Adolescent Psychology
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Daniel K. Lapsley and Darcia Narvaez
University of Notre Dame

Chapter 1
An Orientation to Adolescence and Development

A course on adolescent development is unlike any other that one might take. It is one of those rare courses where virtually everything that is encountered can be appraised in light of one's own experience. Students who take this course are either adolescent themselves, have recent memories of their adolescence, have younger siblings, or children, who are adolescents, or else teach adolescents or interact with them in some social or professional capacity. As a result everyone can claim the measure of expertise that comes through lived experience.

We have felt fortunate, as professors, to teach a course on adolescent development just because it is very hard to get it wrong when the course material is so inherently meaningful and relevant to students. Of course, we can't promise that every theoretical claim or empirical finding will ring true with the reader's experience. Indeed, certain findings-and-claims might not even ring true for some researchers. Developmental scientists do not always agree on the meaning, status or implication of claims and findings reported in the literature. The scientific knowledge base is itself in constant flux as researchers wrestle with the diversity of experience of young people in the second decade of life. In this respect the reader and the scientist will share the same task, which is how to understand adolescence in a way that reveals the truth about the lived experience of the self or of young people, when the truth is not always clear, or is contested. We hope that taking on this task is as exciting for the reader as it is for the authors, for the prize, both for readers and researchers, is nothing less than self-understanding, and a better appreciation of the complexity of the developmental challenges faced by adolescents.

Many of us assume that the best place to look to understand the self is *backwards* into one's early or recent past. We tend to look over our shoulder, back into time, to discover the clues to the way we are now. The contour of our personality is forged, many of us believe, in the heat of our early developmental experiences, particularly the experiences of adolescence. There is some truth to this. We are partly the product of the cumulative experience of childhood and adolescence. The "past is prologue" in important respects. But this is not the whole truth. While are shaped by the events and experiences of adolescence, we are not held hostage to them. Every new transition in life provides opportunities for growth, change and adaptation. The lifespan provides opportunities to revisit or correct the developmental faults of our early upbringing.

So, although adolescence is a period of significant developmental change across many fronts, as we will see, and although we are right to consider the second decade of life a period that is crucial to the formation of the sort of person we are now, we will also come to see that human development offers many surprises. No one stage of life is entirely decisive. No one stage settles our destiny. The human person is capable of "ordinary magic" --- astonishing resilience in the face of challenges and adversity (Masten, 2001; Masten & Powell, 2003). Learning how this is so will be critical for anyone desiring a career in the health sciences and helping professions, as a teacher, educational administrator, mental health professional, social worker or psychologist. We hope our account of adolescence will be found useful for the reader's career preparation in these fields, but more than that. We hope that readers will also find in these pages many moments of self-recognition and self-discovery, many moments that bring clarity and give meaning to the evolving narrative of their own lives. And there are very few courses that can hold out such a promise!

But we must first bring some clarity to our own evolving project here, and take up two problems that might strike the reader as rather odd. It will seem strange to learn that while everyone is an expert of sorts when it comes to adolescent development, that the first problem we face is how to define *adolescence*, and that the second problem is how to understand *development*. The expression "adolescent development" in fact presents a set of thorny issues that we will have to confront as our first task. What do

we mean by adolescence, and how are we to understand development? Fortunately, our conception of adolescence and of development will point toward a common set of themes that will provide a powerful conceptual framework that will guide our consideration of topics in the remainder of the book.

What is "Adolescence"?

The definition of adolescence is no simple matter. One way to approach the problem is consider what the characteristic features of adolescence are. It is not hard to fill up a chalkboard of examples, stereotypes really, of the thoughts, behaviors, feelings, moods and reactions of "typical" adolescents. Adolescents are self-absorbed, touchy, moody, concerned about appearance, self-conscious, argumentative, hard-to-reach. They are gawky, shy, unsure of themselves, but prone to showing off, class clowning and exhibitionism. They are critical of adults and slaves to peer approval. They demand to be taken seriously, to be consulted, to have a measure of autonomy, but take shocking risks and exercise poor judgment. They are conforming but reject conventionality. They insist on authenticity, value honesty, detest fakes and phonies, all the while experimenting with roles, postures, self-presentation and identity. They desire acceptance and popularity, yearn for intimacy, are confused by sexuality.

But it's not all angst. Adolescence is also marked by a sense of idealism; by a readiness to take up the good (or bad) cause; by a sense of loyalty and devotion to friendship; by a sense of optimism in the future. They are introspective, creative, open to experience. Possibly at no other times are adolescents as in touch with their inner life, becoming, as a result, avid poets, diarists, song-writers (Josselson, 1980).

These examples tend to define adolescence by its presumed emotional and *psychological* characteristics. But many readers will also want to add a *sociological* component, too. Adolescence is a transition period when young people come to learn the social roles appropriate for adulthood. It is a period of *status acquisition* during which one comes to acquire gradually the trappings of adult status. We do not move from the dependence and immaturity of childhood to the responsibilities and maturity of adulthood all at once, especially in complex technological societies, the argument goes. Instead, a period for learning is set aside so that youth have an opportunity to cultivate the skills required to assume adult roles. This takes a long time, at least in modern industrialized societies, and teenagers will have to undergo many experiences that will prepare them for adulthood.

But, with so many experiences to endure it is hardly clear which one should signal that adulthood is achieved at last. No one experience seals the deal. What contributes to this ambiguity is the fact that in the West there is no ritual, no *rite-of-passage* that celebrates definitively the achievement of adult status. A rite-of-passage is a ritualistic and ceremonial way that many traditional and pre-industrial societies acknowledge the transition of young people into adulthood. These rites typically occur around puberty (and are sometimes called *puberty rites*). They are a public signal of the child's fertility and eligibility for marriage, of his or her ability to take on adult responsibilities and to be a reliable and productive member of the community (Kaepler, 1974). Puberty rites take a variety of forms. They can involve mutilation (piercing, tattoos, scarring), tests of achievement (success in hunting and other proof of being a good provider), tests of endurance (trials by ordeal, pain, fasting), gender segregation or ritualistic exclusion from the group for a period of instruction.

But there is nothing quite comparable to rites-of-passage in industrialized Western societies. There are numerous steps along the way that convey a bit of the status that is longed for: the first date or kiss, religious rituals like confirmation or bar mitzvah, the extension of curfew, landing the first job, passing a drivers test and getting a license, buying the first car, the first sexual intercourse, graduating from high school, registering to vote, moving away to college. But none of these is a rite-of-passage. None of these certify that one is now an adult in the eyes of the community. Of course, one is a legal adult at age 18 in the United States and Canada for most purposes but not the purchase of alcohol; and it is the rare person of this age who is prepared to shed dependency upon parents and to strike out on one's own.

Indeed, recent research has shown that turning 18 or making certain role transitions, such as getting married, or finishing one's

education, do not connote reaching adult status for most individuals. Rather, adulthood is thought a matter of accepting responsibility, deciding on one's own beliefs, establishing a sense of equality with parents, and financial independence (Arnett, 2001, 2003). Adolescence drags on, then, for about a decade --- from the first hint of puberty until well beyond the teenage years. And even by the early twenties adult status is not necessarily in reach for many young people. Some developmental scientists believe that a new stage of development, called *youth* (Keniston, 1970) or *emergent adulthood* (Arnett, 2000, 2001) characterizes this part of the lifespan, which means that even after one successfully negotiates the developmental tasks of adolescence, there is still much work to do before adulthood is reached.

So let's recap: we have argued that adolescence can be defined by reference to its *psychological* and *sociological* components. But is it not true that "raging hormones" besiege adolescents? What about the growth spurt and physical changes that is so distinctive of this age? Indeed, there is an obvious *biological* and *physical* dimension to adolescence as well. It is the onset of puberty that is the most visible sign that one's childhood, at least the body one used during childhood, is being left behind. The adolescent quite literally grows a new one (Petersen & Leffert, 1995). The hormonal and physiological changes that accompany puberty, the growth spurt, and the transformation of the child's body into an adult form are physical changes that push development on many fronts. It forces young adolescents to revisit their self-image; to come to grips with their sexuality; and with a wide range of social-emotional experiences. Pubertal maturation, in turn, provokes reactions in others --- parents give us more privacy, teachers give us more responsibility, peers seek us out as friends or romantic partners –all of which complicates the usual pattern of interaction that was common during the long years of childhood. As a result pubertal maturation comes to define the challenges of adolescence.

Self-Assessment 1.1

Let's see how you are doing: How would you answer this question: "What are the characteristic features of adolescence?"

You might want to group the answer under three headings: 1) There are *psychological* characteristics, and these might refer to self, ego and identity development; to growing sophistication in the ability to think, plan and reason; to an expanding sense of autonomy and independence; and to emotional and behavioral reactions that accompany a growing sense of felt maturity. 2) There are *sociological* characteristics that refer to the gradual acquisition of adult social status and the assumption of mature social responsibilities—and the manner in which these are recognized and affirmed by one's community. 3) There are *biological* and *physical* characteristics that refer to the transformation of the body into adult form, and the psychosocial challenges that this entails.

Adolescence Across Cultures and History

Most definitions of adolescence, then, will say something about psychological, social and biological characteristics of individuals in the second decade of life. So far so good. The psychological, social and biological characteristics of adolescence seem well known to us. But are these characteristics *necessary* features of adolescence? We recognize their usefulness for describing adolescents of our acquaintance, even of our own adolescence. But do these characteristics define adolescents everywhere? Can we imagine a way of growing up that did not include them, and, if so, does it make sense to call that way of growing up "adolescence?" To put it differently: Is there *cross-cultural* evidence for the existence of adolescence, or is adolescence largely a phenomenon of modern Western societies? Alternatively, has adolescence always existed in *history*? Or is it characteristic mostly of certain kinds of societies at critical moments of their historical development?

Two Camps. There are two points of view on these questions. One camp asserts that the cross-cultural and historical evidence supports the idea that adolescence is a *universal* phenomenon. It says that adolescence is a natural part of the human lifespan and is on display wherever one looks today across societies and cultures; and it is evident wherever one looks in history. We will call this the *universalist thesis* on the question of adolescence.

A second camp asserts that it is an abuse of language to use the term adolescence to describe the status of young people in many societies around the world; and that adolescence has not always existed in history,

including American history. Some scholars in this camp argue that adolescence was "discovered" or "invented" around the turn of the twentieth century, and that the major social institutions that support it were well in place by 1920. We will call this argument the *inventionist thesis* (without implying, of course that there had to be an "inventor"). We review this debate in the next section, and for two reasons. First, taking on this debate gives us a chance to introduce some important figures and theories in the history of adolescent development. Second, when we are finished, we will be armed with a conceptual framework that will guide our approach to understanding adolescence in the rest of this textbook.

Universalist Thesis

Let's first examine the universalist thesis. It asserts that adolescence is an inescapable part of human development, and for two major reasons. The first is that pubertal maturation is a universal feature of the lifespan. Children everywhere, at some point, experience puberty. Moreover the biological and physical changes that accompany puberty are so closely tied with the psychosocial characteristics that we attribute to adolescence that it is difficult to conceive of how one could occur without the other. We can no more imagine children developing into adults without first undergoing a period of adolescence than we can children reaching adulthood without undergoing puberty. Hence the universality of adolescence is linked to the universality of puberty.

A "Biogenetic Theory." G. Stanley Hall (1844-1924) is an important part of this story. Hall is remembered today for many important achievements. He was the first to be awarded a Ph.D. in psychology (1878), having studied under William James at Harvard University. He established the first laboratory in psychology at Johns Hopkins University in 1883. He founded the American Psychological Association (1892). He launched the first psychology journal, the *American Journal of Psychology* (1887), and the first journal devoted to the study of children, *Pedagogical Seminary* (1891), which is published today under the title *Journal of Genetic Psychology*. He was the first president of Clark University, where he hosted a visit of Sigmund Freud (and Carl Jung) to America. It was at Clark University in 1909 where Freud introduced psychoanalysis to the New World. Freud's remarks are published as *Five Lectures on Psychoanalysis*, a thin book that is probably the most popular and accessible account of his influential theory. But it was Hall's 1904 publication of a two-volume study of adolescence that concerns us here. This study was so influential at the time that a number of scholars have argued that if adolescence was "discovered" or "invented" it was largely because of the popularity and influence of Hall's treatise (Keniston, 1970; Kett, 1974; Proefrock, 1981).

But Hall was no inventionist. His "biogenetic" theory placed adolescence in the grand sweep of human evolutionary history, which suggests that adolescence is no more optional than is the fact of species evolution. To frame his theory Hall borrowed two notions that are now discredited. The first was Lamarck's (1744-1829) theory of evolution that held that characteristics acquired during the lifetime of an organism could be passed along to its offspring. The second was Ernst Haeckel's (1834-1919) *law of recapitulation* (or "biogenetic law") that asserted a direct link between the development of individuals ("ontogeny") and the evolution of species ("phylogeny"). Each organism, in its own individual development, retraces the history of its evolutionary ancestors. This law is summarized by the expression *ontogeny recapitulates phylogeny*.

One illustration of this principle was Haeckel's claim that the human fetus develops gill slits because at that this stage the fetus is, in fact, *a tiny fish*, repeating the sequence of evolution of our predecessor species. Another example is Hall's claim that children who wander about hiking and camping are reliving the nomadic phase of human history; or that children who climb trees are reliving the time when our racial ancestors lived in trees; or that growth spurts in human physical development, say, at adolescence, correspond with periods of rapid evolution. These examples sound fantastic today, but Stephen Jay Gould (1977) reminds us that the notion of recapitulation was one of the most important ideas in science during the latter half of the nineteenth-century, and that even today versions of recapitulation (although not Haeckel's version or Hall's) can be found in biology and other domains (including developmental psychology, as we will see).

So Hall borrowed from Lamarck the notion that newly acquired characteristics can be passed along to offspring, and from Haeckel the idea

that individual development is a recapitulation of evolutionary history. But how, does this help us understand adolescence? Hall argued that adolescence accords with a stage of human evolution when the species was in transition from a phase of savage barbarity to a more civilized phase. Adolescence is a transition period associated with turmoil, stress and conflict because it repeats this transitional phase in human evolution when life was traumatic, convulsed and turbulent. The storm-and-stress of evolutionary history, as humanity struggled to rise to its civilized state, is revisited as the storm-and-stress of adolescence, as youngsters struggle to rise to a state of maturity.

Indeed, for Hall, every person is born twice, once as an individual, and then again as a civilized person, as a member of a civilized race, and this second birth ideally takes place during adolescence as a result of the civilizing influence of education and socialization. It is during adolescence when the preprogrammed force of evolutionary pressure begins to wane in its influence on individual development, making the adolescent particularly vulnerable to environmental influence (Grinder, 1969). At this point it is crucial for the adolescent to acquire "characters" through proper education, so that these might be passed along in heredity to advance the development of the human race. This latter point reflects, of course, Hall's faith in Lamarckianism – the notion that acquired characteristics could be passed along to successive generations through heredity.

None of this is taken seriously today. The important point for our purpose is to note that Hall's biogenetic theory makes adolescence a necessary feature of the human experience insofar as it is a recapitulation of an ancestral phase of our evolutionary history. Interestingly, Hall's use of recapitulation, and his claim that adolescence is a normal period of storm-and-stress, also finds a place in psychoanalytic theories of adolescence which also support the universalist thesis. Let's see how.

Psychoanalytic Theory. Psychoanalysis is a set of theories and practices associated with Sigmund Freud. Freudian views about psychosexual development contributed not only to the notion that adolescence is a universal phenomenon, but also to the consensus emerging in the early 20th-century that adolescence is a particularly trying time for youngsters and parents alike. Adolescents are normally expected to be moody, emotionally unstable, sexually assertive, deviant, alienated, egotistical. Adolescents are gripped by an identity crisis. They reject adult values; they are in protracted conflict with parents; they are rebellious, vulnerable, at risk, scornful of adult authority, stormy, unpredictable, *and not very nice to be around*. Generations of parents have come to dread the eventual adolescence of their children, and nothing elicits more pity for a teacher than to say that one teaches middle school children!

No one has shaped this dark vision of adolescence more surely than has Sigmund Freud's daughter, Anna. Anna Freud argued that the adolescence dramatically changes the personality of the child. The "peaceful growth" of the child is now violently interrupted by the onset of adolescence, so much so that the teen seems like a different person (A. Freud, 1974). Moreover, she argued that one really has cause to worry about the mental health of teens. In her view adolescence is a "developmental disturbance" that is hard to distinguish from neurosis and psychopathology (A. Freud, 1977). The adolescent will display a range of emotional upsets that would be considered abnormal if they occurred in adulthood. She wrote:

> I take it that it is normal for an adolescent to behave for a considerable length of time in an inconsistent and unpredictable manner; to fight his impulses and to accept them; to ward them off successfully and to be overrun by them; to love his parents and to hate them; to revolt against them and to be dependent on them; to be deeply ashamed to acknowledge his mother before others and unexpectedly, to desire heart-to-heart talks with her; to thrive on imitation of and identification with others while searching unceasingly for his own identity; to be more idealistic, artistic, generous and unselfish than he will ever be again; but also the opposite: self-centered, egoistic, calculating. *Such fluctuations between extreme opposites would be deemed highly abnormal at any other time of life*" (A. Freud, 1974, p. 291, our emphasis).

Another account of Anna Freud's view of the inconsistencies of adolescence can be found in Table 1.1.

Table 1.1 Anna Freud's Description of Adolescence

"Adolescents are excessively egoistic, regarding themselves as the center of the universe and the sole object of interest, and yet at no time in later life are they capable of so much self-sacrifice and devotion. They form the most passionate love-relations, only to break them off as abruptly as they began them. On the other hand they throw themselves enthusiastically into the life of the community and, on the other, they have an overpowering longing for solitude. They oscillate between blind submission to some self-chosen leader and defiant rebellion against any and every authority. They are selfish and materially-minded and at the same time full of lofty idealism. They are ascetic but will suddenly plunge into instinctual indulgence of the most primitive character. At times their behavior is rough and inconsiderate, yet they themselves are extremely touchy. Their moods veer between light-hearted optimism and the blackest pessimism".

This is quite a compelling image of adolescence. It is a normal period of symptom formation that would be pathological if it occurred in later life, but for adolescents, psychopathological symptoms are part of the normal expectable routine. No wonder parents dread adolescence!

Interestingly, Anna Freud (1974) argued that if your adolescent *did not* show emotional upset, if your adolescent *did not* show various behavioral or psychological symptoms, was *not* emotionally unstable, was *not* in turmoil, and was *not* convulsed with rebellion, loneliness and confusion, and all the rest, *that* was the problem! This was because, for Anna Freud, and other psychoanalysts, adolescent turmoil is the norm. It is perfectly normal for teenagers to be convulsed with the angst of adolescence. Adolescence is all about turmoil and emotional instability, and if your teen was not in turmoil, seemed perfectly adjusted, seemed happy, contented, and emotionally healthy, this was a sure sign of immaturity, this was as sure sign that your child was *refusing to grow up*. This was a sure sign that your teen was refusing to put aside childish things and to look through the glass darkly (to paraphrase Saint Paul). Here, then, is the psychoanalytic version of G. Stanley Hall's "storm-and-stress" view of adolescence

As it turns out, psychoanalysis was similar to Hall's theory in another way: It also carves out a role for recapitulation in its account of adolescent turmoil. Sigmund Freud's theory insists that human development is driven by two biological and instinctual drives associated with sex and aggression. The sexual drive, called *libido*, is invested in different zones of the body (called "erotogenic zones"), beginning with the oral zone in infancy, the anal zone during the early toddler period, the phallic zone during later toddlerhood, and later the genital zone (again) when puberty commences.

It is during the phallic period, in the late toddler period, when boys and girls become ensnared in a sexually charged family dynamic that is momentous for the development of the personality. According to S. Freud, boys wish to possess mother while displacing father; girls wish to possess father while displacing mother. The boy considers father a jealous and competitive rival, but fears his retaliation (taking the form of "castration anxiety"). The girl is disappointed in mother for not having a penis, and blames mother for her own "castrated" condition. This situation resolves itself when the boy renounces "incestuous" desire for mother while identifying with the powerful male rival, his father. It is the boy's identification with father that brings in to existence the conscience, or *superego*, of the personality. The girl must also come to identify with the same-sex parent, but Freud did not think this happened before adolescence.

This psychosexual drama was called the *Oedipus complex* for boys and the *Elektra complex* for girls. After its resolution during the toddler period our memory of having wrestled with these feelings is obscured by the work of defense mechanisms such as repression. Thereafter, during the long years of childhood, our sexual energy enters a latent period. It is kept "out of mind" or is diverted in a way that allows the child to focus on skill-building activities –and for this reason childhood is called "latency" in Freudian theory. But libido is not repressed for long. The sexual and aggressive instincts come roaring back at adolescence. The hormonal changes that accompany puberty cause a surge in libido that overwhelms

the defense mechanisms that shielded us from the oedipal memories of early childhood. As a result oedipal issues, first confronted in the toddler period, must be confronted anew and definitively resolved during this "genital" phase of adolescent psychosexual development. The first oedipal crisis experienced as a toddler is recapitulated as a second crisis experienced as an adolescent.

We will have occasion to discuss psychoanalytic accounts of adolescent ego development in Chapter 5. But we want to underscore here the fact that psychoanalytic theory asserts a universal basis for adolescence on the necessity of the Oedipus complex in human personality development. Adolescents everywhere experience a similar crisis, no matter the society or culture, no matter the historical era in which they live, just because adolescents are motivated by sexual and aggressive drives that are instinctual and because adolescents must relive and conquer an Oedipus complex that is resuscitated with the onset of puberty.

Self Assessment 1.2

How does G. Stanley Hall's Biogenetic Theory and Sigmund Freud's Psychoanalytic Theory support a "universal" understanding of adolescence.

A good answer to this question….

Of course one does not have to support Hall's biogenetic theory or endorse Freud's theory to believe that adolescent turmoil is a universal feature of growing up. In fact supporters of the universalist thesis typically draw attention to evidence that young people everywhere and throughout recorded history report similar experiences of turmoil and crisis, as these are revealed in diaries, letters and autobiographies (Kiell, 1964). Evidence that adolescence was a long period of dependency, uncertainty, tension and ambiguity, as youth struggled with sex and identity, was recognized in the sermons of eighteenth-century New England clergy (Hiner, 1975). Some historians argue further that inner conflict about sex, conflict with adult values, the experience of transition, and problematic social behavior is a very old phenomenon in the lifecycle of young people (Fox, 1977). And then there is the famous quote of Aristotle, which is cited as proof that something we recognize as adolescence was also evident in the days of ancient Greece (at least among the privileged classes). Read Aristotle's description of adolescence in Table 1.2, and compare its themes with Anna Freud's account, in Table 1.1. On this basis it would be hard to deny that the psychological experience of adolescence is a universal feature of the human lifespan.

Table 1.2 Aristotle on "Youth"

The young are in character prone to desire and ready to carry any desire they may have formed into action. Of bodily desires, it is the sexual to which they are most disposed to give way, and in regard to sexual desire they exercise no self-restraint. They are changeful, too, and fickle in their desires, which are as transitory as they are vehement….They are passionate, irascible, and apt to be carried away by their impulses. They are slaves of their passion, as their ambition prevents their ever brooking a slight and renders them indignant at the mere idea of enduring an injury….Youth is the age when people are most devoted to their friends or relations or companions, as they are a then extremely fond of social intercourse and have not yet learned to judge their friends…If the young commit a fault, it is always on the side of excess and exaggeration; for they carry everything too far, whether it be their love or hatred or anything else…They regard themselves as omniscient and are positive in their assertions…Also, their offenses take the line of insolence…Finally, they are fond of laughter and, consequently, facetiousness, facetiousness being disciplined insolence."

Summary Thus far we have been reviewing the argument that adolescence is a universal experience of the human lifespan. One strand of this argument is that pubertal maturation and physical development set in motion a cascade of psychological reactions, which are mostly of turmoil and stress. G. Stanley Hall argued that the storm-and-stress of adolescence reflects a "biogenetic" law of recapitulation. Teenagers are retracing the steps of a difficult period in human evolutionary history. The psychoanalysts, such as Anna Freud, argued that puberty heralds the return of Oedipal conflicts from the toddler period. So, for Hall, adolescence is a recapitulation of a stage of evolution; for psychoanalysis, adolescence is a recapitulation of a stage of psychosexual development. Both recapitulations result in storm-and-stress for adolescents; both result is a behavioral and psychological signature that we recognize as typically adolescent. And the driving force in either example is the fact that individuals are subject to

biogenetic laws (Hall) and to instinctual biological drives (Freud) that force youth into a phase of adolescence.

Status Acquisition

So one support for the universalist thesis of adolescence is the universal reality of physiological processes like instinct, drives and puberty. The second support is the notion of *status acquisition*. No society, according to this view, fails to recognize the importance of the years between puberty and adulthood (Eisenstadt, 1965). In every society there is some mechanism whereby children come to acquire the trappings of adult status. In preindustrial and traditional societies, the acquisition of adult status might come as a result of a rite-of-passage that might takes weeks or months to complete. In foraging societies, for example, a boy might have to kill his first large game as a rite of passage. In complex modern industrial societies, the process of status acquisition drags on for many years, perhaps a decade or longer. But a phase of adolescence is evident in both examples. Adolescence refers in both cases to the duration of the acquisition process. In the preindustrial case, adolescence lasts weeks and months, or as along as it takes to complete the puberty ritual. In the industrial case, adolescence lasts ten years or more. What both have in common is a period of social apprenticeship that is set-aside for youth to learn what is required of responsible adulthood.

The argument, then, runs like this: status acquisition is universal in human societies: adolescence is a period of status acquisition; adolescence is a universal part of the human lifespan.

Cross-Cultural Evidence Schlegel and Barry (1991) conducted an important study of over 340 pre-industrial, traditional (foraging and horticultural) societies around the world. In their view the key issue for understanding adolescence is how societies cope with the fact that teenagers are biologically capable of reproduction before they are granted full adult social status. Some traditional societies cope by separating the children from the family at puberty (to prevent close-inbreeding); or by redirecting the attention of the biological adolescent to same-sex peer groups that are closely supervised by adults. So puberty looms large as an event that has social significance –it signals that one is ready for sexual reproduction. In fact, the onset of puberty---menstruation in girls and ejaculation of semen by boys-- typically signals that the child is ready for the community's rite-of-passage.

But for Schegel and Barry (1991) the rite-of-passage does not mark the transition from childhood into adulthood, which is how it is usually understood (Hurlock, but as the transition from childhood *into adolescence*. The transition to adolescence was marked by a public community-wide ritual in about 70% of societies in their sample (and was somewhat more common for girls than for boys), and these rituals typically revolved around the themes of fertility and productivity (importance of being a good provider or contributor to the community's way of life). The end of adolescence was typically indicated by marriage. Most boys were married between age 16 and 18, or about 2 to 4 years after first ejaculation. Most girls were married by age 16, or within two years of first menstruation.

Hence, the duration of adolescence is notably short, especially for girls. Between puberty and marriage adolescents in these societies spend most of their time with same-sex adults in productive activities centered on the home; and take a greater part in adult family activities and the affairs of the community. Boys, more so than girls, live a greater part of their daily life with same-sex peers. Interestingly, heterosexual intercourse was either tolerated or accepted (with a limited number of partners) in 65% of 155 societies with information for boys; and 60% of 163 societies with information for girls. In some societies (25 for boys, 17 for girls) homosexual activity was also permitted. Two other findings are of interest. First, in some societies, it is parenthood, and not marriage, that brings full measure of adulthood. Second, in about 20% of the societies in this sample, adolescence was followed not by adulthood but by an intervening stage of "youth" wherein young people were given further opportunity to experiment with roles, occupations and possible marriage partners.

So, for Schlegel and Barry (1991), adolescence is a socio-cultural necessity, although a brief one. It begins biologically, with puberty, but ends socially, with marriage and parenthood. And in the two to four years of its duration, youngsters learn what it means to be a productive member of the household, tribe and community.

Let's "compare and contrast" the image of adolescence that emerges from Schlegel and Barry's anthropological study with the image of adolescence in modern Western societies, such as the United States, Canada and the European Union. First, with respect to similarities, the universality of adolescence in both cases is tied fundamentally to the experience of puberty. Second, adolescence is a period of status acquisition, but its duration varies. It is quite brief in traditional societies, lasting just 2-4 years, but quite long in modern societies, lasting perhaps 10 years or more. Third, some of the things that we associate with adolescence, such as sexual experimentation and peer group activity, seem as much in evidence in pre-modern societies as it does in modern ones, as do the more subjective feelings of self-doubt, stress and ambiguity (Schlegel & Barry, 1991).

By way of contrast we can say that adolescence does not seem to end with marriage and other social role transitions in modern societies like it does in pre-modern ones. The problem of what to do about unmated biologically mature boys and girls is solved by gender segregation and early marriage in pre-modern societies; there is no apparent solution to this problem in modern ones. Finally, adolescents in tribal and pre-modern societies spend much of their time doing productive things with adults, and are active in the public affairs of the community. In modern societies the activities of adolescents and adults are not tightly connected and adolescents are given little to do of any public importance.

Thus far we have been building the case for the universalist view of adolescence---that adolescence is a normal and necessary part of the human lifespan, and is evident, therefore, in every human society and culture; and in history. The inventionist camp disputes this view, and it is now time to see why. But before you move on, take a look at Self-Assessment 3.1 to make sure you grasp the main points of this section.

Self Assessment 1.3 **Compare and contrast the image of adolescence that emerges from Barry and Schlegel's cross-cultural study of adolescence with Western adolescence.**
A good answer to this question…

The Inventionist Thesis.

The inventionist camp argues that the status and function of young people has changed so dramatically in recent times that it does makes sense to speak of adolescence as a universal phenomenon. John and Virginia Demos (1969) argued, for example, in a famous paper, that adolescence was an American discovery and simply did not exist prior to the latter decades of the 19th-century. Most claims of this camp draw upon historical evidence of how the lives of young people were changed as a result of broad demographic and economic changes in society. There was a time in the colonial period and in the decades leading up the Civil War when teenagers worked alongside adults in virtually every productive area of society (Enright, Lapsley & Olsen, 1985). Youth had an important role to play to insure the survival of families and communities; and the productivity of factories and farms depended upon the work of teenagers (and children). Moreover, as Joseph Kett (1974) has shown, young people were on the move. For those who wanted to pick up and "start a life" there were few institutional barriers to stop them.

However, beginning in the 1880s and 1890s, the status of young people began to change. Increasing urbanization meant that more young people were congregating in cities without much work, but their large number perhaps drew more attention to this phase of the lifespan than in the past. Increasing technological innovation, industrialization and immigration forced unskilled teenagers from the work place or else replaced them with adult immigrant workers. In addition, this period saw the passage of numerous "child-saving" laws in most states --- child labor laws that excluded children and teenagers from paid work; and compulsory education laws that compelled their attendance upon the schools, and for increasing number of years (Lapsley, Enright & Serlin, 1985). The pressure to remove young people from the work force, or else prevent them from competing for work by forcing them to attend school was particularly strong during periods of economic depression when unemployment was high (Troen, 1976).

Young people increasingly had no economic function; and they were confined to age-graded schools until well into middle teenage years.

Indeed, the way schools are structured into elementary, junior and senior high levels corresponds with the structure of adolescence with it early-, middle- and late-periods. (Elder, 1975). Before when there was considerable age mixture between adults and youth in most contexts of socialization in previous generations, there was now age segregation. Teenagers spent most of their day in the company of other teenagers but rarely with adults, a circumstance that allowed a youth culture to flourish. Whereas before there were very few institutional barriers standing in the way of a young person coming-of-age in previous generations, now entry into the adult role structure of society had to be regulated by laws and certified by diplomas (Kett, 1974; Proefrock, 1981).

And by the early twentieth-century there was a general consensus that this is as it should be. In 1904 G. Stanley Hall published his influential study of adolescence that appeared to justify the increasing restraints placed upon youth. He drew attention to their psychological instability, to the normal storm-and-stress of these years, and of the need to expose adolescents to the civilizing forces of education. In the years that followed young people came to be seen as individuals with special needs requiring their own branch of medicine (pediatrics), their own system of education (the comprehensive high school) their own forms of recreation under adult supervision (youth groups), their own juvenile justice system (Tyack, 1976). The age of adolescence was upon us. The social position of youth is now dramatically different from what it was in previous centuries, and in this sense lays the notion that adolescence is a modern invention of recent vintage (Fasick, 1974).

For the inventionist, then, the most important thing for understanding adolescence is not status acquisition, but rather status *deprivation*. At one time in history, young people moved away from the family at an early age; were relatively independent; and had important economic functions in society. But at a later time in history, between 1880 and 1920 by some accounts, broad social forces (urbanization, immigration, industrialization) and child-saving legislation (compulsory education, labor laws) deprived them of this status. As a result teenagers have been *turned into adolescents*. To be an adolescent is to be dependent, immature, incompetent, and confused. It is to be involved in a role that is not tightly connected to the adult role structure of society. Moreover, the institutions that have been created to preoccupy them, such as the comprehensive high school, has made the transition to adulthood more difficult by increasing the gulf between youth culture and the values and preoccupations of adults (Coleman, 1974).

Katz and Davey (1978), in their study of youth in the Canadian city of Hamilton, concluded that adolescence is a period of *institutionalized dependency* that came to characterize young people in the 19th-century. Furthermore, they suggested that the behavior that we come to associate with adolescents has little to do with puberty but rather with their reaction to dependency, "*in the curious new conflict between biological maturity and cultural childhood that 19th-century society inflicted upon its youth*" (p. 117). In other words, a "childish" status is imposed upon biologically mature individuals, and many of the stereotypes that we have of teenagers can be traced to the conflict and confusion that this entails. Modern society forces young people into a state of dependency and for a long time, and refuses to certify their passage to adulthood until certain institutional requirements are met, such as graduating from high school. It further provides a set of constructs ("identity crisis", "storm and stress") by which to interpret their experience (Enright, Levy, Harris & Lapsley, 1988); and if adolescence is in fact a difficult time it has little to do with puberty per se; but with the fact that social maturity is withheld from biologically mature individuals.

It is interesting to speculate whether some forms of adolescent behavior can be thought off as rebellion against being treated this way. The high rate of delinquent and antisocial behavior, the fact that 25% to 50% of adolescents drop out of high school, and the proliferation and attraction of youth gangs, makes one wonder if some teenagers *just won't be turned in to "adolescents."* The inventionists say that adolescence is an optional status, not a necessary one, and some segment of the teenage population will not respond well to a long period of "institutionalized dependency." When official society withholds its certification of adult status, these youth will find their own way to take on the trappings of adulthood, perhaps through alternative sub-cultures and gangs, whose initiation rituals remind one of the rites-of-passage of traditional societies (Bloch & Niederhofer, 1958).

Summary

We examined two sides of an argument concerning the nature of adolescence. One camp suggests that the subjective and psychological experience of adolescence is universal, both cross-culturally and historically. The universalist thesis rests on two supports: (1) the universality of puberty and (2) the universality of status acquisition. The second camp argued that adolescence is a way of coming-of-age that emerged in the latter decades of the 19th-century and early 20th-century. It argues for an historical point of view, one that reveals a systematic pattern of status deprivation that resulted in the long period of dependency that we now associate with adolescence.

Both sides of this debate seem to point to something fundamentally correct about adolescence. Both sides agree that adolescence cannot be understood without reference to a broader socio-cultural context, including generational and historical factors. Adolescence is a social status that is shaped and given meaning by contextual forces (Mortimer & Larson, 2002). Both sides can agree with this. For one camp, the inventionists, these contextual forces actually bring adolescence into existence as a new way for young people to come of age. For another camp, the univeralists, the universal expression of adolescence is given unique expression by each society depending on its level of modernity. Adolescence is universal, this camp argues, but whether it lasts for two years or ten is a matter of socio-cultural context. And this applies not only to broad comparisons *between* cultures, but to variations *within* particular societies as well. There is great diversity in the way that adolescence is experienced even among North American youth of different economic classes, ethnic groups and cultural background (Montemayor, Adams & Gullotta, 2000), and many of the findings that we discuss in this book will be qualified by reference to these demographic categories.

A Conceptual Framework. Our look at the debate between universalist and inventionist perspectives on adolescence has brought us to one important theme that will resonate throughout this textbook. *Adolescence cannot be understood without reference to the context in which it takes place*. We will sharpen this claim by taking up the second problem on our plate, which is how to understand *development.* As we will see, contextual themes will also be evident when we wrestle with the meaning of development.

And a Loose End .But there is one loose end that we must tie up before we move on to consider conceptions of development. Just what is the truth about adolescent *storm-and-stress*? We noted that G. Stanley Hall and the psychoanalysts have led us to believe that turmoil is the norm and that adolescence is a special challenge for adolescents and their parents and teachers. Let's close our examination of conceptions of adolescence by getting a better handle on this issue.

Storm and Stress Revisited

G. Stanley Hall's biogenetic theory of adolescence is not supported by developmental scientists, nor is Freudian psychoanalysis an attractive theoretical option for most contemporary researchers. Still, the biogenetic and psychoanalytic idea that adolescence is a normal period of storm-and-stress is deeply ingrained in our popular conception of adolescence. Many parents and teachers expect adolescents to take risks, to challenge authority, to be anxious and depressed, insecure, moody and difficult to manage (Buchanan & Holmbeck, 1998; Buchanan, Eccles, Flanagan, Midgley, Feldlaufer & Harold, 1999). The belief in adolescent storm-and-stress is also prevalent among university students, especially if their own adolescence was thought to be troubled (Holmbeck & Hill, 1988).

Some argue that notions of turmoil and distress are so common and deeply-felt because for many decades commentators were either influenced unduly by the dark psychoanalytic vision of adolescence (Adelson, 1985) or because they drew inappropriate conclusions about *all* adolescents from the small number of troubled clients they saw in their clinical practice (Oldham, 1978). And some would argue that this preoccupation with the dark side of adolescence has not abated entirely, as is evidenced by the negative topics (e.g., risk-taking, psychopathology) addressed by scientists in published research (Ayman-Nolley & Taira, 2000; Steinberg & Morris, 2001).

Still there is now a consensus that normal adolescent development has little in common with these exaggerated fears of storm-and-stress, at

least for most youngsters (Petersen, 1988, 1993; Reuter, 1937). Most adolescents handle this period without evidence of serious conflict with parents, identity crisis, rejection of adult values or trouble in close relationships (D'Angelo & Omar, 2003; Dornbusch, Petersen & Hetherington, 1991). Most adolescents do not experience turmoil (Offer, 1987; Offer, Ostrov & Howard, 1984). Perhaps as many as 80% of teenagers show normal functioning in the way they negotiate the adolescent transition (Offer, Ostrov, Howard & Atkinson, 1990; Offer & Schonert-Reichl, 1992). Most adolescents get along with parents and other adults, are positive about their family, enjoy good relationships with peers; cope adequately with conflict and with emotions such as anxiety, depression, anger and guilt (Offer & Offer, 1974). Indeed, adolescence is a time of many positive changes in the direction of increasing competence along many fronts, including self-esteem, intellectual functioning, self-regulation, interpersonal relationships and autonomy (Crockett & Petersen, 1993; King, 1972). Moreover these patterns are found in at least nine other countries (Offer, Ostrov, Howard & Atkinson, 1988).

So storm-and-stress is neither inevitable nor common, and most developmental scientists reject the notion out of hand as a myth or stereotype. That said, it is also true that the transition from childhood to adolescence is associated with an increase of problem behaviors and other worrisome trends. For example, the incidence of depression increases fourfold during adolescence over childhood rates, especially for girls (Graber, 2004). In a famous survey of 14-15 year olds on the Isle of Wight, Sir Michael Rutter and his colleagues found that feelings of misery, inner turmoil and self-depreciation were quite common (Rutter, Graham, Chadwick & Yule, 1976). Adolescents do show wide and quick mood swings (Larson, Csikszentmihalyi & Graef, 1980) and more negative affect to life events (Larson & Ham, 1993; Moneta, Schneider & Csikszentmihalyi, 2001). More conflict in the family is reported during adolescence than during childhood (Collins & Laursen, 2004; Laursen & Collins, 1994). The incidence of delinquent and risk behavior is so common during adolescence that some scientists think it is normative (Moffitt, 1993). The school drop-out rate in many communities is shocking. And no one can take satisfaction from the fact that 1 in 5 adolescents show significant impairment in their adjustment.

On this basis Arnett (1999) has argued that it is premature to give up entirely on the notion of adolescent storm-and-stress. It is not a myth, in his view, for a significant number of adolescents and their families. A modified view would acknowledge individual differences in the ability to cope with challenges; that alongside emerging competencies there are vulnerabilities; and that the positive and negative aspects of the second decade of life must be considered in equal measure.

Arnett's (1999) point is a reasonable one. When compared against childhood there is more conflict with parents during adolescence, more extreme fluctuation in moods, and more risk behavior. On this basis it seems appropriate to invoke the language of modified storm-and-stress to characterize adolescence. But what if we compare adolescent adjustment not with children but with adults? Here we might get a different take on the problem. For example, the median age of onset of depression is not adolescence but the early twenties. The incidence of depression is also much higher in adulthood than in adolescence. The same can be said for suicidal behavior. The rates of suicide are dramatically higher in adulthood, particularly late adulthood, than in adolescence.

There is also evidence of significant continuity of emotional and behavioral problems that are evident in children's lives long before they reach adolescence (Weiner, 1985). In one study, for example, many of the predictors of adolescent psychopathology were already evident by 9 years of age, with some predictors going well back to infancy (Reinherz et al., 1993). Similarly, adolescents who are chronic offenders have a long history of poor adjustment (Moffit, 1993). These examples suggest two things. First, that for many significant problems, the period of greatest concern is *not* adolescence but adulthood; and second, many problems that are seen in teenagers did not arise because of adolescence, per se, but can be traced to causes in the child's developmental history. In this case they brought their storm-and-stress *to* adolescence rather than having it emerge there (Strober, 1986).

Finally, Weiner (1992) points out that the distribution of adjustment among teenagers and adults is broadly comparable. For example, about 20% of teenagers show significant problems that should be brought to the attention of mental health professionals; about 60% show

occasional upset and turmoil, but not sufficient to disrupt daily life; and 20% show little evidence of stress or turmoil. But this distribution also characterizes the incidence of mental health in adulthood. About 20% of adults, too, should seek professional help; another 60% will show occasional stress and turmoil which does not otherwise disrupt daily life; and 20% will show few signs of being perturbed by life.

What this suggests is that the prevalence of mental health, and of mental health problems, is virtually identical in both teen and adult populations. This means that psychological disturbance is not uniquely characteristic of adolescence, and that *adolescents are no more likely to become psychologically disturbed than are adults*. Or, to put it more positively: *adolescents are just as disposed to mental health as are adults*. In this case perhaps the language of storm-and-stress might just as well apply to adults as it does to adolescents.

This might seem like a lot of fussing over the expression "storm-and-stress" but it is important to have a clear idea of what the term can reasonably stand for. To use the term in the modified sense urged by Arnett (1999) is perfectly reasonable when the point is to draw attention to the kids that will not find it easy to manage the developmental challenges of adolescence. The usual expectable routine long enjoyed during childhood will be altered with adolescence, and teenagers and families will have to find a way to accommodate each other. This can take some getting used to; it will be occasionally stressful, and one can expect some emotional and behavioral storms along the way.

But these have to be distinguished from serious problems that are not at all part of normal adolescent development. The real danger with a mythic view of storm and stress is that it leads parents and teachers to believe that the real symptoms that are observed in their children and pupils are just the normal manifestations of a passing phase. It's not a passing phase. Many kids who need professional help will fall through the cracks because problem behaviors were not seen for what they are, as diagnosable symptoms that require intervention rather than the normal storms-and-stresses thought typical of adolescent development.

Of course there is much more to say about risk behavior and adjustment, and we have perhaps said enough about conceptions of adolescence to whet the reader's appetite for what comes later in the textbook. We take up the problems of risk behavior and mental health in Chapter 12. The resilient and positive dimensions of adolescent development are considered in Chapter 13, and we examine community- and school-based prevention and intervention programs in Chapter 14. We are now ready to take up the second major task of this chapter, which is how to understand *development*.

What is Development?

What comes to mind when you think of the word *development?* If "adolescence" was surprisingly difficult to define, things do not get easier when it comes to defining development. As it turns out, the way we think about development is usually part of a larger set of ideas we have about human nature and about the way the world works. We all tend to have at least a loose philosophy about these things, even though we do not think about it very much or very explicitly. These larger ideas about human nature and of reality are sometimes called *paradigms* or *worldviews* and scientific theories of human development seem to align with them. The various paradigms each have unique sets of philosophical assumptions and favorite metaphors that influence how we look at problems, how we conceptualize and understand human growth and functioning, and what it means to *develop*. These models also influence how we conceptualize teaching and learning, design interventions and prevention programs, and engage in professional practice. So it is important for readers to come to grips with these paradigms, because paradigm assumptions, metaphors and models will be found lurking in the way one understands children, students and clients.

Let's try to get a fix on the broad sweep of human development by examining the key features of four developmental paradigms: (1) genetic-maturational; (2) mechanistic-environmentalism; (3) organismic and (4) ecological- contextualism (or "developmental systems").

Four Paradigms

The *genetic-maturational* perspective is quite visible as a folk theory of human development, and many specific theories take it for granted. This paradigm suggests that human potential unfolds in a maturational sequence that is under genetic control. Readers have probably noticed that there is a timetable for when infants are usually expected to roll-over, sit up, crawl, take a first step, speak the first words. We notice that human growth is uneven and seem to take place in spurts, from the fetal period to the growth spurt that accompanies pubertal maturation in adolescence. The unfolding of these changes takes place in accordance with a timetable that is hard-wired. Hence the term "maturation" has a technical meaning in developmental psychology. It typically refers to changes that are under genetic control.

Moreover, this paradigm assumes that there is a genetic basis for much of human behavior, and considers the best explanations those that appeal to the human genome. Certainly readers have wondered if there is a genetic basis to intelligence. How about personality? Or delinquency? Does heredity tell us everything we need to know about our chances of academic success or of being stricken with depression or schizophrenia? One might implicitly endorse this paradigm if one is convinced that a person's developmental chances are largely determined by one's genetic blueprint.

Sometimes the question of genetics and maturation comes up when we hear this question being asked: *What is more important in human development, **nature or nurture***. If you are impressed by the role of genetics on maturation or in setting the boundaries of human development, you are likely to say that human development is a matter of nature taking-her-course. One implication is that there is not very much for the rest of us to do as teachers or mental health professionals in shaping the course of development of children if it's all under genetic control. So, for example, a teacher might come to believe that students bring certain aptitudes to school with them that instruction is helpless to do anything about. Mental health professionals might doubt whether interventions, therapy or treatment are worth the trouble if genetic inheritance sets the course of development.

On the other hand, if you think children and adolescents come to be the sort of person they are because they are *socialized*, because they *are raised, brought-up* by the exertions of others, by *socialization agents*, including parents and teachers, then your sympathies would fall along the side of *nurture*. Children are *nurtured* into competence, into moral character, into academic achievement, into religious conviction, into the personalities they come to have because parents and teachers praise, reward and punish at the right time and with the proper enthusiasm. As a folk theory of human development, this one also hits close to home. Like the biological-genetics-maturational view, this has a ring-of-truth to it. On the one hand, we have *nature* that drives human development; on the other hand we have *nurture* that shapes, molds and directs it.

For many decades of the 20th-century one version of the nurture view took the form of what has been called a "*mechanistic*" or "*environmentalist*" world view. The two labels are very helpful for understanding this paradigm. The word "mechanistic" conjures up the image of a machine that reacts to stimuli and inputs. We flip a switch and a light comes on; turn a key and the engine starts, and so on. The word "environmentalist" tell us where the inputs come from---the environment. As a model of development this paradigm suggests that the human person is much like a machine that responds to inputs from the environment.

A good example of this paradigm was a movement in psychology called "behaviorism." The behaviorist was interested in discovering the general laws-of-learning, that is, the laws that applied to all organisms, not just the human ones. The laws that govern how rats learn to press a bar for food in the environment of a laboratory cage was much the same as how children learn to select behaviors in their rearing environment. All organisms learn in accordance with the same mechanisms—by noticing associations, by various kinds of positive and negative reinforcement, or perhaps by observing models. Behavior is controlled by reinforcement contingencies that are active in the environment. Hence what drives child development *is not the child* but rather forces in the environment that shape and manipulate the child's behavior by systems of reward and punishment. The child is passive in her own development, but the environment is active.

It's almost as if development is something that happens *to* the child, from the outside-*in.*

Self Assessment 1.4
Compare and contrast the Genetic-Maturational and Environmentalist paradigms?

The genetic paradigm emphasizes *nature*. It draws attention to the role of biology in determining human behavior, and believes that the study of the human genome will be pay dividends. In contrast, the mechanistic-environmental paradigm emphasizes nurture; it emphasizes what parents and teachers do in shaping the behavior of children. Children are learners, but passive ones, as they react to the reinforcement opportunities in their environment. Indeed, both paradigms view the child as rather passive in her own development, being subject to biological and maturational forces under genetic control in the one case; and subject to the socializing activity of others in his or her environment, in the other. See Table 1.3

Richard Lerner (1998) argues that putting the issue as one of nature versus nurture is naïve and flawed. It is never a matter of "either/or." It is to completely misunderstand the matter to ask, for example, whether intelligence is more a matter of genetics ("nature") or more a matter of environment ("nurture"). Both are involved. Biology and environment interact in complex ways; they are integrated, fused as a unit. They depend on each other. Genes require certain kinds of environments in order to be expressed. Our heredity might favor a certain disposition or quality, but the form it takes, or if it appears at all, hinges on environmental factors. One might carry a genetic tendency for depression, but whether one becomes depressed will depend upon environmental experiences. Children whose genetics favor high intelligence will require stimulating environments to make it happen. Conduct problems are promoted by an interaction of a child's genetic vulnerabilities with a history of physical maltreatment (Jaffee, Caspi, Moffitt, Dodge, Rutter, Taylor & Tully, 2005). In turn, genetic risks for certain kinds of vulnerabilities can be constrained by exposing children to interventions and by making other modifications in their environment. There is an interplay of nature and nurture in development (Rutter, 2003), and we will see many examples of this in the chapters that follow.

The *organismic paradigm* is a third perspective on development. This paradigm came to dominate developmental psychology in North America at least from the 1960s through the early 1980s (its roots in Europe went back many more decades before this). The organismic model assumes that the individual *organism* is the focus of development (not the organism's environment, not the organism's heredity), and that developmental change takes place because of what the *child does* as an active agent (not what biology or the environment does *to* the child). The child actively operates upon the environment. By the child's own initiative, by her active constructive processes, intruding up the world, as it were, the child produces her own development (Lerner, 2002). It's almost as if development is something that is pushed from the inside-*out.*

The most prominent example of an organismic perspective is Jean Piaget's theory of cognitive development. We will discuss his famous theory in greater detail in Chapter 3. But here we can say that Piaget's theory describes the child as a "naive scientist" who actively investigates the puzzles of the world and, by so doing, pushes her rational understanding to higher levels of sophistication; and that these levels can be conceptualized as *stages* of development. Piaget described four broad stages of cognitive development from infancy to adolescence. Each new stage brings with it a qualitatively better way of construing reality. With each new stage one's thinking is more logical. One is more competent at solving problems. And the summit of one's logical competence is reached in the final stage, called "formal operations," that emerges during adolescence. Here the adolescent can now think like a scientist. Here the adolescent can work through problems abstractly and logically, entertain theories about the world, test them systematically, and draw valid conclusions.

But Piaget's theory does not have much to offer those who are looking for environmental or biological influences on cognitive development, and is often criticized on those grounds (perhaps unfairly, see

Lourenco & Machado). Table 1.3 will allow us to more easily compare and contrast the three paradigms.

Table 1.3
Three Models of Development

	Genetic-Maturational	Mechanistic Environmentalism	Organismic
What drives development?	nature	nurture	child's activity
Typical research?	genome, traits, biology	learning theories, behaviorism	stage theories
Model of the child?	child passive (biology active)	child passive (environment active)	child active (biology and environment passive)
Where are causal factors located?	inner-biological	outer-physical	inner-psychological

The three paradigms differ on what drives development, where the causal factors are located, what is the typical model of the child, and the sort of research questions that are typically of interest. The genetic-maturational paradigm asserts that development is driven by "nature," that is, by one's genetic inheritance or other "inner-biological" causes. Its research focuses naturally on the human genome, on the role of genetics, traits and biological factors on development, but otherwise has a passive view of the child (in other words: biology is active, the child is passive).

The mechanistic-environmentalist paradigm asserts that development is driven by "nurture", that is, by causal factors in the "outer-physical" environment. It wants to know how these environmental factors shape children's behavior and contributes to their learning, but otherwise has a passive view of the child's role (in other words: the environment is active, the child is passive).

Finally, the organismic paradigm asserts that development is driven by the child's own activity as she operates upon the environment. The human person, in fact, *changes* the environment by her own activity and is not simply held hostage to it. As a result the "inner-psychological" structures of the child's mind develops to higher stages of competence, but otherwise has a passive view of the role of maturation-genetics and the learning environment.

Perhaps the reader sees where this is going. Each of the previous three paradigms is phrased in terms of "either/or", that is, development is *either* of one type *or* the other, but not all two or three at once. But isn't there some truth to all three paradigms? After all, we certainly have a genetic blueprint that both pushes and constrains development. Learning environments certainly do matter. And the developing child is active in the construction of her own intelligence and other "inner-psychological" achievements. Is there not a way to combining these themes so as to arrive at a more sophisticated model of development? Indeed there is, and this brings us to a fourth paradigm called "*developmental contextualism*" or a "*developmental systems*" view. As we will see, a systems view of development has profound implications for teachers, counselors and mental health professionals.

Developmental Systems

The developmental systems perspective is the overarching conceptual framework that drives much of the study of human development today. Richard Lerner (1991, 1998) has been a prolific advocate of this view. As Lerner puts it (1998, p. 1), the child, the person, cannot be understood solely by reference to biology, environmental contingencies, or to psychological structures. Rather, development is an integrated matrix of variables from multiple levels of development, including inner-biological, outer-physical and inner-psychological. The individual is a *system*. But to this must be added a broader set of contextual factors that includes family, peers, community, ethnicity and culture all of which are influenced by the historical forces that affect the generation in which we are raised. These multiple sources of influence are in dynamic reciprocal interaction. The dispositions, interests and abilities of the developing child interact with the changing contexts of learning and socialization. Person variables and contextual variables dynamically interact in complex ways; both are mutually implicated in behavior.

Indeed, an accurate account of development requires reference not only to person variables—genetic inheritance, biological dispositions or psychological structures---but also the way these person variables interact with environmental and contextual variables, which themselves change over time. Development takes place, then, at the intersection of persons and contexts. We cannot understand how puberty influences self-image, for example, until we understand something about the context in which it is experienced (e.g., in the context of dating or making a school transition). Whether school transitions have a positive or negative effect on young teenagers will depend on whether there is a good fit between the teen's psychological needs ("person") and the way that schools are organized ("context"). As we will see later in Chapter 10 student motivation is not just a "person" variable; it is not just a characteristic of the adolescent but is something that interacts with teacher practices in the context of the classroom. It is the union of person and context that is the chief lesson of the developmental systems perspective, and we will revisit this theme repeatedly in the remaining chapters of this book.

The Ecology of Human Development

In 1979 Urie Bronfenbrenner published an influential book called *The Ecology of Human Development* that has had an important influence on the developmental systems perspective. The term "ecology" might sound strange in that title. When we think of ecology we usually have in mind something about the natural habitats of species, and the sort of environments in which they adapted and flourish. Species are adapted for particular ecological niches---alligators to swamps, frogs to wetlands, penguins to ice caps. So it sounds odd to see the word used in connection to human development. But in fact Bronfenbrenner argued that human development, too, can be conceptualized in terms of ecological niches and that researchers are better off investigating children in their natural developmental habitats---out in real life settings---rather than in the artificial environment of a laboratory.

According to Bronfenbrenner, an **ecological niche** is identified by the intersection of two or more social addresses with two or more personal attributes. A social address could include such things as where one lives, the level of education one has achieved, one's employment or marital status or social class. Personal attributes could include one's intelligence, gender, race, or age. Some ecological niches are associated with developmental risks, and children born to them will face certain challenges. For example, a child is at risk for low birth weight if mother is an unmarried minority teenager who lives in the inner city and has dropped out of high school. In this example an ecological niche is identified by the intersection of three social addresses (residence, marital status, education level) with two personal attributes (age, race). A child born to this niche will face a different set of life circumstances than would a child born to a niche that varies even slightly. A child whose mother has all of these characteristics except for the fact that mother is married, or lives in the suburbs, or has completed high school, will occupy a different ecological niche and show a different developmental trajectory. The identification of ecological niches has been an important focus of research. It is particularly useful in charting risk factors for certain negative developmental outcomes, and for giving researchers clues about possible ways to intervene to improve the developmental "habitats" of children.

Ecological Systems In addition to the concept of ecological niche Bronfenbrenner has also influenced the developmental systems perspective by his writings on the ecological systems in which children develop. In his view children grow up within the overlapping influence of four ecological systems, which he calls the *microsystem, mesosystem, exosystem,* and *macrosystem*.

The microsystem is a context of development that includes all of the personal relationships that the child has during the course of development. It includes, naturally, the relationship that the child has with mother, father, siblings and relatives. It includes the child's relationship with teachers and classmates, with neighborhood friends, with the baseball coach or piano teacher, the clergy at church, mosque and synagogue. The quality of microsystem relationships is an obvious source of influence on the child's development.

Of course, the child forms personal relationships in various settings, at home with family, at school with teachers and classmates, in the neighborhood with friends. Hence the microsystem sprawls over numerous

settings, such as home, school, and neighborhood. The *mesosystem* refers to the linkage among these settings. Bronfenbrenner argued that development is favored when the mesosystem linkages are strong. Some parents don't know the names of their child's teacher; and teachers often report that they have never met or infrequently see the parents of their students. This indicates a weak linkage between home and school mesosystem. Some parents don't know the names of their children's friends, or have never met them. For many children, the friends at school are different from the friends in the neighborhood. Schools and parents may be unaware of important resources in the community. Again, these weak linkages reflect a mesosystem that is not optimal for development.

Both the microsystem and the mesosystem involve the child directly. But there are contexts of development that have an indirect influence on children, and these contexts Bronfenbrenner called the *exosystem* of development. One of these contexts is the parent's employer. Where a parent works has a crucial influence on child development. The parent's employment determines how money is earned and what shifts are worked. How much money parents makes determines what neighborhood a child lives in and therefore the quality of education and the kind of peers the child is exposed. Parental income determines whether there is access to health care and nutrition; whether parents can afford a computer or piano lessons. Parents' work schedule determines if someone will be home after school to monitor the adolescent. Another indirect influence on child development is the work of local government and the school board. The city council determines, for example, whether the library will remain open; whether busses will run or playgrounds be staffed. The school board makes decisions about extracurricular activities, the quality of teachers, whether adequate textbooks will be available, and so on. Clearly, all of us have to be active and vigilant in the exosystem of our communities if we want to advance healthy development for our children.

Finally, the *macrosystem* refers to broad features of our culture, like its dominant ideology or political structure. That we live in an industrialized Western society is a different macrosystem than tribal societies in Africa. We live in a society where the Judeo-Christian morality, the values of capitalism, the Protestant work-ethic and liberal democracy make sense. These deeply ingrained cultural values exert an influence on the behaviors we wish to cultivate in children. Another macrosystem influence might also include the media and the way it saturates our society culture with images and messages that might influence adolescent behavior.

Implications for Professionals

No two individuals have the same fusion of genes and context, even members of the same family, which is why siblings can seem very different from each other in their likes and dislikes, in their temperament and personality. Every child is the product of a unique combination of genetic, environmental, psychological and contextual factors, and these are in dynamic interaction across the lifecourse. As a result individuals will differ considerably in the pace development. The trajectory of development, its path and direction, will not be the same for everyone. In fact, individual differences *are the norm.* We should expect variability on any dimension just because each person is a unique developmental system that is constantly changing. We should also expect new possibilities for change with every new developmental transition. Every new "microsystem relationship" has the potential for altering our developmental path. So as we enter new peer groups, friendship networks or schools, as we form romantic attachments, take a job, commit to a course of study or mentor, join a team or club, we are opening up new possibilities for positive growth. It follows that no one stage of life is decisive. There is always the possibility of further change as the person interacts in dynamic ways with changing life circumstances. Indeed, there is significant (but relative) plasticity in development ---the developing person is adaptable and responsive to new experiences.

Hence the developmental systems perspective points to five conclusions that are of considerable importance for teachers, counselors, psychologists and community mental health workers: (1) Adolescents differ in the pace of development. (2) Adolescents differ in the trajectory of development. (3) Individual differences are the norm. (4) There is constant change across the lifespan. (5) There is relative plasticity in development.

The challenge for teachers is how to adapt instruction for a classroom of students for which there are individual differences in level of development, ability, preparation and interest. Children are deeply embedded within multiple ecological systems, and educators must contend with multiple sources of influence at different levels of organization. Consequently, instructional lessons that focus only on "the child" without addressing "context" will likely fail. Educational planning that does not address the many, diverse developmental contexts represented by students – their culture, ethnicity and life circumstances-- will fall short of its objectives. On the other hand educational planning that focuses only on "context," only on alterations to the "learning environment," without taking into account children's individual differences, will also fall short of the mark. A similar challenge awaits psychologists, counselors and community mental health professionals. The challenge for professionals is how to organize classroom, schools and communities in a way that meets the many diverse developmental needs of adolescents. The challenge is how to strengthen the linkages in the mesosytem of development.

But a developmental systems perspective provides *hope* as well as challenges. The plasticity of development, and the expectation of change, gives us hope that adolescents can surmount their vulnerabilities, make adaptive changes and pursue options that contribute to their thriving. It gives us hope that adolescents will profit from our educational efforts as teachers, our therapeutic efforts as counselors and psychologists, our prevention and intervention programs as community mental health professionals. The developmental systems perspective, in its insistence of dynamic change across the lifecourse, gives no one cause to give up on kids.

An Orientation to Adolescence and Development

Our examination of the inventionist and universalist approaches to understanding *adolescence* led to an important point both camps have in common: That adolescence cannot be understood without reference to context. And our examination of approaches to *development* has lead to the developmental systems perspective that argues for an ecological and contextual approach to understanding change, growth and development. Our orientation to adolescence and to development, then, converges on the themes of developmental contextualism. These themes will be evident in many topics that we consider in the remaining chapters of this book. Indeed, the developmental systems perspective is part of the book's *conceptual framework* that will orient our examination of the second decade of life.