

The Transition to High School: Current Knowledge, Future Directions

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Abstract In the American educational system, school transitions are frequent and predictable, but they can disrupt student functioning across developmental domains. How students experience school transitions has been a focus of research for some time, but the high school transition has received less attention, and the limited research often focuses on a particular developmental domain (e.g., academics and socioemotional well-being) to the exclusion of a more integrated model. This review relies on life course theory to establish an organizational framework for interpreting and connecting the diffuse and sometimes disparate findings on the high school transition, including adolescent developmental trajectories and the influence of social ties, changing sociocultural contexts, and stratification systems. Conclusions identify aspects for future inquiry suggested by current knowledge and the tenets of the life course perspective.

Keywords School transition · Adolescence · Life course theory · High school

Over the past three decades, scholars have focused extensive attention on school transitions. Although less common than work on the transition to elementary (Entwisle and Alexander 2002; Pianta *et al.* 2007) and middle school (Eccles 2004; Simmons and Blyth 1987; Wigfield *et al.* 1991), research on the high school transition is burgeoning across disciplines as scholars explore changes in student functioning from 8th to 9th grades (Reyes *et al.* 1994; Schiller 1999; Weiss 2001). What is lacking in this growing literature, however, is coordination—we have accumulated a large base of information that now needs to be organized into a coherent body of knowledge. Such organization efforts are necessary to make meaning of sometimes disparate research findings, to inform high school support and intervention efforts, and to identify existing gaps in our knowledge of students' high school transition experiences in order to identify directions for future research endeavors.

A promising avenue for achieving these important goals is to use the life course paradigm as an organizing framework. Life course theory views lives as dynamically

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unfolding in transaction with social contexts and structured by transition points (Elder 1998). It is an oft-used theory in developmental and demographic research (e.g., Dupre and Meadows 2007; Raley *et al.* 2004) that is increasingly reflected in educational research (e.g., Crosnoe and Huston 2007; Entwisle and Alexander 2002) and that, importantly, strongly emphasizes the need to study contextual transitions and their role in individual trajectories. This paradigm provides a developmental lens through which to study educational phenomena, essentially bridging two key foci of the high school transition literature—academic performance and socioemotional well-being. Moreover, unlike many other developmental perspectives, life course theory explicitly links individuals to the larger population, improving understanding of not only micro-level student experiences but also the macro-level educational inequalities that are targeted by educational policy. As such, the theory is able to elucidate the general themes of the high school transition literature, which is both multidisciplinary and multilevel.

After providing a brief overview of life course theory tenets as a mechanism for subsequently presenting and interpreting research on the high school transition culled from an extensive literature review, I subsequently use the basic principles of the paradigm to organize this literature and identify critical themes. I conclude with a discussion of future directions suggested by life course theory.

Literature Search

Search procedures

Studies of school transitions occur in a variety of disciplines, and the broad nature of the literature search reflected this. I conducted electronic searches in a variety of databases that catalog educationally relevant studies (i.e., Psych INFO, ERIC, Sociological Abstracts, Social Services Abstracts). The search spanned the past three decades and included various combinations of the following key words: transition, school transitions, educational transitions, moving, and high school. To verify the thoroughness of the initial electronic search, I reviewed all cited literature in each article identified in the electronic search to ensure that all relevant studies cited in these works were included in the review. As a final verification, I reviewed the tables of contents across the years 2000 to 2010 of journals that most commonly publish school transition research (i.e., *American Educational Research Journal*, *American Journal of Community Psychology*, *Journal of Adolescent Research*, *Journal of Educational Psychology*, *Sociology of Education*) to ensure all relevant studies were included.

Inclusion criteria

The current literature review focused only on the normative transition to high school, and as such, studies of school transitions due to residential moves or school choice were excluded. The current literature review integrates only manuscripts that have been published in peer-reviewed journals. I did not exclude articles due to method (e.g., survey design, ethnography) or theoretical perspective (e.g., stage-environment fit, life course theory). Inclusion was not based on the timing of the high school transition, and as such, the current review includes studies in which adolescents transitioned to high school in grade 9 (typically from a middle school) or grade 10 (typically from a junior high school). When articles focused on multiple school transitions (e.g., transition to middle school *and*

transition to high school), relevant findings for the high school transition were culled for the review.

Only transition research conducted in the USA was included, as school structure, political systems, and educational philosophies vary greatly, particularly cross-nationally. For example, some countries (e.g., Germany, the Netherlands, Turkey) institute school-level tracking systems very early in students' educational careers (as early as age 10), some have moved from this selective school format to comprehensive schools (e.g., Great Britain), and still others rely solely on comprehensive schools but integrate within-school tracking (e.g., USA; Brunello and Checchi 2007). In addition to substantial differences in stratification, variation in standardization and vocational specificity in educational systems such as France, Germany, Great Britain, and the USA also exist (Kerckhoff 2001). These systemic differences translate into very different meanings of school transitions, thus severely complicating cross-national comparisons. As such, the review focuses specifically on school transitions in the USA. This search resulted in a total of 37 articles (see Table 1 for an overview).

Overview of Life Course Theory and Relevance for Education

As with any developmental phenomena, numerous theoretical lenses can be applied to understanding the transition to high school, each with strengths and limitations. The most broad-reaching and relevant for studies of developmental transitions, such as moving from middle to high school, are life course approaches, utilized primarily by sociologists (Elder 1975), and life span approaches (Baltes and Schaie 1973), more common in developmental psychology circles, and the merits of each for understanding complex developmental phenomena have long been debated (e.g., Baltes and Nesselroade 1984; Dannefer 1984). Life span approaches focus on individual development, exploring the biological and environmental determinants of normative and non-normative developmental patterns. Elder *et al.* (2003) posit that life course theory expands upon this conceptualization and essentially represents a marriage of sociological and demography traditions with psychological ones. In essence, life course theory encompasses many of the tenets of life span approaches but brings greater attention to social contexts and processes and how individual differences are aggregated into population disparities. This is particularly relevant for studies of school transitions, as life course theory views transitions as a window into such inequalities and disparities, and it for this reason that the current review uses a life course lens to make meaning of the high school transition phenomena.

The life course perspective views adolescence as a tapestry of intertwined developmental trajectories (physical, cognitive, and psychological growth), social pathways (evolving roles and activities), and social convoys (continuity and change in webs of interpersonal relations). How these strands come together is influenced by adolescents' daily ecological contexts, larger societal structures, and the broader historical context in which development unfolds (see Fig. 1; Elder and Giele 2009). The tapestry of trajectories that comprise the life course is structured by transition points, shocks to development that can deflect trajectories, alter both social pathways and social convoys, and introduce new proximal contexts (Almeida and Wong 2009).

Life course trajectories are both interconnected and mutually influential (Alexander *et al.* 1988; Elder 1998). For example, a student's increasing loneliness after transitioning to high school may initiate subsequent deterioration in other developmental trajectories, such as declining performance in school (e.g., Benner 2011). At times in the life course, trajectories

Table 1 Characteristics of reviewed studies

Author(s)	Focus of measure(s)	Data collection waves	Sample Size	Race/ethnicity	Sample description
Akos and Galassi 2004a	Transition concerns, difficulty in making transition, best/worst aspects of 9th grade	Fall 9th	320	10% AA, 6% AS, 3% LA, 76% WH, 2% OTH	Students in a single high school in a medium-sized, generally high performing southern school district in a university community
Akos and Galassi 2004b	Difficulty in making transition, connectedness to high school, persons most helpful during transition	Fall 9th	320	10% AA, 6% AS, 3% LA, 76% WH, 2% OTH	Students in a single high school in a medium-sized, generally high performing southern school district in a university community
Alsbaugh 1998	Achievement test scores in reading mathematics, science, and social studies	Spring 8th, spring 9th	–	–	48 rural/small town school districts in Missouri with different feeder pattern structures
Barber and Olsen 2004	School climate, school performance, extracurricular participation, psychological functioning, interpersonal competence, and youth problem behaviors	Spring 8th, spring 9th	933	16% LA, 81% WH	Ogden Youth and Family Project: predominantly middle-income students in the Ogden City School District
Barone <i>et al.</i> 1991	Grade point average, attendance, life stress, social support (family, friends, school personnel)	Summer before 9th, fall 9th, end of 9th	113	59% AA, 1% AS, 10% LA, 28% WH, 2% OTH	Students recruited in 8th grade from 3 middle schools in a suburban Washington DC school district. Students transitioned to 3 high schools in the district.
Benner and Graham 2007	School climate, school worries	Spring 8th, fall 9th	918	17% AA, 15% AS, 55% LA, 13% WH	PEER Project: Students transitioning from 11 urban Title 1 middle schools to more than 100 high schools across southern California.
Benner and Graham 2009	School climate, psychological well-being, academic behaviors	Fall and spring of 7th–10th grades	1,979	21% AA, 11% AS, 46% LA, 9% WH, 13% OTH	PEER Project: Students transitioning from 11 urban Title 1 middle schools to more than 100 high schools across southern California.
Catterall 1998	School dropout, educational expectations, academic resilience	8th and 10th	4,264 and 6,779	12% AA, 6% AS, 13% LA, 66% WH	National Educational Longitudinal Study (NELS)

Table 1 (continued)

Author(s)	Focus of measure(s)	Data collection waves	Sample Size	Race/ethnicity	Sample description
Dotterer <i>et al.</i> 2009	GPA, interest in academics, parent educational expectations, parent interest in academics,	4th–12th grade (annually)	402	100% WH	Students from two-parent, working/middle class families living in small cities and rural areas
Estell <i>et al.</i> 2007	Aggression, popularity, academic competency, grades, substance use	Spring 6th, spring 8th, spring 9th	447	100% AA	Students from 2 poor, rural counties in the south
Falbo <i>et al.</i> 2001 ^a	Parent involvement, family resources, social network involvement, student characteristics, transition success (GPA, credits earned, absences)	Spring 8th and fall 9th	26	8% AA, 24% LA, 68% WH	Students in a suburban, predominantly white, working/middle class school district
Felner <i>et al.</i> 1981	GPA, attendance	1st–9th grade (annually)	250	67% AA, 10% LA, 22% WH, 1% OTH	Students attending 3 predominantly non-white, lower income schools in a small, northeastern city
Felner <i>et al.</i> 1982	Self-concept, school climate, GPA, attendance	Spring 8th, fall 9th, spring 9th	172	NP	Transition Project: Students attending a large, urban, predominantly non-white, low-income high school; includes intervention and matched control group
French <i>et al.</i> 2000	Racial identity, perceived social transactions (daily hassles, social support, school involvement), race/ethnic congruence	Spring 8th/9th, Spring 9th/10th	144	23% AA, 35% LA, 42% WH	Adolescent Pathways Project: Students attending low-income schools in New York City, Baltimore, and Washington DC
Frey <i>et al.</i> 2009	School attachment, school climate, teacher support, parental supervision/control, violent behavior, aggressive beliefs	Spring 8th and spring 9th	652	54% AA, 23% LA, 10% WH, 13% OTH	Social and Health Assessment: Students attending 17 inner-city schools in the north-eastern US
Gillock and Reyes 1996	School climate, teacher instruction, teacher authority, teacher relationships, self worth, scholastic competence, GPA, attendance	Fall 8th and spring 9th	46	13% AA, 85% LA, 2% WH	High School Transition Pilot Project: Students attending two inner-city K-8 schools in Chicago; includes intervention and matched control group
Isakson and Jarvis 1999	GPA, attendance, school belonging, daily stressors, coping	Spring 8th, fall 9th, spring 9th	41	NP	Students attending a university K-8 laboratory school in central

Table 1 (continued)

Author(s)	Focus of measure(s)	Data collection waves	Sample Size	Race/ethnicity	Sample description
	strategies, autonomy, social support				Illinois
Kinney 1993 ^a	Self perceptions, everyday social experiences at school	Spring 9th	120	NP	Students attending high school in a small Midwestern city
Langenkamp 2009	GPA, feeder pattern, social integration (teacher bonding, popularity, extracurricular participation)	8th/9th and 9th/10th	2,679	16% AA, 4% AS, 4% LA, 67% WH, 9% OTH	National Longitudinal Study of Adolescent Health (Add Health)
Langenkamp 2010	Math course placement, course failure, social ties (teacher bonding, popularity), feeder pattern	8th/9th and 9th/10th	2,065	63% WH	National Longitudinal Study of Adolescent Health (Add Health)
Little and Garber 2004	Depressive symptoms, aggressive symptoms, interpersonal orientation, achievement orientation, stressors	8th and 9th	129	12% AA, 85% WH, 2% OTH	Students attending school in a metropolitan school district
Murdock <i>et al.</i> 2000	Motivational contexts, academic self-concept, academic effort, value of educational success, GPA, discipline referrals, educational expectations	Spring 7th and spring 9th	238	35% AA and 60% WH	Students attending a mid-Atlantic school district that included both urban and suburban schools
Neild <i>et al.</i> 2008	Dropout, course failure, achievement test scores, attendance, risky peer affiliations, academic engagement, teacher engagement, social engagement	Summer before 9th, fall 9th, summer after 9th, 10th, 11th, 12th, fall post 12th	NP	NP	Philadelphia Education Longitudinal Study (PELS)
Newman <i>et al.</i> 2000 ^a	Classes, school environment, family, peer relationships, extracurricular involvement, transition challenges	8th/9th	29	76% AA, 17% LA, 7% OTH	Students participating in the Young Scholars Program at Ohio State University that targeted low-income, minority students
Newman <i>et al.</i> 2007	Peer support, family support, school belonging, depression, stressors	8th/9th	274	NP	Students attending school in middle to high income, predominantly white community in southern Rhode Island
Reyes <i>et al.</i> 1994	Readiness for high school, self perceptions, school perceptions, social	Fall 8th, spring 8th, fall 9th, spring 9th	145	24%/12% AA, 69%/80% LA	High School Transition Pilot Project: Students attending two inner-city K-8 schools in

Table 1 (continued)

Author(s)	Focus of measure(s)	Data collection waves	Sample Size	Race/ethnicity	Sample description
	support, GPA, absences, enrollment status				Chicago; includes intervention and matched control group
Reyes <i>et al.</i> 2000	GPA, absences, enrollment status, self perceptions, school perceptions, social support	Fall 8th, spring 9th, 10th, 11th, 12th	107	16% AA, 79% LA, 5% OTH	High School Transition Pilot Project: Students attending two inner-city K-8 schools in Chicago; includes intervention and matched control group
Rice 2001	Achievement test scores, parent participation in education, activities with parent, parents talk about school, school size and diversity, school safety, school learning environment, students working to ability, school standards, teacher academic push, student autonomy	7th, 8th, 9th, 10th, 11th	3,116	NP	Longitudinal Study of American Youth
Roderick 2003 ^a	GPA, course failure, dropout, attendance, achievement test scores, teacher ratings of academic skills/engagement and behavior, parent involvement, community supports, relationships with teachers	Spring 8th, 4 times in 9th, 4 times in 10th	32	100% AA	Student Life in High Schools Project: Students attending an average-achieving school with a 100% African American study body on the south side of Chicago
Roeser <i>et al.</i> 1999	Achievement motivation, self worth, psychological distress, truancy, affiliations with non-school oriented peers, problem behaviors, GPA	Spring of 2nd, 3rd, 4th, 8th, 9th	210	95% WH	Students attending school in a predominantly white, middle-income Midwestern school district
Schiller 1999	Mathematics grades, characteristics of the transition	8th and 10th	~12,000	12% AA, 4% AS, 9% LA, 75% WH	NELS
Seidman <i>et al.</i> 1996	Self esteem, academic and social efficacy expectations, interpersonal competence, class preparation, GPA, daily hassles, social	Spring 8th/9th, Spring 9th/10th	330	25% AA, 8% AS, 32% LA, 35% WH	Adolescent Pathways Project: Students attending low-income schools in New York City, Baltimore, and Washington DC

Table 1 (continued)

Author(s)	Focus of measure(s)	Data collection waves	Sample Size	Race/ethnicity	Sample description
	support, peer involvement, peer values				
Smith 1997	Dropout status, GPA, transition support services, parental support for learning, school engagement and misbehavior, positive learning environment	8th and 10th	7,924	NP	NELS
Smith <i>et al.</i> 2008	Perceptions of the transition (academic, social, organization), transition social support	8th and 9th	172	55% AA, <1% AS, 7% LA, 29% WH, 7% OTH	Students attending schools in a large Midwestern school district in an urban/suburban area
Weiss 2001	Average course grades, course failure, school turbulence,	Fall 9th and spring 9th	NP	NP	Philadelphia Education Longitudinal Study (PELS)
Weiss and Bearman 2007	Physical fights, substance use, delinquency, carrying weapon to school, GPA, school integration, trouble in school, college aspirations, social connections/isolation,	8th and 9th	1,680	NP	National Longitudinal Study of Adolescent Health (Add Health)
Weiss and Baker-Smith 2011	Middle school type, average course grades, course failure	8th and 9th	NP	NP	PELS

AA African American, AS Asian American, LA Latino, WH white, OTH other race/ethnicity, NP not provided

^aQualitative study

proceed in a consistent direction, yet transitions can serve as turning points that lead to discontinuities or deflections of trajectories (Elder 1985; Rutter 1996).

As life trajectories unfold, individuals occupy multiple social pathways (e.g., role of student and daughter/son) that are governed by situational imperatives, the normative expectations for social roles and required behaviors (Elder and Caspi 1990). Transitions can disrupt established social pathways and social status, and the resulting social disequilibria have the potential to induce distress (Almeida and Wong 2009; Caspi and Moffitt 1993), yet as Wheaton (1990) notes, “life transitions are not universal stressors. In fact, they may at times be opportunities for legitimate or fortuitous escape from a difficult situation” (p. 210).

Just as life course trajectories are interconnected and interdependent, so too are individuals, as seen in the linked lives of individuals within social spaces (Elder 1998). Social convoys, or webs of interpersonal relations, can be a function of birth (e.g., family) or of membership in given contexts (e.g., peers in an adolescent’s school; Moen and

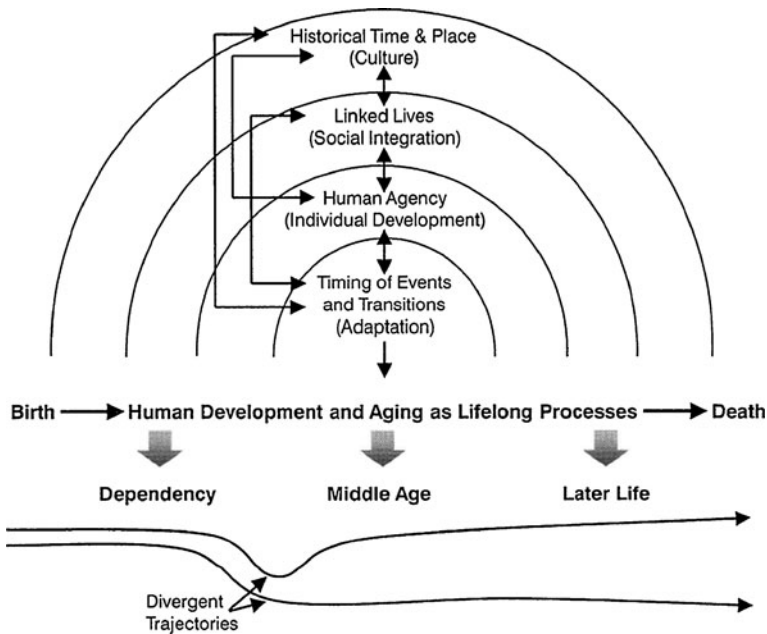


Fig. 1 The craft of life course research (Elder and Giele 2009)

Hernandez 2009). The linked lives of individuals can be sources of social support or social strain—people build social capital through connections with significant others in their lives, which can promote healthy development, whereas challenges with social convoys can contribute to accumulating disadvantage, a downward spiral of developmental trajectories in the life course. Transitions can create upheaval in both the composition of social convoys and quality of the relationships therein (Almeida and Wong 2009). For example, social convoys within educational settings may be particularly challenged during periods of school transitions inasmuch as pre-transition friendships and social supports are often disrupted by the move to a new educational context.

Life transitions and developmental trajectories unfold within sociocultural contexts, the proximate institutions and communities in which the individual is embedded (e.g., schools and families; Elder 1985). Human development is best understood as a series of dynamic interactions between the person and the environment (Shanahan 2000). At times of transition, some sociocultural contexts may change, whereas others remain more stable; for example, the high school transition necessitates a change in school but not in family structure. At times of transition, attention must be broadened to encompass how shifts in sociocultural contexts influence subsequent development (Langenkamp and Frisco 2008; Wheaton 1990). For example, in the case of the high school transition, life course theory suggests that transition disruptions may be minimized when the middle and high schools are more similar (Caspi and Moffitt 1993).

Proximate sociocultural contexts are influenced by more distal elements of the societies in which individuals are embedded, specifically the social stratification systems that relegate individuals within a society into hierarchical groups distinguishable by variations in status, resources, and opportunities (Crosnoe and Huston 2007; Elder 1974). In the USA, high school transitions are embedded in stratified communities that vary by race, gender,

and socioeconomics, and throughout the life course, transitions and the ease with which individuals pass through transitions influence developmental trajectories in a cumulative dynamic. While early success can promote cumulative advantages for youth, early challenges may have dire consequences for the subsequent life course. This is particularly pertinent to academic success, where the stratifying effects of race/ethnicity and socioeconomic status (SES) are readily apparent (Farkas 2003; Orfield and Lee 2005). To the extent that race/ethnicity and SES confer advantages for certain groups (e.g., white, Chinese American students), then a successful school transition is simply another advantage experienced by these students. By contrast, a disruptive school transition for those already experiencing accumulating disadvantage might further deflect developmental trajectories.

All of these elements (i.e., stratification systems, sociocultural contexts, social pathways and convoys, developmental trajectories, and transitions) are embedded within the larger sociohistorical context. Historical periods and the social changes that occur across time influence all aspects of development, from the norms and composition of sociocultural contexts to the social roles available to individuals to what constitutes a normative transition (Elder 1998). As such, the meanings of individuals' developmental trajectories and how they manage life transitions can only be fully understood when larger sociohistorical contexts are also investigated.

As a whole, life course theory is an orienting perspective that helps identify what questions should be asked about human development, essentially providing a means of determining a starting point of investigation for large issues. Life course theory has enriched numerous fields of study (e.g., health and family; see Baxter *et al.* 2008; Williams and Umberson 2004) and more and more in recent history has been implemented as a useful lens for examining educational settings. A classic example is Alexander *et al.* (1988) work on racial and social inequalities in which they examined how school and family contexts become intertwined at a critical period of development (i.e., the transition to elementary school) to influence children's developmental trajectories across the early life course. Here, utilization of life course theory enabled the scholars to identify unique questions around an early school transition and develop rich interpretations of study findings. This line of research represents a meeting point of human development, demography, and education because it examines individuals' lives within everyday contexts of schools as a way of understanding larger stratification systems and structural inequalities, and as such, life course theory is perfectly aligned with a review of the high school transition literature.

Current Knowledge on the Transition to High School

I begin by exploring research on how adolescents' academic and emotional lives are influenced by the transition to high school and the developmental consequences of transition disruptions. Life course theory highlights adolescents' varied reactions to this school transition—some adolescents may experience the transition and resulting social disequilibria as a stressor that deflects trajectories, whereas others may take advantage of the changing ecological context to escape challenges in their previous educational settings, and still others may experience relative continuity in developmental trajectories. Although differences across high school transition studies may be partially attributable to differences in study samples and methodologies, life course theory offers a nuanced perspective that acknowledges the diversity of experiences and reactions to transitions based on individuals' dispositions, social pathways, social convoys, and changing sociocultural contexts.

The high school transition and adolescents' development

Life course theory places fundamental importance on children and adolescents' developmental trajectories, particularly at times of transition. Here, I identify studies that focus on trajectories across the high school transition, including studies that take a more focused and longer lens on developmental trajectories.

Academic performance and engagement Much of our understanding of the high school transition centers on students' academic outcomes. Extensive study of grades across the high school transition consistently shows that from middle to high school, students' grades in school decline (Barone *et al.* 1991; Benner and Graham 2009; Felner *et al.* 1981; Gillock and Reyes 1996; Isakson and Jarvis 1999; Reyes *et al.* 1994; Roderick 2003; Roeser *et al.* 1999; Seidman *et al.* 1996), with one exception (Weiss and Bearman 2007). Although more limited, research also suggests a decline in achievement test scores across core-content areas from middle to high school (Alspaugh 1998; Rice 2001).

Similar declines are observed for students' school engagement, although studies often operationalize engagement in different ways and vary in methods used to assess engagement (e.g., student self-report, teacher ratings, and school records). In particular, scholars find that across the high school transition, adolescents become less involved in extracurricular activities (Barber and Olsen 2004; Seidman *et al.* 1996), have more excused and unexcused absences (Barone *et al.* 1991; Felner *et al.* 1981; Gillock and Reyes 1996; Reyes *et al.* 1994; Roeser *et al.* 1999), report greater academic hassles (Seidman *et al.* 1996), and are rated as more disruptive and less educationally engaged by their teachers (Roderick 2003). As an exception, Isakson and Jarvis (1999), with a relatively small sample of white students transitioning to high school from a laboratory K-8 school, observed improving attendance across the high school transition, although they found marked declines in attendance across the first year of high school. As such, these discrepancies may reflect an issue of measurement timing—when absences are examined from spring of 8th to spring of 9th grade, all studies identify attendance declines.

Retrospective research indicates that adolescents are cognizant of the academic challenges they faced across the high school transition—when asked to reflect on the most difficult aspects of being in high school, 9th grade students most commonly discussed homework and grades (Akos and Galassi 2004a). Similarly, a sample of African American adolescents reported that 9th grade was more difficult than 8th grade, particularly in terms of homework difficulty, the need for more intense studying, and the need to take on more responsibility for their educational success (Newman *et al.* 2000).

Longitudinal research, however, has found that adolescents' perceptions of the transition as it relates to academics are not wholly negative. For example, studies have found that students expressed fewer academic concerns in 9th grade than in 8th grade (Benner and Graham 2007; Smith *et al.* 2008). Moreover, some evidence indicates that students' academic attitudes do not suffer the disruptions observed in academic behaviors. Both Murdock *et al.* (2000) and Seidman *et al.* (1996) reported that students' beliefs about the benefits of education, as well as their own academic self-concept and efficacy, increased across the high school transition, and Dotterer *et al.* (2009) observed no change in students' academic interest from middle to high school. In addition, perceptions of students' readiness for high school increased across the transition, although perceptions subsequently declined from fall to spring of 9th grade, perhaps in response to declining academic performance (Reyes *et al.* 1994). The contrasting findings for academic behaviors as compared with academic values and beliefs (i.e., school affect) illustrate that one cannot

view students' academic careers as a single developmental trajectory. Instead, although cognitive, behavioral, and school affect trajectories are intertwined, these trajectories do not always proceed in identical directions. Thus, while academic behaviors may be challenged across the high school transition, academic values and beliefs, which are both less malleable and more susceptible to social desirability, are maintained or improve across the transition. More concretely, students may want to do well in school, but when faced with the choice of either doing their homework or hanging out with friends, they may opt for the option with the more immediate reward.

Life course theory suggests that the academic struggles and disengagement observed across the high school transition may prefigure accumulating disadvantage and later decisions to drop out of school. Although some view dropping out of school as a measurable event, life course theory suggests that it should instead be conceptualized as a process that unfolds over time (Alexander *et al.* 2001; Elder 1994; Rumberger and Larson 1998). Students may encounter challenges across their school careers or particular disruptions at times of transitions, and it is the cumulative effect that ultimately leads to decisions to drop out of school. Longitudinal studies of the high school transition have found that students who left school without a diploma experienced more substantial declines in grades from 8th to 9th grade (Neild *et al.* 2008; Reyes *et al.* 2000). Across the high school transition, dropouts also were less engaged in school (Catterall 1998; Neild *et al.* 2008; Reyes *et al.* 2000; Roderick 2003), exhibited more discipline problems (Roderick 2003) and had less positive perceptions of their academic competence and their likelihood of finishing high school (Catterall 1998; Reyes *et al.* 2000). This research suggests that, for some students, the high school transition seemingly derails academic trajectories.

Socioemotional well-being Compared with research on students' academic performance and engagement, considerably less is known about developmental trajectories of socioemotional adjustment across the high school transition. Although limited, the extant literature suggests that high school transitions pose challenges to adolescents' socioemotional well-being, but the trends are less clear in relation to transition effects on adolescents' self perceptions. Research with a diverse adolescent sample suggests that adolescents experience greater anxiety and loneliness across the transition, and feelings of loneliness in particular continue to increase across the first 2 years of high school (Benner and Graham 2009). Similarly, increased depression was observed across the high school transition for two studies of predominantly white students (Barber and Olsen 2004; Newman *et al.* 2007). Although studies of white students have identified declines in self worth across the transition (Barber and Olsen 2004; Roeser *et al.* 1999), studies with more diverse samples have found no such differences (Reyes *et al.* 1994; Seidman *et al.* 1996). Further complicating inquiry into transition effects on self perceptions are findings from Kinney's (1993) retrospective ethnographic study—there, he identified a group of white students who used the high school transition as an opportunity to reinvent themselves, essentially going from “nerds to normals,” which in turn contributed to improved self perceptions following the move to high school.

Transitions inherently involve a shift from predictable and familiar contexts to unpredictable and unfamiliar ones (Caspi and Moffitt 1993), and the introduction of uncertainty tied to transitions can tax individuals' psychological resources as they seek to regain equilibrium (Almeida and Wong 2009). As such, it is not surprising that immediate experiences of the high school transition would be associated with heightened states of loneliness, anxiety, and depression as students struggle to adapt to the new high school context. Transitions, however, also can promote well-being to the extent that they usher in

desired opportunities for change in individual's social roles (Almeida and Wong 2009). The unpopular students in Kinney's study spoke of wanting to achieve new roles following the high school transition, and they were active agents in their transformation from "nerds to normals," seeking out activities and social convoys that facilitated the shift in their social pathways. To the extent that students were able to turn the transition into an opportunity for new social pathways and improved social status, this would be expected to be empowering and promote socioemotional well-being, as observed in the Kinney study. However, if new social roles are not desired, difficult to adapt to, or result in downward social mobility, this would be expected to be detrimental to self perceptions, perhaps reflected in the research of Barber and Olsen (2004) and Roeser *et al.* (1999).

Social convoys and the high school transition

Life course theory places particular attention on how transitions alter relationships within social convoys, a topic that has received particular attention in the high school transition literature. Perhaps reflective of the increasingly important role of peers and the school during this time in the life course and the critical but more limited role of parents (Steinberg 2007; Steinberg and Morris 2001), these particular convoys are the focus of the vast majority of research on social ties across the high school transition.

Transition effects on relationships within social convoys The predominant social convoys of adolescence consist of parents, school personnel, and peers, all of which can be touched by the high school transition. Studies focus fairly little attention on adolescents' changing relationships with parents across the high school transition, perhaps reflective of the assumed stability in the family sociocultural context across this transition. Although not wholly consistent, the majority of studies find no change in perceived support from parents across the high school transition (Isakson and Jarvis 1999; Newman *et al.* 2007), and adolescents' ratings of parents' skills in helping them with the transition remain stable as well (Smith *et al.* 2008). As an exception, Reyes *et al.* (1994) found that adolescents' perceptions of caring and emotional support from their families declined and perceived family upset increased across the transition. Differential findings across studies may reflect differences in sample composition—studies identifying stable parent–adolescent relations were comprised of predominantly white, middle class samples, whereas the study identifying deteriorating relationships included principally low-income, minority students. The latter group of families may face challenges with social stressors and social capital, and combined with the marginalization of minority families in the stratified educational system, these families may be at a particular disadvantage in supporting adjustment to the high school transition.

Reflective of the heightened importance of peer relationships in adolescence and the possible disruptions to social networks that school transitions pose, high school transition research has focused substantial attention on the peer context. Relationships in adolescence are often fleeting, as the turnover of friendships during adolescence is particularly high (Cairns and Cairns 1994), and the high school transition tends to shift adolescents' social networks by moving students into larger schools with older peers and often new same-age classmates.

Although peer research focused on the high school transition has yielded inconsistent findings, in part attributable to differences in measurement and sample composition, there does appear to be more evidence of improvements in peer relations than not. Longitudinal

studies of the high school transition identify increased support from and involvement with friends (Isakson and Jarvis 1999; Seidman *et al.* 1996), a decline in negative peer affiliations (Roeser *et al.* 1999), and a decrease in daily hassles with friends (Seidman *et al.* 1996). In contrast, other studies find no change in perceptions of peer support (Murdock *et al.* 2000; Newman *et al.* 2007) or declines in perceptions of caring, emotional support, and help and guidance from friends (Reyes *et al.* 1994). Life course theory suggests that transitions can be particularly difficult to manage when changes in sociocultural contexts are more pronounced. As such, it may be that differences in perceptions of peer support across the high school transition may reflect the match/mismatch within the school feeder pattern. For example, students within the most basic feeder pattern (one middle school feeding into one high school) would be expected to experience the fewest disruptions in their peer networks, whereas students enrolled in middle schools that send students to multiple high schools would be expected to experience the most peer network disruptions. Unfortunately, most studies on peer relations across the transition fail to provide adequate information about the sending and receiving contexts, and as such, one can only speculate about the extent to which changing contexts contributes to observed differences across peer-focused studies.

Whether changing peer relationships are associated with adolescents' subsequent developmental trajectories has been the subject of two studies, both of which identify the importance of maintaining positive social ties across school transitions for adolescents' subsequent trajectories. Specifically, adolescents whose perceived peer conflict declined across the high school transition (i.e., students whose peer relationships improved) were more likely to be in school in 12th grade, whereas adolescents whose peer relationships remained relatively unchanged across the transition were more likely to have dropped out (Reyes *et al.* 2000). In a similar vein, Roderick (2003) observed that school dropouts more often reported increasing involvement with negative peer groups following the high school transition; in contrast, students who embraced a positive school identity and rejected the negative influences of their peers were more likely to persist in school. These studies clearly illustrate the interconnected nature of social convoys and adolescents' subsequent developmental trajectories.

Similar to social ties with peers, school transitions also disrupt adolescents' relationships with school personnel, as school transitions necessitate entry into a new school context with an entirely different set of educators who may have very different perceptions of and expectations for students. In general, research using racially/ethnically and socioeconomically diverse samples highlights the disruptive nature of the high school transition for adolescents' relationships with and perceptions of teachers and other school personnel. In general, adolescents perceive lower support and caring from their high school teachers and principals as compared with their middle school educators (Barber and Olsen 2004; Reyes *et al.* 1994; Seidman *et al.* 1996), and they rate their high school teachers, counselors, and administrators as less helpful than those at their middle schools (Reyes *et al.* 1994; Smith *et al.* 2008). Newman *et al.* (2000) found that adolescents' reports of teacher relations varied, although more students had increasingly negative (rather than positive) feelings about their teachers across the high school transition, whereas Murdock *et al.* (2000) documented improved perceptions of teachers across the transition, with students viewing their *middle* school teachers as more disrespectful and critical and less supportive and encouraging than teachers in their *high schools*. Unlike most transition research concerned with teacher–student relationships, the Murdock study initially surveyed students 2 years before the high school transition (when students were in 7th grade), and as such, the discrepancy in findings between this study as compared with other high school transition research focused

on student–teacher relations may be partially attributable to the timing of survey administration. It may also reflect variation in students’ relationships with teachers as mentors, which has been found to vary by social backgrounds as well as personal, family, and peer resources (Erickson *et al.* 2009).

In addition to educators as social convoys, students’ more general ties to their academic institutions as a whole, and how these change across the high school transition, have been the focus of some research. Studies of adolescents’ perceptions of school climate (e.g., feelings of belonging, school liking), which reflect ties to academic institutions as sociocultural contexts, have revealed rather mixed effects of the high school transition. For example, Barber and Olsen (2004) observed declining school like from middle to high school for a white, middle class sample, whereas Benner and Graham (2007) documented improvements in school liking over the same period with a more diverse, lower income sample. The improvements observed by Benner and Graham, however, appear to reflect more the novelty of high school in fostering a short-term “honeymoon period” that dissipated with time (Benner and Graham 2009). Similar discrepancies are observed for studies of school belonging, with some scholars identifying declines in belonging across the high school transition (Newman *et al.* 2007), whereas others report stability over time (Isakson and Jarvis 1999; Benner and Graham 2007, 2009). Given that consistency across sociocultural contexts attenuates disruptions across life transitions (Caspi and Moffitt 1993; Elder 1998), one could surmise that consistency across middle and high schools would contribute to stability in perceptions of school belonging, whereas greater disparities across school contexts may be detrimental for feelings of connection and belonging to educational institutions.

Social convoys as buffers of transition disruptions Life course theory suggests that linked lives (e.g., evolving relationships within social convoys) influence the success with which individuals manage transitions, a topic that has received limited attention in the high school transition literature. In this arena, it appears that positive parent–adolescent relationships are particularly influential—supportive parents who monitored and were involved in their adolescents’ academic and social lives had adolescents who experienced fewer disruptions and exhibited greater resilience following the high school transition (Catterall 1998; Falbo *et al.* 2001; Newman *et al.* 2007; Roderick 2003). Although Barone *et al.* (1991) suggest that parental support may be associated more strongly with social rather than academic adjustment, Rice (2001) observed the importance of parent support for changes in math and science achievement test performance across the high school transition. In discussing social support, students identified their parents as the most helpful persons during the transition to high school (Akos and Galassi 2004b). Given the social disequilibria that often accompany life transitions (Almeida and Wong 2009; Caspi and Moffitt 1993), it is not surprising that the family context could be a source of stability and support at a time when the educational sociocultural context is in flux.

In the peer domain, when adolescents’ friendships suffer across the high school transition, their academic trajectories often mirror this distress. Adolescents who struggled more academically after the high school transition often found it difficult to make new friends and had trouble with negative peer pressure (Newman *et al.* 2000; Weiss and Bearman 2007). Langenkamp (2009, 2010) demonstrated an association between middle school popularity and higher grades and higher math course placements following the high school transition. Similarly, Estell *et al.* (2007) observed that low-aggression, high-achieving adolescents who were popular in middle school earned higher grades following the high school transition than adolescents who were in low-popularity profiles, yet

Seidman *et al.* (1996) found that changes in the peer microsystem across the high school transition were not associated with changes in students' academic efficacy, class preparation, or grades in school.

In regard to socioemotional trajectories, studies have observed that more peer stressors exacerbate adolescents' depression following the high school transition (Little and Garber 2004; Newman *et al.* 2007). By contrast, among adolescents who felt socially isolated during middle school, Weiss and Bearman (2007) reported that the high school transition was accompanied by less involvement in delinquent activities and improvements in feelings of school connectedness. These students, like those in Kinney's study (1993), may have taken advantage of changes in the sociocultural context as a means to adopt new social pathways following the high school transition, which may have promoted more positive socioemotional adjustment.

Similar to the negative effects of challenging relationships with peers and parents, adolescents who viewed relationships with teachers and schools less favorably also tended to experience more disruptions across the high school transition. Adolescents whose school attachments declined across the transition had more violent behavior and aggressive beliefs and lower academic motivation following the transition to high school (Frey *et al.* 2009). Additionally, adolescents who struggled academically after the transition more often reported challenges getting along with teachers (Newman *et al.* 2000) and typically had teachers with lower expectations (Murdock *et al.* 2000). Positive teacher relations, by contrast, promote positive socioemotional and academic adjustment across the high school transition—for example, although all adolescents experienced increased depression across the transition, this increase was not as severe for adolescents with the most positive views of their teachers' supportiveness (Barber and Olsen 2004). Similarly, adolescents' reports of ties with middle school teachers were associated with higher grades following the high school transition (Langenkamp 2009, 2010).

Relationships with teachers, as with other social convoys, may have lasting repercussions for adolescents' life course trajectories. Roderick (2003) observed that students who eventually withdrew from school or who were academically disengaged in high school experienced particular challenges adjusting to their high school teachers' instructional styles and found their high school teachers to be less supportive than teachers in middle school. Moreover, although disengaged adolescents reported that teachers did not intervene when they began getting off track, particularly in relation to school attendance, resilient adolescents reported seeking help from teachers when they experienced transition disruptions, and these adolescents felt that teachers responded positively to their proactive efforts and provided support and encouragement (Roderick 2003). These findings may reflect the interactional continuity within linked lives (Caspi *et al.* 1989), such that action and reaction between an individual and social convoys shape future interactions and life course trajectories—for example, the resilient youth in the Roderick study were able to elicit positive reactions from teachers, reinforcing the possibility for sustained positive experiences in future student–teacher interactions.

Sociocultural contexts

Life course theory emphasizes the critical nature of sociocultural contexts for human development, particularly at times of transition. High school transition studies have examined a host of characteristics of the most proximal context of development affected by the high school transition—namely schools—including student enrollment, feeder pattern

structure, SES, and racial/ethnic diversity. Although most of these high school transition studies examined the receiving context (i.e., high school), few have incorporated structural characteristics of both middle and high schools in recognition of the importance of changing ecologies on adolescents' school transition experiences. In addition to the larger structural characteristics of the educational settings in which adolescents are embedded, high school transition research also has explored adolescents' perceptions of how the processes that occur within schools vary across the transition and how interventions enacted within and across schools can facilitate successful transitions.

Structural characteristics of sociocultural contexts High school transition research exploring the sociocultural context of schools has focused almost exclusively on school size and feeder patterns. Alspaugh (1998) found that adolescents transitioning to smaller high schools experienced more attenuated academic disruptions than their peers enrolled in larger high schools, perhaps reflective of the closer match (at least in terms of enrollment patterns) across middle and high school contexts, whereas Rice (2001) found no link between changes in school size and adolescents' test scores. Adolescents transitioning in a more traditional feeder pattern (i.e., elementary to middle to high school) earned lower grades and were more likely to earn one or more failing grades in 9th grade (Weiss and Baker-Smith 2011) and were more likely to later drop out of school (Alspaugh 1998) than adolescents making a single school transition (i.e., K-8 to 9–12, K-6 to 7–12). Students making two school transitions also were more likely to engage in delinquent behaviors and associate with friends who held negative attitudes toward school following the transition to high school (Weiss and Baker-Smith 2011). Conceptualizing feeder patterns in a slightly different way, no differences in 9th grade math course placement were observed across feeder patterns in which a single middle school fed into a single high school (uniform contexts) versus those in which multiple middle schools fed into a single high school (mixed contexts); however, students in mixed contexts were significantly more likely to fail one or more courses following the high school transition (Langenkamp 2010).

Studies that further disaggregate feeder pattern effects across student groups identify differential associations with adolescents' achievement outcomes across the high school transition. Specifically, Schiller (1999) and Langenkamp (2010) demonstrated that low-performing middle school students who transitioned to high school with the majority of their peers struggled more academically following the transition than those who transitioned with fewer middle school peers. In contrast, more high-achieving middle school students performed better academically when they entered high school with a majority of their middle school classmates (Langenkamp 2009; Schiller 1999). Parallel to studies that find the high school transition as a mechanism for establishing a more positive social pathway, low-achieving students may find the high school transition as a means to academically reinvent themselves, free of the negative expectations of middle school classmates. High-achieving students who are surrounded by peers who view them as high achievers, in contrast, may work to maintain continuity in this social pathway.

Other aspects of school composition—in terms of structural characteristics—have received limited attention in the high school transition literature. Benner and Graham (2009) observed that as the socioeconomic status (SES) of adolescents' schools increased from middle to high school, adolescents were more likely to experience declines in their grades. The racial/ethnic composition of schools, and in particular how this changes across the transition, also was associated with adolescents' transition experiences. As adolescents moved from less to more racially/ethnically diverse schools, they were more likely to report increased feelings of belonging and connection to their schools, but their grades were more

likely to decline. For the schools in this study, both SES and racial/ethnic diversity were closely tied to school-wide academic performance. As such, these students were transitioning from less to more academically rigorous schools, which would expectedly be associated with academic struggles following the high school transition. In contrast, Rice (2001) observed no influence of changing race/ethnic diversity for students' achievement test scores across the transition.

Processes within sociocultural contexts In addition to understanding the macro effects of school characteristics on adolescents' experiences during the transition to high school, some research has focused on adolescents' perceptions of the educational processes that occur within middle and high schools. These studies suggest particular negative experiences across the high school transition, with adolescents citing the challenges presented by less teacher monitoring and limitations in school organization, classroom autonomy, and instructional quality (Barber and Olsen 2004; Gillock and Reyes 1996; Reyes *et al.* 1994). Each sociocultural context has situational imperatives that govern social pathways (Elder and Caspi 1990), for example, expectations for student behavior and performance. In the case of the high school transition, high school students are expected to operate more independently (Baker *et al.* 2001), and not surprisingly, adaptation to the new situational imperatives of high school may be difficult, particularly immediately following the transition. As such, it is possible that students' negative perceptions of high schools may be indicative of personal challenges in adjusting to their new social pathways and the expectations tied to these.

Turbulence, or changes and disruptions arising from school disorganization, is also common immediately after the transition to high school, as seen in high reports (40% or more students) of classes without enough seats for students, classes with at least one change of teacher, shortages of textbooks, and schedule changes by the school rather than by personal choice (Weiss 2001). Challenges related to educational processes across the transition and deteriorating perceptions of school can manifest themselves in adjustment difficulties. For example, experiencing greater academic hassles or more turbulent events was associated with greater transition disruptions in terms of class preparation, grades, class failures, and perceptions of academic efficacy (Seidman *et al.* 1996; Weiss 2001). In contrast, school engagement was less likely to decrease among students who perceived increased regulation and classroom autonomy across the high school transition (Barber and Olsen 2004). Regulation may make the situational imperatives of the new educational context clearer, thus facilitating students' adaptations to their new roles as high school students.

Connections across sociocultural contexts that facilitate transition success Links between sociocultural contexts can influence the ease with which adolescents work out a life transition (Schulenberg and Maggs 2002). Transitions inherently involve novelty, ambiguity, and uncertainty, even for normative transitions experienced in concert with social convoys (Caspi and Moffitt 1993). As such, activities that lessen the ambiguity and uncertainty tend to minimize transition distress (Elder 1998). This tenet is at the heart of high school transition interventions and support services, and investigators have examined the extent to which schools intervene to facilitate high school transitions and the success of such supports.

The Transition Project is one of the earliest efforts in this area. This intervention was implemented in a low-income, predominantly minority high school (Felner *et al.* 1982). It used a restructured homeroom course to ensure greater teacher support and less student

anonymity after the high school transition and partially reorganized other aspects of the school environment to facilitate a stable peer support system. In comparing post-transition adjustment for program participants versus same-school controls, results highlighted the intervention's success in promoting positive educational and socioemotional outcomes following the high school transition, with program participants earning better grades, having fewer absences, and experiencing no declines in self-concept. Participants also reported more positive views of their teachers, schools, and classrooms than control students.

Other transition support services and interventions have found more variable levels of success in facilitating adolescents' high school transition experiences. For example, instead of examining the content of interventions, Smith (1997), using nationally representative data from the National Educational Longitudinal Study (NELS), investigated the target of the intervention. Specifically, she compared effects of full transition programs that targeted both the adolescent and two primary social convoys (i.e., teachers and parents), partial transition programs that targeted only one or two of these groups, and no transition programming. Following the high school transition, adolescents in schools with full transition programs were more successful academically (better grades and lower likelihood of later school dropout) than adolescents in schools with either partial or no transition support, and in general, adolescents in schools with partial programs were no more successful academically following the high school transition than adolescents in schools without transition support services. Consistent with these findings, Reyes *et al.* (1994), in a transition intervention targeting urban, minority adolescents in Chicago, found no positive effects of a peer support component that paired incoming high school students with an older peer helper. Life course theory stresses the interdependence of linked lives, such that changes in one individual's life reverberate across social convoys (Elder and Caspi 1990). As such, it is not surprising that the most effective high school transition interventions focus on social convoys across multiple sociocultural contexts.

Stratification systems and the high school transition

Research on the high school transition has focused some attention on how race/ethnicity, a marker of one's position in the stratification system, is linked to adolescents' experiences as they transition from middle to high school and the long-term effects on their developmental trajectories.

Racial/ethnic differences in transition experiences Although life course theory suggests that race/ethnicity may shape the success with which adolescents manage the high school transition, exploration of racial/ethnic differences in academic disruptions often yields inconsistent findings. Earlier work identified declines in grades that were less severe for white as compared with African American adolescents attending low-income, predominantly minority schools (Felner *et al.* 1981). By contrast, Seidman *et al.* (1996) found no transition differences in grades by student race/ethnicity (i.e., African American, Latino, Asian American, and white) in their low-income sample, similar to earlier findings by Barone *et al.* (1991), who compared suburban white and African American students. Although race/ethnicity is a marker of an individual's position within stratified society, the salience of race/ethnicity may be more or less pronounced depending on the composition of the larger sociocultural context. How race/ethnicity and school composition interact to influence transition experiences generally cannot be determined in these studies, but as the

discussion to follow on person–context interactions suggests, considering race/ethnicity in combination with school racial/ethnic composition provides critical insights into differences in high school transition experiences.

Race/ethnicity and person–context interactions Person–context interactions influence developmental trajectories and life transitions (Schiller 1999; Schulenberg and Maggs 2002). One such person–context interaction that has received limited attention in the high school transition literature concerns how an adolescent’s race/ethnicity intersects with the racial/ethnic composition of his/her school (i.e., ethnic incongruence)—and how changes in this match from middle to high school affects transition experiences and subsequent high school trajectories. This research represents a first step in trying to capture how race/ethnicity as a stratifier interacts with more proximate contexts in which adolescents are embedded to influence developmental trajectories across school transitions.

This research began with French *et al.* (2000) exploration of how ethnic incongruence—decreasing numerical representation of an adolescent’s ethnic group from middle school to high school—was associated with adolescents’ race/ethnic identity development across the high school transition. In their study, the changing match between adolescents’ race/ethnicity and those of both teachers and students at their middle and high schools were examined. The change in student body congruence, for example, was calculated by subtracting the adolescent’s percent same-ethnicity peers in middle school from the percent same-ethnicity peers in high school. Adolescents who experienced a decrease of one half standard deviation or more in same-ethnicity peers were labeled as incongruent in the study. The authors suspected that incongruence across the high school transition would be a “consciousness-raising experience” for adolescents and would thus promote ethnic identity development. Their findings, however, suggested that incongruence operated differently for low-income African American and white adolescents. Specifically, incongruence with school staff was associated with an increase in group esteem for African American students but a decrease in group esteem for white adolescents. Incongruence with peers was associated with increases in exploration of ethnic identity for white adolescents but was not influential for African American or Latino students.

Building off this research, Benner and Graham (2007) examined the extent to which ethnic incongruence was associated with other aspects of adolescent development across the high school transition, namely adolescents’ school affect (i.e., belongingness, school liking, and school worries). Consistent with life course theory, the authors proposed that ethnic incongruence would be linked with poorer adjustment because of the greater mismatch between the racial/ethnic context of the departing and receiving schools, a hypothesis that was supported in the study’s findings. Ethnic incongruence was determined in a more stringent way than the strategy used by French and colleagues, such that only adolescents who experienced declines in their numerical representation of one standard deviation or more were labeled as incongruent. Results indicated that ethnic incongruence was associated with diminished feelings of belonging and connectedness to school across the high school transition.

In a separate study, Benner and Graham (2009) further expanded this work to determine whether ethnic incongruence was related to other developmental domains, such as academic performance and socioemotional well-being, and whether incongruence had persistent effects on adolescents’ developmental trajectories. In their reevaluation of the ethnic incongruence calculation, the authors introduced a transformation that better accounted for social stratification in the person–context interaction. The transformation was more contextually-sensitive, essentially weighting congruence scores in the middle of the

distribution more than scores at the extremes in order to capture the effects of moving from the numerical race/ethnic majority in middle school to the numerical minority in high school as compared with, for example, decreasing in congruence but remaining in the numerical majority (see Benner and Graham 2009 for a full explanation of the transformation). Results suggested that the high school transition was more disruptive, in terms of both school belongingness and academic success (i.e., grades and absences) but not psychological adjustment, when African American and Latino adolescents transitioned to high school with significantly fewer same-race/ethnicity peers. Taken as a whole, this nascent research on ethnic incongruence suggests that substantial mismatches between the pre- and post-transition contexts can have negative repercussions for the success with which adolescents manage the high school transition, particularly for adolescents from traditionally marginalized race/ethnic groups.

Limitations of Existing Research and Future Directions

Transition disruptions versus normative development

Across the early life course, children and adolescents in the USA experience a series of normative school transitions, and research suggests that students' adjustment during times of transition suffers. However, are these declines simply developmental changes that would have occurred with or without the school transition or is the school transition itself driving the changes observed? In their groundbreaking work, Simmons and Blyth (1987) compared students who made a physical transition from elementary to middle school to those who remained in the same school from 6th to 7th grade, finding that the disruptions observed were indeed driven, in part, by the transition to middle school and not solely by more universal developmental transitions (such as the transition into adolescence). Although scholars have assumed that disruptions observed across the high school transition are driven by the school transition itself and not by other exogenous factors, only a single study has attempted to verify this hypothesis.

With data from the National Longitudinal Study of Adolescent Health (Add Health), Weiss and Bearman (2007) found little evidence of a school transition effect when they compared adolescents who transitioned to high school in 9th grade compared with those who remained in the same school from 8th to 9th grades. The study, however, provided limited information about the degree of match between adolescents who transitioned to high school as compared with those who remained in the same school from 8th to 9th grade (i.e., whether the samples were comparable on baseline characteristics or pre-transition developmental competencies). Additionally, the study focused on a narrow set of outcomes (i.e., grades, school integration, and delinquency/risky behaviors), and the race/ethnic comparisons contrasted white adolescents versus all other races/ethnicities, a strategy that ignores long-standing differences in the educational experiences of students of different race/ethnic groups (see Farkas 2003 for a discussion). Future work on the high school transition should seek to better determine the extent to which developmental changes observed from middle to high school are a result of the school transition specifically or instead represent normative developmental trajectories present regardless of the move to high school.

Establishing transition effects is particularly relevant to and informative for recent school reform movements in the USA. There are multiple transitions embedded in the American

K-12 educational system, and some school districts across the country are reorganizing feeder patterns to include smaller campuses with fewer grade levels (in essence introducing additional school transitions) in an effort to support student achievement and adjustment. Introducing additional school transitions, however, may actually create greater challenges for students as they have to more frequently adapt to new sociocultural contexts, changing networks and social convoys, and evolving social pathways. Work by Simmons *et al.* (1987) suggests that the introduction of additional life transitions has a detrimental impact on children and adolescents' immediate functioning and subsequent developmental trajectories. As such, if the high school transition, like the transition to middle school, is detrimental for students, district decisions to introduce additional school transitions for K-12 students may need to be reconsidered.

School transitions and the larger developmental context

Life course theory gives particular attention to transitions and trajectories, both of which are important for the educational system generally and school transitions specifically. Unfortunately, research seldom takes the larger developmental perspective advocated by life course theory. Instead, most research on the high school transition focuses on student functioning immediately before and after the transition. Figure 2 uses hypothetical data to highlight the inherent limitations of taking such a narrow approach to understanding the high school transition and depicts the high school transition as a developmental process that unfolds over time. As an example, imagine a researcher is conducting a longitudinal study of school engagement across adolescence. School engagement data for this fictitious study are collected in 6th to 8th grades (before the high school transition) and in 9th to 12th grades (after the transition). The lettered paths display several possible trajectories of school engagement across the seven time points.

The vast majority of high school transition studies are short-term longitudinal investigations (path A in Fig. 2). For example, both Barber and Olsen (2004) and Seidman *et al.* (1996) found that adolescents' school engagement declined across the high school transition. Although the analysis of two time points can be informative for understanding immediate experiences of this life course transition, short-term longitudinal designs such as

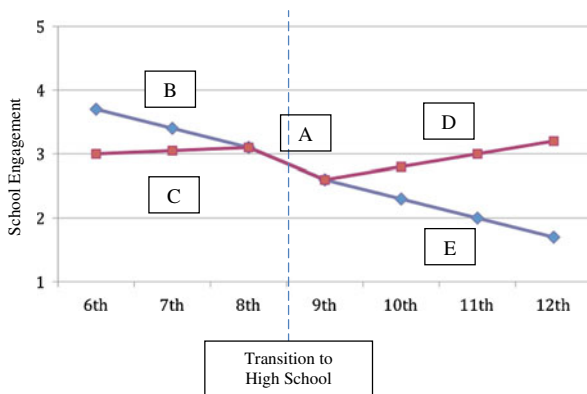


Fig. 2 Conceptual model for understanding the high school transition as a developmental process. Note: Path A represents possible change across the transition, paths B and C represent developmental trajectories prior to the transition, and paths D and E represent possible developmental trajectories following the transition

theirs tell us little about adolescents' life course trajectories prior to the high school transition. Across middle school, multiple trajectories may lead to the same end state in functioning. Using these studies as an example, feelings of school engagement may decline across middle school (path B) and continue to decline across the transition (path A), *or* students may be engaged across middle school (path C) but then experience disruptions when they transition to high school (path A). Just as short-term designs shed no light on the trajectories of adolescents prior to the transition, they also fail to provide insights into how the high school transition might influence subsequent developmental trajectories (beyond the immediacy of the transition). For example, it is possible that observed declines in school engagement across the high school transition (path A) are followed by a period of recovery in high school (path D) or that this transition disruption deflects trajectories (path E), initiating a period of disengagement from schools with adverse repercussions for future educational success.

A handful of studies have conducted long-term follow-ups subsequent to the high school transition. This research generally focuses on academics and provides some evidence of accumulating disadvantage among adolescents who struggle across the high school transition (Catterall 1998; Neild *et al.* 2008; Reyes *et al.* 2000; Roderick 2003). The Benner and Graham (2009) study placed the high school transition in a larger developmental context by examining adolescents' trajectories both prior and subsequent to the transition to high school. The study found that adolescents were generally doing well in middle school (7th and 8th grades) but experienced a number of disruptions immediately following the high school transition, and many students continued to struggle during the first 2 years of high school. Although this study provides a critical first look at the developmental implications for the high school transition, it is based on a relatively disadvantaged sample from southern California. Whether these findings generalize to other samples (e.g., more affluent, suburban or rural populations) is a topic for future inquiry.

This inquiry, however, is made difficult by the dearth of national longitudinal data sets focused on this period of the life course. While a number of existing high school transition studies have used the NELS data set from the National Center for Education Statistics (NCES; e.g., Catterall 1998; Schiller 1999; Smith 1997), data collection waves were spaced two years apart (i.e., 8th and 10th grades), making it impossible to examine adolescents' *immediate* experiences before and after the high school transition. Additionally, the first data collection occurred in 8th grade, and as such, life course trajectories prior to the end of middle school could not be assessed; however, NELS data include several assessment points following the high school transition, making it possible to explore adolescents' developmental trajectories following the high school transition. Other high school transition studies have used Add Health (e.g., Langenkamp 2009, 2010; Weiss and Bearman 2007). Like NELS, high school transition studies using Add Health would be unable to capture adolescents' life course trajectories during middle school, although subsequent data collection waves allow for examination of post-transition trajectories. The Education Longitudinal Study, NCES's most recent longitudinal data set focused on adolescence, includes no data before 10th grade, and the Early Child Longitudinal Study-Kindergarten Cohort includes early adolescent data only in 5th and 8th grades.

Until large-scale longitudinal data sets begin data collection during early adolescence and extend collection efforts through adolescents (and ideally into young adulthood), research that seeks to place the high school transition into a larger developmental context will have to utilize smaller-scale, regional samples. Such large-scale longitudinal data are critical for determining whether the high school transition serves as a turning point for certain students, deflecting developmental trajectories in either promotive or inhibiting ways. As George (2009) notes, identification of turning points requires long-term data both

prior to and subsequent of the transition event, something not currently available in existing national, large-scale longitudinal studies of adolescence.

Examining adolescents' experiences of non-normative school transitions is another area of future study suggested by life course theory. Transitions across the life course often have age-graded expectations, and individuals who experience transitions off-time compared with their same-age peers can have particular trouble managing transitions (Elder 1998). Research on the transition to college, for example, has found that students who are off-time for entering college (i.e., college entry seven months or more following high school graduation) are less likely to complete bachelor's degrees than their on-time peers (Bozick and DeLuca 2005). For the high school transition, it is expected that adolescents who move to high school in 9th grade will be approximately 14 years old. Whether adolescents who are over-age for the transition (due to prior retention in grade) or under-age (due to early promotion) manage transitions more or less successfully than their on-time peers is currently an unknown, and as such, implications of event timing for the life course of students is another important area for future inquiry.

Although trajectories of adolescents' developmental competencies are intertwined, existing high school transition research has failed to examine this phenomenon. As such, we do not know whether, for example, declines in academic performance across the transition to high school are interconnected with declines in socioemotional well-being, or whether adolescents are able to maintain positive psychological health in the face of academic challenges. Moreover, the vast majority of existing high school transition research has failed to examine possible transition effects for developmental competencies outside academics and mental health. The high school transition necessitates that early adolescents enter a new sociocultural context with older peers. High schools often have different situational imperatives for social behaviors, including more risky activities, as alcohol use is common (Schulenberg and Maggs 2002) and engagement in delinquent activities peak in late adolescence (Moffitt 2003). As such, it is possible that the high school transition may usher in increases in adolescents' risky behaviors. Weiss and Bearman (2007) are the only scholars to date who have examined links between the high school transition and risky behaviors, finding that adolescents transitioning to high school had an increased likelihood of bringing a weapon to school across the transition than those who remained in the same school from 8th to 9th grades, but there were no transition effects for substance use or delinquency. However, given limitations with this study, additional research should explore possible transition effects on engagement in risky behaviors with other samples. Particular attention should be placed on the norms of such behavior in the high schools that adolescents attend (i.e., whether risky behaviors such as alcohol use are common or not) as well as how these norms differ across adolescents' middle and high schools. In addition, consideration of how relationships with significant others, such as teachers or family members, might buffer against possible transition effects for risky behaviors would be a related area of inquiry (e.g., Rudasill *et al.* 2010).

School transitions and proximal and distal sociocultural contexts

Life course theory suggests that the congruence of pre- and post-transition contexts affects the ease with which students manage educational transitions (Elder 1998). With few exceptions, research on the high school transition has generally been silent on the effects of changing contexts. Instead studies tend to examine only the effects of the receiving context (i.e., the high school). Do contrasts between middle and high schools increase the negative toll on students' transition success, as life course theory suggests?

Schools are a proximal developmental context of adolescents (i.e., an everyday setting in which adolescents interact with various socializing agents). We know that turbulence in high school has negative effects for students academically (Weiss 2001), and low-resource schools are more likely to be faced with turbulence (e.g., teacher turnover and scarce educational resources). Moreover, low-resource schools are often overcrowded, with high student–teacher ratios that can influence students’ social ties across school transitions (Kozol 1991; Rothstein 2004). Comparisons that acknowledge the stratification systems in place in the American educational system and that delve into the characteristics and capital of a wide range of schools in the USA will enable researchers to better identify what aspects of sociocultural contexts are promotive or problematic for the well-being of transitioning students. To this end, enhancing understanding of the characteristics of middle and high schools and the social convos and linked lives therein will provide a more complete picture of adolescents’ high school transition experiences and aspects of school environments that might confer either advantage or disadvantage to adolescents making the high school transition.

In addition to proximal sociocultural contexts, life course theory also places particular import on the larger sociohistorical context in which trajectories and transitions unfold (Elder 1998), yet school transition studies have had little to say about the historical influences that might affect transition experiences. The middle school movement, a new federal legislative act, and a Supreme Court case have changed the educational landscape in the USA, and these three sociohistorical initiatives have the potential to influence school transitions, as discussed below.

First, in the past hundred years, grade configurations around the middle grades that serve early adolescents have undergone extensive restructuring. This began with the introduction of the first junior high schools in the early 1900s, which were developed as a means of improving educational quality and rigor that were lacking in existing elementary (K-8) schools (Clark and Clark 1993). The 1960s ushered in a backlash against the junior high structure, with educators and reformers critiquing junior high schools as impersonal institutions that simply mimicked the educational patterns observed in high schools. So began the middle school reform movement that advocated again restructuring middle-level education from grades 7 to 9 (the traditional junior high format) to grades 6 or 7 to 8. Although middle schools now dominate the middle grades landscape, with 12,773 middle schools in the USA in the 2006–2007 school year, there still remain a large number of junior high schools (3,112; NCES 2008). Existing high school transition research has not explored possible differences between transitioning from a middle school versus a junior high. In addition to differing in the timing of the transition, in theory, middle and junior high schools are expected to be rather distinct sociocultural contexts, in terms of structural characteristics and internal processes and interactions, both of which could contribute to differences in adolescents’ transition experiences. Future high school transition research should delve into possible differential effects of transitioning from middle schools versus junior high schools for students’ transition success.

In regard to recent legislation, in 2002 President George Bush signed the No Child Left Behind (NCLB 2001) Act into law. NCLB is, at its core, an accountability act focused on holding schools and educators responsible for student achievement (Cicchinelli *et al.* 2003). The act ensures that all schools have a highly qualified teaching staff, and it provides struggling schools with additional resources to promote the academic achievement of all students. It also imposes tough sanctions for schools whose students fail to make adequately yearly progress. Although educators and educational researchers have debated the implementation and success of NCLB requirements, no one would argue that its effects are not felt in schools across America. Although a number of studies have examined the effects of NCLB for schools and students generally, whether this legislation has had an

influence on school transitions themselves and the supports provided across transitions has not been explored. Given the expansive reach of NCLB into the linked lives of educators and their students, attention to this sociohistorical context is essential.

Also in the past decade, the Supreme Court ruled on the 2007 *Parents Involved* (2007) case, decreeing that public schools, when making student school assignments, could not explicitly consider students' race/ethnicity in order to achieve or maintain racial integration (Wells *et al.* 2008). *Parents Involved* overturns, to a large extent, the school desegregation efforts of the earlier *Brown v. the Board of Education* (1954) decision, which ruled that separate was not equal in the educational arena, thus ending the era of large-scale efforts to affect the race/ethnic composition of US schools. Although still in its infancy, the effects of the *Parents Involved* ruling will most likely change the face of America's public schools in the years to come. Returning to life course theory, this sociohistorical event will likely affect the racial/ethnic make-up of schools and, as such, will influence the developmental trajectories and life transitions of students. The call for greater attention on the contextual influences of schools becomes increasingly relevant as we observe the race/ethnic composition of community school contexts shift in the decades to come.

In summary, using life course theory as a heuristic scheme is useful not only for organizing and making meaning of extant research on the high school transition, but it also points to existing limitations and, as such, areas of future inquiry. Much of the research on the high school transition has failed to recognize the larger developmental context in which this life transition occurs. Future studies must place greater attention on life course trajectories prior to and following the high school transition to verify transition effects and better explicate how this school transition influences later life prospects. Such work will require new data sources that follow youth across early to late adolescence and ideally into young adulthood. A focus on trajectories must also be expanded to place attention on not only individual academic and socioemotional trajectories, but also trajectories of risky behaviors, as well as how developmental trajectories across these domains might proceed in complementary or divergent directions across the high school transition. Whether timing of the transition (particularly being off-time for the high school transition) influences transition success is another area of future inquiry. NCLB attempts to end social promotion, and many districts are implementing more stringent criteria for grade promotion, especially at times preceding a school transition point. As such, educational systems may have an increasing number of students who are over-age for the high school transition. How this influences transition success and subsequent developmental trajectories is currently unknown. And finally, how do changing sociocultural contexts and sociohistorical time influence the high school transitions that occur therein? Broadening the lens on the high school transition phenomenon requires that research explore how changing contexts can facilitate or hinder transition success. Moreover, by recognizing the importance of key historical trends (such as enactment of NCLB) for adolescents' high school transition experiences, life course suggests an entirely new area of inquiry for studies of school transitions.

Conclusions

The transition to high school is considered a normative event in the lives of American adolescents, yet normative does not necessarily translate into unproblematic for all students. But inconsistent results from studies of the high school transition present challenges in identifying what we know and the questions that remain unanswered. Life course theory provides a unifying framework for organizing current knowledge about high school

transitions. The extant research suggests that the high school transition can be challenging, but not so for all adolescents. Furthermore, the success with which adolescents manage the high school transition can have lasting implications for life course trajectories and life prospects through accumulating advantage, when transitions are negotiated with ease, or accumulating disadvantage, when transitions are more disruptive to well-being. Ties to social convoys, when characterized by prosocial support and encouragement, facilitate transition success, and sociocultural contexts and changing contexts influence adolescents' high school transition experiences.

There is still much work left to accomplish, and current and future efforts should build on the strengths and address the limitations of existing high school transition studies. Life course theory provides not only a mechanism for interpreting existing research findings and determining areas for future study but also identifying research questions and appropriate research methods (see George 2009 for a discussion). As such, future studies on the high school transition should consider integrating life course theory into the design phase of research projects. School transitions will continue to be part of the educational order in the USA, and it is the responsibility of researchers, educators, and policymakers to ensure that these transitions are negotiated with ease, thus contributing to accumulating advantages for adolescents that support successful life course trajectories and ultimate life outcomes.

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