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PATHWAYS THROUGH ADOLESCENCE

Individual Development in Relation to Social Contexts

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Pathways Through Adolescence: An Overview

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Adolescence is commonly viewed as a period of preparation for adulthood. During adolescence, young people reach physical maturity, develop a more sophisticated understanding of roles and relationships, and acquire and refine skills needed for successfully performing adult work and family roles. The developmental tasks of this period—coping with physical changes and emerging sexuality, developing interpersonal skills for opposite-sex relationships, acquiring education and training for adult work roles, becoming emotionally and behaviorally autonomous, resolving identity issues, and acquiring a set of values (e.g., Havighurst, 1972)—are all tied to successful functioning in adulthood in one way or another.

The movement toward adulthood colors our expectations of adolescents, and hence our treatment of them. We expect adolescents to move away from the adult-directed activities of childhood toward the emotional autonomy, responsibility, and self-direction that are characteristic of adulthood. Consistent with these expectations, adolescents are granted increased freedom of choice: To varying degrees, adolescents select their academic courses; choose their friends and activities; and make plans concerning post-high-school education, employment, and family life.

Many of these decisions have important implications for young people's subsequent life course. Educational decisions, such as whether to attend college or not, affect future career opportunities and vocational development (Klaczynski & Reese, 1991; Osipow, 1983). Similarly, becoming an adolescent parent often limits educational attainment and employment opportunities

(Hayes, 1987). Such choices commit young people to certain courses of action, thus affecting the social environments they enter and the influences they encounter (Nurmi, 1993). Even short-term decisions can have serious consequences: Adolescents who go out with friends rather than study for an important test, who engage in unprotected intercourse or experiment with a new drug, or who ride home with an intoxicated driver may unknowingly affect the direction of their future lives. Moreover, short-term choices may evolve into regular patterns of behavior or lifestyles, which, in turn, influence future development (Elliott, 1993). Thus, the choices that adolescents make and the developmental course they define can profoundly shape their later lives.

Therefore, the adolescent's movement toward autonomy entails both growth and risk (Crockett & Petersen, 1993). On the one hand, adolescents need to experience greater freedom of choice so they can begin to exercise self-direction. On the other hand, their increased freedom presents risks: Empowered to make critical life decisions, adolescents may make choices that jeopardize their subsequent development. As a number of scholars have suggested (e.g., Carnegie Council on Adolescent Development, 1989; Hamburg, 1993), the risk of detrimental choices is particularly high today because adolescents' exposure to potentially dangerous behaviors has increased, while guidance in the form of consistent behavioral norms has decreased. Although many adolescents will make wise decisions despite these obstacles, some will make choices that severely limit their future opportunities. Of even greater concern is the possibility that some adolescents will develop lifestyles involving drug abuse, unprotected sexual intercourse, or violence, putting them at risk for serious long-term problems (Elliott, 1993).

Given the connection between adolescent behavior and future well-being, it is important to understand the choices that adolescents make and how patterns of behavior evolve and are maintained during this period. The premise of this volume is that we can describe the behavior patterns young people develop in adolescence, and piece together the decisions that shape their paths through adolescence and into adulthood. Moreover, we can begin to identify the dynamic processes that affect adolescents' life choices, the emergence of behavior patterns, and the development of lifestyles.

This volume seeks to address three questions. How can developmental pathways in adolescence be most usefully conceptualized? What sets of influences combine to shape adolescents' pathways? What implications do our answers to these two questions have for research and policy?

In this introductory chapter, we provide a brief overview of adolescence as a formative phase in the life course. We then offer an initial conceptualization of developmental paths in adolescence, and describe the contributions of "person" and "context" in shaping them. These observations set the stage for the chapters that follow.

ADOLESCENCE AS A TURNING POINT

Adolescence stands out as a time of significant change in multiple life domains (Crockett & Petersen, 1993; Petersen, 1987). For example, adolescents experience the physical and hormonal changes of puberty, reach physical maturity, and become capable of reproduction (Brooks-Gunn & Reiter, 1990). They also mature cognitively, developing more sophisticated ways of thinking about themselves and others (Keating, 1990). On a social level, they enter new institutional settings such as secondary schools, and they assume new roles connected with school and jobs. These changes in biological functioning, cognition, and social environments, in turn, precipitate transformations in interpersonal relationships and self-conceptions (Harter, 1990; Savin-Williams & Berndt, 1990; Steinberg, 1990). The plethora of changes presents avenues for growth in new directions, making adolescence—and especially the early part of it—a period rich in the potential for novel behavior and positive change (Carnegie Council on Adolescent Development, 1989; Hamburg, 1993).

Despite the potential for plasticity, adolescence is also a period when existing behavioral orientations have an opportunity to solidify into enduring lifestyles (Elliott, 1993). Two processes that foster continuity in behavior—the selection of environments and the production of environments (Bandura, 1982)—may contribute to the crystallization of behavior patterns during this period. First, the greater autonomy granted to adolescents increases their capacity to select companions and social settings compatible with their own interests and proclivities. In addition, adolescents may have a greater capacity to influence their social environments by virtue of their increased cognitive, social, and physical maturity (Lerner, 1987; Lerner & Busch-Rossnagel, 1981). Under these circumstances, initial behavioral dispositions can be reinforced. Thus, although adolescence affords opportunities for change in positive directions, it is also a time when behavior patterns may become entrenched, increasing subsequent continuity. For these reasons, early adolescence is considered a window of opportunity for intervention: Interventions launched at this point in life may prevent detrimental choices and redirect young people so that they develop healthy lifestyles with lasting benefits (Carnegie Council on Adolescent Development, 1989; Hamburg, 1993).

PATHWAYS THROUGH ADOLESCENCE

The preceding discussion suggests that the developmental course that an individual sets in adolescence will evince some continuity and will, in important ways, set the parameters of his or her later development. This raises two questions driving the present volume. How might we best conceptualize

the developmental path or course an individual follows in adolescence? What set of forces shapes the path an individual takes through adolescence and into adulthood?

Defining Developmental Paths

How best to conceptualize (and operationalize) developmental paths is a matter of continuing debate (e.g., Hogan & Astone, 1986). Kagan, Kearsley, and Zelazo (1978) offered the metaphor of a *tree*. The branching of the tree represents turning points or forks in the developmental path. Normative age-graded changes such as school entry or puberty, non-normative life events such as a personal illness or parental divorce, or even chance encounters (Bandura, 1982) may precipitate a turning point. Moreover, the direction taken at each turning point affects later development. According to Kagan et al. (1978), "Each developmental journey contains many points of choice where the individual can move in any one of several directions. After each choice the probability of some final outcome is changed a wee bit" (p. 20).

Thus, in the course of development, an individual encounters numerous decision points and makes numerous "choices" (consciously or unconsciously), each having some impact on future development. The sequence of these decisions describes the individual's developmental path. Moreover, the impact of these decisions is cumulative, progressively constraining the array of subsequent options and likely developmental outcomes (Caspi, Bem, & Elder, 1989). Of course, new events and choices can always lead to redirection; and because some of the events are unforeseeable "chance encounters," prediction of outcomes is not possible except at a general level. Nonetheless, the accumulation of decisions should make certain outcomes increasingly unlikely. It is highly unlikely that a high school dropout will earn a PhD and become a university professor; similarly, barring some bizarre accident, it is highly unlikely that a university professor will become a janitor. Such outcomes are possible, but become increasingly improbable with time.

Although turning points occur throughout life, they may be concentrated in particular developmental periods. As suggested earlier, adolescence holds a number of potentially critical decision points concerning lifestyle and future roles; thus, the branching of the developmental path appears to be particularly dense during this period. Moreover, adolescents have a greater capacity than younger children to select the direction they follow at each fork in the road, and the choices they make have a greater influence on the subsequent life course than those of earlier periods. For these reasons, the path defined in adolescence has significant implications for later development. As Clausen (1986) suggested, "the sorting processes that go on in adolescence—self-sorting and social sorting—tend to determine potentialities for the rest of the life course" (p. 85).

In the present volume, we are interested in the sequence of choices that an adolescent makes, consciously or unconsciously, which together define a path and which progressively increase the likelihood of particular outcomes while reducing the likelihood of others. We see adolescence as a period of self-sorting and institutional sorting, in which the range of probable adult outcomes is progressively narrowed and a likely future life course begins to coalesce. The first goal of the volume, then, is to find ways to conceptualize an adolescent's developmental path.

Determinants of Developmental Paths

The second goal of the present volume is to identify influences that shape the specific choices an adolescent makes at key decision points and, more broadly, the path he or she follows. More precisely, the task is to identify factors that give rise to decision points, as well as processes that affect an adolescent's responses at these points and his or her subsequent behavior. To do this, we need to consider the two primary forces that jointly influence development: personal characteristics and the social environment.

Personal Characteristics. Personal characteristics affect the ways in which individuals engage their environment and, consequently, the experiences they accrue. According to Block (1981), "how experience registers, how environments are selected or modified, and how the stages of life are negotiated depend, importantly and coherently, on what the individual brings to these encounters—the resources, the premises, the intentions, the awareness, the fears and hopes, the forethoughts and afterthoughts that are subsumed by what we call personality" (pp. 40–41).

The personal characteristics of interest here are those that determine the nature and timing of the turning points that a particular adolescent confronts, those that affect the array of options available at key decision points, and those that influence the adolescent's responses or "choices." One perspective on these individual factors comes from the literature on stress and coping. Garnezy (1983) and Rutter (1983) identified several personal characteristics that affect individuals' responses to challenge. These include temperament, biological predispositions to specific types of stressors, intelligence, coping style, and social skills. Each of these characteristics may affect young people's responses to the challenges they confront in adolescence and their choices at key decision points. For example, an adolescent who responds to changes in setting and routine with intense negative emotion (difficult temperament) can expect to have more trouble coping with the normative changes of the adolescent period than one who responds to novelty with enthusiasm and a tendency to approach.

Speaking more broadly, Bronfenbrenner (1989) identified four types of “developmentally instigative” characteristics that condition young people’s responses to their experiences. The first involves “personal stimulus qualities” that affect the ways in which an individual is likely to be responded to by others. These include temperament and physical attractiveness, but probably also gender and ethnicity. Three other types of characteristics affect how the individual responds to and manipulates the environment. *Selective responsivity* refers to preferences for and selection of activities and stimuli, *structuring proclivities* refers to tendencies to elaborate and restructure the environment, and *directive beliefs* reflect the individual’s conception of his or her own power to reach life goals.

Many personal characteristics, such as gender, race, and intelligence, show considerable continuity from childhood through adolescence (Sameroff, Seifer, Baldwin, & Baldwin, 1993). Others, such as personality, interactional style, and characteristic ways of interpreting experience, take shape during childhood and are carried forward into adolescence—to be modified by new experiences. Some also undergo significant change during this period, particularly in early adolescence. For example, during puberty, adolescents develop secondary sex characteristics and experience a growth spurt. The changes in body size and sexual attractiveness affect the way the adolescent is treated by others. In addition, increasing cognitive sophistication is likely to affect adolescents’ perceptions of both themselves and others, and hence the processes of selective responsivity, structuring proclivities, and directive beliefs. Again, these developmental changes suggest the potential for modifications in person–environment interactions, and hence in the direction taken at developmental turning points.

Contextual Influences on Adolescent Pathways. The paths that young people take through adolescence and into young adulthood also depend on the nature of the environment in which they are developing. Key contexts such as the family, school, peer group, and local neighborhood help shape the actual (and perceived) opportunities available to developing adolescents, as well as the risks to which they are exposed. These settings are embedded, in turn, in broad social, cultural, and historical contexts that shape, in part, the resources and opportunities available in those more proximal settings.

The multiple contexts that an adolescent experiences also affect development through the activities they encourage and the norms they promote. The influence of particular contexts may be synergistic, as when the child of highly educated parents attends a competitive high school with an academically oriented group of friends, or discordant, as when the academic values of the school conflict with the attitudes of parents or friends. It is not the influence of a particular context that may have the greatest impact on

an adolescent's emerging path, but the pattern of influences arising from the constellation of settings (Ianni, 1989).

Contexts are dynamic; the possibility of minor and major changes in the environment is always present. However, some features of the context are likely to be more continuous than others. For example, for young adolescents, the general socioeconomic position of their family is likely to be similar across childhood and into adolescence. Taking a comprehensive approach, Sameroff and his colleagues (Sameroff et al., 1993) documented considerable stability in social and family risk factors for children followed from ages 4 to 13. Of the 10 risk factors examined, maternal education and family size were the most stable, whereas family support (i.e., presence of father) and maternal mental health demonstrated the least stability over time.

Against a backdrop of some contextual continuity, however, important *contextual changes are experienced by many young people, especially in early adolescence*. For example, the transition to secondary school signals both a shift in physical location and a movement from a small, often intimate setting—in which one teacher handles most of the educational content for a given group—to a large setting—in which the student moves from class to class with new teachers and, frequently, different classmates (Eccles et al., 1993; Simmons & Blyth, 1987). A change in school may lead to new friendships and new peer groups—relationships that grow in influence in adolescence (Brown, 1989). In addition, with increasing autonomy from parents, adolescents may spend more of their free time away from home, “hanging out” with friends in community settings such as malls, streets, and parks, potentially increasing the influence of neighborhood conditions on development.

Notably, the relations among key contexts, and the resulting patterns of influence, may also undergo important shifts during adolescence. For example, parents may not be able to exert as much influence over their adolescents' activities and choice of friends as they were able to exercise in early and middle childhood. Similarly, parents may find it more difficult to establish lines of communication with teachers, because adolescents are exposed to multiple teachers, each of whom teaches one subject to many students.

Non-normative events constitute another source of contextual change. These unexpected events include family moves, parental divorce and remarriage, serious illness, and changes in parents' employment situations. Although non-normative events can occur at any point in the life span, their effects may be particularly pronounced in adolescence because they co-occur with other developmental and contextual transitions experienced during that period (Petersen, 1987; Simmons, Burgeson, Carlton-Ford, & Blyth, 1987). A non-normative event may alter structural aspects of the family environment, and it also may change key processes operating in the environment, such as parenting practices (see Crouter & McHale, 1993).

Person–Environment Interactions and Adolescent Paths. Understanding the decisions that adolescents make, which shape their pathways into adulthood, thus requires attention to the environment and opportunities (and obstacles) it presents, as well as to the characteristics of the individual that might predispose him or her to make some choices and not others. The roles of person and environment in this process have been conceptualized in several ways. Ecologically oriented researchers have taken an interactional perspective, emphasizing that development is the product of the joint contribution of “person” and “context.” For example, Bronfenbrenner (1979) argued that, in ecological research, main effects are likely to be interactions—meaning that people respond differentially to the effects of context as a function of their personal characteristics. These ideas are woven through the growing literature on “risk and resilience.” Research studies indicate that, under stressful life conditions such as poverty or family dissolution, children and adolescents are “protected” by certain personal characteristics (e.g., intelligence) or certain features of the immediate environment (e.g., a close, committed relationship with an adult; Maccoby, 1983; Masten & Garmezy, 1985; Rutter & Quinton, 1984; Werner & Smith, 1982). Similarly, personal characteristics can further jeopardize the well-being of adolescents in stressful circumstances. For example, Elder and his colleagues reported that physically unattractive girls were most “at risk” to experience paternal irritability and negative parenting when fathers experienced economic deprivation during the Great Depression (Elder, van Nguyen, & Caspi, 1985).

Behavior geneticists have identified several specific ways in which the person may engage the environment (Scarr & McCartney, 1983). One process is an “evocative” one, in which the child elicits certain responses from the environment. Personal characteristics that evoke responses from others include intelligence, physical attractiveness, and temperament—all qualities that have a genetic component. A second process involves the child’s actively selecting activities and relationships and actively attending to and processing his or her experiences; people “niche pick” on the basis of predispositions, skills, and experiences. According to Scarr and McCartney, both processes become stronger as the child becomes more autonomous. These two processes are not unlike the processes of environment selection and production discussed by Bandura (1982), or those of “personal stimulus qualities” and “selective responsivity” discussed by Bronfenbrenner (1989). However, behavior geneticists raise two additional points: They see the processes as reflecting the child’s genotype, and they note that these and other processes cause person characteristics and environment to be correlated, making it difficult to disentangle “person” and “environment” effects. This creates conceptual and methodological problems for analyzing the “causes” of adolescents’ choices and their resulting developmental paths. In thinking about pathways through adolescence, we must be mindful that such routes are

often selected, not randomly assigned, and that adolescents choose their routes through adolescence and into adulthood on the basis of both their personal characteristics and the forces emanating from their environments.

In conclusion, an individual's path through adolescence and into adulthood depends on the history of interactions between person and environment occurring both in daily life and at critical turning points. Developmental turning points and the pathways they define are thus constrained by characteristics of the person, by resources and opportunities in the social environment, and by the patterns of interaction, or "co-action" (Gottlieb, 1991), that develop between person and context over time. Although there is widespread agreement among developmental researchers that both personal and environmental influences play an important role in shaping pathways across adolescence and into adulthood, less is known about the complex mechanisms involved. Research on this issue requires attention both to individual development and to the multiple contexts in which the individual participates. It also requires a longitudinal design, with an extended temporal canvas long enough to chart decision points and to examine their sequelae. Ideally, such studies would be comparative as well, charting how adolescents construct their pathways through adolescence in settings that differ dramatically in terms of resources, opportunities, and definitions of both adolescent and adult "success." Currently, we know little about how distinct populations of adolescents undertake the process of moving through adolescence and into adulthood. This volume is an attempt to pull together a diverse set of researchers who have demonstrated their interest in parts of the complex array of issues outlined here.

ORGANIZATION OF THE VOLUME

The volume is organized around the three questions identified at the outset, as well as related themes. The first section is devoted to charting pathways through adolescence and identifying the processes that maintain continuity (or produce discontinuity) in behavior. The chapter by Huizinga (chap. 2) charts pathways in one particular domain—delinquent behavior. Huizinga examines several types of delinquency and the factors associated with transitions from one type to another. The chapters by Cairns, Leung, and Cairns (chap. 3), and Caspi (chap. 4) point to interactions between person and environment that promote behavioral continuity and the differentiation of developmental pathways. Cairns et al. discuss adolescents' social groups, identifying processes of peer-group selection that may support continuity in antisocial behavior despite changes in peer-group membership. Caspi focuses on the impact of school context on girls' delinquency, and finds that the effect of a mixed-sex environment depends on personal charac-

teristics of the girls. The commentary chapter by Crockett (chap. 5) discusses conceptual models of developmental pathways, as well as the role of the social context in shaping pathways and promoting continuity in behavior.

The second section focuses on the impact of social contexts on the lives of African-American adolescents. Winfield (chap. 6) addresses the issue of resilience, focusing on the potential role of the school and community in fostering healthy development among African-American adolescents. Burton, Allison, and Obeidallah (chap. 7) address the role of poverty in shaping the developmental paths of inner-city youth. The commentary by McHale (chap. 8) examines the implications of research findings on African-American youth for developmental theory and interventions.

The third section of the volume examines the interrelations among key social contexts (family, peers, and school), and how they influence adolescents' behavior, choices, and preparation for adulthood. Brown and Huang (chap. 9) discuss the capacity of the peer group to moderate the effects of parenting style on adolescent behavior. Eckert (chap. 10) illustrates how the "fit" between the institutional goals of the high school and the values of different peer groups create divergent high school experiences among youth and shape their orientations toward social institutions in general. The commentary by Silbereisen (chap. 11) presents alternative interpretations of some of the data on peer groups presented in these chapters.

The fourth section focuses on community-based approaches to research and interventions with adolescents. Small (chap. 12) presents a collaborative model, in which researchers and communities cooperate to implement research on youth and to develop interventions to facilitate positive outcomes. The commentary by Ebata (chap. 13) focuses on key issues raised by Small's "community-based action-research" model, and points to gaps in the current research base. In the final chapter and section, Steinberg (chap. 14) offers an overall commentary on the volume and the field of adolescent development. He chronicles the sequence of conceptual models of adolescent development, compares this to the current volume's focus on pathways and social contexts, and suggests some directions for future research and policy initiatives.

REFERENCES

- Bandura, A. (1982). The psychology of chance encounters and life paths. *American Psychologist*, 37, 747-755.
- Block, J. (1981). Some enduring and consequential structures of personality. In A. I. Rabin, J. Aronoff, A. Barclay, & R. Zucker (Eds.), *Further explorations in personality* (pp. 27-43). New York: Wiley.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

- Bronfenbrenner, U. (1989, April). *The developing ecology of human development: Paradigm lost or paradigm regained?* Paper presented at the biennial meeting of the Society for Research on Child Development, Kansas City, MO.
- Brooks-Gunn, J., & Reiter, E. O. (1990). The role of pubertal processes. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 16–53). Cambridge, MA: Harvard University Press.
- Brown, B. B. (1989). The role of peer groups in adolescents' adjustment to secondary school. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 188–215). New York: Wiley.
- Carnegie Council on Adolescent Development. (1989). *Turning points: Preparing youth for the 21st century*. Washington, DC: Author.
- Caspi, A., Bem, D. J., & Elder, G. H., Jr. (1989). Continuities and consequences of interactional styles across the life course. *Journal of Personality*, 57, 375–406.
- Clausen, J. (1986). *The life course: A sociological perspective*. Englewood Cliffs, NJ: Prentice-Hall.
- Crockett, L. J., & Petersen, A. C. (1993). Adolescent development: Health risks and opportunities for health promotion. In S. G. Millstein, A. C. Petersen, & E. O. Nightingale (Eds.), *Promoting the health of adolescents: New directions for the twenty-first century* (pp. 13–37). New York: Oxford University Press.
- Crouter, A. C., & McHale, S. M. (1993). Familial economic circumstances: Implications for adjustment and development in early adolescence. In R. M. Lerner (Ed.), *Early adolescence: Perspectives on research, policy, and intervention* (pp. 71–91). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C. M., Reuman, D., Flanagan, C., & MacIver, D. (1993). Development during adolescence: The impact of stage-environment fit on young adolescents' experiences in schools and in families. *American Psychologist*, 48, 90–101.
- Elder, G. H., van Nguyen, T., & Caspi, A. (1985). Linking family hardship to children's lives. *Child Development*, 56, 361–375.
- Elliott, D. S. (1993). Health-enhancing and health-compromising lifestyles. In S. G. Millstein, A. C. Petersen, & E. O. Nightingale (Eds.), *Promoting the health of adolescents: New directions for the twenty-first century* (pp. 119–145). New York: Oxford University Press.
- Garnezy, N. (1983). Stressors of childhood. In N. Garnezy & M. Rutter (Eds.), *Stress, coping, and development in children* (pp. 43–84). New York: McGraw-Hill.
- Gottlieb, G. (1991). Experiential canalization of behavioral development: Theory. *Developmental Psychology*, 27, 4–13.
- Hamburg, D. A. (1993). The opportunities of early adolescence. *Teachers College Record*, 94, 466–471.
- Harter, S. (1990). Self and identity development. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 352–387). Cambridge, MA: Harvard University Press.
- Havighurst, R. J. (1972). *Developmental tasks and education* (3rd ed.). New York: McKay.
- Hayes, C. D. (Ed.). (1987). *Risking the future: Adolescent sexuality, pregnancy, and childbearing* (Vol. 1). Washington, DC: National Academy Press.
- Hogan, D., & Astone, N. (1986). The transition to adulthood. *Annual Review of Sociology*, 12, 109–130.
- Ianni, F. A. J. (1989). *The search for structure: A report on American youth today*. New York: Free Press.
- Kagan, J., Kearsley, R. B., & Zelazo, P. R. (1978). *Infancy: Its place in human development*. Cambridge, MA: Harvard University Press.
- Keating, D. P. (1990). Adolescent thinking. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 54–89). Cambridge, MA: Harvard University Press.
- Klaczynski, P. A., & Reese, H. W. (1991). Educational trajectory and "action orientation": Grade and track differences. *Journal of Youth and Adolescence*, 20, 441–462.

- Lerner, R. M. (1987). A life-span perspective for early adolescence. In R. M. Lerner & T. T. Foch (Eds.), *Biological-psychosocial interactions in early adolescence* (pp. 9–34). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Lerner, R. M., & Busch-Rossnagel, N. A. (1981). Individuals as producers of their development: Conceptual and empirical bases. In R. M. Lerner & N. A. Busch-Rossnagel (Eds.), *Individuals as producers of their development: A life-span perspective* (pp. 1–36). San Diego, CA: Academic Press.
- Maccoby, E. E. (1983). Social-emotional development and response to stressors. In N. Garnezy & M. Rutter (Eds.), *Stress, coping, and development in children* (pp. 217–234). New York: McGraw-Hill.
- Masten, A. S., & Garnezy, N. (1985). Risk, vulnerability, and protective factors in developmental psychopathology. In B. B. Lahey & A. E. Kazdin (Eds.), *Advances in clinical child psychology* (Vol. 8, pp. 1–51). New York: Plenum.
- Nurmi, J. E. (1993). Adolescent development in an age-graded context: The role of personal beliefs, goals, and strategies in the tackling of developmental tasks and standards. *International Journal of Behavioral Development*, 16, 169–189.
- Osipow, S. H. (1983). *Theories of career development*. Englewood Cliffs, NJ: Prentice-Hall.
- Petersen, A. C. (1987). The nature of biological-psychosocial interactions: The sample case of early adolescence. In R. M. Lerner & T. T. Foch (Eds.), *Biological-psychosocial interactions in early adolescence* (pp. 35–61). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rutter, M. (1983). Stress, coping, and development: Some issues and some questions. In N. Garnezy & M. Rutter (Eds.), *Stress, coping, and development in children* (pp. 1–41). New York: McGraw-Hill.
- Rutter, M., & Quinton, D. (1984). Long-term follow-up of women institutionalized in childhood: Factors promoting good functioning in adult life. *British Journal of Developmental Psychology*, 2, 191–204.
- Sameroff, A. J., Seifer, R., Baldwin, A., & Baldwin, C. (1993). Stability of intelligence from preschool to adolescence: The influence of social and family risk factors. *Child Development*, 64, 80–97.
- Savin-Williams, R. C., & Berndt, T. J. (1990). Friendship and peer relations. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 277–307). Cambridge, MA: Harvard University Press.
- Scarr, S., & McCartney, K. (1983). How people make their own environments: A theory of genotype-environment effects. *Child Development*, 54, 424–435.
- Simmons, R. G., & Blyth, D. A. (1987). *Moving into adolescence: The impact of pubertal change and school context*. Hawthorne, NY: Aldine.
- Simmons, R. G., Burgeson, R., Carlton-Ford, S., & Blyth, D. A. (1987). The impact of cumulative change in early adolescence. *Child Development*, 58, 1220–1234.
- Steinberg, L. (1990). Autonomy, conflict, and harmony in the family relationship. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 255–276). Cambridge, MA: Harvard University Press.
- Werner, E. E., & Smith, R. (1982). *Vulnerable but invincible: A longitudinal study of resilient children and youth*. New York: McGraw-Hill.