motivational components. This work now needs to be extended to children of different ages to determine whether the strategy instruction and motivation

enhancement techniques need to be modified for younger and older children. Further, work is needed on developing programs that integrate various approaches, particularly those approaches associated with self-efficacy, goal setting, and self-regulation. More broadly, however, as valuable as these individually focused programs are, they are likely to have little lasting benefit if home and school environments do not facilitate and support the changes. Therefore, some researchers have turned to changing school and classroom environments to facilitate motivation, rather than changing individual children.

Other theorists have focused more generally on the link between school experiences and emotional experiences. These theorists have been concerned with two issues: (1) the possible link between experiences in school and more general mental health, and (2) the emergence of what appear to be less adaptive motivational strategies as a means to protect one's mental health. Some of this work was summarized in the introduction to this chapter. In the next section, we focus on the work by Covington (1992) and on the work by Roeser (Roeser et al., 1994; Roeser & Eccles, in press) and Eccles (Eccles et al., 1997).

Self-Worth Theory

Covington was concerned with children's need to maintain positive self-esteem across a variety of situations. He was particularly concerned with how children would accomplish this goal when they faced with repeated failure experiences in school. In his self-worth theory, Covington (1992) defined the motive for self-worth as the tendency to establish and maintain a positive self-image, or sense of self worth. Because children spend so much time in classrooms and are evaluated so frequently there, Covington argued that they must protect their sense of academic competence in order to maintain their sense of self-worth. One way to accomplish this goal is by using those causal attribution patterns that enhance one's sense of academic competence and control: attributing success to both ability and effort along with attributing failure to insufficient effort (Covington & Omelich, 1979; Eccles-Parsons et al, 1982). Attributing failure to lack of ability is a particularly problematic attribution that students should try to avoid.

However, school evaluation, competition, and social comparison make it difficult for many children to maintain the belief that they are academically competent. Covington (1992) discussed the strategies many children develop to avoid appearing to lack ability. These include procrastination, making excuses, avoiding challenging tasks, and most importantly, not trying. Although trying is critical for success, if children try and fail, it is difficult to escape the conclusion that they lack ability. Therefore, if failure seems likely, some children will not try, precisely because trying and failing threatens their ability self-concepts. Covington called such strategies "failure avoiding strategies". Further, Covington discussed how even some high achieving students can be failure avoidant. Rather than responding to a challenging task with greater effort, these students may try to avoid the task in order to maintain both their own sense of competence, and others' conclusions regarding their competence. Covington (1992) suggested that reducing the frequency and salience of competitive, social comparative, and evaluative practices, and focusing instead on effort, mastery, and improvement, would allow more children to maintain their self-worth without having to resort to the failure-avoiding strategies just described. These suggestions have been incorporated into many other motivation theorists' recommendations for changing schools to enhance motivation (e.g., Ames, 1992; Maehr & Midgley, 1991).

EXTRA-FAMILIAL INFLUENCES ON MOTIVATION AND ACADEMIC ACHIEVEMENT

There is a growing interest in the influences of extra-familial contexts on human development. Researchers are now looking at a variety of contexts including neighborhood, community, and school as well as larger cultural, historical, political, and societal forces. In this section of the chapter, we focus on two of these contexts: schools and communities. Children and adolescents spend many of their waking hours in either schools or various community-based settings (such as churches, playgrounds, and neighborhood streets); increasingly so as they get older.

Schools hold a central place in the "developmental agenda" set forth for children in almost all nations. They are the longest organized and sustained extra-familial context for children and adolescents: From the time they first enter school until they complete their formal schooling, children

and adolescents spend more time in schools than any other place outside their homes. Consequently, educational institutions play a central role in both promoting children's acquisition of knowledge and shaping the ways in which they learn to regulate their attention, emotions, and behavior. Exploring all of the possible ways in which educational institutions influence development is beyond the scope of a single chapter. In this section, we focus on the ways in which schools either promote or undermine children's developmental competence. First we focus on some general ways in which schools and classrooms influence motivation to learn; then we discuss the transition from elementary school into either junior high school or middle school.

Developmental psychology's interest in community and neighborhood influences is even more recent than its interest in schools. It was extremely rare to find an article on neighborhood influences in any of the major developmental psychology journals even ten years ago. Although such articles are still unusual, there has been a dramatic rise in their prevalence over the last several years. Much of this increase reflects growing concerns with children growing up in poverty. In 199x, a sociologist, William Julius Wilson, published a very influential book, The truly disadvantaged, which spotlighted the potential role of neighborhood effects on human development. Since then, various interdisciplinary teams of researchers have initiated large scale projects to study the impact of neighborhood and community forces on human development. However, since this work is discussed in another chapter, we do not discuss it here except to note the importance of community-school relations and the importance of the community as a context for peer group formation and for the availability of after school-extracurricular activities. Children and adolescents spend a great deal of time out-of-school. As they get older, much of this time is spend outside the home. Does it matter what they do during this time? Does participating in organized activities such as team sports, volunteer service, or faith based activities influence socio-emotional development? We summarize the little available research evidence regarding these questions at the end of the chapter.

SCHOOLS AND HUMAN DEVELOPMENT

Despite our increasing recognition that schools play a critical role in children's cognitive and social development, our understanding of the impact of the ecology of either the classroom or the

school as a whole is minimal. Only recently have researchers interested in schools looked beyond the intellectual domain to examine how experiences in classrooms and schools influence children's feelings, identity beliefs, and behavioral choices (Rutter, 1983). For the most part, developmental researchers focus on the family, peer group, and neighborhood rather than schools; in contrast, educational researchers focus on the impact of schools on children's achievement-related outcomes to the exclusion of other social-emotional outcomes (Eccles, Lord, & Roeser, 1997). Although there are important exceptions to this characterization, the continuing lack of interdisciplinary collaboration among researchers interested in "school effects" on children has been noted by several scholars (Eccles et al., 1997; Finn, 1989; Speece & Keogh, 1996). Instead, researchers in education, psychology, psychiatry, and sociology have typically worked independent of one another and have used a variety of approaches to study how schools influence development has been an on-going goal of (e.g., Erikson, 1959; see Brophy & Good, 1974; Eccles, Wigfield, & Schiefele, 1997; Lee, Bryk, & Smith, 1992; Rutter, 1983). Such diversity has made it difficult to compare findings and build an integrated body of knowledge about school effects. In the first section, we very briefly review the five major streams of these research efforts. In the next sections, we summarize in more detail evidence regarding classroom level influences.

Five Major Streams of Work on School Influence

School-level resources and structure. Early studies of schools focused primarily on objective characteristics of schools, including school size, teacher-student ratios, number of books in the library, and per-pupil expenditures (Barker & Gump, 1964). School size emerged as the one important structural characteristic: Children of all ages (and their teachers) scored better on a wide variety of indicators of successful development if they were in small schools rather than large schools. Otherwise, few systematic relations emerged between these characteristics and student achievement (Rutter, Maughan, Mortimore, & Ouston, 1979). More recently, this work has criticized on a number of grounds, including its atheoretical nature, the poor matching of outcome variables with the kinds of content actually taught in schools, and a rather exclusive focus on demographic and economic variables to the exclusion of factors associated with the internal life and culture of the school (Rutter et al., 1979). Just as Bronfenbrenner (1986) stressed the need to go beyond the "social addresses" of families (e.g., race,

socio-economic status) to examine how different family processes impact development, so too early school researchers stressed the need to go beyond demographic and economic characteristics of schools to examine the organizational, social, and instructional processes in schools that impact development.

Schools as social organizations. A second group of researchers focused on the internal life of the school as a social organization - its values, norms, activities, and everyday routines. Rather than examining the relation of demographic and economic inputs to achievement outputs, these researchers examined the mediating organizational and social processes enacted by teachers, principals, and school staff. These researchers often studied schools that had the reputation of being particularly good or unusually bad. Alternatively, they did intensive studies of school-level interventions designed to change the "school climate" (e.g., Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979). These studies demonstrated the advantages of following types of school climate related processes: the organizational features of the school such as strong leadership, opportunities for all children to participate in school activities, and strong and clear norms and rules related to order and discipline; social/cultural features such a sense of community among teachers and students, and a sense of collegiality among staff, efficacious teachers, and positive teacher expectations; and instructional features such as press for achievement and an emphasis on clear curricular goals in the school (see Eccles, Wigfield, & Schiefele, 1997; Lee et al., 1993; for reviews).

Classroom-level practices linked to academic outcomes. A third group of researchers focus on classroom-level practices that enhance academic outcomes, particularly for children of different ability levels or socio-economic and ethnic backgrounds. According to Brophy (1988, p. 240), this line of research has demonstrated that "Achievement is maximized when teachers: (a) emphasize instruction as basic to their role, (b) expect students to master the curriculum, and (c) allocate most available time to academic activities". This line of research also has also documented the importance of: teachers making clear and consistent rules that are explained to students early in the year, the structuring of academic lessons to emphasize main ideas that build on each other, instructional provisions for review and reflection, and active supervision of student progress. Teachers' beliefs about the nature of learning, the definition of academic success, the scope of their own role as a teacher, and their beliefs

about the subject matter they teach also emerged as important precursors of teachers' decisions regarding instructional pedagogy and classroom practices (Calderhead, 1996).

Classroom-level and psychological influences on motivation. More recently, researchers have investigated the influences on children's achievement motivation. Paralleling advances in ecological approaches to human development in general, several ecological-developmental theories of achievement motivation emerged beginning in the 1970s (see Eccles, Wigfield, & Schiefele, 1997 for full review). These approaches focus on both the psychological and the situational influences on motivation and behavior.

On the psychological level, these researchers focused on the three sets of beliefs outlined earlier: expectancy or efficacy related beliefs, task value related beliefs, and personal goals. For example, they studied children's confidence in their ability to master various school-related tasks. This work documented the fact that children's beliefs about their efficacy and competence in relation to successfully mastering academic work are very powerful predictors of both engagement in learning tasks and actual academic achievement (Bandura, 1994; Eccles, 1983). They also studied the influence of children's beliefs regarding the value of various skills and activities on both engagement and performance. This work documented that children do better on school-related tasks that they enjoy doing and that they think are important. Finally, they studied the influence of both short and long term goals on children's engagement and performance in school. Most of the work on short term goals has focused on the immediate goals students have when performing school related tasks. For example, is the child's primary goal in doing a particular assignment to demonstrate that they are smarter or better than the other students in the class or to learn as much as they can from the assignment. In other words, is the student more concerned about demonstrating their ability (or avoiding demonstrating a lack of ability - often labeled an ability goal focus) or about mastering the material (often labeled a task mastery focus) (e.g., Ames, 1992; Dweck & Elliott, 1983). These types of studies have demonstrated that children with a task mastery focus learn more from the task and are more likely to persist following difficulty or failure than children with an ability focus.

On the situational/contextual level, these researchers studied the impact of specific educational practices on children's beliefs and performance. They hypothesized that classroom-level educational practice influence achievement indirectly through their impact on achievement-related cognitions and beliefs. For instance, classroom and school-wide practices that make ability-related information salient (e. g., differential expectations, within-class ability groups, public evaluation, honor rolls) were found to exacerbate differences between high and low achievers' self-perceptions of competence, leading to poor self-images among low achievers (see Rosenholtz & Simpson, 1984; Stipek, 1996). Furthermore, classroom and school practices that supported children's autonomy an sense of both meaning and social support were found to influence academic achievement through their positive influence on school-related values, interests, and goals (Ames, 1992; Eccles, 1983; Connell & Wellborn, 1991; Deci & Ryan, 1985; Moos, 1979). In contrast, lack of choice in the classroom, boring tasks, and low teacher support undermined motivation and school behavior - leading to disengagement and withdrawal (Roeser & Eccles, in press; Skinner & Belmont, 1993).

Theories such as Expectancy - Value Theory (Eccles, 1983), Self-Determination Theory (Deci & Ryan, 1985), Self-Worth Theory (Covington, 1992), and Achievement Goal Theory (Ames, 1992; Dweck & Elliott, 1983; Maehr & Midgley, 1991; Nicholls, 1984) have provided theoretical grammars for understanding how specific contextual factors interact with specific individual factors in the construction of children's pathways through school. In addition, taking a more global approach, Connell and his colleagues stressed the importance of three components of any social context for healthy development: opportunities to acquire and demonstrate one's competence at meaningful tasks, opportunities to exercise autonomy and self-control, and opportunities to develop strong, positive relationships (Connell & Wellborn, 1991).

Person-Environment Fit. A fifth line of research focuses on the fit between the opportunities afforded in various social contexts and the developing child's changing needs and competencies. The researchers doing this work have adapted classic person-environment fit theories of successful functioning to a developmentally sensitive, dynamic view of context X person interactions. For example, Hunt (1975, p 221) argued that: "Maintaining a developmental perspective becomes very

important in implementing person-environment matching because a teacher should not only take account of a student's contemporaneous needs by providing whatever structure he presently requires, but also view his present need for structure on a developmental continuum along which growth toward independence and less need for structure is the long-term objective". Hunt thus suggested that teachers need to create and recreate sufficiently challenging learning environments to pull children along a developmental path toward higher levels of cognitive maturity.

There is good reason to believe that the developmental appropriateness of the changing school environment will impact socio-emotional development as well. Just as Vygotsky stressed the need for scaffolding within the zone of proximal development for cognitive and emotional development during early life (see Lutz & Sternberg, in this textbook), several motivational researchers have suggested that a good fit of the school context to the developmental needs and competencies of students is needed for optimal socio-emotional as well as cognitive development. Eccles and her colleagues (1993) have labeled this type of person-environment fit stage-environment fit to capture the idea that there is a link between the developmental appropriateness of the characteristics of any specific social context and the nature of the developmental outcomes obtained in that context. Eccles and her colleagues have used this approach to study the negative changes in motivation and behavior in school settings often associated with the transition to junior high school. If it is true that different types of educational environments may be needed for different age groups to both meet current developmental needs and foster continued growth, then it is also possible that some types of changes in educational environments may be especially inappropriate at certain stages of development, such as the early adolescent period. In fact, some types of changes in the educational environment may be developmentally regressive. Exposure to such changes should create poor person-environment fit, which, in turn, could precipitate declines in motivation and school engagement. Evidence supporting this perspective is reviewed later in this chapter.

Summary

In summary, after almost four decades of research on schooling, several important principles have emerged. First, although school resources are an important issue in their own right, the

organizational, social, and instructional processes that occur in schools are particularly important for understanding the impact of schools on development. Second, school effects operate at different levels: at the level of the school as a whole, in the classroom, and at the interpersonal level. Finally, school effects on behavior are mediated through various psychological processes at the individual level. These mediating processes include both children's achievement-related beliefs and their perceptions of the school context. In the next section, we weave together these principles.

One additional important contribution of the ecological approaches was the documentation that children's perceptions of the school environment are stronger predictors of children's adjustment and adaptation to their school experiences than more "objective" indicators of environment such as observers' ratings (see Eccles, 1983; Maehr, 1991; Ryan & Grolnick, 1986; Weinstein, 1989). These findings made two conclusions clear: (a) children actively construct meaning out of their experiences in school and (b) these interpretations, rather than the external environment itself, are the major influence on children's cognitive, affective, and behavioral responses to school.

What is missing from these various studies is a systematic attempt to get a holistic view of school influences. By and large, the research described in this section has been conducted in a rather piece-meal fashion with each researcher focusing on his or her particular interest. Schools, however, are complex organizations. Characteristics or decisions at any one level are likely to influence characteristics and practices at all other levels. For example, the decision of the school board to adopt stricter achievement standards for promotion will affect teaching practices and student-teacher interactions throughout the school. If we want to understand the potential impact of school reform efforts on the development of the children and adults in the school, we need to analyze these reforms from a organizational and integrated perspective. In the next section, we summarize some of the specific classroom-level influences that are important for school reform efforts.

CLASSROOM-LEVEL INFLUENCES:

Activity Structures and Groups

Classroom instruction is delivered through different activity structures, including whole-group instruction, individualized instruction, and small-group instruction. Groups are often formed based on

children's ability level; alternatively, groups could be formed from students representing a diverse array of abilities who are brought together for the purpose of cooperative work (e.g., Slavin, 1990). These different activity structures communicate quite different implicit messages about social relations and children's abilities - messages which, in turn, influence children's perceptions of both their own academic competence and their social acceptability. Different group structures may also potentiate differential treatment effects in the classroom and influence the nature of children's peer associations.

The use of either whole class instruction or within-class ability groups often creates situations that highlight ability differences and lead to both social comparison and differential teacher treatment of high and low achievers in the classroom (Eccles, Adler, & Midgley, 1984). When this happens, these structures promote achievement status hierarchies, differentiated competence beliefs among low and high achievers, and friendship selection patterns based primarily on similarities in academic abilities. Consequently, low ability children come to feel increasingly less competent, worthy, or valued precisely because their relatively lower ability is made salient (Covington, 1984; Rosenholtz & Simpson, 1984). These low ability children also come to be perceived by their peers as less desirable than their high achieving classmates, which, in turn, is likely to increase their social isolation.

The use of collaborative or cooperative groups has become an increasingly popular alternative to whole group, ability-grouped, or individualized instruction at the elementary school level. Slavin (1990) concluded that cooperative learning techniques in which students work in small groups and receive rewards or recognition based on group performance lead to increases in student achievement, self-esteem, and social acceptance among students of different social statuses and racial/ethnic backgrounds. With proper instruction in the social skills necessary for group work, cooperative groups can provide numerous "niches" for students with different strengths to participate in the learning process, can increase the amount of social support and reinforcement available in the classroom for learning complex material, and can increase contact among students of different abilities thus fostering a broader network of friendship patterns in the classroom and fewer instances of social isolation (Slavin, 1990).

Teacher Beliefs and Classroom Instructional Practices

The next level of classroom-level processes are most closely associated with the teacher. We discuss three examples of processes at this level: teacher beliefs, instructional practices, and teacher-student relationships. Although these three contextual features are typically studied independently and by different sets of researchers, it is important to remember that they always operate interdependently in the classroom and thus likely have interactive effects on children (e.g., Ames, 1992; Eccles & Midgley, 1989; Marshall & Weinstein, 1984; Midgley, 1993; Rosenholtz & Simpson, 1984).

Teacher's General Beliefs about Their Role

Teacher's beliefs about the role of "TEACHER" have important implications for children's functioning because these beliefs influence the nature of the interactions between children and teachers. One important role-definition dichotomy is the distinction between the role of "academic instructor" (oriented toward teaching academic content and getting children to master academic material; fostering the "good student") versus the role of "socializer" (oriented toward addressing children's social-emotional and behavioral needs and problems; fostering the "good citizen"). In a study of 98 elementary school teachers, Brophy (1985) found that teachers who saw themselves primarily as "instructors" responded much more negatively to those students who were under-achievers, academically unmotivated, or disruptive during learning activities than to the other students in the class; in contrast, "socializers" responded most negatively to either the hostile aggressive and defiant students or the children who thwarted the teachers' efforts to form close personal relationships. Brophy suggested that the most effective elementary school teachers blend these two aspects of the teacher role. He also stressed that a teacher's emphasis on academics is critical to insuring academic achievement in children.

A related dichotomy of teacher role-beliefs has grown out of the work on gender differences in math course enrollment (Eccles, 1984). Some teachers think of themselves as responsible for weeding out those students who are less capable; other teachers think of themselves as cultivators of all students. The first type of teacher is often labeled a "weeder"; the second a "cultivator". This

distinction is linked to a variety of other beliefs and practices such as: (1) theories of intelligence as either an entity that cannot be increased with practice versus an incremental characteristic that can be increased with practice (Dweck & Elliott, 1983), (2) mastery versus performance goals, and (3) competitive versus collaborative teaching/motivational strategies. Weeders endorse the entity view of intelligence, tend to hold performance goals for their students, and are more likely to use competitive motivational strategies. We see here a culturally rooted set of beliefs about the nature of intelligence and the role of teachers in providing for the future needs of their society. Such beliefs influence the teacher practices in ways that either facilitate all children's performance or create a wide disparity across students in both performance and motivation.

General Sense of Efficacy

Teachers' general expectations for their students' performance (i.e., their sense of teaching efficacy) is another important belief. When teachers hold high generalized expectations for student achievement and students perceive these expectations, students achieve more, experience a greater sense of esteem and competence as learners, and resist involvement in problem behaviors during both childhood and adolescence (Eccles, 1983; 1993; Rutter, 1983; Roeser, Eccles, & Sameroff, in press; Weinstein, 1989). Such expectations, when communicated to the child, become internalized in positive self-appraisals that enhance feelings of worth and achievement. Similarly, teachers who feel they are able to reach even the most difficult students, who believe in their ability to affect students' lives, and who believe that teachers are an important factor in determining developmental outcomes above and beyond other social influences tend to communicate such positive expectations and beliefs to their students. Thus, a high sense of teacher efficacy can enhance children's own beliefs about their ability to master academic material, thereby promoting effort investment and achievement (Ashton, 1985; Midgley, Feldlaufer, & Eccles, 1989b). On the other hand, low feelings of efficacy often lead to behaviors likely to reinforce feelings of incompetence in the child, potentiating both helpless responses to failure in the classroom and the development of depressive symptoms (see Cole, 1991; Roeser et al., in press).

Differential Teacher Expectations

Equally important are the differential expectations teachers often hold for various individuals within the same classroom and the differential treatment practices that sometimes accompany these expectations. Ample evidence suggests that teachers do form these differential expectations and that students believe that teachers treat students differently based on these expectations. For example, Weinstein (1989) and her colleagues found that both high and low achievers perceive differential teacher treatment of students on the basis of ability in most elementary school classroom. High achievers are seen by students of all ability levels as receiving higher expectations, more opportunities to participate in class, and more choice about work, whereas low achievers are seen as receiving more negative feedback, more control, and more feedback on completing work and following rules. The greater the perceived differential treatment in a classroom, the greater the impact of teacher expectations on achievement and children's self-perceptions of competence (Weinstein, 1989).

Most of the studies actually linking differential teacher expectations to either their own behaviors or to their students' achievement and motivation have been done under the rubric of teacher expectancy effects. Beginning with the work by Rosenthal and Jacobson (1968) and Rist (1970), many researchers have examined teacher expectancy effects. Their work suggests that teacher-expectancy effects depend on whether teachers structure activities, or interact, differently for high and low expectancy students and whether the students perceive this difference (Brophy, 1985; Cooper, 1979; Eccles & Wigfield, 1985; Parsons, Kaczala, & Meece, 1982; Weinstein, 1989; Weinstein, Marshall, Sharp, & Botkin, 1987).

A great deal of the 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 investigated the potential 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 Brophy & Good, 1974; Eccles & Wigfield, 1985; Jussim et al., in press for reviews). More recently, researchers such as Steele (cite) 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 argues that African-American students become aware of the fact that teachers and other adults have negative stereotypes of African-American children's academic abilities. This awareness increases their anxieties, which, in turn, lead them to disidentify with the school context to protect their self-esteem.

Recent work, however, suggests that teacher expectancy effects may not be as negative as once believed. For the effect to be of great concern one needs to demonstrate that it has a negative biasing effect (i.e., that teachers' expectations lead to changes in motivation and performance over time beyond what would be expected given knowledge of the characteristics of the specific students (Jussim, 19xx; Jussim et al., in press). Evidence for such negative biasing effects is minimal. Much of the association between teacher expectations for individual students and subsequent student motivation and performance reflects the "accurate" association between teacher expectations and student characteristics like prior achievement levels and behavioral patterns (see Jussim, Eccles, & , in press for review). In addition, not all teachers respond to their expectations with behaviors that undermine the motivation and performance of the low expectancy students. Some teachers respond to low expectations with increased instructional and motivational efforts for particular students and succeed in increasing both their motivation and their learning (Goldenberg, 1992). Nonetheless, small but consistent teacher expectancy effects over time can have a large cumulative effect on both motivation and achievement (Jussim et al., 1997), particularly if these effects begin in kindergarten and the first grade (Entwisle & Alexander, 1993). Finally, some groups may be more subject to the biasing effects of teacher expectations: Jussim et al. (1997) found that girls, low SES students, and minority students are more susceptible to these effects than White middle class boys.

Weiner (1986) and Graham (1991) studied a slightly different aspect of within-classroom variations in the teacher-student interaction linked to teacher expectancy effects. Weiner (1986) hypothesized that teachers' emotional reactions convey their expectations to students- that is, teachers are likely to display pity in providing negative feedback to those students for whom they have low expectations. In contrast, they are likely to display anger in providing negative feedback to those students for whom they have high expectations. Such a difference in affect could underlie

teacher expectancy effects. Graham (e.g., 1991) investigated this hypothesis by manipulating bogus instructors' emotional reactions to experimental subjects' (learners') performance on a laboratory task: "instructors" who showed pity and offered excessive help, for example, produced "learners" who either attributed their "failures" lack of ability and lowered their expectations for success (Graham & Barker, 1990), or engaged in a variety of behaviors (e.g., making excuses for their poor performance) designed to maintain their sense of self-worth (Covington, 1992). Similarly, Parsons, Kaczala, and Meece (1982) demonstrated that, when praise is used in a way that conveys low teacher expectations (i.e., patronizing praise for low level successes), it undermines junior high school students' confidence in their abilities as well as their expectations for success. When overt criticism conveys high teacher expectations (i.e., when the teacher uses public criticism only with the high performing students because the teacher wants to protect the low performing students' egos), high rates of criticism are associated with higher than predicted confidence in one's ability.

Finally, teachers' feedback to children in the classroom also influences the impressions children form of one another. Example, White & Kistner (1992) showed kindergarten, first, second graders video vignettes in which a peer-rejected male child received several different types of teacher feedback. The children's rated the child in each of these vignettes. The child participants rated those children who received positive teacher feedback as having performed better and being a "better" individual that those children who received more negative teacher feedback. The children who received the most derogatory teacher feedback were rated very negatively in terms of the social skills, their moral character and their social acceptability. This work suggests that teacher academic feedback can influence peer acceptance and peer rejection.

Teachers' Beliefs Regarding the Nature of Ability

Both developmental and educational psychologists have become interested in a set of beliefs regarding the nature of abilities. These researchers have found that some individuals conceive of intellectual abilities as stable and largely inherited potentials; others conceive of intellectual abilities as acquired skills. Dweck and Elliott (1983) refer to this distinction as an entity versus an incremental view of intelligence. Recently, educational psychologists have begun to investigate the

implications of such beliefs for student and teacher behaviors. Ames (1992) and Maehr and Midgley (1996) hypothesize that these beliefs affect the goals both teachers and students have for learning; these goals, in turn, affect both the teachers' instructional practices and the students' learning behaviors. These researches focus on two particular achievement goals: mastery versus performance goals and hypothesize that these two sets of goals are linked to two different patterns of instruction: the first, called an "ability goal orientation," emphasizes relative ability, social comparison, and competition. Grouping by ability, differential rewards for high achievers, public evaluative feedback, academic competitions, and other practices can promote the notion that academic success is the outperforming of others and the proving of ability (Ames, 1992). Unfortunately, most youth, by definition, are not "the best" and thus may not receive rewards and recognition in a classrooms that emphasize relative ability. We know that in ability-oriented classrooms, children are more likely to use low level strategies to learn, experience more anxiety and negative affect, and devote attentional resources to strategies about how to make themselves look smarter or avoid looking dumber than other students (Ames, 1992; Covington, 1992; Midgley, Arunkumar, & Urdan, 1995). Children who lack confidence in their academic competence are particularly vulnerable in such environments due to the emphasis on relative ability. Learned helpless responses to academic failure, the avoidance of engaging in work, and negative emotional experience are more likely to beset low ability students in ability-focused environments (Dweck & Elliott. 1983; Nicholls, 1984; Strobel & Roeser, 1998).[i]

In contrast, teachers who hold an incremental view of intelligence tend to adopt a "task goal orientation" in their instructional practices. Such an orientation stresses self-improvement and effort as the major hallmarks of academic success. These teachers acknowledge individual effort and improvement regardless of a child's current ability level, provide choice and collaborative work, and emphasize to their students that mastering new content, learning from mistakes, and continuing to try are all highly valued hallmarks of success. Such practices reduce children's concerns about their ability relative to peers and the feelings of self-consciousness, anxiety, or disenfranchisement that often accompany such concerns (Ames, 1990). In these kinds of mastery-focused environments, children use deeper processing strategies to learn, report more positive and less negative affective states, and

seem less concerned with their current ability and more concerned with task mastery, understanding, and self improvement (Ames, 1992).

Instructional Practices

Instructional practices and teacher discourse convey both implicit and explicit messages concerning: children's moral, social, and intellectual capacity, the goals and purposes of learning, and the different reasons for engaging in academic activities. Children's interpretation of these messages, in turn, influences the quality of their academic and social-emotional functioning (Roeser et al., 1996, in press; Deci & Ryan, 1985). Motivational researchers have been particularly interested in practices related to classroom climate and classroom management.

Classroom Climate and Emotional Support

Historically, most studies of teacher practice effects focused on the impact of their personal characteristics and teaching style on children's overall achievement, motivation, satisfaction, and self-concept (Dunkin & Biddle, 1974). This research assumed that general teacher characteristics (like warmth) and practices (like directness) would enhance student satisfaction, persistence, curiosity, and problem solving capability through their impact on general classroom climate. Similarly, based on the assumption that a warm relationship with a teacher increases her/his influence because it increases children's desire to do what the teacher says (either due to identification or the increased power of teachers' social reinforcement properties), many investigators have studied the association between teacher warmth/supportiveness and student motivation and performance. This work assumed that high teacher emotional support would increase the value children attach to working hard in the classroom. However, because much of this early work had conceptual and methodological problems (Duncan & Biddle, 1974), the results are unclear.

More recent examinations of the effect of classroom climate have disentangled factors like teacher personality and warmth from teacher instruction and managerial style. This research has shown that effects of "climate" depend on its association with other aspects of the teachers' beliefs and practices. For instance, Moos and his colleagues have shown that student satisfaction, personal growth, and achievement are maximized only when teacher supportiveness is accompanied by efficient

organization, stress on academics, and provision of focused goal oriented lessons (Fraser & Fisher, 1982; Moos, 1979; Trickett & Moos, 1974). Furthermore, these practices are more common among teachers who believe they can influence their students' performance and future achievement potential (Brookover et al., 1979; Rutter et al., 1979). Similarly, analogous to Baumrind's (19~~xx~~) conclusions regarding the greater effectiveness of authoritative versus permissive parenting, teacher warmth and supportiveness should affect student effort and performance only if there are clear guidelines on what to do (that is, if the teacher also runs a well managed classroom).

Classroom Management

Like work on family management, work under the rubric of classroom management has focused on two general issues: orderliness/predictability and control/autonomy. Interestingly, the findings from studies of teacher management parallel those from studies of family environment.

Orderliness/predictability. In rooms where teachers have established smoothly running and efficient procedures for monitoring student progress, providing feedback, enforcing accountability for work completion, and organizing group activities, student achievement and conduct are enhanced. Although there has been almost no research on the impact of management on student beliefs and values, it seems likely that the quality of classroom management also contributes to differences in children's perceptions. For example, Blumenfeld et al. (1983) found that classroom academic orientation has significant, although small, benefits for children's perceptions of the importance of adherence to classroom work norms. Under conditions where children are held accountable for work, they might exert more effort, value success more, and consequently do better. As a result, the children may also see themselves as more able.

Control/Autonomy. Classroom practices related to the structure of authority are important for the development of children's regulation of their achievement behavior and for aspects of their emotional adjustment (Deci & Ryan, 1985). Researchers like Boggiano (Boggiano et al., 1992), Deci and Ryan (Deci & Ryan, 1985) have argued that intrinsic motivation is good for learning and that classroom environments that are overly controlling and do not provide an adequate amount of autonomy undermine intrinsic motivation, mastery orientation, ability self-concepts and expectations, and self-direction,

and induce a learned helplessness response to difficult tasks. Support for this hypothesis has been found in both laboratory and field-based studies (e.g., Boggiano et al., 1992; Deci et al., 1981; Flink, Boggiano, & Barrett, 1990; Grolnick & Ryan, 1987; Ryan & Grolnick, 1986): In classroom settings where children are given opportunities to make choices, pursue their interests, and contribute to classroom discussions and decisions, a sense of autonomous, self-determined behavior in relation to school work is inculcated. This sense of autonomy is related to children's intrinsic valuing of school, quality of cognitive and affective engagement with learning, performance, and feelings of esteem and personal control (Deci & Ryan, 1985).

In classrooms where few provisions for self-determined behavior are granted and where external rewards, punishments, and praise are frequently used to induce achievement behavior, children are more likely to feel their behavior is being controlled by factors outside themselves. This is associated with children's extrinsic motivation, external locus of control, and shallower engagement with learning activities (Deci & Ryan, 1985; Eccles et al., 1993; Pintrich & De Groot, 1990). In the case of a controlling environment, children may begin to work towards some goal extrinsic to learning, often with the least possible effort to attain a reward, rather than approaching learning for its intrinsic qualities of knowledge building and enjoyment. Boggiano (Boggiano et al., 1992) found that students with an extrinsic motivational orientation are even more adversely affected by controlling teaching strategies; they are the students most likely to respond with the learned helplessness pattern of behaviors and self-perceptions.

Highly controlling practices in the classroom with troubled children are especially likely to lead to escalating behavior problems and plummeting motivation (Cooper & Upton, 1990). Teachers often respond to children who show poor achievement histories or under-regulated behaviors such as inattention, impulsivity, and aggression with controlling methods (sanctions, public feedback) to get them to learn or behave. Although some amount of structure and control is critical in bringing such students back to learning tasks, excessive use of extrinsic rewards or behavioral sanctions that require compliance undermines low achievers' intrinsic motivation (Skinner & Belmont, 1993) and leads to an escalation of negative behavior and feelings of defiance in emotionally troubled children (Cooper &

Upton, 1990). Unfortunately, classrooms in which many low ability or difficult children are placed are often characterized by more teacher control and less innovative instructional practices (Oakes et al., 1992). The emphasis on control in such environments on the part of teachers is no doubt a response to characteristics of the students, though such practices are not likely to enhance behavioral or emotional engagement.

Finally, the authority structure in the classroom also has important effects on children's social relationships with others. For example, in secondary classrooms, opportunities for students to participate in academic decisions are associated with less social isolation, a broader range of acquaintances and less status-based friendship networks (e.g., Epstein, 1983).

Given the negative consequences of excessive control, it is interesting that adults in this culture have such a strong preference for controlling teachers despite all of the evidence that such strategies are not optimal. For example, Boggiano and her colleagues video-taped teachers teaching small groups of children a set of tasks using either a controlling strategy or a less controlling strategy (Flink et al., 1990). Observers of the tapes rated the more controlling teachers as better teachers despite the fact that the children had actually learned more under the less controlling teacher. Similar results have been reported by Deci & Ryan (1985). Although these researchers did not specifically investigate the origins of this bias, they suggested two possible reasons: (1) these styles appear more active, directive, and better organized, and (2) they are consistent with the types of teaching and parenting practices advocated by operant conditioning and token economy specialists (e.g., Kazden, 1982; see Boggiano et al., 1987).

More Integrated Approaches to General Practices and Beliefs

The work reviewed thus far is based on studies focused on only one or two belief systems and/or contextual characteristics at a time. Recently, there has been a shift to a more global, integrated view of the impact of learning contexts on motivation.

General teaching practices linked to self-evaluation and motivation. Among the first such efforts, Rosenholtz and Simpson (1984) suggested a cluster of teaching practices (e.g., individualized versus whole group instruction; ability grouping practices; and publicness of feedback) that should

affect motivation because they make ability differences in classroom especially salient to students (see also 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 should reduce the quality of children's motivation and learning. The magnitude of the negative consequences of these shifts, however, should be greater for low performing children: 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; Rosenholtz & Rosenholtz, 1981).

Evaluation practices are another mechanism likely to influence self-evaluation. Although students primarily use feedback and grades as criteria to judge their ability, how teachers report on and recognize performance will affect the degree to which ability-related information is accessible, comparable, and salient (Rosenholtz & Rosenholtz, 1981). Public methods for charting progress, such as wall posters detailing amount or level of work completed, or listing names on the board, provide information that is readily available to students. In addition, teachers who frequently contrast students' performances, grant privileges to "smart" children, or award prizes for "best" performance may increase the importance of ability as a factor in classroom life and heighten the negative affect associated with failure (see Ames, 1992). When there are few clear winners and many losers, relative performance may be more salient to children (Nicholls, 1979b). In contrast, in more cooperative or mastery-oriented classrooms, everyone who performs adequately can experience success. As a result, youngsters in mastery-oriented rooms are more likely to focus on self-improvement than social comparison, to perceive themselves as able, and to have high expectations for success (Covington, 1992; Nicholls, 1979b). Finally, when variations in evaluations are either attributed to entity-based differences in competence, or are used as a controlling strategy rather than primarily for information on progress, intrinsic motivation is reduced (Kage & Namiku, 1990). These results suggest that mastery evaluation practices are better at fostering and maintaining motivation than social normative, competitive, or controlling evaluation practices (see also Maehr & Midgley, 1991).

Girls and math (girl-friendly classrooms). 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 children's preference for different types of learning contexts which likely interact with subject area to produce sex differences in interest in different subject areas (Casserly, 1980; 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/ person centered perspective rather than a theoretical/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' value, goals, motivational orientation, and learning styles. The few relevant studies support this hypothesis (see Eccles, 1994; Eccles & Harold, 1992; Hoffmann & Haeussler, 1995). If such classroom practices are more prevalent in one subject area (e.g., physical science) than another (e.g., biological or social science), then one would expect gender 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. And 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 argument is a good example of Person - Environment Fit. Many investigators have suggested that a person will be maximally motivated to learn in situations that fit well with their interests, current skill level and psychological needs, so the material is challenging, interesting, and meaningful (e.g., Csikszentimihalyi & Rathunde, 1993; Eccles, Midgley et al., 1993; Krapp, Hidi, & Renninger, 1992). Variations 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).

Teacher-Student Relationships

The last aspect of classroom life discussed in this section concerns the relationships that teachers and students share with one another. Research has demonstrated that quality teacher-student relationships provide the affective underpinnings of academic motivation and success (Moos, 1979). Teachers who are trusting, caring, and respectful of students provide social-emotional support that children and adolescents need to approach, engage, and persist on academic learning tasks and to develop positive achievement-related self-perceptions and values (Goodenow, 1993; Midgley, Feldlaufer, & Eccles, 1989b). Correlational studies with adolescents also show that students' perceptions of caring teachers enhance their feelings of self-esteem, school belonging, and positive affect in school (Roeser & Eccles, in press; Roeser et al., 1996).

In addition to enhancing motivation, several authors have noted that in a highly complex society, teachers represent one stable source of non-parental role models for adolescents. Teachers not only teach, they can provide guidance and assistance when social-emotional or academic problems arise, and may be particularly important in promoting developmental competence when conditions in the family and neighborhood do not (Eccles, Lord, & Roeser, 1997; Simmons & Blyth, 1987).

Summary

In summary, these studies of classroom level influenced suggest that development is optimized when students are provided with challenging tasks in a mastery oriented environment that provides good emotional and cognitive support, meaningful material to learn and master, and sufficient support for their own autonomy and initiative. Similar characteristics emerged as the important relationship influences on the ontogeny of motivation, suggesting that one could use the same theoretical framework for studying contextual effects in both arenas. Connell and his colleagues (1991) suggested that humans have three basic needs: to feel competent, to feel socially attached and to have autonomous control in one's life. 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 socio-emotional and intellectual development would provide such opportunities.

ACADEMIC TRACKS / CURRICULAR DIFFERENTIATION

The next level of influences we will discuss is that of academic tracks or "curriculum differentiation policies." These terms refer to regularities in the way in which schools structure sets of learning experiences for different types of students (Oakes, Gamoran, & Page, 1992). The process of providing different educational experiences for students of different ability levels is a widespread yet very controversial practice in American schools. Tracking takes different forms at different grade: It includes within-class ability grouping for different subject matters or between-class ability grouping in which different types of children are assigned to different teachers. Within-classroom ability grouping for reading and math is quite common in elementary school. In the middle and high school years, tracking becomes both more widespread and more broadly linked to the sequencing of specific courses that students bound for different post secondary school trajectories (college prep, general, vocational). Differentiated curricular experiences for students of different ability levels structure experience and behavior in two major ways: First, tracking determines the quality and kinds of opportunities to learn the child receives (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 regarding its impact on development (see Fuligni, Eccles, & Barber, 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 situation is complicated by the fact that conflicting hypotheses about the likely direction and the magnitude of the effect emerge depending on the theoretical lens one uses to evaluate the practice. The best justification for these practices derives from a person-environment fit perspective: Children will be more motivated to learn if the material can be adapted to their current competence level. There is some evidence consistent with this perspective for children placed in high ability classrooms, high within-class ability groups,

and college tracks (Dreeban & Barr, 1988; Fuligni, Eccles, & Barber, 1995; Gamoran & Mare, 1989; Kulik & Kulik, 1987; Pallas et al., 1994).

The results for children placed in low ability and non-college tracks do not confirm this hypothesis. By and large, when long-term effects are found for this group of children, they are negative primarily because these children are typically provided with inferior educational experience and support (Dreeban & Barr, 1988; Pallas et al., 1994). Low track placements have been related to poor attitudes towards school, feelings of incompetence, and problem behaviors both within school (non-attendance, crime, misconduct) and in the broader community (drug use, arrests) as well as to educational attainments (Oakes et al., 1992). These results are consistent with a social stratification theoretical perspective. But whether or not academic tracks promote such outcomes or reflect pre-existing differences remains a matter of considerable debate. It is also important to note that these negative effects result from the stereotypically-biased implementation of ability-grouping programs. A different result might emerge for the low competence students if the teachers implemented the program more in keeping with the goals inherent in the person-environment fit perspective - that is, by providing high quality instruction and motivational practices tailored to the current competence level of the students.

Social comparison theory leads to a different prediction regarding the effect of ability grouping and tracking on one aspect of development: ability self-concepts. People often compare their own performance with the performances of others to determine who well they are doing (Ruble, 1983): They typically conclude they are doing well, and that they have high ability, if they are doing better those around them. In turn, this conclusion should bolster their confidence in their ability to master the material being taught. Ability grouping should narrow the range of possible social comparisons in such a way as to lead to declines in the ability self-perceptions of higher ability individuals and to increases in the ability self-perceptions of lower ability individuals. The few existing studies support this position. For example, Reuman, Mac Iver, Eccles, and Wigfield (1987) found that being placed in a low ability math class in the seventh grade led to an increase in self-concept of math ability and a decrease in test anxiety; and conversely being placed in a high ability math class led to a decrease in

self-concept of math ability (see also Reuman, 1989, for evidence of greater within- than between-classroom ability grouping effects among sixth graders). Similarly, Marsh, Chessor, Craven, and Roche (1995) found that being placed in a gifted and talented program lead to a decline over time in the students' academic self-concepts.

The impact of these changes on other aspects of development likely depends on a variety of individual and contextual factors. For example, in his original achievement motivation theory, Atkinson (1957) provided strong evidence that the engagement of highly motivated individuals is maximized when the probability of success is .5. If the net result of the big-fish-little-pond effect is to bring both low and high performers closer to the .5 probability level, then ability grouping should have a positive impact on all of the students in both ability groups who are highly motivated and a negative impact on all of the individuals in both ability groups who have low motivation to succeed. Theories focused on the importance of challenging material in a supported environment suggest an increase in motivation for everyone provided that the quality of instruction leads to equally challenging material for all ability levels. Conversely, if the social comparison context also increases the salience of an entity view rather than an incremental view of ability, then the decline in ability self-concepts of the high ability individuals might lead them to engage in more failure avoidant and ego-protective strategies.

Yet another way to think about the impact of ability grouping on development is in terms of its impact on peer groups: Between-classroom ability grouping and curricular differentiation promotes continuity of contact among children and adolescents with similar levels of achievement and engagement with school. For those doing poorly in school, such practices can structure and promote friendships among students who are similarly alienated from school and are more likely to engage in risky or delinquent behaviors (Dryfoos, 1990; Steinberg, 1992). The "collecting" of children with poor achievement or adjustment histories also places additional burdens on teachers who teach these classes, teachers who often are new to the system and who are given these difficult assignments (Oakes et al., 1992).

Tracking and ability grouping can also lead to the concentration of children with similar behavioral vulnerabilities. For instance, Kellam, Rebok, Wilson, and Mayer (1994) found that rates of moderate to severely aggressive children ranged from 7-8% to 63% among two different first grade classrooms in the same elementary school. They found that these differing rates were a direct result of between-class ability grouping policies. As a result of this policy, children in these two classrooms were exposed to very different environments: one in which aggression was deviant (only 7-8% of students are aggressive) and one in which it was pretty much the norm (63% aggressive students). It seems likely that in the classroom with high rates of aggression, aggressive behavior would not necessarily lead to peer rejection as is often the case (Coie, Dodge, & Krechbiel, 1990). To the contrary, in such an environment, aggression might confer status and social rewards among peers and thus be reinforced. By placing children with similar vulnerabilities in the same environment, the reinforcement of negative behavior and promotion of friendships among similarly troubled children are more likely. Again, these comments are speculative and understanding the effects of between classroom ability grouping on different developmental outcomes, in children of different ability levels, over different amounts of time, is a complex and controversial area of continued research (see Fuligni, Eccles, & Barber,1995).

In summary, between-class ability grouping and curriculum differentiation provides an example of how school policy, teacher beliefs and instruction, and student characteristics can all conspire to create maladaptive transactions that perpetuate poor achievement and behavior among low-ability children. The placement of many low ability children in a low track classroom may cause some teachers to feel overwhelmed and inefficacious. This might translate into poor instruction, low expectations, and use of controlling strategies on the part of such teachers. These factors, in turn, can fuel student disengagement (e.g., Kagan, 1990), which then feeds back into the teachers' beliefs and practices. Eventually, academic failure of certain low ability children can result from these reciprocal processes. More research is needed on transactional processes in the classroom (Skinner & Belmont, 1993).

Another important and controversial aspect of curriculum differentiation involves how students get placed in different classes and how easy it is for students to move between class levels as their academic needs and competencies change once initial placements are made. These issues are important both early in a child's career (e.g., Entwistle & 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. Dornbusch (1994) described the impact of tracking on a large, ethically diverse sample of high school students in northern California. Analyzing the data course by course, Dornbusch found that 85% of his sample stayed in the same track during high school - there was little mobility. Furthermore, Dornbusch found that many average students were misassigned to lower track courses. This misassignment had long-term consequences for these students, in effect putting them on the wrong path toward meeting the requirements for getting into California's higher educational system. Of particular concern in this study was the fact that these youth and their parents, who were more likely to be of color and poor, and were never informed of the potential consequences of course decisions made by school personnel during the child's early high school career. Thus, curricular differentiation and school-home communication practices exerted a profound influence over the life paths of these average students who, though able, were placed in lower ability classrooms in high school.

SCHOOL-COMMUNITY LINKAGES

Comer (1980) has stressed the importance of school-community links. He argues that schools are a part of the larger community and that they will be successful only to the extent that they are well integrated into that community at all levels. For example, schools need to be well connected to the communities' social services so that schools can play a cooperative role in furthering children's and their family's well-being. Conversely, communities need to be invested in their schools in ways that stimulate active engagement across these two societal units. For example, when the business community is well connected to the school, there are likely to be increased opportunities for students to develop both the skills and knowledge necessary to make a smooth transition from school into the world of work. Such opportunities can range from frequent field trips to various employment settings, to apprenticeships, to direct involvement of employees in the instructional program of the school.

Communities have other influences on youths' engagement at school. Part-time employment is another example of school-community linkage that relates to the quality of adolescents' adjustment. Although part-time work outside of school hours can promote developmental competence by providing structured, safe opportunities in which adolescents can acquire skills, learn to follow structured routines, work cooperatively with others, and serve others (Mortimer, Shanahan, & Ryu, 1994), some have suggested that too much employment can undermine school success and promote engagement in problem behaviors. For instance, Steinberg and his colleagues (1993) found that adolescents who work 20 hours or more show poor grades, lower school commitment, and less engagement in class activities than their non-working peers. One possible reason for these relations is that adolescents who work long hours are getting insufficient sleep. Steinberg et al. (1993) found that about one-third of the adolescents in their study who worked 20 hours a week or more also reported they were frequently too tired to do their homework and often chose easier classes to accommodate their heavy work schedules. Although it is true that academically disengaged adolescents are more likely to seek out other settings such as part-time work to get their needs met, so too is it true that increased work hours predict academic disengagement (Steinberg et al., 1993). Finally, there may be other associated risks to working a lot (> 20 hours a week) in addition to going to school. According to Steinberg, the greater disposable income that working adolescents have may also predispose them to use drugs and alcohol more often than their non-working peers.

Closer ties between schools and communities may be especially important in high risk neighborhoods. Both researchers and policy makers have become concerned with the lack of structured opportunities for youth after school (e.g., Carnegie Foundation, 1989). In most communities, adolescents finish their school day by 2 or 3 in the afternoon. Also in most communities there are few structured activities available for these youth other than work. And typically, their parents are working until early evening - leaving the adolescents largely unsupervised. Such a situation is worrisome for two reasons: First, communities are missing an opportunity to foster positive development through meaningful activities, and second, adolescents are most likely to engage in problem behaviors during this unsupervised period. A closer collaboration between communities and schools could help solve this

dilemma. At the most basic level, school buildings could be used as activity centers. At a more cooperative level, school and community personnel could work together to design a variety of programs to meet the multiple needs of their youth.

SCHOOL TRANSITIONS

School transitions are an excellent example of how the multiple levels of school interact to affect development. All school districts must decide both when they allow children to begin school and how they will group the grade-levels within the various school buildings. One common arrangement is to group children in grades kindergarten through sixth grade in the elementary schools, children in grades seven through nine in junior high schools, and children in grades ten through twelve in senior high schools. The other most common arrangement places the transitions after grade fives and eight - creating elementary schools, middle schools, and senior high schools. In both of these arrangements, children typically begin public schooling at age 5 with the entry into kindergarten. In addition, children typically move to a new and often larger building at each of the major school transition points (e.g. the move to middle or junior high school). These move typically also involve increased bussing and exposure to a much more diverse student body. Despite sound theoretical reasons to expect such transitions should influence children's development (see Eccles, Midgley, & Adler, 1984; Higgins & Parsons, 1983), until recently there has been little empirical work on these effects. We discuss the from elementary to middle school.

There is substantial evidence of declines in academic motivation and achievement across the early adolescence years (approximately ages 11-14; see Anderman & Maehr, 1994; Eccles & Midgley, 1989; Eccles et al., 1993; Wigfield, Eccles & Pintrich,1996). This is also the time in which many young people move from elementary school into middle or junior high school. In many cases, the declines in motivation and achievement coincide with these school transitions. 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 (Eccles et al.,

1989; Wigfield et al., 1991), and confidence in one's intellectual abilities, especially following failure (Parsons & Ruble, 1977). There are also increases in test anxiety (Wigfield & Eccles, 1989), learned helpless responses to failure (Rholes, Blackwell, Jordan, & Walters, 1980), focus on self-evaluation rather than task mastery (Nicholls, 1990), and both truancy and school drop out (Rosenbaum, 1976). Although these changes are not extreme for most adolescents, there is sufficient evidence of gradual decline 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). And although few studies have gathered information on ethnic or social class differences in these declines, we do know that academic failure and drop out is especially problematic among some ethnic groups and among youth from low SES communities and families. 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 "negative" changes in academic motivation: Some point to the intraspsychic upheaval associated with early adolescent development (Blos, 1965). Others point the simultaneous occurrence of several life changes. For example, Simmons & 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 early adolescents. They suggested that different types of educational environments may be needed for different age groups to meet individual 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.

STAGE-ENVIRONMENT FIT AND THE TRANSITION TO JUNIOR HIGH OR MIDDLE SCHOOL

Remarkably few empirical studies have focused on differences in the classroom or school environment across grades or school levels. Most descriptions have focused on school level characteristics such as school size, degree of departmentalization, and extent of bureaucratization. For example, Simmons and Blyth (1987) pointed out that most junior high schools are substantially larger (by several orders of magnitude) than elementary schools and instruction is also 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 the point in development when there is a great need for guidance and support from non-familial 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 drop out.

In earlier sections, we presented examples of how such school level characteristics might affect both teacher beliefs and practices, which, in turn, should affect children's development. But until quite recently the relation of school transitions to these characteristics has rarely been considered, although some support for these predicted changes in classroom experiences is emerging.

Authority relationships. First, despite the increasing maturity of students, junior high school classrooms, as compared to elementary school classrooms, are characterized by a greater emphasis on teacher control and discipline, and fewer opportunities for student decision-making, choice, and self-management (e.g., Midgley & Feldlaufer, 1987; Moos, 1979). For example, junior high school teachers spend more time maintaining order and less time actually teaching than elementary school teachers

(Brophy & Everston, 1978). Similarly, sixth grade elementary school math teachers report less concern with controlling and disciplining their students than these same students' seventh grade junior high school math teachers reported one year later (Midgley et al., 1988).

Similar differences emerge on indicators of student opportunity to participate in decision making regarding their own learning. For example, Midgley and Feldlaufer (1987) reported that both seventh graders and their teachers in the first year of junior high school indicated less opportunity for students to participate in classroom decision-making than did these same students and their sixth grade elementary school teachers one year earlier.

As outlined earlier, stage-environment fit theory suggests that the mismatch between young adolescents' desires for autonomy and control and their perceptions of the opportunities in their learning environments should result in a decline in the adolescents' intrinsic motivation and interest in school. Mac Iver and Reuman (1988) provided some support for this prediction. They compared the changes in intrinsic interest in mathematics for adolescents reporting different patterns of change in their opportunities for participation in classroom decision-making items across the junior high school transition. Those adolescents who perceived their seventh-grade math classrooms as providing fewer opportunities for decision making that had been available in their sixth-grade math classrooms reported the largest declines in their intrinsic interest in math as they moved from the sixth grade into the seventh grade.

Affective relationships. As noted earlier, junior high school classrooms are also characterized by a less personal and positive teacher/student relationship than elementary school classrooms. Given the association of classroom climate and student motivation reviewed earlier, it would not surprising if moving into a less supportive classroom leads to a decline in these early adolescents' interest in the subject matter being taught in that classroom, particularly among the low achieving students. Evidence supports this hypothesis (Midgley, Feldlaufer & Eccles, 1988).

Teacher efficacy. Junior high school teachers also feel less effective as teachers than elementary school teachers, especially for low ability student (Midgley, Feldlaufer, & Eccles, 1988). Given the association of teacher efficacy and students' beliefs, attitudes, motivation, and achievement

(Ashton, 1985; Brookover et al., 1979), it is not surprising that these differences in teachers' sense of efficacy before and after the transition to junior high school contributed to the decline in early adolescents', particularly low achieving adolescents', confidence in their academic abilities and potential (Midgley, Feldlaufer, & Eccles, 1989).

Organization of instruction. The shift to junior high school is also associated with an increase in practices such as whole class task organization, and between classroom ability grouping (see Eccles & Midgley, 1989; Oakes, 1981; Rounds & Osaki, 1982). As noted earlier, such changes should increase social comparison, concerns about evaluation, and competitiveness (see Eccles, Midgley, & Adler, 1984; Rosenholtz & Simpson, 1984). They are also likely to increase teachers use of normative grading criteria and more public forms of evaluation, both of which have been shown to have a negative affect on early adolescents' self-perceptions and motivation.

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 school transition, then adolescents' self-perceptions and academic motivation are also likely to decline: In fact, junior high school teachers do use stricter and more social comparison-based standards than elementary school teachers to assess student competency and to evaluate student performance, leading to a drop in grades for many early adolescents as they make the junior high school transition (Eccles & Midgley, 1989; Finger & Silverman, 1966; Simmons & Blyth, 1987). In addition, 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 decline in grades might do to early 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 drop out. Even 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 early school leaving in both studies.

Motivational goals. Several of the changes noted above 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. The types of changes associated with the middle grades school transition should precipitate greater focus on performance goals. Midgley and her colleagues found support for this prediction (Midgley, Anderman, & Hicks, 1995). In this study of teachers and students enrolled in either upper elementary school classes or lower middle school classes , both the 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. Not surprisingly, personal efficacy was lower among the middle school participants than among the elementary school participants.

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. But Eccles and Midgley (1989) have 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 et al., 1996). Simmons & Blyth (1987) have 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 seem especially harmful in that they 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 control is growing; they emphasize lower level cognitive strategies at a time when the ability to use higher level strategies is increasing; and they disrupt social networks at a time when adolescents are especially concerned with peer relationships and 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 early 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. One important task for researchers in the next decade is to assess whether the kinds of mismatch between school environments and early adolescent development discussed here also occur for early adolescents in different kinds of educational settings (e.g., rural versus urban schools; rich versus poorer schools; public versus private schools), and for different groups of early adolescents.

We have now completed our discussion of school influences on development. In this section, we outlined the many ways in which schools can affect the development of children and adolescents. We stressed the need to take a developmental perspective on the school. We now turn to a similar discussion of peer influences, focusing primarily on how peer groups created by school practices or by community influences can affect motivation and learning.

PEER CULTURE AS A PRIMARY MEDIATORS OF SCHOOL AND COMMUNITY EFFECTS

Throughout our discussion of school effects on development, we suggested ways in which particular characteristics might influence peer interactions. Comparable ways in which community or neighborhood characteristics can influence peer interactions are discussed in another chapter. In this section, we discuss these connections in more detail. Unfortunately, there is very little empirical work directly related to this topic, particularly with regard to school effects. Most educational researchers have not included the role of peers at school as a key part of the impact of schools on human development. Instead, peer influences have been studied primarily by developmental psychologists and sociologists (see chapter by Rubin et. al in this textbook for summary of the typical research on peer

relations). And with a only a few outstanding exceptions, this work has not included the school as a primary context for understanding peer group processes. But, as discussed in earlier sections, both within-class and between-class school practices affect peer group interactions in and out of school, which, in turn, affect development. Consequently, we believe that this aspect of the school experience is critical. Although peer influences have been acknowledged more widely by researchers interested in community effects, this work has had a very narrow focus on the role peers play in crime, delinquency, and school failure (Brown, 1990). As discussed earlier, communities do provide the places in which a great deal of peer interaction takes place. Peer groups are often formed from amongst the residents in communities. This geographical clustering of peer networks can have either positive or negative effects on development depending on the nature of the individuals involved and the shared values and norms of the groups that emerge. Researchers are just beginning to explore the full range of such influences. In this section, we explore this issue. We focus on those aspects of peer relations not discussed in Rubin's chapter and those most closely linked with the school and community contexts. Specifically, we focus on the link between social competence and school motivation/ achievement, on peers as co-learners, on the reinforcing and socializing mechanism within peer groups, and on the co-ordination of multiple goals.

Social Competence and Motivation

There has been a long history of work focused on the relation between social competence and academic success. Much of this work has documented a positive association between these two domains of competence: Children who are accepted by their peers and who have good social skills do better in school and evidence more positive forms of academic achievement motivation; in contrast, socially rejected and highly aggressive children are at risk for numerous negative motivationally relevant outcomes (e.g., see Rubin et. al, this volume and Asher & Coie, 1990; Hinshaw, 1992; Ladd & Price, 1987; Parker & Asher, 1987 Wentzel, 1991a,b; Wentzel, Weinberger, Ford, & Feldman, 1990; Wentzel, 1993). Further, social competence and social support can help ease school transitions (Ladd, 1990). The exact mechanisms underlying these associations are just beginning to be studied. Some have argued that the association represents the influence of some underlying form of inherited intelligence or

temperamental/motivational orientation that facilitates the acquisition both social and academic competence (e.g., Keogh, 1986; Martin, Drew, Gaddis, & Moseley, 1988). Others have extended this perspective by documenting that common socialized characteristics underlie competence in both domains - characteristics like a high sense of social responsibility (Wentzel, 1991a, b), a moral commitment to conventional forms of success (Hart, Yates, Fegley, & Wilson, in press), and good self-regulatory skills (Ford, 1982). A third hypothesized mechanism grows out of the social support and mental health literatures (Berndt, 1989). Children should be able to focus more of their attention on learning if they feel socially supported and well-liked by both their peers and the adults in their learning context and if they feel that they belong (Goodenow, 1992; Ladd, 1990; Wehlage, Rutter, Smith, Lesko, & Fernandez, 1989). They may also place more value on learning in such a context.

Peers as Co-Learners

The extensive work on the advantages of cooperative learning provides another way of looking at the link between peers and schooling. This work has stressed several roles of peers as co-learners. Most directly doing learning activities in a social context is usually more fun and, thus, intrinsically interesting (Slavin, 1990). Peers can also help each other understand and learn the material through group discussion, sharing of resources, modeling academic skills, and interpreting and clarifying the tasks for each other (Sieber, 1979; Schunk, 1987). Each of these characteristics should influence achievement through its impact of the children's expectations for success, their valuing of the activity, and their focus on learning rather than performance goals. One way positive social interaction has been facilitated in classrooms is through cooperative learning (see Slavin, 1990). Finally, cooperative learning is also linked to the mechanism discussed in the previous paragraph: when cooperative learning is used in classrooms, children are more accepting of one another, and fewer children are socially isolated. Thus greater use of such techniques can mitigate the effects of peer rejection and lack of belonging on students' academic motivation.

Closely related to the work on cooperative learning is the work on peer tutoring. Children learn a great deal from teaching other children (Sieber, 1979). Such an arrangement benefits both the tutor and the tutee. An interesting variant on peer tutoring is described in Turning Points (Carnegie

Council, 1989): cross age tutoring. A particularly interesting intervention is described in this book: A very special group of eighth graders was trained and then allowed to tutor first graders in reading. What made the eighth graders special was the fact all of them were doing quite poorly in school and were reading substantially below grade level. Nonetheless, they did read better than the first graders. It was hoped that the intervention would help both the eighth and first graders; and it did! Both the school engagement and performance of the group of eighth graders increased dramatically - so much so that they stayed in school and were reading at grade level when they graduated from high school. In addition, their tutees continued to read at grade level as long as they interacted with their older student tutor. This intervention demonstrates the power of cross-age tutoring as a way to provide older students with a meaningful and fulfilling task as well as younger children with the extra help they need to avoid falling behind.

Similar cross-age dynamics operate in communities. As noted earlier, older children and adolescents sometimes recruit younger children in the dominate peer group activity settings in particular neighborhoods; these can be either positive settings such as faith-based institutions or recreational centers or more negative settings such as gangs. Some of the most successful youth development programs discussed in A matter of time (Carnegie Corporation, 1992) involve cross-age mentoring programs like the one described in the previous paragraph.

Peer Group Influences

Much of the classic work on peer influences on development focused on the negative effects of peer groups on adolescents' commitment to doing well in school. More recently, investigators have turned their attention to understanding the specific mechanisms by which peer groups can either support or undermine positive development through their impact on both school engagement and involvement in other positive activities. This research has documented that children tend to cluster together in peer groups that share the same motivational orientations and activity preferences and that such clustering serves to reinforce their existing motivational orientation and activity preferences, leading to a strengthening of these individual differences over time (e.g., Ball, 1981; Berndt & Keefe, in press; Berndt, Laychak, & Park, 1990; Epstein, 1983; Kinderman, McCollam, &

Gibson, in press; Youniss, 1980). But whether such effects are positive or negative depends on the nature of the peer groups' motivational values and behavioral orientations. For example, high achieving children who seek out other high achievers as friends should end up with more positive academic motivation as a result of their interactions with like motivated children. In contrast, low achievers who become involved with a group of friends who are also low achievers should become even less motivated to do school work and more interested in other activity settings (see Brown, 1990; Kindermann, 1993; Kinderman et al., in press).

The role of peer group influences is likely to vary across different ages. For example, peers may play an especially important role during adolescence. There are two major difference between children and adolescents in peer group processes: (1) Adolescents are more aware of, and concerned about, peer group acceptance, and (2) adolescents spend much more unsupervised time with peers groups in social, sports, and other extracurricular activities (Brown, 1990). For example, early adolescents rate social activities as very important to them, and like them better than most of the other activities they do, particularly academic activities (Eccles et al., 1989; Wigfield et al., 1991). Furthermore, Harter (1990) found that early adolescents' physical appearance and social acceptance are the most important predictors of their general self-esteem, much more important than their perceptions of their own cognitive competence. These results suggest that the potential role of peer groups should be greater during adolescence and that the nature of the effect should depend on the values of the peer group and the specific domains being considered. Hanging out with a group of friends highly motivated for school achievement should facilitate academic motivation and achievement, perhaps to the detriment of motivational commitment in other domains. Similarly, although hanging out with a low academic motivation group should undermine academic motivation, it may facilitate motivation and involvement in some other arena depending on the values of the peer group.

The work by Stattin and Magnusson (1990) provides a good example of this process. They reported that some young women (early maturers in particular) are particularly likely to be channeled into early heterosocial peer groups and activities. Because these females look sexually mature, they are more likely to become involved with older peers, particularly with older male peers who interact

with them in a gender-role stereotypic manner. As these young women get caught up in this peer social system, they shift their attention away from academic activities and into heterosocial activities and roles. As a result, they lower their educational aspirations, shift the value they attach to academic pursuits and, in fact, end up obtaining less education than one would have predicted based on their prepubertal academic performance and motivation. Instead, they often marry and become parents earlier than their other female classmates.

Somewhat related to the work by Magnusson and Stattin is the work on the institutional consequences of ability grouping. Earlier we discussed Pallas et al.'s (1994) study showing that ability grouping has an institutional (or social stratification) effect in the sense that it affects parents' and teachers' opinions of children's potential and motivation to a greater extent than predicted by the impact of ability grouping on the children's acquisition of school-based competencies. The impact of ability grouping on one's peer network is another example of an institutional effect. Several researchers (e.g., Dreeban & Barr, 1988; Eder & Felmelee, 1984) have suggested that ability grouping influences motivation and achievement, in part, by its influence on one's peer group. The evidence of this effect is mixed for the elementary school years. But it is more likely to be true in the adolescent years when between class ability grouping and curricular tracking becomes more common place. These institutional practices result in much greater segregation of peer groups based the courses they are taking (Fuligni et al., 1995; Oakes, Gamoran, & Page, 1985; Rosenbaum, 1980; Vanfossen et al., 1987). If this is true, then we would expect greater evidence of social stratification effects of ability grouping on development during the adolescent years.

Peers' Role in the Coordination of Multiple Goals

The work by Stattin and Magnusson is also illustrative of the importance of coordinating multiple goals. Just as schools and communities are complex organizations with multiple purposes and goals, so too individuals have multiple goals. Learning to co-ordinate and manage one's goals is a key developmental task. Peers can play a very central role in this process by making various goals and activities more or less salient and more or less desirable. Adolescence is an ideal time in which to observe the dynamics of this process. Similar processes have been suggested for various ethnic groups.

Several investigators have suggested that some groups are likely to receive less peer support for academic achievement than affluent White youth (e.g., Fordham & Ogbu, 1986; Willis, 1977). Steinberg, Dornbusch, and Brown (1993) concluded that both the lower performance of African Americans and Hispanics and the higher performance of Whites and Asians are due more to ethnic differences in peer support for academic achievement than ethnic differences in either the value parents attach to education or the youths' beliefs regarding the likely occupational payoff for academic success. Even though the adolescents in each of these group reported strong support for school achievement from their parents, the Hispanic and African-American students reported less support for school achievement among their peers than either the White or Asian-American students. Consequently there was less congruence between parents and peers in the valuing of school achievement. Some of the African-Americans indicated that they have great difficulty finding a peer group that would encourage them to comply with their parents' valuing of educational success. As a result, they reported that they had to be very careful in selecting which of their African-American peers to have as close friends. European and Asian American students are much less likely to report this kind of peer dilemma.

Summary

Peer influences are an integral part of both school and neighborhood effects. Spending time with one's peers is a major activity in both of these extrafamilial contexts. In fact, the opportunity to spend so much time with one's peers is one of the major distinquishing characteristics of these extrafamilial contexts. In this section, we have stressed how the impact of peers in both of these settings depends on the nature of both the individuals and the activities inherent in these peer contexts. Characteristics of both schools and neighborhoods influence the types of peers to whom, and the types of peer group activities to which, children and adolescents will be exposed. If these individuals are positive, these associations are likely to facilitate positive developmental outcomes; if these individuals are problematic, these associations are likely to put the children's development at risk.

Schools and neighborhoods also structure the kinds of activities individuals get to engage in during their free time. We discuss the influences of these activities in the next section.

FREE-TIME ACTIVITIES AND DEVELOPMENT

The release of A Matter of Time by the Carnegie Corporation of New York (1992) put the spotlight on the role of productive use of time in successful development. It illustrated how much discretionary time children and adolescents have and how much of this time is spent on unstructured activities like "hanging out" with one's friends, watching television, and listening to music. The report stressed that constructive, organized activities are a good use of children's and adolescents' time because: (1) Doing good things with one's time takes time away from opportunities to get involved in risky activities; (2) One can learn good things (like specific competencies, prosocial values and attitudes) while engaged in constructive activities; and (3) Involvement in organized activity settings increases the possibility of establishing positive social supports and networks. To date, there has been relatively little longitudinal, developmentally-oriented research focused on either the benefits or costs of how children and adolescents spend their discretionary time. Most of the relevant research has been done in sociology and leisure studies; and most of the work has focused on adolescents.

Most of the sociological and psychological research on activity involvement has focused on extracurricular school activities. This research has documented a link between adolescents' extracurricular activities and adult educational attainment, occupation and income, after controlling for social class and ability (Eccles & Barber, in press; Landers & Landers, 1978; Otto & Alwin, 1977). This work also documented the protective value of extracurricular activity participation in reducing involvement in delinquent and other risky behaviors (e.g., Eccles & Barber, in press; Landers & Landers, 1978).

Research within leisure studies has taken a slightly different path - focusing on the differences between relaxed leisure and constructive, organized activities: Relaxed leisure is characterized as enjoyable, but not demanding (watching TV). In contrast, constructive, organized leisure activities (such as team sports, performing arts, and organized volunteer activities) both require effort and commitment

and provide a forum in which to express one's identity or passion (Agnew & Petersen, 1989; Csikszentmihalyi & Kleiber, 1991; Larson & Kleiber, 1993). These activities are assumed to have more developmentally beneficial outcomes than relaxed, unstructured leisure because these they provide the opportunity: (a) to acquire and practice specific social, physical and intellectual skills that may be useful in a wide variety of settings; (b) to contribute to the well-being of one's community and develop a sense of agency as a member of one's community; (c) to belong to a socially recognized and valued group; (d) to establish supportive social networks of both peers and adults that can help one in both the present and the future; and (e) to experience and deal with challenges.

Recent research supports these assumptions about the positive effects of participation in organized activities (e.g., Simmons & Blyth, 1987). For example, Mahoney and Cairns (1997) and McNeal (1995) found that participation in extracurricular activities is related to lower rates of school dropout, particularly for high risk youth. Mahoney also showed a connection to reduced rates of criminal offending (Mahoney, 1997). In addition, adolescents involved in a broad range of adult-endorsed activities report lower rates of substance use than their non-involved peers (Youniss, Yates, & Su, 1997). Sports, in particular, has been linked to lower likelihood of school dropout and higher rates of college attendance (Deeter, 1990; Eccles and Barber, in press; 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, in press; Lamborn, Brown, Mounts, & Steinberg 1993; Newman, 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, in press; Lamborn, Brown, Mounts, & Steinberg,

1993). These results suggest that participation in organized 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 the links between peer group formation, identity formation, and activity involvement. For example, Fine (1992) has explored the relation of participating in little league to both peer group and identity formation. He stressed how participation in something like little league shapes both the child's definition of himself as a "jock" and the child's most salient peer group. In turn, these characteristics (one's identity and one's peer group) influence subsequent activity choices - creating a synergistic system that marks out a clear pathway into a particular kind of adolescence. Similarly, Eckert (1989) has explored the link between the peer group identity formation and 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 one is exposed to. 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 group precisely because such participation structures a substantial amount of peer group interaction. One's co-participants

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." 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 (see also Larson, 1994).

For the most part, such opportunities should have positive outcomes for development. However, if this peer group engages in such risky behaviors as drinking and using drugs, then it is likely that participation in the activity setting will lead to increases in these behaviors as well. Whether engagement in these types of risky behaviors has more serious negative consequences for development will depend on both the broader set of values endorsed by the peer group and the psychological characteristics and values of the individual.

CONCLUSION

In this chapter, we have summarized the many ways in which schools, peers, and out of school programs can influence development. We began by summarizing what is known about motivation to learn, focusing on develomental changes. We then discussed three major contextual influences on positive development: Schools, peers groups, and after-school programs. We stressed how one must think of schools as complex organizations. We 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. The 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. (The changes can also be developmentally irrelevant but we will not discuss these types of changes). Children move through this changing context as they move from grade to grade and from school to school. Similarly, children develop and change as they get older. They also have assumptions about their increasing maturity and the privileges it ought to afford them. We believe optimal development occurs 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. Furthermore, we summarized evidence that the risk of negative developmental outcomes is increased when these two trajectories are out of synchrony - particularly when the context changes in a developmental regressive pattern.

We discussed the relation of school characteristics to other contexts of development, particularly the community and the peer group. We summarized how both school and neighborhood influences are mediated by their impact own peer interactions and activity involvement. Throughout we stressed the need to look at the interaction between these various contextual influences. Too often researchers do not consider the interactions across contexts of development. Instead, they tend to specialize in one context - for example, the family or the peer group. But people live in multiple contexts. Making sense of, and co-ordinating the demands of, these multiple contexts are some of the more challenging developmental tasks. We know very little about how individuals manage these tasks and about how the ability to manage these tasks develops over time. We also know relatively little about how characteristics of one context influence the characteristics of other contexts. We summarized some of the ways ways in which school and neighborhood characteristics influence the nature of children's peer groups and peer interactions. Much more such work and theorizing is needed.

Another way to think about multiple context is in terms of their relative ability to meet human needs. As we noted earlier, Connell and Wellborn (1991) have suggested that individuals develop best in contexts that provide opportunities to feel competent, to feel socially connected and valued, and to exercise control over one's own destiny. If this is true, then individuals ought to be drawn toward those contexts that provide these opportunities in a developmentally appropriate dose. Variations across contexts on these characteristics could explain why individuals come to prefer one context over another - for example, adolescents who are not doing well in school might turn to their group to find a sense of sense of competence and positive self-esteem.

[i] An excellent "cultural" example of this is found on cars in the form of bumper stickers. Parents of high achieving students sometimes receive bumper stickers indicating their child is on the honor roll at a particular school. Other parents, presumably with lower achieving children, sometimes have been known to put a bumper sticker on their car the says "My child beat-up your honor student" at such and such a school. Apparently, an ego-oriented school environment can cause feelings of anger and frustration not only in students, but also parents of these students

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