

School as a Context of Student Motivation and Achievement

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Schools hold a central place in the developmental agenda set forth for children and adolescents in nations throughout the world. As a consequence of their central and sustained presence in the lives of young people and their families, schools and educators play essential cultural functions with respect not only to the development of young peoples' subject-matter learning and educational attainments; but also with respect to the development of their curiosity and motivation to learn, their social-emotional skills and self-awareness, and their broader moral and civic role identities. It is this wider array of outcomes that schools affect that includes but transcends academic learning that is important not only for individuals' success in school, but for their success in life (Battistich, Watson, Solomon, Lewis, & Schaps, 1999; Comer, 1980; Damon, 2002; Eccles & Roeser, 1999; Greenberg et al., 2003; Rutter & Maughan, 2002; Wentzel & Wigfield, 1998). How educators can simultaneously address their academic missions *and* their broader social-emotional, moral, and civic missions in an age of increasing pressures for academic accountability is a contemporary challenge facing many educational professionals in developed nations across the world today (Vanderwolf, Everaert, & Roeser, 2009).

In this chapter, we explore what constitutes a school context from an ecological perspective on human motivation and development, and how features of both the organizational context and culture of schools-as-a-whole can affect students' motivation to learn and achievement.

Throughout the chapter, we highlight important connections between the social, moral, and academic cultures of schools and the related idea that acts of teaching and learning are inherently social-moral acts with consequences for the development of the whole person (e.g., Noddings, 2002). That is, we propose that the ways school contexts are organized for academic learning, and the way teachers teach, implicitly engender social, emotional and moral messages and consequences that in turn affect students' development beyond their subject-matter learning. We review selected research on how academic and social-moral features of school environments can affect students' motivation and behavior, and conclude with a discussion of future directions for research on schooling and motivation to learn during the primary and secondary school years. We propose that future research on schooling, motivation and achievement focus on issues of (a) the ethnic and racial diversity in the school-aged population today; (b) the geographically situated nature of schools and the challenges they face today, and (c) the on-going need for school reforms that produce both greater equity and productivity through the enhancement of motivation, the development of both academic and social-emotional skills, and the cultivation of students' felt membership in a school community.

Conceptualizing “School” and the School Environment

What constitutes a “school environment” and how does one conceptualize school environments from both “outside in” and “inside-out” perspectives? In our own thinking about so-called 3rd and 1st dimensions of schools, we have found it useful to distinguish between the organizational *context* and the organizational *culture* of schools, respectively (Anderson, 1982; Sarason, 1990). A significant body of interdisciplinary research now exists on how 3rd person, *objective* school organizational *context* features such as sector (public vs. private), size, and administrative structure (e.g., degree of departmentalization) can affect both teacher motivation and teaching quality, and consequently, student engagement, achievement, and extracurricular activity participation (e.g., Barker & Gump, 1964; Bryk, Lee, & Holland, 1993; Lee, Bryk, & Smith, 1993). At the same time, work in educational and developmental psychology on motivation and schooling has offered numerous theoretical accounts of how and why specific 1st person, subjective features of the school culture, such as the nature of a school's academic goal structures, authority structures and relationships between educators and students are motivationally and developmentally instigative with respect to students' engagement, choice, and achievement (see Deci & Ryan, 2000; Eccles & Roeser, 1999; Maehr, 1991; Midgley, 1993; Roeser & Galloway, 2002; Weinstein, 1989). This work places a central role on the active meaning-making tendencies of individuals when in school by focusing on how individuals' appraisals of school environments in relation to personal and social goals, salient developmental needs, and cultural expectations play a major functional role in the determination of motivation and behavior in these and any social environment.

One basic challenge in research on schools and motivation today is to bring together our understanding of how these two sets of features - those 3rd-person, *tangible* features of a school's organizational context (e.g., its level of resources, size, and administrative structure) as well as those *tacit* 1st person features of its organizational culture (e.g., its expressed mission, ideologies and norms, interpersonal climate) as perceived by different actors in the school (e.g., teachers, students, observers) conjointly affect student motivation and behavior. A second

related challenge in this area of research is the need for a new generation of theories about how and why constellations of school context and culture features cohere, and how together these factors synergistically affect student motivation and achievement over time (e.g., Lee, Bryk & Smith, 1993; Eccles & Roeser, 1999; Maehr & Midgley, 1991; Midgley, 1993). We need both descriptive and prescriptive, multilevel, multidimensional accounts of how school environments affect student motivation, identity and behavior across developmental time (Lee, 2000; Roeser & Galloway, 2002; Wigfield, Eccles, Schiefele, Roeser, & Kean, 2006).

The need for such rich accounts is evident in the fact that much school research simplifies the “school environment” into a few summary variables. For example, because elementary school-aged children spend most of their school day in self-contained classrooms, whereas adolescents experience multiple classes, teachers, and groups of classmates on a daily basis, the focus on “school effects” at the elementary and secondary school levels represent two different kinds of conceptual simplification of the notion of “school.” In the case of children, the elementary school classroom is largely synonymous with “school” (e.g., Rutter et al., 1979) and, in general, this is the level at which motivational researchers interested in education have focused much of their attention (cf, Wigfield et al., 2006). In the case of adolescents, the greater organizational complexity and differentiation of the secondary school environment makes it necessary to simplify and focus not on individual classes, but on the school itself as an organizational unit of study (Lee, 2000). Both solutions are to some degree inadequate in capturing the complexity of young people’s lives in school context. For example, one’s “school experience,” even in childhood, extends “beyond the classroom” to lunchrooms and gyms and playgrounds. In addition, during adolescence, one’s “sequences of classes” becomes a major part of one’s “school experience” psychologically, socially, and often even physically insofar as different types of students are housed in various parts of an overall school building. How to integrate classroom experiences with wider perceptions and features of schools-as-a-whole is an important conceptual issue when studying schools as contexts of motivation and achievement.

Recently, we presented various heuristic, descriptive, and prescriptive models of school environments derived from our review of the literature that were meant to address some of these issues by providing an enriched account of school as a basic context of human development (Roeser & Galloway, 2002; Roeser, Peck, & Nasir, 2006). As presented in Figure 18.1, the Basic Levels of School Contexts (BLOSC) heuristic model conceptualizes schools as existing within a system of embedded, multilevel contexts that develop over time both literally, and from the perspective of the developing student. These embedded contexts are depicted from the perspective of a student and radiate out from the student to the levels of tasks, classmates, teachers and classrooms; academic tracks, peers, and subject matter departments, the school as a whole organization; the district; the community; the state; and the nation (see also Cole, 1996; Eccles & Roeser, 1999; Talbert & McLaughlin, 1999). Each of the contexts that either envelope or are enveloped by the school-as-a-whole can be characterized by, and assessed in terms of, objective, third-person and subjective, first-person features (Roeser & Galloway, 2002).

[Insert Figure 18.1 here]

The left side of Figure 18.1 is meant to communicate the idea that, from one perspective, schools are *organizational contexts* comprised of tangible material and social features. These

include things such as the physical environment of the classroom; the curricular content; the social background, qualifications, and practices of the teaching staff; the social background and school readiness of the student body; the number of different courses of study and actual courses offered; the degree of departmentalization; the size, grade-span, sector, physical plant and resources of the school; district, state, and federal educational policies; and the socio-economic characteristics of the community of the school (Lee et al.,1993; Talbert & McLaughlin, 1999). These left-hand dimensions are apparent to outsiders and can be assessed from an “etic” or 3rd person perspective. The unit of analysis in studies of these kinds of features is often the school-as-a-whole, with a focus on how between-school differences in these features are associated with student outcome differences (Lee, 2000).

The right-hand side of Figure 18.1 is meant to communicate that from another perspective, schools are *organizational cultures* comprised of often tacit, social-symbolic, and social-relational features of school life. These features include the friendliness of the teacher and peers in the classroom; the challenge level and meaningfulness of the tasks and the sequence and scope of the different subject matter curricula; the discourse style, beliefs, values, and goals of the teacher; the motivational attitudes and mental health of students and peer groups in “high” and “low” track classes; the culture of the school in terms of academic and social-moral norms, roles, rules; the culture of the district in terms of leadership style; the values of parents and the community; and the spirit of innovation or stagnation in the educational policies of the state and the nation (e.g., Lee et al., 1993; Maehr & Midgley, 1991; Stodolsky & Grossman, 1995). These more subjective dimensions of Figure 18.1 are not readily apparent to outsiders and are usually assessed via the perceptions of students, teachers, parents, educational leaders and other stakeholders who inhabit school and related settings on a daily basis (e.g., an “emic” or 1st person perspective). Thus, the unit of analysis in studies of school organizational culture is often the individual, or some “consensus” (aggregate) measure of the “school culture as a whole” derived from a sample of individuals in the school (Anderson, 1982; Maehr, 1991).

Finally, the arrow of time at the bottom of Figure 18.1 is meant to indicate that these two features of school environments develop in historical and ontogenetic time. Regarding the former, for instance, with an increase in the size of the school-aged population, many schools now enroll more students (often in buildings of the same size) than they did previously. This means objective crowding in about one-quarter of the nation’s schools is a condition of education today that students, teachers, and administrators experience that was not there previously (U.S. Department of Education, 2000). In addition, the arrow of time is meant to indicate that, from the perspective of the developing child moving through the school system, these contexts change over developmental time (Eccles & Roeser, 1999). For instance, from the perspective of the growing child, they generally are moving into larger schools over time as they transition from elementary to middle to high school.

School Effects Research

To understand how school level factors can affect students’ motivation to learn, it is useful to draw upon and extend the decades old study of “school effects” on motivation and achievement in the social and behavioral sciences (see Eccles & Roeser, 1999; Rutter & Maughan, 2002), and to do so with the methodological advances that have been achieved in relation to the multilevel

effects of schools on student outcomes in mind (Lee, 2000). Traditionally, school effects research has aimed to document school-contextual factors that could account for significant variation between schools in academic (e.g., attendance, rates of learning, school dropout, and educational attainment), social (e.g., participation in extra-curricular activities), and behavioral outcomes (e.g., delinquency) that could not solely be attributed to students' social backgrounds. The scientific challenge inherent in much of school effects research is thus twofold. First, it is to identify and model school factors that exert a *socialization effect* on change in student outcomes above and beyond *selection effects* (e.g., the relevant background characteristics of school-aged children and their families who live in particular places and attend schools there). Second, it is to identify how individuals' psychological construals of the culture of their schools over time, in addition to the more objective material and social features of these schools, contribute to the prediction of change in their motivation and behavior across development. In the next section, we explore some of the features of schools as organizational contexts and as organizational cultures that have proven important in understanding school effects on students, broadly construed. Though we separate our discussion of the more tangible material and social features of schools from that of the more tacit, social-psychological features of schools, these are clearly interdependent in that these factors exist as different dimensions of an overall school *system*.

Features of the School as Organizational Context

School sector and grade span. Whether a school exists in the public or private (e.g., religious) sector is one feature of the organizational context of schools that has been related to students' motivation and achievement. Approximately 10% or about 5 million students attended private schools in the United States in 2004 (NCES, 2007). Because of their record with socially disadvantaged students in particular, various researchers have commented on the "religious schools effect" of private Catholic schools in terms of student achievement and educational attainments, especially among non-Catholics, those of lower socioeconomic status, and African Americans and Latinos living in urban areas (Bryk et al., 1993; Coleman, Hoffer, & Kilgore, 1982; Jeynes, 2002a, 2002b). In a meta-analysis of the effects of Catholic religious school attendance and personal religious commitment on academic achievement and school conduct, for instance, Jeynes (2002) found that, after accounting for socioeconomic status and gender, the effect sizes for religious school attendance were between .20 and .25 of a standard deviation for both academic achievement and school conduct. Although some suggest these effects are due to selection biases (i.e., either in the form of the schools selecting superior students or in the form of parental involvement—it takes certain level of parental commitment to education to move a child from a free public school to a private, parochial school), others have suggested that this claim is overdrawn and that the effects of a Catholic school education on achievement are quite robust (e.g., Bryk et al., 1993).

Several core features of Catholic schools have been highlighted as being instrumental in the reduction of inequality in these schools: smaller size and a communal organization, a philosophy of human dignity, and a restricted range of curricular offerings (Bryk et al., 1993). Catholic schools tend to be somewhat smaller than public schools, and this affords the possibility of their having a strong communal culture grounded in a rich array of rituals and activities outside of the classroom where teachers and students get to know one another beyond their school-related

roles. Smaller size and a greater sense of community, though not unique to private or parochial schools, can provide a social motivation for school learning—a set of caring relationships and a corresponding sense of community among faculty, staff and students—that fosters commitment and engagement. Second, Catholic schools communicate to all students that they can learn, and that they have a fundamental sense of personal dignity that is nonetheless independent of their ability to learn. To communicate these messages, these schools have what Bryk and colleagues (1993) call a “delimited technical core” (p. 297). Students in Catholic schools have many required classes and less electives, and therefore, all students are exposed to a common curriculum that the faculty expect them to learn. Although administrative sorting still occurs, there are less “tracks” and less differentiation of curricula by such tracks. The message to students is that every student is not only capable of, but is expected to learn the core curriculum. In sum, the opportunity structure for learning is narrower and more focused on providing a basic education for all students.

The grade span a school serves is another context feature that has been linked to student motivation. For instance, Eccles, Lord, and Midgley (1991), examined data from the NELS:88 dataset and provided additional empirical support for the benefits of Catholic schools. They noted, however an important contextual feature of these schools that is often overlooked – many of these schools served students from kindergarten to eighth grade, thus obviating the need for students to make the transition to secondary school during the onset of puberty (see also Simmons & Blyth, 1987). They noted that student outcomes among early adolescents, as rated by both teachers and students, were better in those attending K–8 schools than those who were attending a middle or junior high school during grades 6, 7, or 8. Students in K–8 schools were less likely to be truant, violent or to use substances at school; and were more likely to say they felt prepared for, and interested in, their class work compared to students in the middle or junior high schools. Furthermore, students in the K–8 schools reported higher self-concepts and greater locus of control, received higher grades, and did better on standardized achievement tests than those in the middle grades schools. Other research confirms superiority of K-8 schools in general for student outcomes due to the fact that, among other things, schools that serve these grade spans limit the number of school transitions students have to make and thereby preserve community (Simmons & Blyth, 1987). In sum the Eccles et al. (1991) study found that the majority of the K–8 schools that were conducive to student motivation and achievement were also private religious schools (74%) and were smaller size. Thus, it appears that school grade span (K-8), school sector (religious) and school size (small) were all school context factors that could explain why students in K–8 schools showed greater academic motivation, achievement, and positive conduct than those who were in middle schools or junior high schools during these grades.

School size. Consistent with this work, significant research has now documented that school size has significant implications for student motivation and achievement. The question of how much school size matters for overall student engagement and achievement was first asked during the 1960s. Barker and Gump (1964) proposed that smaller secondary schools afford young people various opportunities not available in larger schools, opportunities that foster engagement and achievement. Such opportunities included (a) closer relationships between teachers and students, (b) greater adult monitoring of and responsibility for student progress;

and (c) a particularly favorable roles-to-people ratio with respect to school extracurricular activities and the need for many students in the school to participate to fulfill those roles. By affecting these mediating processes, school size was hypothesized to affect student outcomes. Subsequent research has consistently verified these hypotheses.

For instance, in a national probability study of high school students, Crosnoe, Johnson, and Elder (2004) found that students' attachment to school in general and to their teachers in particular was significantly, negatively correlated with school size. Lee and Loeb (2000), in an urban Chicago sample of 264 (K-8) schools, found that in smaller schools (size < 400 students), teachers took greater responsibility for fostering students' learning and students showed greater 1-year gains in mathematics achievement. Schoggen and Schoggen (1988) counted student activity involvements from high school yearbook pictures of activity clubs and found that school size was strongly, negatively related to mean number of activity participations ($r = -.69$) and strongly, positively correlated with the percentage of students who participated in no school activities ($r = .77$; see also Crosnoe et al., 2004; Elder & Conger, 2000). Pittman and Haughwout (1987) found that school size had an indirect effect on school dropout rates through aspects of the school social climate, particularly the amount of opportunities for student participation in extracurricular activities

In sum, these studies show that positive relationships, opportunities to participate in the life of the school, and closer monitoring by teachers are key mechanisms in translating school size into greater student bonding with school, motivation to learn, engagement, and achievement (e.g., Hawkins, 1997; Hawkins, Kosterman, Catalano, Hill & Abbott, 2008). In a national study of high schools, Lee and Smith (1995) found that the greater the school size, the less positive were students' attitudes towards classes, investment of effort in school, and feelings of challenge. In summarizing the work of school size, Lee and Smith (1997) proposed that the most effective K-8 elementary schools with respect to student achievement gains are those that enroll 400 students or less, whereas the ideal 9-12 secondary school in this regard enrolls between 600-900 students. Students in elementary/middle schools that are larger than 400, and those in high schools smaller than 600 or larger than 1200, learn less in reading and mathematics. Findings regarding optimal size were consistent regardless of the social class and racial composition of the school.

In sum, school size can affect students' motivation and achievement through various pathways. As size grows, student anonymity increases and teacher responsibility and efficacy decrease, leading to declines in student motivation and achievement (Eccles & Roeser, 1999). In addition, as school size increases, the number of available people grows more quickly than available roles do. This eventuates in fewer opportunities and less pressure for students in larger schools to participate in school activities and therefore, the life of the school beyond the classroom (Barker & Gump, 1964). From a motivational perspective, felt belonging, valuing of school and perceived interpersonal and pedagogical care from teachers all are likely mediating psychological mechanisms between school size and student achievement outcomes.

School resources and physical plant. The level of economic resources and the appearance of the physical plant of a school may also affect student motivation and behavior through various causal pathways. Despite the common sense notion that more financial resources produces more educational success, the central question of how much school resources matter for raising achievement and reducing inequality in student outcomes raised by Coleman (1968) in his early

work remains unresolved today (Hanushek, 1994; Hedges, Laine, & Greenwald, 1994). It may be, as some economists now argue, that return on social investments aimed at reducing achievement gaps are greatest when programs are targeted to the first 3 years of a child's life before school begins (see Heckhausen & Masterov, 2007; Levin, 2008).

What is clear is that certain context features that are more common in low-income schools can make these under-resourced environments particularly un-motivating places for academic learning. For instance, low-income schools are staffed by disproportionately higher numbers of low-qualified teachers compared to affluent schools and teacher turnover in these schools is greater (Darling-Hammond, 1997). A key factor in these findings is teacher salary (Loeb, Darling-Hammond, & Luczak, 2005). In addition to lower qualifications in their content areas and greater turnover, some research shows that teachers in low-income schools may have a tendency towards exercising greater control over students, and to limit their use of constructivist teaching practices in part because they believe poor children lack the self-control necessary to motivate and regulate their own learning (see Evans, 2004; Solomon, Battistich, & Hom, 1996). Thus, two candidate mechanisms by which school resources can affect student motivation and behavior are (a) teacher qualifications and (b) quality of teaching (Darling-Hammond, 1997).

Other aspects of school resources related to the physical plant of the school have also been discussed in relation to students' motivation and learning, though little research has been done on this. For instance, we know that schools with high concentrations of impoverished students are more likely to have metal detectors, bars on the windows and graffiti on the walls than wealthier schools (Planty & DeVoe, 2005). What message do such factors give rise to in students in terms of felt security, school belonging, and school pride? The "broken windows" theory of delinquency and crime (Wilson & Kelling, 1982), for instance, posits that unmaintained or abandoned physical spaces connote a message of a lack of ownership and, in a sense, a lack of moral structure. Such spaces therefore become tacit seedbeds for antisocial activity (Gladwell, 2000). Do schools that are physically neglected and uncared for give rise to a sense of unowned space and delinquent behavior on the part of particular students (Astor, 1998)? Do individuals who act out and misbehave in schools sometimes feel "neglected and uncared for" in a way that is mirrored in the physical environment of their school?

In a study of 12 London area secondary schools, for example, Rutter and colleagues (1979) found that although the age of the school buildings was not significantly related to achievement or behavioral outcomes in students, observer ratings of building cleanliness and the presence of plants, pictures, and other decorations inside the school buildings, was a significant predictor of the level of behavioral misconduct students displayed in the school (after accounting for their social background). The less clean the school was, the less it had plants, and the less it had pictures and other decorations on the walls, the greater the misconduct of the students. In the future, motivational researchers might consider the effects of aspects of the objective physical plant of the school on student motivation, learning and behavior, especially when studying schools that are located in urban or rural areas where poverty is widespread, where the physical plants of school buildings may be decrepit and decaying, and where noise and pollution may be more prevalent. In another study, aircraft noise was associated with impaired reading comprehension among elementary school children attending schools near major European airports after accounting for their social background characteristics (Clark et al., 2005).

School student body. Another fundamental feature of the organizational context of schools is the aggregate social background characteristics of the student body. The tangible “mix” of socially disadvantaged students or those with significant emotional-behavioral difficulties in a school has been associated with the educational outcomes of all students in a given school (Rutter & Maughan, 2002). In general, as the ratio of students who are socially disadvantaged goes up in a school, its aggregate achievement goes down. This is problematic in the U.S. where nearly half of all African American students and almost 40% of all Latino students attend high schools in which most students do not graduate (Balfanz & Legters, 2004). This gives rise to a normative perspective on curtailed educational attainments of members of these groups and serves to reify debilitating cultural stereotypes about group members’ academic ability. The aggregate behavioral histories of a school’s student body also matter. LeBlanc, Swisher, Vitaro, & Tremblay (2007) found that between-school variation in the proportion of students with histories of disruptive problems predicted subsequent rates of classroom behavior problems among high school students. In sum, the composition of a school’s student body has independent influences on the motivation and behavior of students in school. A variety of mechanisms, including those of peer influences on motivation understood in the context of tracking, and social environments in which maladaptive norms develop, have been proposed to account for these influences (e.g., Rutter & Maughan, 2002).

School curricular differentiation. In the middle and high school years, between-classroom tracking becomes both more widespread and more broadly linked to the sequencing of specific courses for students bound for different post secondary school trajectories (college preparation, general education, and vocational education). As curriculum differentiation practices intensify during secondary years, students of different ability get exposed to (often very) different kinds of academic work, classmates, teachers, and teaching methods (e.g., Oakes, 2005).

A general consensus on the overall effects of curriculum differentiation as an educational practice remains elusive (Eccles & Roeser, 1999). Research suggests that students who are placed in high tracks evidence some educational benefits; whereas low tracks placements are associated with negative achievement outcomes (see Kao & Thompson, 2003; Oakes, 2005). As just one example, Hallinan and Kubitschek (1999) found that assignment to high track classes accelerated growth in school achievement, whereas assignment to a lower level or vocational track decelerated such growth. Studies have also demonstrated that lower-track students report being labeled “dumb” by teachers and peers (Persell, 1997), feel less committed to school, and feel less successful academically (Schafer & Olexa, 1971).

A persistent concern in research on tracking during both the primary and secondary school years is the fact that both poor students, and those who are African American, Latino, and Native American, are more likely than their wealthier and European or Asian American peers to be in low group and low track placements early and throughout their school careers (Oakes, 2005). Lucas (1999) explored the issue of mobility (i.e., student movement from one track to another) and found that track origins mattered most: those who started on the high and low tracks tended to stay on those tracks, whereas those who started on the middle tracks tended to move downward. These findings led Lucas to conclude that “wider social inequality continues to advantage those of more means... [and that] those of modest means are disadvantaged in high school placement....” (pp. 112–113).

Similarly, concerns have been raised about the marginalization and segregation of students

who speak English as second language (ESL students) on middle and high school campuses (Valdez, 2001). There is also some evidence that students with limited English proficiency who are otherwise capable are placed in lower track classes (see Kao & Thompson, 2003). ESL programs are often housed on the periphery of regular school campuses and often fail to provide real opportunities for them to interact with native English speakers. Furthermore, similar to the misassignment of African American and Latino students to and lack of mobility out of low academic tracks (e.g., Dornbush, 1994), there is some evidence that ESL students often get reassigned (downwardly) to ESL programs following school transition events even though they may have graduated from such programs into mainstream classes in their previous schools (Valdez, 2001). Although achievement gaps start prior to schooling (e.g., Ramey & Ramey, 2004), the stability of curricular placements once a child enters school is what is of most concern in these studies.

An interesting perspective on tracking comes from national studies using multilevel modeling analyses to examine how between-school differences in the extent of tracking and other reforms relates to student motivation and achievement. For instance, in a study of middle schools from NELS:88, Lee and Smith (1993) found that the extent to which middle schools had engaged in restructuring practices (less departmentalization, more team teaching, more heterogeneous grouping, etc.), students were more engaged in learning and learned more, and there was a more equitable social distribution of these outcomes. Studies of religious schools and high schools have shown similar results—the more that all students in a school are expected to learn a core curriculum, the less inequality there is in student achievement by social background factors (Bryk et al., 1993; Lee & Bryk, 1989; Lee, Croninger, & Smith, 1997; Lee & Smith, 1993, 1995, 1997; Lee, Smith, & Croninger, 1997). Research on how curricular differentiation is related to both within and between-school differences in students' motivation to learn and achievement is rare, but could complement this existing body of work and further specify key psychological mediators for declines in inequality as curricular differentiation becomes narrower.

School start and end times. Another subtle feature of the organizational context of schools that matters for students' motivation and achievement concerns the time school starts in the morning and ends in the afternoon. Carskadon (1997) has shown that as children progress through puberty they need more sleep and their natural sleep cycles shift to a desire to go to sleep later in the evening and to wake up later in the morning. Unfortunately, secondary schools typically begin earlier in the morning than primary schools, necessitating earlier rise times for adolescents at the same time their biological sleep clock is resetting (Carskadon, 1997). In concert with other changes, such as the later hours at which adolescents go to bed, the earlier school start times of the middle and high school create a “developmental mismatch” that can both promote daytime sleepiness and undermine adolescents' ability to make it to school on time, alert, and ready to learn. A study of fifth-grade students in Israel, for example, compared of two groups: those in a school that started at 7:10 am (early risers) and those in a school that started at 8:00 am (regular risers). Results showed that early risers slept less, reported more daytime fatigue and sleepiness, and reported greater attention and concentration difficulties in school compared to their later rising counterparts. The implication is that the time that schools begin can have a significant effect on mood, energy, attention, and therefore the motivation and learning of students.

The time at which school ends also has implications for students' motivation to learn and achievement. In communities where few structured opportunities for constructive after-school activities exist, young people are more likely to be involved in high-risk behaviors and less likely to be engaged in productive activities that can deepen academic motivation during the period between 2 and 8 p.m. (Eccles & Gootman, 2002).

School transitions. Early work suggested that the developmental configuration of schools a child attends across the course of her childhood and adolescence has implications for her motivation, achievement and attainments. The transition into a junior high school, rather than staying in a K-8 environment, for instance, is associated with poor psychosocial outcomes, especially among females (Eccles et al., 1991; Simmons & Blyth, 1987.) These studies and others suggest that the more normative school transitions students undergo during their school careers, the greater their achievement loss.

Several of the organizational context features discussed above also account for within-child changes in motivation and achievement across school transitions (Eccles & Midgley, 1989; Maehr & Anderman, 1993; Midgley, 1993; Simmons & Blyth, 1987). For instance, the increase in school size and decreases in felt belonging and close teacher-student relationships reported by students across the transition from elementary to secondary school are paralleled by teachers who have larger teaching loads, less ability to know their students, and less efficacy concerning their ability to reach all students. When teachers do not know how or feel able to effectively reach all their students, they may abandon the use of cooperative and autonomy-supportive practices in favor of extrinsic motivators and other forms of control (Eccles & Midgley, 1989). Whereas researchers have studied the transition into elementary and middle or junior high school (see Eccles & Roeser, 1999), more research is needed on the high school transition. Assessments of how changes in the organizational context and culture of feeder and receiver schools affect young people's motivation to learn as they transition from one school to another (e.g., Eccles & Roeser, 1999), as well as on how the loss or maintenance of peers across such transitions (e.g., Schiller, 1999) can condition the effects of school transitions on motivation and achievement is also needed.

Features of the School as Organizational Culture

In the history of school effects research, attention gradually shifted from a sole focus on organizational context features like size to a consideration of features linked to the organizational culture of the school as a whole (Brookover, Beady, Flood, Schweitzer, & Wisenbaker, 1979). Such features include things such as a school's leadership and work climate, academic and social climate, and everyday routines, norms and styles of interpersonal interaction among school staff and between staff and students. The hypothesis behind this line of "effective schools" research was that to the extent schools varied in their student outcomes, this variation would presumably be related to between school differences in features of the school organizational culture (Anderson, 1982). Differences in schools that were unusually effective or ineffective in terms of students' academic and behavioral outcomes after controlling for student intake characteristics were examined (e.g., Brookover et al., 1979; Rutter et al., 1979).

The effective schools research unequivocally established that features of the internal life of

the school culture mattered for student outcomes above and beyond students' initial social background characteristics (Good & Weinstein, 1986; Rutter & Maughan, 2002). As Lee (2000) summarized it: "Effective schools have strong leadership focused on academic outcomes. They closely monitor student work. In such schools, teachers hold high expectations for all students. Their social environments are purposeful. Their climates are orderly" (p. 126). These were the findings derived from looking at aggregate perceptions of school contexts in relation to aggregate student achievement outcomes. In this section, we unpack these tacit features of the school organizational culture to emphasize that there are really several intersecting climates in a school—one having to do with academics and the purpose of learning, another with rules and discipline, and a more general social-moral climate derived from the organizational context of the school and the kinds of interactional patterns between and among teachers and students that such contexts facilitate and promote. In the research that we discuss below on school culture, it is important to note that the unit of analysis tends to shift to the individual.

School academic culture for students. Some of the most interesting work on the organizational features of school cultures in psychology has come from motivational researchers espousing an Achievement Goal Theory perspective (Urden, 1997). Some of this work has utilized goal theory to describe the goal structure of the school as a whole in relation to students' motivation and learning (Maehr, 1991; Maehr & Fyans, 1989; Roeser, Midgley, & Urden, 1996) and teachers' motivation and pedagogy (Maehr & Midgley, 1991; 1996; Roeser, Marachi, & Gelbach, 2002).

Maehr and Midgley (1991, 1996) argued that there exist at least two kinds of school level *academic goal structures*—a "performance-oriented" and a "mastery-oriented" school goal structure. In a performance-oriented school culture, one's relative academic ability and status hierarchies based on such relative abilities are valued and recognized. Academic success is defined in terms of one's demonstration of superior ability and attainment of superior grades. Many students, by definition, fail in this kind of an environment. In a mastery-oriented school culture, effort, mastery, and improvement are valued and recognized. Academic success is defined in terms of one's effortful mastery of content, improvement of skills, and learning through trial, error, and social assistance. The meaning of failure is transformed in this situation from "not being smart" to "not trying" or "needing additional strategies and support." Midgley and Maehr (1991) suggested that school level decisions concerning the nature of the tasks to which students were exposed (e.g., textbook selection), norms associated with the empowerment of students (e.g., student government programs), means of recognizing students for various behaviors (e.g., honor rolls and public assemblies), approaches to grouping students (e.g., tracking policies), formats for formally evaluating students (e.g., portfolio assessments), and the use of time (e.g., block scheduling) could all eventuate in a culture at the school level that was more or less performance or mastery-oriented.

This work grew out of the application of goal theory to changing classroom climates (e.g., Ames, 1992). Maehr and Midgley (1991, 1996) described their own experiences in which attempts to alter the achievement goal structures at the classroom level were undermined by school level policies, procedures, and practices. For example, a teacher's efforts to promote mastery goals and de-emphasize competition and social comparison (i.e., performance goals) in her classroom may be undermined by school-level policies and practices that emphasize achievement-level differences among students, such as publicly posting honor rolls to recognize

students with the higher grade point averages or allowing only high achievers to participate in certain school activities or clubs to the exclusion of others. Because classrooms are situated within the larger social environment of schools, these authors argued that school-level efforts to alter the achievement goal structure are necessary to classroom reform.

Several correlational field studies have examined the associations of students' perceptions of school goal structures with motivation and achievement outcomes. Roeser et al. (1996) found that adolescent students' perceptions of the mastery goal structure in their middle school predicted their own personal mastery goals, which, in turn, positively predicted their academic self-efficacy beliefs and positive affect in school. Students' perceptions of the school performance goal structure were positively associated with their personal performance goal orientations, which in turn predicted their feelings of self-consciousness in school. Interestingly, students who perceived a strong performance-goal structure in their school were less likely to perceive that their teachers cared for them, whereas those perceiving a task goal structure in the school were more likely to see their teachers as caring.

In a second study, Roeser, Eccles, & Sameroff (1998) examined the relation of perceived middle school goal structures to longitudinal change in adolescent students' motivation to learn and well-being after controlling for their sex, race, parental education level, parental occupational prestige, and income. Adolescent students' perceptions of their school as performance-oriented were related to diminished feelings of academic competence and valuing of school, increased feelings of emotional distress, and decreased grades over time; whereas perceived school task goal structures were associated with increased valuing of school and diminished emotional distress over time after controlling for student background characteristics (Roeser et al., 1998). Similarly, Kaplan and Maehr (1999) reported that students' perceptions of a mastery goal structure in their school were associated with greater sense of well-being and less misconduct than when students perceived an emphasis on performance goals in their school.

Figueira-McDonough (1986) compared two high schools in the same community that were similar in student intake characteristics and achievement outcomes, but differed in their academic culture and rates of delinquent behavior. The high school characterized by a greater emphasis on competitive academic achievement (performance-oriented school culture) and unpredictable supervision had higher delinquency rates than the second school, and grades were the strongest predictor of delinquent behavior in this school. In contrast, the second high school took a greater interest in students' nonacademic needs, promoted a broader meaning of what it meant to be successful in school than outperforming others, and had more predictable adult supervision of students. In this latter school, students reported higher levels of school attachment (valuing of school, liking teachers) and school attachment, not grades, was the primary (negative) predictor of delinquent activity. The authors concluded that the broader concern of the second school with the whole student and a noncompetitive view of success enhanced students' attachment to school, which, in turn, discouraged their involvement in delinquent behavior while in school. This latter school culture seems akin to what some have called a mastery goal structure.

A related set of issues involving the academic culture of middle and high schools concerns the equitable treatment of students not only regardless of their ability levels, but also regardless of their racial/ethnic backgrounds. Evidence is beginning to accrue that suggests that when ethnic

minority students perceive that their ethnic group is seen as intellectually inferior by teachers and classmates from majority racial / ethnic backgrounds, their motivation to learn, well-being and achievement can suffer. Wong, Eccles, and Sameroff (2003), in a longitudinal study of approximately 600 African American 12–14 year-olds who were followed from the beginning of seventh to the end of eighth grade of middle school, found that perceived discrimination perpetrated by teachers, school staff, and classmates in school at eighth grade was associated with declines in their self-reported academic self-concept and teacher-rated grades, and increases in their self-reported psychological distress, from seventh to eight grade. Other research has documented that adolescents' perceptions of a school performance goal structure is positively correlated with perceptions of racial discrimination in school among African and Latin American youth (Roeser & Peck, 2003; Roeser, 2004). It may be that by adolescence, certain ethnic minority students become more aware of (a) differential reward structures and opportunities in the school, (b) who the primary benefactors of these structures and opportunities are, and (c) how such disparities in opportunities and outcomes mirror what youth see between racial/ethnic groups in the wider society. Focusing on task-oriented motivational strategies in schools may thereby reduce the salience and potentially debilitating effects of racial/ethnic stereotypes and relative ability-oriented rewards structures on the achievement of particular groups of students.

School work culture for teachers. Another important assumption of Achievement Goal Theory-guided research on school cultures is that not only can school-wide policies and practices influence students' motivation and achievement, but also teachers' professional identities and pedagogy. As many studies of "effective schools" have shown, competent leadership and a sense of mutual support among school staff are two important ingredients in effective schools (Good & Weinstein, 1986). However, not all schools have work environments in which there is equitable treatment of teachers, democratic decision-making processes, a spirit of innovation, and opportunities for the professional development of all teachers. From a goal theory perspective, it is hypothetically possible to describe the work environment of a school as emphasizing competition, social comparison, and differential treatment of teachers (e.g., a performance goal structure); cooperation, equity, and a spirit of innovation (e.g., a mastery goal structure); or to some degree, both.

Roeser et al. (2002), for instance, found that when elementary and middle school teachers perceived differential treatment of teachers by school leaders and a sense of competitiveness among their teacher colleagues in their school, they were also more likely to endorse classroom practices that highlighted competition and ability differences between students in the classroom. On the other hand, when teachers in elementary and middle schools perceived support for innovation and experimentation from school leaders and colleagues, they were more likely to emphasize these things in their own approaches to motivating and teaching students in the classroom. Together, these findings underscore the possibility that real change in students' motivation and learning through reform efforts may turn on whether or not a supportive work culture for teachers in which cooperation, innovation, and experimentation are valued exists in a school (Sarason, 1990). Reforms that are most likely to be successful and successfully integrated into the on-going life of a school are likely those that create a safe, supportive, and motivating climate for teachers and students alike (Deci & Ryan, 1985; Sarason, 1990).

Whole School Culture Change Efforts. Work that attempts to change the whole school culture around learning provide a window into context-culture relations at the school level. For instance, Maehr, Midgley and their colleagues attempted to alter the school goal structure of one elementary and one middle school over a 3-year period. They met regularly with the teachers, administrators, and parents of the two schools to discuss achievement goals and to develop strategies for promoting mastery goals, and de-emphasizing performance goals, in the two schools. Two comparison schools in the same districts were also included in this quasi-experimental study.

Empirical data generated from the Maehr and Midgley intervention project revealed that students in the elementary and middle school levels could reliably report on their perceptions of the school-level mastery and performance goal structures. For example, Midgley, Anderman, & Hicks (1995) reported that both students and teachers in middle level schools perceived stronger performance and weaker mastery goal structures at the school level than did teachers and students in elementary schools. This work was later extended by Roeser et al. (2002). They documented a linear increase from elementary to middle to high school in students' and teachers' perceptions of performance-oriented school cultures. Similarly, Harter and her colleagues (1992), in a study of middle school students retrospective reports on their school transition experience, found that "students who characterized the school environment as (increasingly) emphasizing and externally evaluating performance and competence relative to others had higher extrinsic motivation, reported a much higher level of scholastic anxiety, and rated academic success as more important than did those not sharing these perceptions of the educational environment" (p. 797).

Although they did not assess students' perceptions of the school goal structure directly, Anderman, Maehr, and Midgley (1999) also presented evidence that Maehr and Midgley's attempts to alter the school-level goal structure in their school improvement work influenced the goal structures students perceived in their classrooms. Anderman and his colleagues (1999) found that when students moved from elementary schools into the treatment middle school (where efforts were underway to create a mastery goal structure), they reported a slight decrease in personal performance goals whereas students entering the control middle school reported an increase in performance goals. In addition, students moving to the treatment school reported no change in their perceptions of a performance goal structure in their classrooms whereas those moving into the comparison middle school reported increased emphasis on performance goals.

Other whole school change efforts also shed light on the nature of context-culture relations and reform efforts. One approach to school restructuring that focuses on both contextual and cultural features is the Accelerated Schools Project (ASP; Levin, 1988). The philosophy behind this approach is to view school as a democratic institution designed to promote the advancement of all students. Although most agree with this rhetoric, in practice most schools are organized according to a sorting and classification model. Even in the early grades, students are identified through testing and teacher observations as delayed, normal, or advanced in their academic abilities. Once the classification has been made, students are provided with different resources and opportunities, ranging from assignment to different reading groups within a classroom to placement in different programs, such as remedial classes or gifted and talented (GATE) programs. But if schools are truly viewed as organizations designed to help all students

maximize their potential, less emphasis will be placed on classification and segregation and more on providing stimulating educational opportunities for all.

The ASP was developed in response to two separate but related developments in education in the mid-1980s. First, there was a growing recognition that programs designed to benefit at-risk (i.e., low-achieving students or those with risk factors, such as low socio-economic status) were doing little to shrink the achievement gap between higher-achieving and lower-achieving students and were actually further marginalizing at-risk students. These programs tended to provide at-risk students with remedial programs that had low expectations of students and tended to rely on drill-and-practice methods that failed to engage students. Another common approach was to simply raise standards and demand that students reach them. But this approach often failed to include the necessary support and changes in instructional practice necessary to help lower-achieving students actually meet the more demanding standards.

A second development in education that set lay the groundwork for the ASP was a new focus on the success of *all* students in school (Slavin, 1987). The leaders of this movement argued that for all students to have access to educational opportunities, such as advanced placement classes and, eventually, college attendance, they would need to accelerate their progress in the primary years (Hopfenberg, 1991). To accomplish this, schools could not simply identify at-risk students and offer them remedial instruction. Rather, the entire culture of the school would need to be transformed such that high expectations and standards for all students were articulated and all students were supported to reach these standards.

Levin and his colleagues (Levin, 1988; Hopfenber, 1991; Lee, Levin, & Soler, 2005) began with the proposal that the same approach used in GATE programs of providing an enriched, interesting, project-based curriculum should be used with all students in a given school, including at-risk students. For this to work on a school-wide level, all stakeholders in the school (parents, teachers, administrators, and other interested members of the school community) must buy into the program and share in the decision-making process. The curriculum in ASP schools should be interdisciplinary and thematic, with language and higher-order thinking skills emphasized across all subjects. Students should be provided with opportunities to explore topics in depth and instruction should promote active learning, cooperation among students, heterogeneous grouping, and authentic assessment.

Although there has been some effort to extend the ASP model to secondary schools (Hopfenberg, 1991), the vast majority of ASP schools are primary schools. It is one of the most widely adopted whole-school reform efforts with at least 50 schools and 3000 students participating in accelerated schools for at least 5 years (Lee et al., 2005). Although there is some evidence that student achievement in accelerated schools is enhanced, it is important to note that the ASP model is not particularly prescriptive, so the effects of ASP reform efforts varies widely across schools and even within classrooms of the same school. The ASP model provides a core set of guiding principles and values, but individual schools are encouraged to engage in a process of self-exploration that results in curricular reforms, instructional strategies, and governance structures that are unique to each school. Therefore, much of the research evidence for accelerated schools is in the form of case studies of one or two particular schools.

There are several important messages from the literature on accelerated schools. First, whole-school reform efforts require a commitment on the part of all interested parties to genuine transformation of the school. Such efforts must go beyond the development and

implementation of small enrichment programs targeted at discreet groups of students. Because all students will be affected by truly whole-school reforms, the entire school culture, from the curriculum to the pedagogy to the mission to the governance structure, must change and require a shared vision and purpose among all of parties invested in the school. Second, whole-school reform efforts may be easier to accomplish at the primary school level than at the secondary school level. Secondary schools, with their separate departments, larger student bodies, and greater emphasis on achievement-level differences between students, are simply more resistant to the kinds of whole-school reform efforts found in the ASP. Although there have been attempts to extend the ASP to the secondary level, these efforts have not enjoyed nearly the success witnessed at the primary school level. Finally, even well designed whole-school reform efforts like the ASP are likely to produce widely varied results among classrooms within each school. In the final analysis, teachers still control much of the curriculum and instruction within their classrooms regardless of the reform efforts at the school level.

School behavioral climate. Another key dimension of the school organizational culture concerns the rules governing appropriate behavior. In schools where teachers and administrators establish smoothly running and efficient procedures for monitoring student progress and behavior, providing feedback, enforcing accountability for work completion and rule-governed behavior, student achievement is improved and misconduct and anti-social behavior is reduced (Figueira-McDonough, 1986; Gottfredson, Gottfredson, & Hybl, 1993; Hawkins, 1997; Rutter et al., 1979). From a motivational perspective, providing orderly and predictable school-wide behavioral structure, where “structure” is defined as the presence of clear and fair expectations and rules, judicious use of rewards, informational forms of feedback, and consistency of rule enforcement, enhances children’s and adolescents’ rule-governed behavior because it affords information on how to be competent and successful in that environment (Connell & Wellborn, 1991; Deci & Ryan, 1985).

School social climate. Supportive relationships between teachers and students are another critical part of a school’s organizational culture for students’ motivation and behavior in school. The quality of relationships between teachers and students can be affected by factors such as the school size, the nature of the work environment for teachers, and the qualities and qualifications of the teacher him or herself (e.g., Jennings & Greenberg, 2009). It is now widely acknowledged that relationships are the crucible in which learning and growth among teachers and students alike can flourish (e.g., Connell, 2003).

With regard to students, a significant body of experimental and field research has now demonstrated that perceptions of teacher social support and sense of belonging and membership in a learning community are important precursors to individuals’ motivation to learn (Osterman, 2000; Wentzel, this volume). Sense of belonging is perhaps especially critical for young people who must traverse significant ethnic and racial, socioeconomic, and sociolinguistic borders to feel fully part of a school in which middle-class, majority cultural norms often predominate (Davidson & Phelan, 1999; Lucas, Henze, Donato, 1990; Garcia-Reid, Reid, & Peterson, 2005). Indeed, the importance of relationships for re-invigorating education and re-engaging disenfranchised students is at the heart of many of the most innovative approaches to school reform over the last decade (Brown, 1997; Connell, 2003; Schaps, 2003).

In addition to feeling emotionally supported as a person, perceptions that teachers care about what one is learning as a student, what Wentzel (1997) called “pedagogical caring,” is also a

critical aspect of a school's "social" climate. Indeed, this combination of interpersonal care and academic press seems particularly critical for insuring students' motivation *and* achievement (Lee & Smith, 1999). Here again, we see the line between "academic" and "social" features of school cultures and the relationships between teachers and students as overlapping significantly, with implications for students' motivation to learn.

With regard to teachers, Connell (2003) has shown how important creating supportive relationships among teachers and staff are in a school with regard to providing a firm foundation for school change efforts. In his reform called "First Things First," positive relationships among teachers in a school are the first things that are cultivated in preparation for whole school reform. Again, it appears that creating the conditions in schools that are conducive to teachers' well-being and growth is essential for teachers' motivation and ability to create those same conditions for their students in the classroom (Sarason, 1990).

School moral climate. Another key dimension of the school organizational culture, one closely related to the social climate and particularly Wentzel's (1997) notion of pedagogical caring, is the moral climate of a school. Broadly defined, the school moral climate or atmosphere refers to how just and fair the rules and their enforcement are; whether or not school staff believe in and promote the learning and development of all students; the kind of role modeling enacted by adults in the school, and whether or not students are offered decision-making power and voice in the learning and in broader school affairs. The moral climate of a school in one sense permeates the entire school organizational culture and the acts of teaching and learning that occur in that culture (Noddings, 2002).

Kohlberg (1970), in his "just communities schools," pioneered a new approach in moral education that emphasized a whole school approach that apprenticed students in democracy and ethical reasoning (cf Power, Higgins, & Kohlberg, 1989). Central to the changes undertaken by just community schools was students' inclusion in school decision-making processes. The principle of one person-one vote was instituted in these schools—students and teachers had equal say and influence in the governance of their school community. As hypothesized, students in just community schools experienced significant gains in their moral reasoning ability (i.e., their ability to make principled judgments) and their tendency to feel obliged to act in accordance with reasoned judgments. They also reported greater honesty and service activity and less cheating, stealing and social exclusion. Kohlberg and his colleagues attributed these changes in judgment and behavior to changes in the moral climate of the school (Power et al., 1989).

Similar intervention work on fostering a moral climate in school has been done by the Child Development Project (CDP) in Oakland, California. The CDP project takes a school-level approach to fostering students' social and ethical development as well as their cognitive and academic development. Critically important to this approach are practices that directly engage students in cooperative and community-building activities at school. These include the use of cooperative learning techniques in classrooms, classroom management strategies that rely on student participation in norm-setting and decision making, teaching of conflict resolution skills, and curricula that focus students on themes of care. Research and intervention studies have shown that such practices foster a "community of care" that positively influences students' self-understanding, motivational beliefs and feelings of belonging, and in-school behavior (Battistich et al, 1996; Schaps, 2003).

In summary, school culture variables are important mediators and moderators for the influence of school context features on student outcomes. The “school culture” is not monolithic but has various dimensions that, in interdependent fashion, affect students’ felt belonging, efficacy motivation, well-being, achievement and behavioral choices. Understanding the combined and unique contributions of various aspects of the school culture for various student outcomes is a next step in this work.

Conceptualizing How Schools Influence Student Motivation

The strands of school effects research reviewed above reflect a descriptive taxonomy of the features of schools’ organizational contexts and cultures that are consequential for students’ motivation to learn and behavior. A third wave of research on schools that extends this earlier work on “school effects” in the educational and developmental sciences offers prescriptive accounts of how and why schools influence young people’s motivation to learn within and over developmental time. Such approaches assume that students actively construct meaning from educational environments in terms of their material, mental and social affordances for meeting educationally and developmentally relevant needs and goals (Connell, 2002; Eccles et al., 1993; Ryan & Deci, 2000). In essence, motivational-developmental approaches have tended to view the school as a *psychological environment* that comes to have meaning for individuals, and treats this psychologically experienced context as an individual difference variable (Maehr & Fyans, 1989). An important assumption is that considerable variation in context perceptions may exist among inhabitants of the same setting.

The processes by which school settings influence students’ context perceptions and therein their motivation, achievement and psychosocial development are described in rather similar ways by theorists with differing perspectives (e.g., Bronfenbrenner, 1993; Rogoff, 2003; Ryan & Deci, 2000). Social environments such as schools are conceptualized as catalysts for human motivation and healthy development insofar as these settings invite, permit, or inhibit movement from more peripheral to more central forms of participation in activities and responsibilities over time. Bronfenbrenner (1993), for instance, differentiated developmentally “constructive” from “destructive” environments according to their long-term consequences. Constructive environments were described in terms of people, practices, tasks, and resources that foster individuals’ sense of safety and belonging, encourage their autonomous (but safe) exploration of the environment, scaffold their competence development, and invite them into increasingly more central forms of participation. Such environments foster positive patterns of motivation (Ryan & Deci, 2000). Destructive environments undermine individuals’ sense of belonging and safety, overly-restrict autonomous exploration, forestall their competence development, and inhibit more central forms of participation. Such environments foster apathetic, resistant, or oppositional forms of motivation (Ryan & Deci, 2000).

Applied to schools, a number of motivational theorists have discussed how young people make appraisals of the constructive and destructive affordances in their schools in terms of their basic psychological needs for competence, autonomy and relatedness (Connell & Wellborn, 1991; Deci & Ryan, 1985; Eccles & Midgley, 1989; Skinner & Wellborn, 1994). The argument is rather straightforward: To the extent that school settings provide developmentally appropriate affordances for children/adolescents to actualize their competencies, exercise autonomy, and

participate in caring, respectful relationships, children/adolescents will feel academically competent, value school, feel good about themselves, achieve, and act in pro-social ways. On the other hand, to the extent school environments undermine fulfillment of these needs, students may feel academically incompetent, devalue school, feel alienated, act out and fail.

Figure 18.2 presents a heuristic, motivational model of school effects. The top of the figure links features of the school organizational culture with students' appraisals of that culture and, consequently, their situationally relevant beliefs, goals and values, and feelings (see Connell & Wellborn, 1991; Deci & Ryan, 1985; Eccles & Midgley, 1989). Students' subjective perceptions of aspects of their school culture, as well as their beliefs, goals, values and well-being are hypothesized to mediate between the "actual" school context and their behavioral engagement, achievement, extra-curricular activity involvement, and educational attainments.

[Insert Figure 18.2 here]

Perhaps students' subjective appraisals of their schools, from a motivational perspective, can best be captured by imagining students asking themselves several questions on a more or less regular basis about their experiences in school in relation to their stage-salient needs. For instance, in relation to the academic and behavioral climate of the school, students might wonder about motivationally relevant questions such as: "What is the purpose of learning in this school?" "Who gets rewarded and what counts as academic success here?" and, perhaps most importantly, "Can I succeed here and do I want to?" The school academic climate has direct implications for students' motivation to learn, specifically their need for competence and their achievement-related goals and values, emotions, and personal agency beliefs. In relation to the school behavioral climate, one could imagine students asking motivationally relevant questions such as: "What are the rules here?" "What is expected of me and how do I know?" "Do I care about and respect the rules of this place? Why or why not?" The behavioral climate, we hypothesize, is most closely linked to needs for competence and autonomy, and students' conduct-related goals and values, emotions, and personal agency beliefs. Associated with the school social and moral climates, students' questions bearing on motivation might sound something like this: "Do I feel cared for and respected as a person in this school by classmates, teachers, and administrators? Do I view my teachers as role models and do I feel that I can go to them in times of need?" "Do my teachers care if I'm learning?" Finally, associated with themes of personal autonomy and authority as they play out in schools, questions young people might "ask" themselves in school bearing on motivation might include: "Am I given any sense of voice in and choice over the kinds of learning experiences I have in my classes? What am I asked to do in my classes and how do these activities fit with my own values, interests, and experiences?" By drawing attention to these salient questions, motivational theories provide a rich description of the psychological factors that mediate school context and culture effects on student outcomes.

Methodological Implications

By knowing what the features of a school context are, and how specific school features represent developmentally instigative phenomena based on their relation to basic human needs, the descriptive and prescriptive models presented in Figures 18.1 and 18.2 provide unique insights into schools as contexts of student motivation and achievement. Clearly, the best models for

assessing school effects on motivation and achievement include both the organizational context of schools, and the psychological construal of these and the various dimensions of the school organizational culture by students and teachers who learn and work in these environments. That is, such models, by definition, are multilevel in nature (Lee, 2000). Traditionally, researchers have had to choose either the individual or the school level as the unit of analysis when modeling school effects. Often, one level of factors was ignored at the expense of the other, or both levels of analysis were used with statistical techniques not specifically designed to deal with such multilevel data (see Andersen, 1982; Lee & Bryk, 1989). These problems have been largely solved by multilevel statistical modeling tools (e.g., Lee, 2000; Rutter & Maughan, 2002).

[Insert Figure 18.3 here]

Gradually, we are coming to a place in which, with appropriate tools, we can begin to address the effects of schooling on aspects of the “whole student” using statistical techniques and variable centered analyses. One of the main contributions that motivational researchers interested in learning and school can make to this research is a sophisticated analysis of the psychological factors, including context perceptions, and the motivational, ability, and volitional factors that mediate between the instigative features of the school setting and consequent patterns of behavioral engagement in learning or non-learning in school. Such a methodological model is depicted in Figure 18.3 and represents the fruit of a long history of work on school effects (Anderson, 1982; Lee, 2000).

Future Directions for Research on School Effects on Motivation

The school-aged population in the United States continues to grow and diversify ethnically, culturally, and linguistically. Within this context, several important directions for future research on schooling and motivational processes arise.

Race and ethnicity. Investigating how students’ cultural, ethnic and racial, and social class backgrounds interact with the learning environment of the school, and thereby shape their educational pathways through the school system, is an important direction for future research given on-going achievement gaps among school-aged children and youth from different backgrounds (Meece & Kurtz-Costes, 2001). One hypothesis is that for ethnic and language minority youth, the experience of moving into middle and high school may be particularly challenging (Tatum, 1997). Such school transitions bring students into school settings that are larger, more stratified by class and race, and more performance-oriented compared to the elementary school environment (Roeser et al., 2002). As a consequence, status differences become more salient. Messages about who has the “right stuff” to succeed academically and who does not and are important issues that young people must manage as they form a sense of their identity and the place of school and education in it (Aronson & Steele, 2005). This collusion of ability stratification and societal stereotypes about intelligence may produce school cultures that are particularly unwelcoming and unfriendly for many ethnic minority youth during adolescence, especially those in low track or English-as-a-second-language classes. Thus, investigating the relation of school goal structures and perceptions of differential treatment by race, linguistic background and social class in schools represents an important future direction

in this work, one with strong implications for educational equity (Aronson & Steele, 2005; Roeser & Nasir, 2008).

Geographical context. A related issue needing more investigation in the future concerns the challenges facing different kinds of schools and communities in urban, rural, and suburban settings today (Rosignano, Tomaskovic-Devey & Crowley, 2006). Approximately 30% of students attended school in cities in 2003–2004, with African American and Latinos overrepresented in urban schools. Approximately 40% attended schools in the suburbs, with European Americans over represented in these wealthier school districts. The final 30% of students are in rural schools, including an overrepresentation of European and Native Americans. Asian American youth are equally likely to attend schools in cities and suburbs, but are rarely found in rural areas. The point we wish to highlight here is that questions about school effects on students' motivation and achievement are situated in each different geographical locale (e.g., Lippmann, Burns & McArthur, 1996).

For instance, understanding the role of school factors in racial differences in academic engagement and achievement in youth, especially under-achieving African American and Mexican American students, is an issue that disproportionately involves city schools. As noted above, African American and Latino students are over-represented in such schools, schools that are often poorly resourced. In urban centers, approximately 20–25% of the population lives in poverty, and African American and Latino students are overrepresented in high poverty communities and schools that are segregated racially and linguistically (Orfield, 1999). In general, urban schools are larger than those in suburban or rural settings (Lippmann et al., 1996). Research has shown that students in large schools with high concentrations of poor and racial minority students show the least learning gains in reading and achievement over time (Lee & Smith, 1997). Large proportions of the staff in poor schools are made up of noncredentialed or unqualified teachers, substitutes regularly fill the places of full-time teachers, and there is little support for English language learners. Staff turn-over is also greatest in high poverty schools (Darling-Hammond, 1997). In terms of student experiences, high poverty urban schools are perceived as less safe than other schools (Lippmann, 1996). What are the motivational effects of this constellation of factors that characterize urban schools? How can staffs mobilize against these rather massive constraints to improve education in these centers? How can policy changes provide incentives for high-quality teachers to work in such environments? These are pressing issues in need of research attention.

The effects of schooling on students in rural America is also important to consider, perhaps especially because “the truth is that rural schools and communities are increasingly invisible in a mass society that is fundamentally preoccupied with its urban identity, its urban problems, and its urban future” (Johnson & Strange, 2005, p. vii). Indeed, some scholars have referred to rural youth as the “invisible poor” (Hodgkinson & Obarakpor, 1994). Students living in rural areas show lower levels of achievement and higher rates of withdrawal from school prior to high school graduation on average compared to their nonrural peers (Rosignano & Crowley, 2001). Poverty is the major risk factor for educational outcomes across rural America.

In terms of motivation to learn, one issue facing rural youth concerns their conceptions of their futures, including their educational plans and related decisions about staying in rural communities or “moving to the big city” to find work in an increasingly urban world and global economy. This question of leaving home is likely to be a particularly important identity

challenge facing students growing up in these environments, with implications for their motivation to learn in school (USDA, 2003). For instance, analyzing data from middle and high school students in three communities in Illinois, Hektner (1995) found that compared to nonrural youth, rural youth were more likely to report a potential conflict between wanting to stay close to their families and moving away from their community in the future. Youth who worried about this potential life choice reported feeling more empty, angry, and pessimistic about their future. Finally, compared to urban and suburban students, rural adolescents expressed more hesitancy about pursuing further education. This was particularly true for males in this study, highlighting the importance of attending to gendered identities and their development in research in such environments. Research has begun to examine sources of college attainment of this population, including the resilience of low-resource rural youth who nonetheless find a pathway to college (McGrath, Swisher, Elder & Conger, 2001).

Research in suburbs is common, but very important nonetheless in motivational studies. The relative affluence of the suburbs is often thought of as a place in which children and adolescents are at “low risk.” However, recent psychological and educational research calls into question this stereotype and suggests considerable challenges confronting young people in their education and identity development in these settings as well (Luthar & Becker, 2002). In a series of studies, for instance, Luthar and her colleagues found significantly higher use of cigarettes, alcohol, marijuana and hard drugs among suburban teens compared to their urban peers, and that substance use and abuse was a form of self-medication for depression and anxiety. Many of the symptoms and problem behaviors seemed to arise in the period around the transition to secondary school (Luthar & Latendresse, 2005). Evidence is gathering that documents the achievement pressures that exist in many suburban families and schools that may be causing some of these substance use issues.

For example, Pope’s (2001) book, *Doing School: How We Are Creating a Generation of Stressed Out, Materialistic, and Mis-educated Students*, documents the lives of five “successful” students attending a highly competitive suburban school in Northern California. While the students represent an ethnically and economically diverse group, Pope’s description and analysis centers on the costs, pressures, and cynical strategies for what the students themselves call “doing school.” As the expression suggests, “doing school” is a game of superficial, and even unethical, engagement in and approaches to academic learning. With the pursuit of high GPA’s and admissions to the most elite colleges as the most pressing concern, the students come to regard genuine cognitive engagement and personal integrity as barriers to their “success.”

In another study of an affluent high-achieving school in suburban Northern California, Stephens and Roeser (2003) found achievement pressures at work during 11th grade— the “crunch year” for getting high SAT scores and high GPAs so students can improve their chances for admissions to the best colleges. Comparative analyses of 10th and 11th graders showed that while almost all students reported some form of cheating in school (over 90% on homework and over 80% on a test), 11th graders reported significantly more test cheating. Specifically, all students perceived the classroom they cheated in most often as significantly more performance oriented and significantly less mastery oriented than the classroom in which they cheated least often—most frequently their math or science classroom (79%). Extreme group analyses further revealed that the students who reported cheating most frequently (the top tercile of the distribution) had a significantly lower sense of academic competence than students who

reported cheating the least often (lowest tercile). In short, the configuration of being under pressure for high grades and feeling unable to *earn* those grades was associated with frequent cheating.

What are the school culture factors that may create high-pressure environments and potentiate academic dishonesty in wealthy suburban communities? Luthar (2003) offered the following hypothesis concerning such settings: "it is not the surfeit of riches in itself but rather an overemphasis on status and wealth that is likely to compromise well-being.... It is only when individuals become disproportionately invested in extrinsic rewards, concomitantly neglecting intrinsic rewards such as closeness in relationships, that there are likely to be ill-effects on their mental health outcomes" (p. 1589). Luthar & Latendresse (2005) summarize the need for research in the suburbs because, while "children rendered atypical by virtue of their parents' wealth are undoubtedly privileged in many respects, there is also, clearly, the potential for some nontrivial threats to their psychological well-being" (p. 49).

Moral dimensions of schooling. Students' academic motivation is inextricably linked to their socio-moral motivation, and both are shaped by the interdependent spheres of the academic, social and moral climates in schools. The interconnection of these multiple domains has only infrequently been made explicit in the theoretical and empirical work on schooling and motivation (see Blumenfeld, Pintrich, & Hamilton, 1987; Nucci, 2001; Wentzel, 2003).

Social environments that emphasize the development of competence, provide support of autonomy, and attend the interpersonal needs of students are not only highly motivating environments, they are also highly moral ones as well insofar as they promote personal choice and personal responsibility. In the study of cheating cited above, Stephens and Roeser (2003) found significant relations between students' perceptions of classrooms goal structures and teacher qualities. Specifically, students' ratings of teacher fairness and caring were positively correlated with the mastery goal structure and negatively correlated with performance goal structure. Similarly, Murdock, Hale, and Weber (2001) found high correlations between classroom mastery goal structure and perceived teacher competence and commitment among middle school students. As Murdock et al. conclude in their study, "the academic climate and social climate of a classroom may not be independent of each other and raise some question about our conceptualization and measurement of these constructs" (p. 111). Further exploration of these interconnections at the level of the school, as well as their implications not only for motivation, achievement and cheating, but also pro-social behavior, are needed.

Excellence and equity. Finally, the question of school effects with respect to specific educational aims such as excellence or equity is also central to this entire area of research in the future and is a challenging scientific and social policy question. For many, it is clear that many public schools, especially but not exclusively those in poor urban environments, are underequipped and staffed to play a positive role in the educational progress of children and adolescents in their communities (e.g., Darling-Hammond, 1997; Pope, 2001). Indeed, it seems plausible that the long-standing and persistent achievement gap is, at least in part, a manifestation of a resource gap. On the other hand, other studies show that schools can be, and often are, an important part of the solution to the problem of social inequality and stratification in the United States, including in poor urban areas (Alexander, Entwistle, & Olson, 2001). Some of the most interesting findings to come out of sociology and developmental science during the past decade show that early childhood factors, including home stimulation and early childhood

care and education (Heckhausen & Masterov, 2007; Levin, 2008), as well as summertime learning, may play equal, if not larger roles in achievement gaps between students of different social backgrounds than schools do (Entwistle, Alexander, & Olson, 1997; Ramey & Ramey, 2004). In fact, some of the evidence suggests that schools play an important role in redressing such inequality *during the time students are in school*, but that the progress schools accomplish with poor students cannot make up for differences that appear early in life before formal schooling begins, and that are exacerbated each summer when school is out of session (Alexander et al., 2001; Ramey & Ramey, 2004). Furthermore, religious schools and public schools that are smaller, have a strong sense of community, are less differentiated into “streams of study” such that all students are expected to learn a core curriculum, use team teaching and heterogeneous grouping more, and that have a fair and effective disciplinary climate have been shown to reduce inequality in student achievement by social background factors (Lee & Bryk, 1989; Lee, Croninger, & Smith, 1997; Lee & Smith, 1993, 1995, 1997; Lee, Bryk & Smith, 1993). Thus, attending to both the aggregate level of overall student achievement attributable to school factors (educational effectiveness), as well as the social distribution of achievement across students from different social backgrounds (educational equity), are both important in the study of the effects of schooling on student motivation and achievement.

Finally, it is important to inquire into how the testing movement in general, and the No Child Left Behind Act in particular, has influenced the motivational climate in schools. How has this law affected schools’ missions? Teacher morale? Teacher-student relationships? The curriculum? These are also pressing questions for those interested in school effects on motivation and achievement (e.g., Ryan & LaGuardia, 1999).

Conclusion

In this chapter, we explored theoretical, conceptual, and methodological issues in the study of how schools as a whole can affect students’ motivation and achievement. We began by describing our Basic Levels of School Contexts (BLOSC) model of schooling—a descriptive and prescriptive set of models of schooling based on extant sociological, educational, and motivational psychological research, respectively. In this context, we described several key school variables that may be of interest for educational psychologists interested in motivation and school effects in the future. We also discussed briefly how the advent of multilevel statistical modeling techniques has solved the “unit of analysis” problem in school research (Anderson, 1982; Lee, 2000), and articulated the need for more multilevel studies that draw upon ecological-motivational perspectives in modeling the contextual and individual determinants of educational outcomes. Nonetheless, because most school research represents a “simplification” of young people’s actual school experience (Lee, 2000), we believe that the need for rich observational and ethnographic studies of schooling will continue to be important sources of inquiry in the field. We concluded by noting specific topics of schooling and motivation that are of concern in urban, rural, and suburban schools in the United States today.

In sum, schools, as central contexts of human development, play an integral cultural role in nurturing young people’s learning and their motivation to learn. We hope that motivational researchers will contribute more to school effects research in the future. We believe motivational theories have much to contribute to this area of research in that these theories

clearly lay out what the psychologically instigative features of school settings are with respect to students' and teachers' appraisals of those environment, their needs and goals, and their consequent patterns of motivation and behavior. As such, these theories provide unique and powerful social-ecological and psychological perspectives that policy makers and reformers can use to envision, design, enact, and assess efforts to motivate constructive change in educators, those being educated, and educational institutions writ large.

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