One of the most difficult topics that faces behavioral scientists is the organization of those unique aspects of individuals that we study under the heading of “personality.” The primary concern in the study of adult personality development is the interplay of change versus continuity. This paradox is central to much of the study of adult development (see Chapter 1). We usually think of personality in general, and adult personalities in particular, as being stable and enduring. But we also like to think that there is a potential for change in one’s personality. We all know of instances that appear to illustrate the possibility of radical personality change: someone who in youth was hard and persistent, but who in later life is peaceful and philanthropic; someone who in youth was weak and vacillating, but in later life is assertive and self-assured; someone who was altered by a great event—an alcoholic who dries out after a serious automobile accident, or a person who experiences a religious conversion as the basis for a new life.

Early experiences often set a powerful course for further development, and personality characteristics once established are strongly reinforced for most of us as long as we remain in a relatively constant environment. Nevertheless, many early experiences (good or bad) may not have long-lasting effects because they are related primarily to the needs of a particular life stage, for example, the survival of the young infant through that period when the infant is completely dependent on caregivers or when adults in advanced old age may again require external supports to sustain a high quality life (Caspi and Bem, 1990; Field and Milsap, 1991; Kagan, 1980).
This discontinuity makes it possible for the individual to be responsive to meaningful events that occur later on in life and can lead to substantial change within individuals. Rarely, however, will an individual’s changes lead to total reversals of early personality patterns. Rather, they will involve relatively limited positive or negative adjustments in response to the event or events that caused the change. This is why average patterns of personality development do show remarkable continuity despite the many individual personality changes that occur throughout life.

**APPROACHES TO PERSONALITY**

Personality theorists have struggled with defining personality since the beginnings of psychology. Early theorists often resorted to metaphorical (or circular) statements such as “an entity of the sort you are referring to when you use the first person pronoun ‘I’” (Adams, 1954) or “what a person really is” (Allport, 1937). The classic definition of personality, given by Gordon Allport in 1937, suggests that personality is the dynamic organization within the individual of those biosocial systems that determine his or her unique adjustment to the world. The biosocial systems include personality traits, habits, motives, and values that are partly biologically based (genetically transmitted, for example) and partly the result of learning and experience (induced by social influences). These biosocial systems are interrelated (organized) in a complex manner. In active (dynamic) interaction with the environment; they determine an individual’s unique adaptation to life.

A distinction is also made between the concepts of state and trait in personality. A state reflects a response to a transient situation, while a trait represents the enduring response patterns that are exhibited by a person in many different contexts. The two are not totally unrelated, of course, and systematic responses to many transient situations may well crystallize into trait patterns over time (Kim, Nesselroade, and Featherman, 1996; Nesselroade, 1988b).

Theories of personality differ in their choice and definition of the biosocial systems that they view as most useful in explaining human behavior. The psychoanalytic approach initiated by Sigmund Freud, for example, divides the human personality into id, ego, and superego, which represent impulsive, realistic, and moralistic tendencies in the individual. The individual differences approach emerged from early attempts to develop psychological tests for measuring human characteristics; personality traits or, more globally, personality types are the units usually described. A learning approach to personality emphasizes behavior elicited, controlled, and maintained by stimuli and reinforcements. The humanistic approach seeks to move away from explanations of human behavior to those that would be equally appropriate to an explanation of behaviors that can be found in lower animals; it is marked by discussions of higher human motives such as self-actualization. The cognitive approach holds that the way people perceive their world is the most direct determinant of their behavior. The biosocial systems in the cognitive approach are social perceptions, beliefs, attributions, and the like. Finally, a contextual approach recognizes the impact of social roles and historical contexts as they interact with personality patterns (Schaie and Hendricks, 2000).
Every one of these approaches has been used to describe the course of personality development in the adult years. Each theory has its advantages and disadvantages, and each may have a place in the overall attempt to understand what happens to human personality as it ages. But not all theories fit all aspects of adult development equally well, and the choice of a theoretical model to be used for explanatory purposes will often depend on the specific topic to be considered. The psychoanalytic approach, for example, focuses on ego development through the life span; we will discuss theory and research in this area in the following section. This will be followed by an example of the cognitive approach. The individual differences approach focuses on age differences and age changes in personality test scores; therefore some research on personality assessment will be covered in the latter part of the chapter (see also Aldwin and Levenson, 1994, or Wiggins and Pincus, 1992). The remaining approaches to personality development will be discussed in Chapter 10 on motivation, because most of the topics influenced by these approaches fall into areas traditionally considered to be based on motivational theories.

EGO DEVELOPMENT

The psychoanalytic theory of personality was formulated by Sigmund Freud over many years, beginning in 1900 with the publication of *The Interpretation of Dreams*. Freud and his associates, including Carl Jung, revised and extended psychoanalytic theory until Freud’s death in 1939. Since Freud’s death, further modifications and extensions were made by a number of important theorists, including Erik Erikson, Anna Freud (Sigmund’s daughter), David Rappaport, and many others. The resulting theory provides a rather complex approach to personality and psychotherapy that cannot be described here in detail. We will limit our discussion here to the three aspects of psychoanalytic theory that have proved to be most influential in the study of personality development in adulthood.

First of all there is the concept of unconscious mental processes that is important for understanding personality. By definition, the unconscious can only be described indirectly. The concept of the unconscious therefore led to the development of projective tests that contain ambiguous stimuli. It is assumed that individuals who describe these stimuli reveal (without being aware of doing so) their deepest desires and values (see Schaie and Stone, 1982). Second, we will consider the concept of defense mechanisms, or the cognitive tricks people play on themselves to reduce anxiety and personal embarrassment. And third, we will discuss the notion of ego development, which is based on the idea that we are constantly refining our personal identities as we live our everyday lives.

Defining personality in terms of id, ego, and superego came late in Freud’s theory. Earlier on he thought of maladjustment and mental disorders as arising from conflict between unconscious ideas that were in conflict with conscious intentions. But as Freud encountered a greater variety of mental disorders, he realized that some of these disorders actually involved conflict between unconscious ideas and equally unconscious intentions. To improve his theory’s ability to represent this
kind of conflict, Freud introduced the constructs of id, ego, and superego, and portrayed conflict as a discrepancy between the aims of any two of these constructs.

The id is the power system of the personality, providing energy (sexual and aggressive) for the actions of the individual. It is said to operate on the pleasure principle, which holds that what is immediately pleasurable is good and that what is unpleasant should be avoided, regardless of later consequences. The id does not tolerate delay of gratification.

The ego is the strategist of the personality. It operates on the so-called reality principle, which focuses on the distinction between what can be accomplished and what cannot. The ego moves to satisfy the desires of the id in a realistic manner, by assessing the situation and planning actions in a logical sequence to achieve a certain purpose. The ego is Machiavellian; it has no moral principles. Unless arrest and imprisonment made theft impractical, the ego would steal to satisfy the id. It still would steal, that is, except for the pressure that comes from the superego.

The superego is the moralist part of the personality, that part that fills individuals with pride when they do “good” (ego-ideal) and with shame when they do “bad”; it could be referred to as our conscience. According to Freud, the superego develops from interactions with parents, as the parents interpret for the child the moral principles of the society in which they live, or of the subculture to which they feel allegiance.

The desires, plans, and demands of the id, ego, and superego are often in conflict. If you can imagine a sex-starved hedonist, a humorless computer scientist, and a frock-coated Puritan minister being chained together and turned loose in the world, then you have a reasonable approximation of what Freud was trying to say about personality. The id, ego, and superego cannot break their chains and go their separate ways. They have no alternative but to adjust to one another. The result, in the psychoanalytic view of life, is the adult human personality (Quintar, Lane, and Goeltz, 1998).

Defense Mechanisms

As the individual matures, the role of the ego becomes more important. To control the impulsive id and the moralistic superego, the ego often relies on cognitive tricks called defense mechanisms (Freud, 1946). Defense mechanisms are adaptive techniques designed to provide psychological stability in the midst of conflicting needs and stresses that are part of human existence; they are characteristic ways in which people deal with anxiety, aggressive impulses, and frustrations (Butler, Lewis, and Sunderland, 1991). As the person develops from adolescence to early midlife, such development entails the relinquishment of immature defenses and the adoption of more mature defenses (Vaillant, Bond, and Vaillant, 1986; Vaillant and McCullough, 1998; see Costa, Zonderman, and McCrae, 1991 for a critique of defense mechanisms from the point of view of trait psychology).

A defense mechanism often used by middle-aged and older people is denial, a form of repression—driving an idea out of consciousness. Indeed, denial of aging itself is a way some people handle the anxieties and uncertainties of advancing age.
Denial of one’s own imminent death is also not uncommon, as is denial of the death of a loved one, as we shall see in Chapter 15. Also often denied are some of the sensory and energy losses that accompany growing old for many persons.

Another form of repression is selective memory, in which one recalls the pleasant moments of one’s past but banishes the unpleasant. As Nietzsche once said of distasteful actions in his past, “My memory says that I did it, my pride says that I could not have done it, and in the end, my memory yields.” Sigmund Freud himself, who formulated the concept of repression, made frequent errors in dates and facts when trying to recall his experiences with cocaine in young adulthood (Quintar, Lane, and Goeltz, 1998).

The common defense mechanism of regression represents a return to less mature behaviors. Some people react to growing old by acting “babyish,” that is, by assuming a passive and dependent role. In one study, about 10 percent of a sample between the ages of 70 and 79 were classified as “succorance seekers,” that is, they wanted others to take care of all their physical and emotional needs. Often these seekers move in with an adult child who is then expected to play the role of parent.

There are other defensive behavior patterns identified by psychoanalytic theorists that are often used by adults, although perhaps no more often than by children. Projection is the denial of an anxiety-arousing impulse in oneself and its attribution instead to another person. Persons anxious about their own sexual urges may complain that “everyone” has been making sexual advances to them; others, harboring unconscious aggressive impulses, may assert that adult children, physicians, and politicians dislike them and are out to do them harm. Displacement is the repression of the true object of a sexual or aggressive impulse and the substitution of a new, less threatening object. Angry at her “deteriorating” body, an aging woman may complain that the world is going to ruin. Reaction formation is the replacement of an objectionable idea by its opposite. Unconscious hate may be covered over by conscious love, or desperate sexual desires may result in living a prim life and indulging in antipornography tirades.

Isolation involves separating an idea from its emotional significance. In one form of isolation, issues that might provoke too much anxiety if discussed in personal terms can be dealt with more easily if the discussion remains “abstract” and “objective.” For example, a woman who is anxious about sexual desires for people other than her spouse may start a discussion on the nature of marital fidelity. This form of isolation, called intellectualization, is in some situations a valued ability in our culture; scientists and judges, for example, are expected to consider the evidence of a matter without letting emotions “distort” their judgment. A good sense of humor is another form of isolation. Isolation is more frequently used by people as they grow older, whereas other defenses, notably reaction formation, are observed less often (Vaillant, 1995b).

Sublimation is the ingenious defense in which one satisfies base impulses while acting in a way highly valued by society. For example, an artist may be driven at some deep psychoanalytic level by the desire to smear feces. But instead the artist smears paints—and earns, not scorn, but universal acclaim. Of course, the motives...
in any activity are many, and not all artists are driven, even unconsciously, to smear feces or otherwise express vulgar desires. Similarly, a musician with conflict about putting things in his or her mouth (part of an old desire to suckle at the mother’s breast) may relieve it by playing the oboe. Novelists may have the best of all possible worlds; they can write about the most direct and vulgar expression of the basest motives and be praised for their efforts. Successful human development in the adult years requires the successful sublimation of many potentially evil instincts into socially acceptable behaviors that benefit rather than harm other people.

Activity and Cautiousness

Psychoanalytic theory describes defense mechanisms that people of all ages are presumed to use, but there are similar processes that have been described as being characteristic of older persons. Older people use certain defenses against anxiety and uncertainty that are particularly appropriate to their life circumstances. Notable among these are activity and cautiousness.

Activity is a common enough defense at younger ages as well. Following some unexpected tragedy, such as the loss of a spouse or a job, a person might be heard to say, “Well, I’ll just bury myself in my work.” In the later years of life, such tragedies become more frequent, although the anxiety caused by them does not necessarily decrease. Activity—“working off the blues” (Butler, Lewis, and Sunder-
land, 1991)—is still one of the most common and effective defenses. Some of the most successful retirement programs are based on activity: building things, getting involved in church activities, and so on. Activity keeps your mind too busy to think about your problems. As noted in Chapter 4, however, such activities have to be meaningful; activities that merely have the appearance of productivity do not suffice, and the beneficial effects of programmed activity interventions soon dissipate (Okun, Olding, and Cohn, 1990; see also the discussion of disengagement versus activity theory in Chapter 10). Continuity theory suggests that middle-aged and older adults try to preserve existing psychological and social patterns by applying the skills and knowledge that they have acquired earlier in order to maintain a stable pattern of activities (Atchley 1989a, 1993).

Cautiousness is another way some older people defend themselves against the anxieties of old age. They tend to become more careful, trading off speed of response in order to increase accuracy (Salthouse, 1994). They often appear to be motivated by the desire to avoid mistakes more than to succeed at a task. For example, some older people, more often than younger subjects, will make no response at all to a question on an intelligence test.

By late midlife, many people perceive some decline in their ability to compete with younger adults in tasks that require quick response. To compensate (in defense), they may reorder their priorities; they may begin to place greater value on accuracy, quality, and other “timeless” characteristics (cf. Baltes, 1997; Schaie and Willis, 2000a). An aging psychologist may strive to complete one or two “superior theoretical papers” and wonder about the young psychologists who produce a dozen research papers a year that are only slight variations of one another. An aging quarterback values his knowledge, his ability to stand in one place as 280-pound linemen struggle to reach him, his cautious approach, his ability to withhold a response until the defensive pattern becomes clear and he knows when and where a receiver will break into the open. He may not be able to move around as quickly as a younger quarterback or to throw a football as far, but are these abilities the important ones? Not in his mind.

Cautiousness is often a virtue, for many aging quarterbacks and for many aging psychologists. Sometimes, however, it results in inferior performance, as shown by slowness and poor quality. On many ability tests, for example, older people earn lower scores on average than do younger people. Some of these age differences may represent a decline in the ability being tested, but often some of the difference could be due to the increased cautiousness of older people. They are less willing to guess on a questionnaire item, or they slow down on a manual task, perhaps believing that to do two things out of two successfully is better than to do four things out of six—even though the test is scored for the number of tasks completed, not for the percentage of tasks tried and accomplished successfully (Birkhill and Schaie, 1975; Schwarz and Knäuper, 1999).

Older persons’ cautiousness may well exaggerate the apparent decline in such abilities as intelligence, learning and memory, and perception. Perhaps one of the clearest examples of the effect of cautiousness on an interpretation of psychological research is in sensory psychology. Consider the typical hearing test. The
examiner presents tones at varying degrees of loudness and asks when the individual hears them. Subjects who are very cautious will not say that they have heard the tone until it is quite loud. Hence, traditional hearing tests are likely to overestimate the degree of hearing loss in older people, confusing actual loss with cautiousness of report (Fozard and Gordon-Salant, 2001).

**Stages of Ego Development**

Psychoanalytic theorists view personality development over the life span as being largely a matter of ego development. In other words, the processes and abilities that we use to cope with reality emerge, are strengthened, become more complex, and become more integrated. Our defense mechanisms become more mature, utilizing gross adaptations such as denial and projection less and refined adaptations such as intellectualization and sublimation more (Marcus, 1999; Vaillant, 1995b).

The description of ego development often involves the notion of developmental stages. Stage theories break the life span (or some part of it) into chronological age periods, each of which is characterized by a set of developmental issues. As we have seen in the three chronologically oriented chapters at the beginning of this volume, the issues in each stage may be quite different, in degree if not in kind, from those in other stages.

Perhaps the most important extension of the psychoanalytic approach into the adult years was Erik Erikson’s (1963) stage theory. This theory marked a sharp departure from previous theories of ego development, which tended to see the personality as relatively fixed by the age of 5 or 6. Although Erikson’s most famous concept, the identity crisis, is placed in adolescence, the turmoil of deciding "who you are" continues in adulthood, and identity crises often recur throughout life, even in old age (Erikson, 1979). Moreover, Erikson (1982) emphasized that “human development is dominated by dramatic shifts in emphasis.” But in his latest writing, Erikson redistributed the emphasis on the various life stages more equitably. He argued that the question of greatest priority in the study of ego development is “how, on the basis of a unique life cycle and a unique complex of psychosocial dynamics, each individual struggles to reconcile earlier themes in order to bring into balance a lifelong sense of trustworthy wholeness and an opposing sense of bleak fragmentation” (Erikson, Erikson, and Kivnik, 1986; Goleman, 1988).

The intimacy crisis (discussed in some detail in Chapter 2) is the primary psychosocial issue in the young adult’s thoughts and feelings about marriage and family. However, recent writers suggest that this crisis must be preceded by identity consolidation which is also thought to occur in young adulthood (cf. Pals, 1999). The primary issue of middle age, according to Erikson, is generativity versus stagnation (see McAdams and de St. Aubin, 1992; Snarey et al., 1987). Broadly conceived, generativity includes the education of one’s children, productivity and creativity in one’s work, and a continuing revitalization of one’s spirit that allows for fresh and active participation in all facets of life. Manifestations of the generativity crisis in
midlife are career problems, marital difficulties, and widely scattered attempts at “self-improvement” through sometimes outlandish therapies, mystical religions, and even “physical meditation” (or jogging). Successful resolution of the generativity crisis involves the human virtues of caring, giving, and teaching, in the home, on the job, and in life in general.

In Erikson’s view of ego development, the final years of life mark the time of the integrity versus despair crisis, when individuals look back over their lives (Haight, Coleman, and Lord, 1994) and decide that they were well-ordered and meaningful (integrated) or unproductive and meaningless (resulting in despair). Those who despair approach the end of life with the feeling that death will be one more frustration in a series of failures. In contrast, the people with integrity accept their lives (including their deaths) as important and on the whole satisfying. In a sense, ego integrity is the end result of the life-long search for ego identity, a recognition that one has coped reasonably successfully with the demands of both the id and society (Erikson, 1979, 1982; Whitbourne, 1996). Once old age is reached it may be most advantageous for the person to rigidly maintain this identity (Tucker and Desmond, 1998).

The final stage of life includes an exploration of personal grounds for faith. Erikson points out that the aged share with infants what he calls the “numinous” or the experience of the “ultimate other.” This experience was provided for the infant by its mother. By contrast, the experience of ultimate confidence is provided for the older person by the confirmation of the distinctiveness of their integrated life and by its impending transcendence (Erikson, 1984).

A formal investigation of the progression through the Eriksonian stages from young adulthood into midlife has been conducted by administering an inventory of psychosocial development to three cohorts of college students, followed up after 11 and 22 years (Whitbourne et al., 1992). This study showed not only inner psychological changes as postulated by Erikson, but also showed effects of exposure to particular historical, cultural, and social realities of the environment. As higher stages were attained there also seemed further resolution of the earlier stages of development, suggesting a process of continuous reorganization, beyond the stage-specific issues confronted by the individual. In addition, this study raises the possibility that the sequencing of stages may not be unidirectional, and it further suggests cohort differences that implied less favorable resolution of ego integrity versus despair over the decade of the 1980s (Whitbourne and Connolly, 1999).

Ego functioning has been described as a two-dimensional process. The first dimension, ego resiliency, is the person’s ability to meet new demands. Those who have high ego resiliency are resourceful and flexible and able to adapt themselves to novel circumstances. Those who have low ego resiliency tend to be hypersensitive, moody, and uncomfortable with themselves and their environment. The second dimension, ego control, is the ability to master impulses. People who are overcontrolled tend to be strongly conformist, narrow in interest, and poor in the ability to interact with other persons. Undercontrolled persons tend to be spontaneous, inclined toward immediate gratification of impulses, and willing to attempt new relationships and ways of doing things. Recently, the importance of develop-
ing and maintaining flexible personality styles has been further supported by showing that persons with flexible attitudes and behaviors in midlife showed greater maintenance of intellectual abilities into old age (Schaie, 1984b, 1996b; Schaie, Dutta, and Willis, 1991).

**Gender Differences in Personality with Age**

Another phenomenon of ego development concerns the masculine and feminine parts of personalities (Gutmann, 1987). The early psychoanalytic theorist Carl Gustav Jung (1960) first suggested that young adults tend to express only one sexual aspect, often taking considerable pains to inhibit the other. The particular behaviors expressed are usually defined by sex-role stereotypes, which may differ from culture to culture and from generation to generation. Such gender-differentiated personality styles may develop quite early and remain stable over substantial periods of time, although they may be life-stage specific (Pulkkinen, 1996).

In most Western cultures, the male role is active and aggressive and the female role is passive and nurturant. As people age, however, the suppressed part of their personalities emerges; men as they grow older may express more behaviors that earlier in life would be considered feminine, and women may show more traits that in their youth would have been viewed as masculine. What Gutmann (1992b) calls postparental transition, is said to make men discover feelings of nurturance and aesthetic sensibility, while women unveil assertive and competitive qualities. This does not necessarily mean that there is a reversal of sex roles. What this trend accomplishes is to provide a greater sense of balance (androgeny) that permits both men and women as they age to express personality styles that fit their individual needs and circumstances rather than being governed by the societally imposed sex-role stereotypes.

In a cross-sectional study, using the Bem Sex Role Inventory (Bem, 1978), sex-role attributions of 426 women and 378 men were examined at 8 stages in the family life cycle from adolescence through grandparenthood (Feldman, Biringen, and Nash, 1981). Characteristics studied included leadership, autonomy, acquiescence, nonassertiveness, compassion, tenderness, social inhibitions, and self-ascribed masculinity and femininity. Most of the life-stage differences found were associated with the particular life stage of the family rather than with chronological age. Both femininity and masculinity varied only within gender, and at that quite modestly.

Women showed greater tenderness than men at all life stages, except during the married-childless and grandparenthood stages. Men were more autonomous and less acquiescent than women during the stage of expecting a child and during young parenthood, but not at other stages. Other changes occur in complex ways and reveal both diverging and parallel developmental differences occurring for men and women with role shifts related to the stage of family life.

However, in a related study conducted in Australia involving a sample of dating, cohabiting, and married couples and divorced partners (Cunningham and
Antil, 1984), it was found, that masculinity and femininity scores were more related to the individual’s involvement in work or education than to the stage of family development. In this study, employed women were found to have lower femininity scores and their male partners lower masculinity scores than did nonemployed women and their partners. Women who were engaged in graduate education had lower femininity scores than those who were not. The latter study, however, did not extend beyond the period of working life and therefore does not challenge previous findings on the convergence of sex-role related behaviors in old age.

Still another longitudinal study of college graduates and their partners followed at ages 37, 43, and 52 (Wink and Helson, 1997), showed that goals and values of men and women converged in less gender-traditional ways from young adulthood into midlife (Harker and Solomon, 1996). An important mechanism, suggested from this study, which women may use to deal with stressful midlife changes, is “ego resiliency” (Klohnen, Vandewater, and Young, 1996). As primary breadwinners, men must suppress emotional sensitivity and dependency needs to succeed as economic providers. Later in life, the demands of parenthood subside, and men can afford to express tenderness. Women, on the other hand, are traditionally the primary caregivers, so they must suppress their aggressiveness to avoid breaking up the family or damaging a child’s developing personality. When they grow older and have adult children, they reap a number of rewards: receiving a good deal of affection and having a certain amount of power over their kin. Freed from their earlier restrictions, they find outlets that give them more recognition; that is, they become more aggressive. Women generally adjust better to the role losses of old age because they are socialized to expect less consistency in their roles.

These different age changes for men and women have been noted in many cultures around the world (Gutmann, 1987, 1997). Finding them in several cultures with economies ranging from agricultural to highly technological adds weight to the conclusion that a basic developmental process is involved and not simply one dictated by specific events in a particular society (Fry, 1985; Gutmann, 1997; Huyck and Gutmann, 1999).

**COGNITIVE APPROACH TO DEVELOPMENT**

In contrast to stage models derived from psychoanalytic theory, cognitive approaches to the study of personality are concerned with the individual’s own conception of how his or her life should proceed. An interesting example of such an approach is Whitbourne’s (1985b, 1986, 1996, 1998) formulation of an individual *life-span construct* that relies on distinguishing how a person’s life course differs from age norms and expectations that exist for society as a whole.

Whitbourne (1985b, 1989, 1998) proposes that the translation from a person’s core identity into what she calls superficial (or observable) manifestations of identity are accomplished by means of the individual’s ideas about his or her life span as a totality (Figure 9-1). The life span construct has two basic structural
components, the *scenario* and the *life story*. The scenario consists of a person’s expectations about the future. As soon as a sense of identity develops in adolescence, one begins to acquire some notion of what one wants to do with one’s life and to imagine what one will be doing at various points in the years to come. Suppositions about how life will progress are strongly influenced by culturally determined age norms.

Throughout life, one continually compares actual performance to the scenario, using it as a basis for self-evaluation and adjusting it as circumstances dictate. These expectations represent schemata that are learned as members of a social group and that eventually develop as personality prototypes (Mayer and Bower, 1986). Distinctive developmental trajectories also have been related to the crystallization of specific choice behaviors (Mumford, Wesley, and Shaffer, 1987). As the past widens with aging, new combinations and scenarios become available from the earlier life span (Ogilvie, 1987). In turn, emotionally intense experience can affect cognitive development by facilitating the development of the abstract thinking that
is required to make sense out of one’s life story (see Haviland and Kramer, 1991; Maciel, Heckhausen, and Baltes, 1993). Even changes in physical functioning to which the individual is sensitive will require identity assimilation to maintain self-esteem (Whitbourne and Collins, 1999).

As an example, consider the case of a high school senior who has decided that she wants to be a scientist. Her scenario might well include events and circumstances such as these: She expects to graduate with the class and then go to a four-year college, where she will major in biology. She expects that she will have many women friends and perhaps a boyfriend. After college, she knows that she will have to go to graduate school, but she isn’t sure whether a doctorate will be necessary. She imagines herself doing research in a laboratory of some sort. She expects to marry at some point and vaguely assumes that she will have children, but these are matters about which she is unsure at present. She expects to remain in contact with her friends and make new friends among her colleagues at work. She has an image of herself addressing a large audience at a convention of some sort and being loudly applauded when her speech is finished. In short, she expects herself ultimately to be successful.

She will use this scenario as a guide for planning and as a means of assessing her progress toward her goals. Every time she passes an important transition in her life—graduating from school, getting her first job, publishing her first paper, getting married—she will compare her actual performance to the way that she imagined life would be at that point; her progress will influence how she feels about herself. If she gets a doctorate by the time she is 26, she may feel very proud of herself. If she is not married by 35, she may begin to fear that she will miss out on having children. As a result, she may begin to denigrate herself in some ways. Inevitably, the scenario that she originally imagined for herself will change; she might marry and have children immediately after college and put off continuing her education for a few years.

As the person moves into the scenario that she has imagined, she begins to build a life story. This is the second component of the life span construct. The life story is the narrative of personal history into which one organizes the events of one’s life to give them personal meaning and a sense of continuity. It is called a “story” because the person alters it as it is retold, distorting the actual events to make them acceptable. If the woman in our example didn’t graduate from college until she was 28, she might tell herself that she graduated “in her twenties, like most people who go to college”; this permits her to think of herself as “on time” according to the development schedule that she has set for herself. She might make other distortions as well, simplifying the circumstances surrounding complex decisions or exaggerating the importance of events of which she feels proud.

Together with the scenario, the life story encompasses the individual’s sense of the future and the past; it is the central principle around which people organize and assess their progress through their own lives. Many women “rewrite” their life stories after the early years of childrearing, as they discover new abilities at midlife that permit them to break through emotional stereotypes and permit them to
connect their thoughts with practical realities. Thus, new directions may be given to their life stories (Helson, 1992; Labouvie-Vief and Hakim-Larson, 1989; Whitbourne, 1998).

**CONTEXTUAL MODELS OF PERSONALITY DEVELOPMENT**

The cognitive personality model of Whitbourne introduced some environmental factors that influence personal identity development. The importance of sociocultural and historical factors becomes even more prominent in what Kogan (1990) refers to as *contextual models of personality development*. Social transitions may carry different meaning for different individuals with different life histories or resources and socioeconomic status may be a persistent selection factor that has important developmental implications (Caspi, 1995; Elder and Caspi, 1990; Elder and O’Rand, 1994; Schaie and Hendricks, 2000).

Contextualist approaches trace developmental paths over extended periods of time and pay attention to the impact on personality of life events such as occupational status, divorce, or retirement. Often this is done by using national survey data bases or doing secondary analyses of longitudinal data sets that originally may have been collected for other purposes (Brooks-Gunn, Phelps, and Elder, 1991). For example, Helson and colleagues (Helson, Mitchell, and Moane, 1984) talk about social clocks that determine personality pattern. They examined three such social clock patterns for women (starting a family by age 28, advancing into a high status job by age 28, or attaining neither by that age). When personality profiles were examined for the three groups of women, those who either started a family or reached a high status by the specified age showed normative positive personality development, and those who lagged failed to conform to the positive pattern (Helson and Moane, 1987). Women who had traditional roles were found to be higher on scales of well-being and effective functioning when they were 21, but traditional roles were associated with adverse changes in psychological and physical health by age 43. However, traditional women who were in the labor force seemed to be role-juggling with success (Helson and Picano, 1990). Increases in individualism and self-focus were found to help women respond to radical changes in female roles beginning with the late 1960s (Roberts and Helson, 1997).

Another contextualist approach is to examine effects of role transitions on personality development. This has been done in the context of the Berkeley Guidance Study (Eichorn et al., 1981; Hightower, 1990) by examining the interactions of personality characteristics such as temper tantrums, despondency, and shyness that were observed in childhood with successfulness in adult role transitions such as work, marriage, and parenthood. Unfavorable personality traits in childhood were shown to correspond to unfavorable adult role transitions (Caspi, 1987, 1995; Caspi, Bem, and Elder, 1989). The context of social structures has also been related to changes in the direction of social control (see discussion below; Kohn, 1989; Lachman, 1989).
The self-concept is one of the basic elements of the personality. Tendencies toward stability or change in self-conceptions might therefore be expected to be representative of the personality as a whole. The self-concept consists of a collection of knowledge structures that helps individuals to lend coherence to their life experiences. These knowledge structures are called self-schemas that vary in content and that reflect what persons thinks about, what they care about, and what they spend their time on. Self-schemas usually represent one’s present behavior, but they also relate to what happened to individuals in the past as well as what may be possible in the future (Herzog and Markus, 1999; Markus and Herzog, 1992; Markus and Nurius, 1986; Whitbourne, 1985b, 1998).

Studies of various aspects of the self-concept indicate that, in most respects, it is quite stable over long periods. Some changes do occur, however. One study investigated the stability of self-concepts among several hundred people undergoing one of four major adult transitions: leaving home after finishing high school, having one’s first child, having one’s youngest child leave home, and retiring from work. In all four groups, the structure and interrelationships among different dimensions of the self-concept remained stable over a 5-year period. The level of self-assessment did change for some of the dimensions, but not for others. What remained stable over time included the concept of personal security, amiability, and assertion. Changes were noted in other dimensions, however, including social poise, self-control, and hostility (Pierce and Chiriboga, 1979). Other studies yield similar results. One showed substantial stability over the 14 years of early adulthood (Mortimer, Finch, and Kumka, 1982).

The presence of possible selves in the self-report of middle-aged and older persons is seen as one of the salient predictors of successful aging (Baltes, M. M. and Carstensen, 1992, 1996). However, it has been shown that a focus in middle age on possible selves that involve the acquisition of new roles and material possessions shifts in old age to a focus on preventing possible selves such as illness and dependency from becoming reality. Nevertheless, themes that involve purpose in life or expected leisure roles do remain important. Older adults report fewer possible selves than do younger adults and most of these possible selves are related to hope for good physical health (Bearon, 1989; Cross and Markus, 1991; Hooker, 1992; Hooker and Kaus, 1992; Ryff, Kwan, and Singer, 2001).

Sex-role identification is another significant realm of the self-concept. In this area, there do seem to be some changes as people age, but they are relatively modest. Fitzgerald (1978) investigated sex-role-related self-concepts, using a measure that assessed variations along two major dimensions: nurturance and dominance. His findings were that college males described themselves as more aggressive than older males considered themselves to be. The older males, however, scored higher in areas such as cooperation and nurturance. Younger women scored higher than younger men on scales related to cooperativeness, docility, and dependence. But older males had dominance scores only slightly higher than those of older women. Other studies also suggest that traditional sex differences in self-concept are less
evident in older men and women compared with younger individuals (Gutmann, 1997; Hyde and Phyllis, 1979; Ryff and Baltes, 1976).

The assumption that the self-concept should become more positive with age is compatible with formulations of adult development such as Erikson’s (1982) contention that the positive resolution of the final psychosocial crisis results in ego integrity, implying a sense of positive self (also see George, 2000). But others, such as Buehler (1968) and Rosow (1974), who emphasize the restriction of socialization and role loss in old age, argue that there ought to be negative changes in self-concept. The arguments of the latter authors have been rebutted by Brim (1988), who suggests that older people adjust their methods and goals so that they can continue seeing themselves as successful in their daily pursuits. This may involve the lowering of aspirations, changes in timing and methods, or change in the goals.

A sequence of assimilative and accommodative strategies that prevent depression and promote well-being in older persons has been described by Brandstätter and Renner (1990). The assimilative strategy involves engaging in activities that aim to prevent further losses or substituting alternative activities when encountering undesired life changes. The accommodative strategy involves adjustment of goals, and expectancies (possible selves) are adjusted to match changes in personal resources and functional capacities (Brandstätter and Greve, 1994; Brandstätter and Wentura, 1995; Brandstätter, Wentura, and Grewe, 1993). When frailty ensues, these strategies may still be applied to the maintenance of self-esteem by turning one’s psychological energy to a vital inner life that may be totally unseen by others (see Atchley, 1991). A similar approach using the terminology of personal meaning systems has been applied to a study of accommodation to social change and different political systems following the reunification of Germany (Westerhof and Ditman-Kohli, 2000).

An interesting empirical question is whether individuals at different ages have age-specific vocabularies that they can use to express their perceptions of past, present, and future selves. Heckhausen and Krueger (1993; Krueger and Heckhausen, 1995) asked groups of young adults (21 to 35 years), middle-aged (40 to 55 years), and old adults (60 to 80 years) to rate a list of 100 adjectives as to their desirability, their expected change in adulthood, the perceived controllability of each attribute, how characteristic the attribute was for each rater, and how many attributes on which raters thought they would change positively or negatively, and the normative age at which people would typically attain the developmental goal for that attribute. Subjective conceptions of self-descriptions indicated growth during early and middle adulthood and decline in old age. But these conceptions were quite optimistic. They involved more growth than decline. Older subjects tended to be more optimistic about late-life development than were younger adults. There was strong agreement between normative ratings for each age group and the self-assessment of those in that age group. There were also more favorable expectations for the self to be attained in old age, and aspirations for self-improvement to attain positive self-attributes ascribed to older age groups. Other studies have also shown that the self-concept of older persons is perhaps more complicated or
richer than that of young adults, suggesting the retention of past selves even though they may no longer be realistic as future selves (Mueller et al., 1992; Ryff, Kwan, and Singer 2001).

INDIVIDUAL DIFFERENCES APPROACH TO PERSONALITY

Differences among the individual members of a species became an important area of study as soon as Charles Darwin formulated his theory of evolution based on “the survival of the fittest.” Francis Galton, an English biologist, became interested in human evolution and began to ask the question of which persons are more fit than others. To identify the more intelligent individuals, of course, Galton needed some means of assessing intelligence, and he pioneered the development of intelligence tests. By doing so, he simultaneously pioneered the individual differences approach in psychology, which, since Galton’s time, has always relied heavily on psychological tests and questionnaires.

The individual differences approach to personality is sometimes described as trait psychology (Costa and McCrae, 1992d; Starratt and Peterson, 1997). It focuses upon discovering the structure of personality, by means of self-report or by objective ratings by others. For this purpose (as in the measurement of intelligence), it often derives latent (unobserved) personality constructs represented by scores on inventories that contain many individual items, the response to which is not of particular interest, except as they contribute to our definition of the latent constructs. One of the major contributions of longitudinal studies in the context of trait psychology has been to demonstrate substantial stability of personality traits across adulthood. Although not universally conceded, these findings provide a major challenge to stage theory. As will be seen, most empirical studies following groups of the same individuals have demonstrated this stability, even though there may be change in some individuals under certain circumstances, and that there may be considerable differences in average trait scores over different generations and in different cultures (see Costa and McCrae, 1992b, 1993d).

Self-Report Inventories

The first formal personality test was called the Personal Data Sheet, which was developed to screen recruits for the U.S. armed services during World War I (Woodworth, 1920). The Personal Data Sheet was simple in theory and in practice. The author, psychologist Robert Woodworth, first made a list of symptoms generally considered to indicate emotional maladjustment. From that list, Woodworth constructed 116 questions (e.g., “Do you usually feel well and strong?”) that could be answered yes or no. The total number of questions answered in a way that Woodworth thought of as maladjusted constituted the “psychoneuroticism” score; if the soldier scored high enough, he was seen by a psychiatrist.

The Personal Data Sheet is a type of personality test called a self-report inventory, because the individual is asked to report on his or her own feelings and activities. Unfortunately self-reports represent a fallible source of data. Minor changes
in wording, the way questions are formatted, or the order in which questions are posed can seriously influence the answers questionnaire respondents provide (Schwarz and Käuper, 1999).

The most famous of the self-report inventories used to detect abnormal personality characteristics is the *Minnesota Multiphasic Personality Inventory* (MMPI). The MMPI consists of items, such as, “I am frightened to read of prowlers in my neighborhood,” to which the individual responds true, false, or cannot say. From the pattern of responses, the individual receives scores on the scales originally designed to discriminate between normal and psychiatric populations. One scale, for example, is the mania scale, on which a high score was presumed to indicate manic tendencies (tendencies to become extremely excited).

In addition to its uses for psychiatric screening and clinical counseling, the MMPI also has been used extensively for personality research with normal subjects. Researchers may want to know, for example, if old people check more items that reflect depression or paranoia than do young people. The investigators would not be particularly interested in extreme scores that might indicate severe depression or debilitating paranoia, but would rather look for differences between the averages for young and old subjects (e.g., Aaronson, Dent, Webb, and Kline, 1996).

For example, studies using the MMPI have asked whether or not there is an increase in introversion with age. The answer is usually yes. Consider, for example, data on 50,000 patients at the Mayo Clinic in Rochester, Minnesota (Swenson, Pearson, and Osborne, 1973). Both males and females show a general increase with age on the MMPI introversion scale, although women are somewhat more introverted than men throughout the life span. These are age differences from a cross-sectional study, and we cannot be sure that they reflect true age changes (see the following).

What of Gutmann’s (1977) hypothesis, that men become more feminine and women become more masculine as they age? The Mayo Clinic data support only the female portion of this hypothesis. Older women have more masculine interests than younger women, but older men also show an increase in masculinity (see also Feldman, Biringen, and Nash, 1981). Other MMPI scales also show similar patterns for men and women. Psychopathy (unemotional disregard for laws and social norms), paranoia, psychasthenia (excessive worry, lack of confidence, compulsive behavior), schizophrenic tendencies, and mania all decrease systematically over the life span. Depression, which does not decrease, is relatively higher in older people; this fact may account for its apparent increase. In the Mayo Clinic patients, two scales increase to middle age and then decrease: hypochondriasis (excessive concern with physical health) and hysteria (physical symptoms caused by excessive anxiety, such as “writer’s cramp”). These two scales may present some support for the idea of a midlife crisis in neurotic concern for what’s happening to one’s body.

Other cross-sectional investigations of MMPI trends with age corroborate the Mayo Clinic data, for the most part. In particular, young adults tend to score
higher than older people on the scales measuring psychopathy, schizophrenic tendencies, and mania. These scores paint a picture of the average youth as someone with an energetic approach to life and attitudes that sometimes run to the unusual and untraditional. Around middle age, there is a transition from concern with impulse control to concern with physical and mental health. Older adults are more introspective and introverted than young people and possibly more susceptible to depression.

Age differences in average MMPI scores are rarely sizable and some studies show no statistically significant differences at all. The MMPI also has been criticized because many of the scales are scored for the same items, building in correlation between scales, and because scores are affected by the tendency to deny socially undesirable items. Because of cohort differences in socially desirable attitudes (Schaie, 1996b; Schaie and Parham, 1976), it may therefore follow that the MMPI does not discriminate equally well among the young and the old. The apparent decrease with age for some MMPI scales could simply reflect a greater desire by the older cohorts to appear socially respectable.

The MMPI has gone through a process of revision and renorming. In a study by Colligan and colleagues (1983, 1992) of healthy adults ranging in age from 18 to 99, numerous significant relationships were found between age and various MMPI scales. This study once again found age differences involving higher scores on the neurotic traits measured by the MMPI as well as several other scales. However, a later study of community-dwelling healthy men and women between the ages of 39 and 89 conducted in another part of the country could not replicate the earlier age difference findings (Koeppi, Bolla-Wilson, and Bleeker, 1989). The latter authors conclude that many of the previously reported MMPI age differences should be attributed primarily to geographical differences and to changes in social and population factors. Similar findings occurred in a study of male veterans (Butcher, Aldwin, Levenson, and Ben-Porath, 1992).

One pervasive criticism of the MMPI for the study of normal personality development has addressed the fact that this questionnaire was first developed and continues to be used to screen for the presence of psychopathology. As a consequence there have been a number of derivatives that were specifically designed to measure traits thought to be important for the assessment of individual differences in normal population. One such measure that was specifically developed for purposes of counseling adolescents and young adults is the California Personality Inventory (CPI; Gough, 1987). This test was constructed by asking high school principals and counselors to nominate individuals that were at opposite poles of traits such as socialbility, social responsibility, masculinity–femininity, flexibility and other normal personality traits. Although some mean level age changes have been reported for this inventory, on the whole substantial stability over time was also shown to hold in the Oakland Growth and Guidance studies extending over 50 years (Haan, Milsap, and Hattka, 1986). The limited evidence for change seems to occur largely in young adulthood, during the shift from student to employed status and not during middle or old age (see Helson, 1993; Helson and Moane, 1987;
Kogan, 1990). However, there is also evidence that societal events such as the women’s movement may result in cohort-specific changes in personality at those life stages particularly affected by the events (Agronick and Duncan, 1998; Duncan and Agronick, 1995).

Adapted versions of the social responsibility scale (Schaie and Parham, 1974) have also been used in the Seattle Longitudinal Study, with findings reported over as long as 35 years. Social responsibility tends to increase with age in women, and attitudinal flexibility tends to decline, with negative cohort differences occurring for social responsibility and positive cohort differences found for flexibility (Schaie, 1996b).

Another MMPI derivative that is unique in identifying primary personality dimensions in terms of affective experience is the Multidimensional Personality Questionnaire (MPQ; Tellegen, 1985). This instrument includes the personality factors: traditionalism, harm avoidance, control aggression, alienation, stress reaction, achievement, social potency, well-being, and social closeness. Although developed on a normal population, this test has been used to identify patterns diagnostic of affective disorders anxiety, substance dependence, and conduct disorders in young adults (Krueger, Caspi, Moffitt, Silva, and McGee, 1996). The instrument also identifies higher-order personality factors such as positive emotionality, negative emotionality, and constraint. These constructs have also been measured by an adjective checklist constructed by Gough, Bradley, and Bedeian (1996). In a study of college graduates from young adulthood to midlife it was found that negative emotionality declined in both men and women, while women increased in positive emotionality and constraint (Helson and Klohnen, 1998).

Another self-report inventory that has been used to investigate age changes in personality is the Sixteen Personality Factor Questionnaire (16 PF) constructed by Raymond B. Cattell as part of his monumental work to chart human personality through factor-analytic investigations. The 16 PF was designed for normal adults and provides scores on 16 general personality traits (factors) that are usually described by two ends of a personality dimension. Examples are reserved–outgoing, humble–assertive, and shy–venturesome. Even more general dimensions (called second-order factors) can also be assessed, notably extraversion and anxiety.

There have not been many longitudinal studies of personality development. In one of the few, a brief test that estimates 8 of the 16 traits measured in the 16 PF was given to people aged 25 to 88 (Schaie, 1996b). The test was administered 5 times, in 1963, 1970, 1977, 1984, and in 1991. The results were quite revealing. Changes within subjects are quite modest and reach statistical significance for only 4 of the 8 traits. Most noteworthy are modest within-subject decreases with age in Superego Strength and Threactia (threat reactivity). Affectothymia (extraversion) also decreases from young adulthood to middle age but increases again into old age. And for Untroubled Adequacy, there is a slight down-trend until midlife, followed by slight increment until age 84, and then a sharp decline.
However, many of the traits showed age differences that on statistical analysis were found to be actually cohort differences (Figure 9-2). Four traits are characterized by negative cohort differences until the turn of the century. Thereafter, the cohort gradient for Low Self-Sentiment remains virtually flat. Afectothymia, Untroubled Adequacy, and Premsia continue to decline, but they rise again for the baby-boomers.

The other four traits show systematic increment for the older cohorts until at least 1924. Threctia (threat reactivity) continues to rise throughout the entire period, except for a dip for the 1924 cohort. Conservatism of Temperament peaks for the 1924 cohort, but shows a sharper downturn for the baby boomers. Downturns for the latter group are also seen for Group Dependency and Superego Strength.

What does all this mean? Although traits remain rather stable within individuals over their lifetime, successive generations differ in level on these traits. For example, people born in earlier years were “more reserved, less outgoing” than people born in later years.

This age difference makes one think of the hypothesis that introversion increases with age, and indeed reserved–outgoing is one of the traits that make up the second-order introversion factor. But the age difference turns out to be attrib-
utable to differences in generations. People born in later years (the younger sub-
jects) were less reserved than people born in earlier years (older); they did not be-
come more reserved as they got older. Apparently, people born in different
generations have been taught different things about the proper amount of reserve
to show in social situations; once learned, this lesson is carried throughout life (see
also Schaie and Willis, 1995).

Other cohort differences in personality found in this study indicated that
across time there have been generational shifts that first increased and more re-
cently has lowered levels of impulse control (superego strength) and increased lev-
eels of threat reactivity (see Figure 9-2). Strong positive cohort differences also have
been found in various measures of behavioral and attitudinal flexibility, while neg-
ative cohort differences were observed on a measure of socially responsible atti-
dudes (Schaie, 1996b; Schaie and Willis, 1991; Schaie, Dutta, and Willis, 1991).

In another study, in which subjects were followed for 21 years, those subjects
who experienced cardiovascular disease described themselves as more conscien-
tious, moralistic, and honest, but they were also less concerned with political issues
or community involvement (Maitland, Willis, and Schaie, 1993; see also discussion
of other personality characteristics related to survival from cardiovascular disease
in Chapter 13).

Another longitudinal study used the complete 16 PF. Testing 331 men and
women who were 54 to 70 years old at the time of first measurement (between
1968 and 1970), the researchers found practically no age changes over an 8-year
interval (Siegler, George, and Okun, 1979). In addition, the correlations between
testings were high. Similar findings occur for data coming from the Boston
Normative Aging Study of veterans. A comparison of data for 139 persons who took
the 16 PF in 1965–1967 and again in 1975 showed that there was no significant
change for 14 of the scales. For the two scales in which change was observed (inte-
ligence and social independence) movement was in a positive direction (Costa and
McCrae, 1978; McCrae and Costa, 1984). In a 15-year follow-up, it was found that
those individuals who had high scores on the suspiciousness scale of the 16 PF had
higher risks of mortality (Barefoot et al., 1987).

A recent cross-sectional study with the 16 PF compared centenarians, octoge-
narians, and sexagenarians in order to predict the impact of personality dimen-
sions on morale in advanced old age. In this study, low tension and high
extraversion predicted high morale in the centenarians. Guilt proneness was the
most important personality trait predicting morale for the 60-year-olds (Adkins,

These studies indicate high stability of personality characteristics. There was
no change in average scores as people grew older, and the ranking of people also
did not change much. The sizable differences between generations suggest that
eye childhood experiences are crucial in the formation of personality (for an ex-
ample see, Franz, McClelland, and Weinberger, 1991); the absence of age changes
and the high correlations in the adult years suggest that, once formed, personality
does not change a lot.
Extensive factor analyses of personality descriptors using the English language typically have shown five core dimensions at most life stages (Costa and McCrae, 1992a; Digman, 1990; Goldberg, 1993; Hofer, Horn, and Eber, 1997; Robins, John and Caspi, 1994). These core dimensions have most explicitly been measured by the NEO Personality Inventory (NEO; Costa and McCrae, 1985b, 1988, 1992c; McCrae and Costa, 1985; McCrae and John, 1992). The NEO is a 240-item questionnaire that offers measures of the traits of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness (the so-called “big 5”), all of

![Figure 9-2](image-url)

**Figure 9-2** Cohort Differences in Various Personality Traits for Cohorts Born from 1889 to 1966. *Source: Adapted from Schaie, K.W. (1996b.) Intellectual development in adulthood: The Seattle Longitudinal Study. New York: Cambridge University Press*
which have been shown to have remarkable stability throughout adulthood in longitudinal studies. These dimensions have also been studied cross-sectionally with fairly comparable adult age differences (e.g., Costa, McCrae, Martin et al., 1999; McCrae and Costa, 1997; Yang, McCrae, and Costa, 1998), including the finding that there are parallel age differences between college age and middle adulthood (Costa, McCrae, de Lima, et al., 1999). As is to be expected, despite the structural similarity, correlations with culture-related outcome variables differ in cross-cultural comparisons (Staudinger, Fleeson, and Baltes, 1999). The same factor structure of the NEO has been confirmed in a psychiatric sample (Bagby et al., 1999). And the five dimensions have been shown to have substantial heritability (Loehlin, McCrae, Costa, and John, 1998).

The factors identified in this inventory also have been shown to emerge from the analysis of quite independent lines of personality research: the California Q-Sort (Block, 1978; McCrae, Costa, and Busch, 1986). The Q-Sort involves the study of the relative importance of personality traits within individuals. Partial congruence of the NEO with factors derived from the MMPI has also been reported (Costa and McCrae, 1992d; Trull, Useda, Costa, and McCrae, 1995).

A relationship has further been demonstrated between the NEO factors and various dimensions of well-being. For example, the well-being dimensions of self-acceptance, environmental mastery, and purpose in life were linked with neuroticism, extraversion, and conscientiousness, while personal growth was linked to openness to experience, and extroversion; positive relations with others were linked with agreeableness and extraversion, and autonomy was linked to neuroticism (Schmutte and Ryff, 1997). What is most important for our purposes, however, is that these studies demonstrate the equivalence of constructs across both intraindividual and interindividual methods of analyses and therefore increase confidence in these findings (McCrae, Costa, and Busch, 1986).

Costa and McCrae (1992d, 1993) have shown impressive stability for the NEO factors. The factor structure remains the same over the life course from adolescence on. As far as score level is concerned, they report modest declines in neuroticism and extraversion and an increase in agreeableness between college age and later adulthood. In fact, individual differences show only modest stability in young adulthood, but after age 30 both average levels and individual differences in personality traits remain extremely stable, suggesting that full maturity of the adult personality is reached by that age. The earlier changes have been interpreted as important antecedents of establishing the dynamics of social support in midlife (Von Dras and Siegler, 1997). The long-term stability of personality has also been shown in a study which transformed trait ratings of college graduates over a 45-year period to the NEO dimensions (Soldz and Vaillant, 1999).

Personality traits, while quite stable across age, are, of course, also related to contextual variables. Thus, openness of experience correlates positively with education and income, while neuroticism is negatively related to education, social support, extent of group membership, income, and health (Hooker et al., 1992; Peterson and Maiden, 1992–93; Soldz and Vaillant, 1999).
Combining what we know of the results from the MMPI, the 16 PF, the CPI, and the NEO Personality Inventory, a fairly consistent picture emerges of personality development in the adult years. It is a picture, first and foremost, of stability and continuity, and not of frequent and extensive change. Psychologists have long considered personality to be an enduring organization of traits, and the test results support this view for most people.

Perhaps, if we want to learn more about changes occurring in some individuals under specific circumstances we need research methods that are designed for the collection and analysis of extensive data over time in such selected individuals or in diads of individuals that affect each other, such as mother–child pairs or spouse pairs. What has become known as the P-Technique method is becoming more popular for such analyses (for examples, see Garfein and Smyer, 1991; Kleban, Lawton, Nesselroade, and Parmalee, 1992; Shifren, Hooker, Wood, and Nesselroade, 1997).

A second major conclusion from the test studies is that many of the age differences that we once thought of as personality development are in fact generational differences. A number of cross-sectional studies, for example, show that older people are more reserved or restrained than younger people. Here is a personality trait that we might expect to change with age. Aren’t younger people more happy-go-lucky, becoming more serious-minded and more reserved with age?
Apparently not. The evidence from several longitudinal studies shows that restraint differs between generations but does not increase with age within a given generation.

Three personality dimensions give evidence of change with age. One is masculinity, for which the evidence applies only to men. As men age, they become less comfortable with masculine activities such as hunting, and they report that they feel emotions more deeply and express them more openly. The other personality traits that show age changes are two that we would expect to be positively related: excitability and general activity. But excitability goes up with age, and general activity goes down. Interestingly enough, it is the triad of emotionality, activity level, and sociability for which individual differences have been shown to be substantially accounted for by genetic factors in twin studies conducted in childhood as well as old age (Baker et al., 1992; Plomin, Pedersen, Nesselroade, and Bergeman, 1988; Pedersen and Reynolds, 1998). Another contradiction in the research literature? Perhaps. Another possibility, however, is that both findings are valid, that the “activation” described by general activity is different from the “activation” described by the excitability factor.

Excitability, on the other hand, refers to a quality of instability in arousal level, an inability to keep one’s emotions on an even keel, as reflected in a tendency to become perplexed and befuddled by relatively trivial incidents. This quality seems to increase with age. In fact, these two self-reported personality traits may be related to two characteristics of the human nervous system that also appear to change in different ways with age. To put it rather glibly, older people seem to be harder to “turn on” than younger people, but also harder to “turn off”. The older nervous system is less active generally, but it is also less stable (Finch and Seeman, 1999).

Projective Tests

A projective test is one in which the stimuli, which may be pictures or abstract images and which are comparable to questions in other tests, are deliberately vague and ambiguous. For example, the best-known projective test, the Rorschach inkblot test, uses inkblots that were originally created by dropping ink on papers and folding them in half. The individual is shown each blot in turn and asked what it makes him or her think of. In another popular projective test, the Thematic Apperception Test (TAT), pictures rather than inkblots are the stimuli. The theory behind projective tests is that persons “project” their own personalities onto the ambiguous stimulus to construct a coherent response; thus, in describing the stimulus, individuals are telling us about their basic needs and values. There is considerable doubt, however, that this assumption is correct and that the Rorschach, the TAT, and other projective tests actually measure what they purport to measure (see Anastasi, 1976).

In studies of adult personality development using the Rorschach, one of the more common findings is that older people are more likely than younger people to make responses considered indicative of introversion. Similar results have been
obtained with the TAT. Asked to tell brief stories that might account for the scenes in the TAT pictures, older subjects tend to describe introspective, shy, conforming characters to whom things happen beyond their control, while younger subjects relate stories of active, outgoing, assertive people who make things happen. It is primarily these results that led one reviewer to conclude that studies of personality change “add up to the generalization that introversion increases with age in the second half of life” (Neugarten, 1977, p. 636).

Projective tests must be interpreted with care for subjects of all ages, but it is worth mentioning that older subjects present unique problems. Many older people may give unusual responses because they don’t see the stimuli clearly or because they can’t hear the examiner’s questions. Also, consider a picture of an old person interacting with a young person presented to an old and a young subject. People are likely to identify with the character in the picture closer to their own age and to form the story around that character. In essence, they are telling stories about two different pictures, one with the older person as hero and the other with the young person as the center of attention. Comparing their stories may tell us something about their age, but little about their personality.

Some researchers have proposed that it would be better to use stimuli specifically designed for use with older persons. Examples of such tests are the Senior Apperception Technique (SAT) developed by Bellak (1975) and the Gerontological Apperception Test (GAT) by Wolk and Wolk (1971). However, these special tests have questionable value. The elderly figures on the test cards are depicted to be physically decrepit, they are in socially submissive situations, and they wear old-fashioned clothes. Older persons asked to respond to these cards may either have great difficulty identifying with the elderly figures, if they are still in good health and live an active life in the community, or may give responses that the professional interviewer might interpret as evidence of pathology, but that are no more than accurate descriptions of the characteristics built into the stimulus material. Projective tests are nowadays used primarily as aids in eliciting free associations from clients in clinical practice. Their role as research tools is now largely of historical interest.

CONTINUITY AND CHANGE IN THE ADULT PERSONALITY

What is the nature of personality change with age? Is one’s personality relatively stable throughout life, or does it change significantly? Are there general trends reflecting universal or nearly universal changes in personality that occur as one grows older?

Although we do not have complete answers to these important questions, the research evidence does suggest, however, that there are few general trends. Few personality traits systematically increase or decrease with age. Perhaps excitability increases or general activity level decreases. Perhaps people become more introverted as they grow older. Perhaps men become a little less masculine and women a little more so. Beyond these few characteristics, there is little evidence for general change.
People often report that they have changed more than they really have in fact. In an intriguing study, personality test scores of people first tested in 1944, when they were about 20 years of age, were compared with their scores in 1969, when they averaged 45 years of age (Woodruff, 1983; Woodruff and Birren, 1972). The test measured personal and social adjustment, with a higher score indicating better adjustment. There were no significant differences over the 25-year period, supporting the conclusion that personality changes in few general ways. At the time of the second testing, however, the participants were asked to take the test again; this time they were to answer each question as they thought they probably had answered it back in 1944. These “remembered” scores were quite a bit lower than the real scores. People imagined themselves as less well-adjusted 25 years previously than they actually were. They believed that they had improved considerably over the years, even though the true test scores showed no evidence of change at all.

In a more recent study using the NEO 398 adults aged 26 to 64 were asked to describe their own personality in the present, when they were 20 to 25 years old, and when they will be 65 to 70 years old and what they thought their ideal personality to be like. Using this format these subjects showed more anticipated change across adulthood than is shown in the longitudinal studies. Their perceptions were characterized by early adulthood exploration, midlife productivity, and late-life comfortableness. They anticipated late adulthood to contain more losses than gains but expected gains at each life stage (Fleeson and Baltes, 1998; Fleeson and Heckhausen, 1997).

Continuity can be viewed as a grand adaptive strategy that is promoted both by individual preference and by social approval (Atchley, 1989, 1993, 2000). Continuity theory holds that middle-aged and older adults make adaptive choices that attempt to preserve and maintain internal and external structures. They prefer to accomplish this objective by the use of strategies that are closely related to their past experience. Inevitable change is somehow linked to a person’s perceived past, thus providing continuity in individuals’ inner psychological characteristics and their social behaviors.

To say that there are few general trends in personality development in the adult years does not mean that personality change is impossible or even infrequent. In fact, personality changes are common, even in the final years of life. The absence of general trends simply indicates that change, when it does occur, is in different directions for different people and that age by itself is not the major factor.

Life experiences have an influence on one’s personality. Losing one’s job after 30 years can be disillusioning; the individual may become anxious and depressed, less confident. A satisfying marriage may provide a solid base in life, turning an anxious personality into a vital, optimistic, and self-assured personality. The death of a loved one, an increase in responsibility for others, a religious conversion, drug addiction, medical problems, psychotherapy—all these can change an individual’s personality in significant ways. It is characteristic of such life experi-
ences, however, that they are not experienced by everyone or at the same age or life stage. Psychologists sometimes call them “nonnormative events” (see Baltes P. B., Cornelius, and Nesselroade, 1979; Schaie, 1984a, 1986). The death of one’s child, for example, is not “normal” in the sense that it does not happen regularly to everyone at the same time; in contrast, a normal or normative event like retirement usually occurs around the same time in the life of every worker. Normative events, to the extent that they have a general influence on personality, should result in clear age changes on personality measures. Nonnormative events also result in change, but for the individuals experiencing them and not for others the same age.

Normative and nonnormative events may not only influence one’s personality as a whole, but they may also have an effect on specific aspects of the personality. The self-concept is one such aspect. Many researchers have noted that the stability or variability of the self-concept may be a function not purely of intrapsychic forces or “distant” circumstances, such as childhood experiences, but of environmental events occurring in one’s current life (Duncan and Agronic, 1995; Giarusso, Feng, Silverstein, and Bengtson, 2000; Herzog and Markus, 1999; McCrae and Costa, 1984; Mortimer, Finch, and Kumka, 1982; Schmitz-Scherzer and Thomae, 1983; Ryff, Kwan, and Singer, 2001).

As the social environment becomes more stable in adulthood, some attitudes and values also become more stable. This is not to say that “distant” life experiences are uninfluential. It has been shown that life experiences throughout the decade after college have significant effects on feelings of competence at the 10-year point (Roberts and Helson, 1997). Specifically, employment insecurity has a negative effect on feelings of competence, whereas income, work autonomy, and close relationships with one’s father have a positive effect (Mortimer and Lorence, 1979; Mortimer, Finch, and Kumka, 1982). On the other hand, declining intellectual competence may make it more difficult to maintain a stable self-image (Field, Schaie, and Leino, 1991).

This relationship between environmental events and self-concept is a reciprocal one. Just as events may influence self-concept, self-concept may influence the kind of life stresses that one experiences. For example, those whose self-concepts reflect neurotic tendencies tend to have more marital troubles, lower job satisfaction, and other problems (Costa and McCrae, 1980a,b; Petersen and Maiden, 1992–1993). People who have better adjusted self-concepts may achieve objectively and subjectively better life situations, which in turn enhance their self-concepts. It also appears that certain types of self-concepts are predisposed toward well-being, independent of life events (Mortimer, Finch, and Kumka, 1982). Earlier self-concepts may influence later objective and subjective events, and these events contribute to the further stability or variability in self-concept.

As we have seen, the correlations of self-report inventories administered two or more times as the individuals grow older are generally high (Costa and McCrae, 1992d; McCrae and Costa, 1984). This is another indication of the basic stability of the adult personality, but the high correlations by no means preclude the potential
Physical appearance changes markedly across adulthood, but personality characteristics remain remarkably stable, unless external forces require marked change in one’s ways of dealing with others.
for change. For one thing, descriptions of oneself by oneself tend to be more stable and consistent than other measures of personality, for example, descriptions by others and actual behavior patterns. Even so, correlations that run as high as .70 still leave 50 percent of the variability of test scores unexplained. Some of this variability is unexplained because of imperfections in the test itself, but a good deal must be attributed to true shifts in the ranking of people on the personality characteristic in question. In personal terms, some people who were among the highest in, for example, dominance at age 25 may fall to the middle ranks by age 40 or 50; others who were low may move up.

The average score for a given trait is likely to remain the same, which means that the people whose scores on the trait increase are balanced by people whose scores decrease. As they grow older, people experience a variety of nonnormative events, changing them in different ways. There is little general change, but quite a bit of individual change.

THE NATURE OF THE ADULT PERSONALITY

Research on personality change in the adult years is beset with many difficulties of measurement, experimental design, and interpretation. Nevertheless, it is possible to draw some conclusions on the nature of adult personality. First, one is impressed with the number of age differences in personality that turn out to be due primarily to differences between generations. Indeed, one could conclude that the most important fact about an individual’s personality is the historical period when that person was born rather than the chronological age. Someone born in 1920 grew up in different circumstances from someone born in 1980. Methods of child training were different; interactions between children and parents, between brothers and sisters, and between friends were different; values and attitudes were different; education was different; historical events were different. In short, life was profoundly different for people growing up in the early 1900s compared to people growing up in the 1980s and 1990s, and these differences make for sizable differences in certain personality characteristics.

Second, the adult personality appears to be remarkably stable. There are a number of reasons to expect a significant degree of stability, of course. For one, many personality traits may in part be genetically determined and recent work is even beginning to localize the relevant DNA loci for various personality traits (Plomin and Caspi, 1998). But the adult personality is a highly complex organization. Traits, habits, ways of thinking, ways of interacting, ways of coping all are patterned in a unique fashion for each individual. Like any organized system, the adult personality resists change, for change in one part requires change or realignment in the other interrelated parts (Pulkkinen, 1998).

Once formed, the adult personality will not change radically, even in such pressing circumstances as retirement and impending death. In fact, personality is one of the prime determinants of how someone will react to such pressures. We have discussed different reactions to retirement, for example. People with well-integrated personalities may have little difficulty “mellowing out” in what they per-
ceive to be the final stage of a successful life cycle. They are able to accommodate changing circumstances and can “roll with the punches.” People with poorly integrated personalities, on the other hand, may encounter the same event with despair and hostility, turning “sour” in the last years of their lives (cf. Staudinger and Fleeson, 1996). This ability of some older persons to stay well, recover and experience improvement is sometimes referred to as the phenomenon of “resilience” (Ryff, Singer, Love, and Essex, 1998).

Findings from a number of studies spanning several decades of life and using different measurement instruments indicate that self-esteem of middle-aged or older individuals equals or surpasses that of younger subjects (Atchley, 1982; Cross and Markus, 1992; Heckhausen and Krueger, 1993). This may simply be a result of cohort differences; older respondents may have had higher levels of self-esteem throughout their lives than younger cohorts do now. A more plausible explanation is that the findings reflect changes resulting from maturation. Despite the losses and difficulties that often accompany old age, it appears that people can maintain or even increase their level of self-esteem as they age.

A third source of stability in adult personality is the tendency to choose environments that suit the individual’s personality and to avoid those that might demand change. As people with acrophobia avoid tall buildings, people in general avoid situations in which their personality puts them at a disadvantage; shy people avoid public speaking, for example. Kind, gentle people who like a slow pace choose to live in small towns, thereby creating a match between personality and social environment that promotes stability in both. Also people tend to choose mates with similar interests and values and careers that fit with their personal identities (Caspi and Herbener, 1990; Caspi, Herbener, and Ozer, 1992; Gruber-Baldini, Schaie, and Willis, 1995).

Although adults’ personalities are generally stable, certain critical events may disrupt patterns for whole groups as well as individuals. For examples, the Great Depression had an important influence on the generation then in its adolescence. The exact nature of this influence, however, depended on the individual’s earlier socialization (Elder, 1979). In a major German longitudinal study of personality, people’s stability seemed to depend on a complex interaction among age, sex, social condition, health, and a variety of psychological predispositions (Schmitz-Scherzer and Thomae, 1983). And cultural differences may generate differences in personality pattern that may change over time as a society moves from a predominantly traditional to a largely modern pattern (e.g., Liang, Bennett, Akiyama, and Maeda, 1992; Pearson, 1992).

The potential for individual change in personality should thus not be denied, the evidence of the stability of traits for groups of individuals notwithstanding. The human being is characterized by the ability to adapt, to adjust to changing conditions. The human being can learn. Thus, when the environment presents situations that require readjustment, people do change, sometimes radically.

Many researchers are concluding that the search for unchanging and unidirectional developmental functions in adulthood is not very useful (Baltes, 1987). Chronological age may simply not be the best organizing principle to explain personality change within individuals. The psychoanalytic and Eriksonian models have
provided much stimulation for research, but it is clear that there is no strong empirical support for universal stages of personality development (Costa and McCrae, 1992d; Datan, Rodeheaver, and Hughes, 1987; Hoyer and Hooker, 1989). Instead we are probably better off examining the sources of stability and change in the continuous interaction of individual and environment (Bengtson, Reedy, and Gordon, 1985; Kogan, 1990; Ruth and Coleman, 1996; Ryff, Kwan, and Singer, 2001).

SUMMARY

1. Personality is a dynamic organization within individuals of those biosocial systems (traits, habits, values) that determine their unique adjustment to the world.

2. Psychoanalytic theory divides the personality into id, ego, and superego, which represent impulsive, reality-oriented, and moralistic tendencies in the individual. The ego uses defense mechanisms such as denial, regression, projection, intellectualization, and sublimation to defend itself against anxiety and guilt resulting from unacceptable or unrealistic id or superego demands. Elderly people also use activity and cautiousness as defense mechanisms.

3. Erik Erikson extended the psychoanalytic theory of ego development into the adult years, describing three stages in which intimacy, generativity, and integrity are major concerns. Gutmann hypothesized that men and women become similar, men becoming more feminine, women becoming more masculine. Studies indicate that traditional sex differences among men and women diminish with age; it may be one’s stage in the family life cycle rather than aging per se that actually influences traditional sex-role identification.

4. The cognitive life span approach to personality development (Whitbourne) has two basic components, the scenario and the life story. The scenario consists of one’s expectations about the future. One continually compares one’s actual experiences with the scenario one had imagined. The life story is the narrative of personal history into which one organizes the events of one’s past life to give them personal meaning and a sense of continuity.

5. Whitbourne’s cognitive model emphasizes ways in which environmental factors influence personality. Various contextual models of personality development examine the effects of sociocultural and historical factors and of role transitions on personality development.

6. The self-concept tends to remain stable over long periods of adult life. It contains both current conceptions of self, as well as conceptions of future possible selves. Events in the environment also influence locus of control and self-concept, which will in turn influence what kind of experiences one has.

7. The individual differences approach to personality development
compares test scores at different ages to determine stability or change. Stability is indicated by no difference in average trait scores, which suggests no general trend with age, and by high correlations between scores at different ages, which suggests little shifting in the ranking of individuals. Correlations can be computed only if the same individuals are involved at different ages, that is, if the study is longitudinal.

8. On the self-report inventory known as the MMPI, cross-sectional studies show older people as more introverted and both older men and older women more masculine than younger adults. Younger people appear as more energetic, with attitudes that are more unusual and more amoral. One of the few longitudinal studies of 16 PF scores found only excitability increasing as subjects grew older.

9. Projective tests such as the Rorschach inkblot test and the Thematic Apperception Test assume that subjects will “project” their needs and values into a story about an ambiguous stimulus (inkblot, picture). Projective tests are used currently as interview aides in clinical practice; as research tools they are primarily of historical interest.

10. The psychoanalytic and individual differences approaches, both of which rely heavily on psychological tests for empirical results, show that the adult personality, once formed, remains remarkably stable. Since personality is a highly organized system of traits, habits, and values, a fairly high degree of stability seems reasonable. Even levels of self-esteem appear to persist into later adult life. In addition, there is a pronounced tendency of individuals to place themselves in environments, including marriages and careers, that promote the stability of their personalities. Nevertheless, the human being is characterized by exceptional adaptability, and the potential for change is significant, especially if unexpected changes in the environment (nonnormative events) demand it. This adaptability to changing circumstances is amply demonstrated by the widely diverging “average personalities” formed by cohorts growing up in different historical eras.

SUGGESTED READINGS


dents interpret self-report instruments, and how these interpretations may affect their interpretation of data on age differences and age changes in personality.