TOWARD A CULTURAL-DEVELOPMENTAL STAGE THEORY OF THE LIFE COURSE

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In developmental psychology, the second half of the 20th century was a time of grand stage theories. Theorists of the era were inspired by the power of the stage theory to illuminate patterns of development across the life span and to generate insights about the distinctive characteristics of different life stages. Most notably, Erik Erikson (1950) presented the first theory of the life course from birth to old age in his magnum opus Childhood and Society. Daniel Levinson and his colleagues proposed a stage theory of adult development, with periods of stability alternating with periods of upheaval and transition (Levinson, 1978). Stage theories were also proposed for specific areas of development. Jean Piaget described stages of cognitive development and moral development (Piaget, 1955; Piaget & Inhelder, 1969). Laurence Kohlberg developed his stage theory of moral development in the course of his dissertation research in the 1950s (Kohlberg, 1958), and it quickly became the reigning paradigm in the area. Kohlberg's theory of moral development inspired related stage theories in areas such as religious development (Fowler, 1981) and political development (Adelson, 1971, 1991).
Collectively, stage theorists assumed that the driving force of development was internal and ontogenetic. They believed that a species-wide program of development is born into every human being. They did not deny that social and cultural contexts can influence development in important ways. For example, Erikson believed that every stage held the potential for a healthy route and an unhealthy route of development, with the difference determined by experience. Piaget believed there were cultural differences in forms of morality. Nevertheless, although they recognized individual differences, stage theorists generally argued that given a reasonably normal and healthy environment, all persons would develop in a similar way through similar stages, driven by the same inherent developmental program.

However, toward the end of the 20th century developmental theorists increasingly questioned the premises and validity of stage theories (Lerner, Hultsch, & Dixon, 1983). Research indicated more diversity and complexity in development than the stage theories had allowed. People did not necessarily go through the same stages at similar ages, as proposed by stage theories. In stage theories of cognitive, moral, religious, and political development, the “highest” stages of development turned out to be reached by relatively few people at any age. Critics of stage theories also asserted that the theories overstated the internal, ontogenetic basis of development, while neglecting the importance of social and cultural contexts.

Toward the end of the 20th century, dissatisfaction with stage theories led to a new approach to theory in developmental psychology. Theorists now proposed “life span” and “life course” metatheories of development as an alternative to stage theories. One goal of replacing stage theories with developmental metatheories was to refocus scientific inquiry and energy on processes that were argued to be universal motivators of development, not only across cultures but also across ages. Consequently, according to this view there was no need to separate human development by ages or stages. Although there are some differences between life span and life course theories (to be described later), both discard stages in favor of broad principles of development that are purported to apply to people of all ages (Baltes, Lindenberger, & Staudinger, 2006; Elder & Shanahan, 2006; Lerner, 2006).

Our view presented in this chapter is that developmental metatheories have erred in rejecting stage theories wholesale. Although stage theories have their limitations, they provide a vivid sense of the normative patterns and issues that exist at different points of the life course. Developmental metatheories have usefully described principles of development that may apply across stages or periods of development. However, they often fail to provide a sense of the developmental distinctions between different ages. Furthermore, both stage theories and developmental metatheories fail to incorporate cultural influences on development sufficiently.

Our goal in this chapter will be to evaluate stage theories and developmental metatheories and end by proposing the outlines of a cultural-developmental stage theory that is intended to combine the best of both perspectives (Jensen, 2006, in press). First, previous stage theories will be summarized briefly. Then, developmental metatheories will be examined. Finally, the outline of our new cultural-developmental stage theory will be presented.

**STAGE THEORIES**

The late 20th century was the heyday of stage theories, and many different stage theories were proposed. The focus here will be on three of the most influential theories, by Piaget, Levinson, and Erikson. The summary and analysis of these theories will be brief, as they are familiar to most scholars.

In all stage theories, stages are more than simply age periods. Stages also entail *qualitative* changes in development from one age to the next. For example, in Piaget’s theory adolescents not only process information faster than younger children do, they also analyze problems differently. In Erikson’s theory, persons in young adulthood and in middle adulthood both have relationships with others, but the quality of those relationships changes from young to middle adulthood.

Although philosophers and religious thinkers have proposed stages of human development for thousands of years (Levinson, 1978), Piaget was arguably the first stage theorist in psychology. In the 1930s he developed a stage theory of cognitive development in infancy, based in part on detailed observations of his own three children. He also proposed a theory of moral development (Piaget, 1932), distinguishing broadly between a *heteronomous* stage of moral development in early and middle childhood that was responsive to social influences, and an *autonomous* stage that followed in late childhood and adolescence, when people learn to disregard social influences and make independent moral decisions.

In Piaget’s view, the driving force of development is *maturation*, arising in the ontogenetic program born into everyone. The social and cultural environment does not so much influence development as simply provide a context in which development can take place. For example, cognitive development does not require any special teaching, in Piaget’s view, but takes place naturally for any child who lives in a reasonably
normal human environment. He did not totally disregard the role of culture, especially in moral development. In his view, the distinction between heteronomous and autonomous development applies not just to individual development but also to cultures, and he saw autonomous cultures as more developed than heteronomous cultures. Nevertheless, to him development was mainly driven by the ontogenetic force of maturation, and the influence of the environment was minimal.

In contrast to Piaget, who viewed both cognitive and moral development as reaching fruition in adolescence and changing little thereafter, Levinson’s (1978) theory described changes in adult development from the 20s through the 60s. Nevertheless, Levinson’s (1978) theory of adult development was similarly ontogenetic. Although based almost entirely on middle-class White American men, along with a handful of working-class White American men, Levinson considered this an adequate basis for a theory of all humanity and has been justifiably criticized for it. His theory that adult development takes place in alternating patterns of change and stability, with periods of change falling at the decade markers (age 30, 40, etc.), has been little tested even in American society, but would seem to have even less validity in the many human cultures where adult roles, once entered, tend to be stable for long periods.

The most comprehensive stage theory, and to date the only stage theory that includes the entire life course, is the one proposed by Erikson (1950). Erikson proposed his theory as alternative to Freud’s psychosocial theory, which had been the reigning stage theory of the first half of the 20th century. In contrast to Freud, Erikson presented a “psychosocial theory” in which sexuality was deemphasized in favor of social and cultural context. Erikson also argued that development takes place throughout life, as opposed to Freud’s emphasis on the first 6 years.

In Erikson’s theory, each stage of the life course is characterized by a central crisis or challenge, for example, trust versus mistrust in infancy, identity versus identity confusion in adolescence, generativity versus stagnation in middle adulthood, and ego integrity versus despair in late adulthood. Erikson’s theory is ontogenetic, social, and cultural. In his view the program of stages is ontogenetic, that is, all people in all times go through the same sequence of developmental stages. However, the content of the stages is influenced by the social and cultural/historical environment. For example, it is the social environment, especially as provided by the mother, that determines whether the infant will experience trust or mistrust. It is the cultural/historical environment that determines the range of identity choices open to the adolescent and the degree to which adolescents are guided toward certain identity paths and not others. One of Erikson’s most compelling books is Young

Man Luther (Erikson, 1958), which describes the personal, social, cultural, and historical factors that formed Martin Luther’s identity and led him to break with the Catholic church and ignite the Protestant Reformation.

Erikson’s psychosocial theory of the life course remains tremendously influential over a half century after he proposed it. One test of the worth of any scientific theory is whether it inspires new research, and Erikson’s theory has certainly done so, especially for the stages of adolescence and middle adulthood. Research on identity development in adolescence has been abundant and remains a flourishing field. Research on generativity in middle adulthood has been substantial, and today the idea of generativity is being applied to other stages of the life course as well.

Furthermore, although Erikson’s theory is in part ontogenetic, it incorporates the social and cultural environment and the historical moment as well. It seems clear to most developmental scientists today that stage theories like those proposed by Piaget and Levinson were excessively ontogenetic and took too little account of the social, cultural, and historical context. However, Erikson’s stage theory is not nearly so easy to dismiss. He emphasized the interaction between the ontogenetic raw material of development and the social, cultural, and historical context in which development takes place.

Although Erikson’s theory remains influential and valuable, it has two important weaknesses. First, his claim that each stage of the life course has a central crisis or challenge has never been validated. Although research has investigated identity in adolescence (and beyond) and generativity in middle adulthood (and other stages), no research has ever tested if identity is the most central developmental issue of adolescence or generativity the most central issue of middle adulthood, and there has been little research on Erikson’s theory with respect to other stages.

A second limitation of Erikson’s theory is his lack of attention to the biological basis of development. The driving ontogenetic force behind development, according to Erikson, is the social nature of human beings and the necessity of learning the ways of the culture into which they have been born. Although this was a valuable step forward from Freud’s reduction of all human motivations to sexuality (and sometimes aggression), it left out the biological basis of development almost entirely. In the half century since Erikson proposed his theory, a great deal of knowledge has accumulated on the biological and genetic basis of development, especially in behavior genetics, and this knowledge would have to be part of any plausible theory of human development today.
DEVELOPMENTAL METATHEORIES

In recent decades two new theoretical approaches have been proposed: life span theory and life course theory. Both theories reject the stage theories of the past, including Erikson’s. The theories are similar in emphasizing general principles of development rather than stages, but there are some (slight) differences between the two theories. Here we describe each theory and then provide a critique.

Life Span Theory

Life span theory has been shaped mainly by Paul Baltes (1987, 1997; Baltes et al., 2006; Baltes, Reese, & Lipsitt, 1980). Baltes rejects stage theories and their view of development as “the unfolding and emergence of an entity, primarily formed from sources within that entity and by mechanisms of transformation or stage-like progression” (Baltes et al., 2006, pp. 580–581). Instead, he proposes a life span theory that emphasizes “multidirectionality, multifunctionality, adaptive specificities, and predictive discontinuities” (Baltes et al., 2006, p. 582). The theory is based on eight theoretical propositions (Baltes et al., 2006):

1. Life span development. Development is a lifelong process co-constructed by biology and culture. No age period holds primacy.
2. Life span changes in the dynamic between biology and culture. Culture is effective in childhood in aligning biological potentials with cultural practices. However, in the course of adulthood culture becomes less “efficient” because humans did not evolve to live long adult lives and when they do there is little culture can do to stem the biological decline that characterizes aging.
3. Life span changes in allocation of resources to distinct functions of development: growth versus maintenance versus allocation of loss. Childhood is characterized by growth and resilience, whereas adulthood (especially old age) is characterized by compensation for decline and regulation of loss of abilities.
4. Development as selection (specialization) and selective optimization in adaptive capacity. In the course of development, persons select from among a range of constrained potentialities and seek optimization of functioning within the selected pathways.
5. Development as gain–loss dynamic. There is no gain without loss or loss without gain. Selection results not only in advances in adaptive capacity but in losses in potential for alternative pathways.
6. Plasticity. There is great plasticity (individual variability) in psychological development, and research should focus on changes in plasticity with age.

7. Ontogenetic and historical contextualism as paradigm. Ontogenetic development varies by historical-cultural conditions. Development is the outcome of interactions between three systems: (1) normative age-graded, (2) normative history-graded, and (3) non-normative.
8. Toward a general and functionalist theory of development. The effective coordination of selection, optimization, and compensation. Development involves the interplay of selection, optimization, and compensation. Successful development is the maximization of gains and the minimization of losses.

These propositions are a potentially useful set of guidelines for understanding and studying human development. Nevertheless, a number of objections could be raised. First, although life span theory helpfully emphasizes that development is lifelong and that change is continuous throughout the life span, it does so at the expense of the relative neglect of infancy, childhood, and adolescence. Baltes’s own research has focused on developmental changes in old age (Baltes & Mayer, 1999), and life span theory reflects this emphasis. It may be true that in old age there is no gain without loss, but is it really true in infancy, childhood, or adolescence? When an infant learns to walk, what is lost? Or when a child makes a friend or learns to do math? Or when an adolescent reaches puberty? Although Baltes (1987) has attempted to explain how the principles of life span theory apply at different ages, the principles nevertheless seem to overlook the special characteristics of early development.

Even the early decades of adulthood are neglected in life span theory. According to life span theory, childhood is a time of growth and resilience, adulthood a time of regulation of loss, but is growth and resilience not experienced by most people in their 20s, 30s, and 40s? Even in the 50s, 60s, and beyond, the emphasis on loss and decline in later adulthood seems overemphasized. Some capacities may decline in later adulthood while others come to fruition, as Baltes’s own research on wisdom shows (Baltes & Kunzmann, 2004). Perhaps it would be more accurate and helpful to emphasize the increase in variability in physical health that occurs in middle and later adulthood, and how important this is to other aspects of development. Rates of a wide range of health problems increase with age, and people who suffer health problems are likely to be impaired in other aspects of their functioning (such as work and sexuality), but people who remain healthy during these years may experience them much more as a time of growth and resilience.

Other limitations of life span theory apply to life course theory as well and will be addressed later in the chapter.
Life Course Theory

The chief progenitor of life course theory is Glen Elder (1974/1999, 1975, 1998; Elder & Shanahan, 2006). According to Elder, "the life course refers most broadly to a theoretical orientation (or paradigm) that encourages the study of changing lives in changing contexts. ... Based to a large measure on sociocultural theories of age and social relations ... the life course as a concept refers to a sequence of socially defined, age-graded events and role that defines, in large measure, the contours of biography. The life course can be historically linked to specific transitions and to the meanings of cohort status" (Elder & Shanahan, 2006, p. 667).

This may seem like a type of stage theory in which stages are defined by socially defined, age-graded events and roles, but Elder makes it clear that he rejects "a structural view of age patterns in cultures" because "people of the same age do not march in concert across major events in the life course" (Elder & Shanahan, 2006, p. 674). The theories offered by Erikson, Levinson, and others are lacking because,

This perspective views the social context as a "scene or setting" through which the person—loaded with his or her "natural predispositions"—must pass. By contrast, the life-course paradigm views the interplay of social context and the organism as the formative process, making people who they are. Individuals do not "develop according to their natures" but, rather, they are continually produced, sustained, and changed by their social context." (Elder & Shanahan, 2006, p. 670)

In life course theory, then, the emphasis is on the interactions between the person and the social, historical, and cultural environment, rejecting a role for ontogenetic "natural predispositions."

In place of stage theories, Elder offers a set of "Paradigmatic Principles of Life-Course Theory," as follows (Elder & Shanahan, 2006):

1. The principle of life-span development. Human development and aging are lifelong processes.
2. The principle of human agency. Individuals construct their own life course through choices and actions they take within the opportunities and constraints of history and social circumstances.
3. The principle of timing. The developmental antecedents and consequences of life transitions, events, and behavior patterns vary according to timing in a life course. For example, having a child at age 16 has different antecedents and consequences than having a child at age 35.

4. The principle of linked lives. Lives are lived interdependently and social-historical influences are expressed through this network of shared relationships, for example, with parents, spouse, friends, teachers, and neighbors.
5. The principle of historical time and place. The individual life course is embedded in and shaped by historical times and places over a lifetime.

Like life span theory, life course theory provides contributions to the understanding and study of human development. The principle of timing is especially important and potentially fruitful. However, like life span theory, life course theory has weaknesses and limitations. In the same way the Baltes's research on aging colors his theory of the life span, Elder's research on the Great Depression colors his theory of the life course. In describing the principles of life course theory, Elder repeatedly invokes the findings of his influential study Children of the Great Depression (Elder, 1974/1999), which showed how differently people responded to the events of the Great Depression depending on their age and gender (Elder & Shanahan, 2006). However, the Great Depression is a dubious basis for a general theory of the life course. Elder's research focuses on one group of people in one place at one period in human history, and its generalizability is questionable. Moreover, the focus on the Great Depression leads to an emphasis on the importance of historical context at the expense of cultural context and biological influences.

Limitations of Developmental Metatheories

In addition to the specific limitations of life span and life course theories, there are limitations that the two developmental metatheories share, including (a) a neglect of early development; (b) a failure to incorporate ontogenetic, biologically based changes in development; (c) a lack of clarity in describing developmental differences between age periods; and (d) a neglect of the cultural basis of development. Next we discuss each of these limitations.

One of the similarities of life span and life course theories that makes them valuable is that they emphasize that development is lifelong. This is a refreshing contrast to the tendency in most developmental psychology to overemphasize the early years of development (infancy, childhood, and adolescence) and almost entirely neglect development after adolescence. However, in life span and life course theories there is a corresponding neglect of the early years of development. This neglect may reflect the research foci of Baltes on aging and Elder on
family relationships between adolescents and parents during the Great Depression. Whatever its origin, the neglect of early development is a major omission of the theories. None of the principles of the theories seem to account for the special characteristics of early development. Furthermore, some of the principles have questionable application to early development, such as selection, optimization, and compensation in life span theory.

A second limitation of the developmental metatheories is that they fail to incorporate ontogenetic, biologically based changes in development in two ways. First, they fail to recognize the ontogenetic, biologically based changes of early development. Infants cannot walk or talk and are highly dependent on the care of others, and this makes infancy different from any other period of life. Yet it is difficult to discern anything in the principles of life span or life course theory that takes these biological constraints into account; in fact, writings on life span and life course theories almost never mention infancy. Similarly, adolescence is framed by puberty and the development of sexual maturity, yet this is almost never mentioned in developmental metatheories, even in Elder’s discussion of his research on adolescents and their families in the Great Depression.

A second way that developmental metatheories fail to incorporate ontogenetic, biologically based changes in development is in their inadequate recognition of the influences of genetics on development. Behavior genetics has contributed some of the most exciting and important findings to research on human development over the past 30 years, yet these findings have little place in life span and life course theory. Life course theory makes some attempt to recognize the importance of genotype-environment (GE) interactions (Elder & Shanahan, 2006), but is surprisingly undevelopmental in doing so, focusing on interactions between genetic risks and the social environment, with little attention to passive, evocative, or active GE interactions (Scarr, 1993). Life span theory never mentions behavior genetics at all, perhaps because Baltes has focused on late adulthood.

A third limitation of developmental metatheories is a lack of attention to qualitative developmental differences between age periods. General principles of development can be useful, but they still beg the question, how does development change from infancy to childhood, from childhood to adolescence, and so on? The rejection of stage theories in life span and life course theory has resulted in an aversion to using terms for different developmental periods because those terms are used in stage theories. Yet it is almost impossible to understand developmental changes without considering the qualitative differences between periods of development. Trying to avoid this question results in a discussion of human development that is too abstract and seems disconnected from how people actually live.

Finally, developmental metatheories share a neglect of the cultural basis of development. Both life span and life course theories claim to account for the role of culture in development. Life span theory recognizes “life span changes in the dynamic between biology and culture” among its principles, and Baltes describes life span theory as characterized by the (rather inelegant) term “developmental biocultural co-constructivism” (Baltes et al., 2006, p. 586). Life course theory recognizes the importance of “the principle of historical time and place,” with “place” presumably meaning cultural setting. Yet neither theory is based on a cultural understanding of development or adequately takes into account the cultural basis of development. Notably, virtually all of the studies that the theories invoke are of people in Western countries, especially Germany and the United States. Neither looks outside the borders of the West to cultures where patterns of human development are markedly different, as we will detail in the next section.

**PRINCIPLES FOR A NEW LIFE COURSE THEORY**

Given the limitations of life span and life course theories, we wish to propose here the outline of a new theory of human development, specifically, a cultural-developmental stage theory of the life course. Next, we present the principles of our theory and contrast them with the principles of life span and life course theories.

First, however, a word about terminology. *Life span* and *life course* theories are explicit about the meaning of these terms and how they differ from each other. Baltes, in describing life span theory, asserts that it incorporates both a “holistic approach” describing overall changes between age periods and a focus on changes with age in specific functions or behaviors such as information processing or identity. In contrast, according to Baltes, life course theory takes only the holistic approach, so it is a “special case” of life span theory (Baltes et al., 2006, p. 571). Elder, meanwhile, states that “the life course as a concept refers to a sequence of socially defined, age-graded events and roles that defines, in large measure, the contours of biography” (Elder & Shanahan, 2006, p. 667, emphasis in original). He contrasts this with life span theory by stating that “concepts of life span development generally fail to apprehend social structure as a constitutive force in development” (p. 671). We call our cultural-developmental theory a theory of the life course because this term seems to allow more for “holistic” contrasts between age periods, which is one of the goals of our theory.
The following principles represent the cultural-developmental stage theory of the life course. All of the principles are testable, and for some of them empirical evidence has already accumulated, as illustrated next.

1. Culture is a fundamental foundation of human development through the life course.
2. Biologically based, ontogenetic age differences characterize human development across cultures, specifically with respect to infancy, childhood, adolescence, adulthood, and old age.
3. Stages provide a useful framework for describing and understanding changes in development through the life course.
4. Changes in development take place throughout the life course, but are especially rapid and densely packed from infancy through adolescence, after which change is slower and less predictable until old age.
5. Within cultures, individual differences are due substantially to genetic variability and genotype–environment interactions.

Now we provide details for each of these principles.

Culture Is a Fundamental Foundation of Human Development through the Life Course

Although *homo sapiens* is a single species, there is astonishing variability in how human beings live and develop through the life course across cultures and across history (Shweder et al., 2006). The basis of this variability is culture, which is the total pattern of a group's customs, beliefs, art, and technology, a group's common way of life passed from one generation to the next. For example, infants everywhere need intense care, but the care may be provided by mothers, fathers, sisters, aunts, other relatives, or by unrelated persons. Adolescents go through puberty and reach sexual maturity, but their sexual experimentation may be actively encouraged or vigorously suppressed. Older persons may be venerated or shunned.

Life span and life course theories claim to account for the cultural basis of development, but in the descriptions of those theories culture is neglected. There is little to no recognition in these theories of the vast cultural differences in social frameworks for development. Information and evidence for cultural patterns of development outside the West are virtually never mentioned.

Historical change is recognized by life span theory and emphasized by life course theory. In our theory, historical change is a special case of cultural change. Patterns of and structures for human development may vary over time within a culture, so that developing in that culture at one time is markedly different than developing in that culture in another time.

Biologically Based, Ontogenetic Age Differences Characterize Human Development across Cultures, Specifically with Respect to Infancy, Childhood, Adolescence, Adulthood, and Old Age

Although the range of cultural differences in frameworks for development is vast, biologically based, ontogenetic age differences structure and set constraints on cultural frameworks, at least with respect to infancy, childhood, adolescence, adulthood, and old age. In all cultures, infants cannot walk or talk, and they are entirely dependent on others for nourishment and protection. Consequently, all cultures have customary practices that provide for infants' intense needs, although the nature of these customs varies widely (Small, 1998).

Children are not as dependent biologically as infants are, but childhood is recognized across cultures as a status that is subordinate to adulthood and dependent on the care and provision of adults (Small, 2001). Children often begin to learn the skills and knowledge necessary for adult work in their culture by the age of 6 or 7 and can contribute useful work from that age onward, but they are recognized as lacking the physical, cognitive, and emotional maturity of adults.

Puberty is recognized in all cultures as a watershed of development, heralding physical and sexual maturity and marking the distinction between childhood and adolescence. Although the length and content of adolescence varies greatly among cultures, virtually all cultures have some form of adolescence, reflecting a universal recognition of the profound biological changes of puberty (Schlegel & Barry, 1991).

All cultures recognize a boundary that signifies the transition to adulthood. In many traditional cultures, marriage has signified not just the pairing of a man and woman but also their joint transition to adult status (Gilmore, 1990; Schlegel & Barry, 1991). More recently, in industrialized societies marriage has lost its significance as a transition to adulthood, replaced by more gradual criteria such as accepting responsibility for one's self, making independent decisions, and becoming financially independent (Arnett, 1998, 2004). In all cultures, adults are expected to take on family and work responsibilities. Family responsibilities include marriage or other forms of sexual partnership as well as having and raising children, although in most cultures there are some people who do not marry or have children. Work responsibilities vary widely, ranging from childcare and household responsibilities to farming and fishing to the vast range of occupations in the modern global
economy, but in all cultures adults are expected to work and those who try to avoid work are sanctioned (Gilmore, 1990).

Old age is widely recognized as a time of declining energy and abilities. Older people are rarely expected to work at the same capacity as adults, and may become dependent on the care of others (e.g., Menon & Shweder, 1998).

**Stages Provide a Useful Framework for Describing and Understanding Changes in Development through the Life Course**

In both life span and life course theory, stages are explicitly rejected as too rigid and ontogenetic. These developmental metatheories were formed in part to correct the ontogenetic excesses of stage theories, and it is understandable that the creators of life span and life course theory avoided stage terminology in order to provide a clear alternative to stage theories. However, 30-plus years after the creation of life span and life course theories, their avoidance of stage terminology seems itself excessive. Avoiding stages means ignoring the fascinating and important question of what qualitative changes in development may take place from one age period to the next. Furthermore, it is extremely difficult to discuss human development through the life course coherently without making any reference to the distinctive characteristics of life stages, such as infancy, adolescence, and old age. The insistence on avoiding stage terms in life span and life course theories gives these theories a certain frustrating opacity for the reader, an abstract quality that seems disconnected from how people actually live.

Why not bring back stage terminology, but with a recognition that stages are not rigidly ontogenetic and that the content and timing of stages varies across cultures and across history? For example, one can discuss adolescents while recognizing that the length of adolescence varies from a few months to many years, depending on the culture (Schlegel & Barry, 1991). Stages provide a useful shorthand for referring to people in age categories that have distinctive developmental characteristics. All adolescents are going through puberty and preparing to enter adult roles, even though the nature of those roles (and hence their preparatory activities) varies immensely. A key qualitative change from middle childhood to adolescence is that adolescents are reaching sexual maturity, even though cultures vary widely in the customs and values related to adolescents’ sexual behavior.

The potential fruitfulness of stage conceptions can be seen in the response to the recent theory of emerging adulthood. According to this theory, a new stage of life has been created between adolescence and young adulthood in the past half-century in industrialized societies, due to later ages of entering marriage and parenthood, and widening participation in postsecondary education. This new stage, emerging adulthood, is distinct from adolescence because emerging adults are not going through puberty, are not in secondary school, and are considerably more autonomous than adolescents, usually including moving out of the household. It is distinct from young adulthood because the adult roles of marriage, parenthood, and stable work that comprise the framework for adult life for most people have not yet been entered. Instead, emerging adulthood is a time of identity explorations in love and work, instability, self-focused freedom, feeling in-between adolescence and adulthood, and a time of great optimism (Arnett, 2004). This theory, first proposed only a few years ago (Arnett, 2000), has already generated a tremendous surge of interest, theory, and research on the age period from the late teens through the 20s (e.g., Arnett & Eisenberg, 2007; Arnett & Tanner, 2006). It shows how useful stage theories can be for inspiring developmental research.

Another reason for including stages in a theory of human development through the life course is that there is some evidence that different cultures may have different indigenous conceptions of life course stages. One example comes from Menon and Shweder’s (1998) research on Hindu women in India. These women describe the life course as characterized by five stages: undisciplined childhood, morally formative adolescent/youth, early married life, mature adulthood, and completed adulthood. The best time of life, according to these women, is mature adulthood, when a woman is at the peak of her authority and responsibility within the household. In early married life she is subordinate to her mother-in-law and in completed adulthood she is shunted aside and has no useful role, but mature adulthood is when she comes into her own. This provides an enlightening contrast to Western assumptions of emerging and young adulthood as a time of moving out of the parents’ household and establishing an independent life. It would be fascinating to investigate conceptions of the life course in a wide variety of different cultures. Such research would reveal the extent to which there are similarities and differences in how cultures frame the life course, and this would in turn suggest the extent to which ontogenetic patterns are and are not modifiable by cultural practices.

**Changes in Development Take Place throughout the Life Course but Are Especially Rapid and Densely Packed from Infancy through Adolescence, after Which Change Is Slower and Less Predictable until Old Age**

One of the peculiarities of life span and life course theories is their near-total neglect of the early stages of development. Like their
rejection of stages, this may be an extreme counterreaction to a previous excess. For decades, at least since Freud’s psychosexual theory of the early 20th century, psychology had overemphasized the early years of development. Freud, Piaget, Kohlberg, and others viewed early development as dynamic and dramatic, with little of interest occurring after adolescence. Life span and life course theories rejected such nonsense and instead emphasized development as lifelong. However, in doing so they neglected the special characteristics of early development (infancy through adolescence) that distinguish it from later development.

In our cultural-developmental theory we recognize that development is lifelong and that important changes occur long after adolescence. However, we also recognize that development is especially rapid from infancy through adolescence relative to later life, and that it is densely packed with developmental events. In the first 2 years of life the infant more than doubles in height and weight, and goes from an immobile, gurgling neonate to a walking, talking being with well-developed attachments to persons in the social environment. During adolescence, the dramatic changes of puberty transform persons physically, sexually, and socially in the space of a few years. Nothing in later life results in comparable normative changes in a comparable number of years.

Furthermore, the experiences of early development can have lasting effects on later development, especially if the experiences are adverse. Childhood is a critical period for language development, and a child who is deprived of language stimulation in the early years may find it difficult to make up for the deprivation in adolescence and beyond. If schooling is absent or inadequate during childhood, the child may enter adulthood lacking in the skills necessary for adequate employment and may find the deficiency difficult to remedy as an adult. Although abundant research has shown that many people are remarkably resilient in the face of adverse circumstances in childhood and beyond, it remains true that a variety of physical and emotional deprivations in childhood are predictive of higher risk for problems later in development. Consequently, it is important to account for the special characteristics of early development in a developmental theory of the life course.

**Within Cultures, Individual Differences Are Due Substantially to Genetic Variability and Genotype–Environment Interactions**

Both life span and life course theories claim to account for the contribution of genes to development. Baltes, in describing life span theory, describes it as involving “developmental biocultural co-constructivism” (Baltes et al., 2006, p. 586), with “bio” including genetics. Elder acknowledges that “virtually all research on the life course has proceeded without considering the influence of genes and behavior” but seeks to remedy this neglect by describing “mechanisms of gene–environment interactions” (Elder & Shanahan, 2006, p. 702).

However, neither theory accounts adequately for the role genes play in human development. Life span theory emphasizes “plasticity” in development without acknowledging how plasticity is constrained by a person’s genotype. Furthermore, life span theory seeks to contribute to the betterment of the world and genetics are sometimes seen as an obstacle to this goal, with one life span theorist even going so far as calling behavior genetics “today’s version of the biologizing errors of the past such as eugenics and racial hygiene” (Lerner, 2006, p. 6). Life course theory also shows an inadequate grasp of the implications of behavior genetics, as noted earlier in this chapter.

In our view, the findings of behavior genetics research in recent decades have revolutionary implications for human development that have not been adequately accounted for in either life span or life course theory. These findings show that (a) in the course of early development (infancy through adolescence), the influence of family environment on individual development diminishes whereas the influence of genes increases; and (b) very little of the variability among individuals can be explained by shared family environment. Although these profoundly important discoveries are missing from life span and life course theories, they are explained well by Scarr and McCartney’s theory of genotype → environment interactions (hereafter GE interactions), and we seek to incorporate the insights of their theory into our cultural-developmental stage theory of the life course. Scarr and McCartney (1983) proposed three types of GE interactions: passive, evocative, and active. Passive GE interactions occur because in biological families parents provide both genes and family environment. Genes and environment tend to be mutually reinforcing in biological families, that is, the environment parents provide for their children tends to be consistent with the genetic tendencies they have provided. For example, parents who behave aggressively toward their children, punishing them physically, tend to have children who are more aggressive than other children. This relation is likely to be due not only to the parents’ aggressive behavior but also to genes they provided that may have inclined their children to behave aggressively. However, in research on biological families it is difficult to tell how much the relations between family environment and child outcomes are due to genetics and how much are due to environment.
Evocative GE interactions refer to the way people's behavior evokes responses from others. The infant who cries easily and is difficult to soothe may evoke frustration from parents who find their soothing strategies ineffective; the infant who cries rarely and is easy to soothe is easier to love. Not just in infancy but throughout life people's behavior evokes response from those around them. In evocative GE interactions, the crucial assumption is that to some extent the behavior that evokes responses from others is genetically based.

Active GE interactions occur when people seek out environmental stimulation that is consistent with their genotype. The child to whom reading comes easily seeks out books; the child to whom school-based learning is difficult may end up leaving school at an early age. As with evocative GE interactions, the crucial assumption in active GE interactions is that the characteristics that motivate people to seek out environmental niches are genetically based.

Scarr and McCartney propose that with age, from infancy through adolescence, the influence of passive GE interactions decreases, active GE interactions increase, and evocative GE interactions remain stable. For example, in adoption studies, there is a modest correlation between IQs of parents and IQs of their adopted children while the children are young, but by adolescence the correlation drops to nothing. How could it be that the more years parents and children spend in the same household, the less the children resemble the parents? This seems counterintuitive from the perspective of traditional developmental models, with their emphasis on environmental influences and on a direction of effects from parents to children. However, Scarr and McCartney's GE theory makes this understandable. Parents and children become less similar with time because passive GE interactions diminish as children grow older and parents have less control over their environment. In contrast, active GE interactions grow in importance as children gain enough maturity to seek out an environmental niche that corresponds to their genotype.

We see Scarr and McCartney's theory as an important component of our cultural-developmental theory of the life course. However, we would underscore that GE interactions take place within a cultural framework. Specifically, the decline in passive GE interactions and increase in active GE interactions with age described in Scarr and McCartney's theory is based solely on research in Western cultures and is likely to vary in other cultures. A boy who is born into a culture where boys are expected to take on their father's occupation is unlikely to be allowed to seek his own environmental niche upon reaching adolescence. A girl who grows up in a culture where virginity before marriage is highly prized and girls are strictly separated from boys at puberty is unlikely to be free to act upon her own sexual feelings during adolescence, however strong or weak they may be. Scarr (1993) has expressed well the importance of taking cultural frameworks into account: "Cultures set a range of opportunities for development; they define the limits of what is desirable, 'normal' individual variation. ... Cultures define the range and focus of personal variation that is acceptable and rewarded" (pp. 1335, 1337; emphasis in original). There is a need to extend research on GE interactions into a wider range of cultural environments to see how they are modified by cultural practices and beliefs.

The other aspect of behavior genetics that is important to take into account in a theory of the life course is that the research indicating the influence of shared family environment on children's behavior is surprisingly limited. For decades, studies of parenting and family influences focused on one child in a family, and the results were routinely interpreted as showing the effect of family environment (especially "parenting styles") on children's development (typically ignoring the potential influence of passive GE interactions). However, in recent years, when research began to examine the development of more than one child within a family, the results showed clearly that genes and unshared environment explained a great deal of the variance among siblings, whereas shared environment explained little.

The most persuasive evidence on this topic comes from a longitudinal multilmethod study of 720 American families, two same-sex siblings within each family, including identical twins, fraternal twins, full siblings, half siblings, and biologically unrelated stepsiblings (Reiss, Neiderhisen, Hetherington, & Plomin, 2000). Shared family environment explained little in the adolescents' outcomes. There was strong evidence for differential parenting of adolescent siblings, suggesting evocative GE interactions. Differential parenting contributed to the finding that nonshared environmental influences were considerably more important to adolescents' development than shared environmental influences arising from parenting "styles." There was also evidence of a genetic basis for evocative GE interactions. For example, the more alike two siblings were genetically, the more alike parents' behavior was toward them with respect to negativity (Feinberg, Neiderhisen, Howe, & Hetherington, 2001). This seems to indicate evocative GE interactions, because it suggests that the parents' negativity was evoked by the adolescents' (genetically based) behavior.

Theory and research from behavior genetics is truly paradigm shifting, and it has been resisted in some quarters because of the traditional emphasis on environmental influences in psychology and because
behavior genetics findings seem to set limits on the modifiability of development, thus limiting psychology’s aspirations of improving human lives. However, we see behavior genetics as an essential part of a comprehensive theory of the life course.

CONCLUSION

Stage theories and developmental metatheories have both made valuable contributions to understanding human development across the life course, but both have important limitations. We proposed here a cultural-developmental theory of the life course intended to combine the best of the two approaches, while adding new components emphasizing the cultural foundation of development and the importance of behavior genetics. A sketch of our theory has been presented here, and we look forward to developing it further.

REFERENCES


