CHAPTER 1

Facts and Theories of Adult Development

Suppose for a moment that people consulted lifespan developmental psychologists as they do fortune tellers—to get a glimpse of their own future. What would we tell them to expect as they grow older? Are there predictable crises ahead? Are they likely to continue to mature and grow, or is it all downhill from here? Will their basic natures and temperaments remain essentially as they are, or will internal unfolding or changing circumstances (such as wars, illness, or technological innovations) reshape existing personalities? Do married couples grow apart with the years, or do they come to resemble each other in personality as they sometimes seem to do in appearance?

If asked to make these kinds of predictions for individuals, we would hedge—and properly so. We would point out that the scientific study of adulthood is young and little is known with certainty. Only in the past three decades have a substantial number of investigators been active in the field, and these have succeeded mainly in framing useful questions, not in providing definitive answers to them. We would also emphasize that science is concerned with generalizations, not specifics. Epidemiologists, for example, can tell us the life expectancy of the average man or the average woman and some of the factors (such as smoking and exercise) that influence longevity, but they certainly cannot predict the exact age of death for any particular individual. Too many people smoke and drink and live to 90 and too many athletes die young to allow anything more than statements of probability.

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But individuals inevitably apply these statements to themselves. When Gail Sheehy published *Passages* (1976)—and later *New Passages* (1996)—millions read the book, not because of a disinterested curiosity about human development, nor because they admired her prose style (engaging as it was). People read *Passages* because they wanted to make sense of their own past, present, or future lives. In short, the topic of this book is likely to be of personal as well as academic interest to most readers, and our approach must take that fact into consideration. We will argue for a particular position fully aware that many people find it unappealing. We will therefore try to anticipate objections, and in general we will adopt an approach that Salvatore Maddi (1976) character-ized as "partisan zealotry" rather than "benevolent eclecticism" in order to "provide the reader with a vivid account" (p. 2) of our views. We be-lieve that we can accomplish that goal without sacrificing scientific ob-jectivity, and we hope our presentation will stimulate lively discussion and further research.

The first version of this book (McCrae & Costa, 1984) took a sim-ple but radical position: We argued that personality was stable in adult-hood—that the traits one showed at age 30 would remain essentially unchanged into old age. Much more information from longitudinal, cross-sectional, and cross-cultural studies is now available, and argu-ment has become more nuanced. Newer studies confirm that stability is the predominant feature of personality in adulthood, but they also doc-ument predictable changes at certain ages and in certain individuals. The story has become a bit more interesting.

Some readers are likely to have a strong background in personality psychology but less knowledge of gerontology; some the reverse. We will try to accommodate both groups by reviewing some fundamentals in each discipline. Although our conclusions are driven by data and our research has been squarely in the tradition of quantitative empiricism, we will not burden the reader with much technical detail about the studies we discuss—the cited literature can be consulted for that. We will, however, spend considerable time on the logic of research, specifi-cally how scientific questions should be formulated and how particular measures, samples, or analyses can be used to answer them. Because ag-ing is a relatively new field and personality psychology a contentious one, there are a large number of issues to address. We will consider the problems of distinguishing aging from generational and time-of-measurement effects, the validity of self-report methods of assessment,

the adequacy of a trait theory of personality, and the advantages and dangers of interviews as a source of data on personality. At each step we will try to weigh the evidence carefully, taking into account both strengths and limitations. We can state our point of view in a few paragraphs, but a critical examination of it will require the whole book.

Over the past 20 years there have been remarkable changes in the science of personality. Trait psychology, often considered passé in the 1970s, has come back with a vengeance and is now the dominant paradigm in personality psychology. We know much more about the origins and influences of traits than we did—a new understanding that has been deeply intertwined with our discoveries about lifespan development. Perhaps most crucially, we now know the scope of personality traits. The Five-Factor Model (FFM; Digman, 1990; McCrae & John, 1992) has been widely accepted as an adequate taxonomy of personality traits, and literature reviews are now routinely organized by classifying measures along the lines of these five factors. These factors—Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness—recur throughout this book; they are the basic dispositions that, as we will see, endure through adulthood and help to shape emerging lives. The factors and some representative traits that define them are listed in Table 1.

The Pendulum of Opinion on Personality Stability

When psychologists first asked themselves what happens to personality across the lifespan, they found a great deal to say about infancy, childhood, and adolescence. Most assumed, however, that adulthood was the endpoint of personality development (an *adult*, the dictionary tells us, is a fully developed individual). William James (1890), in a now famous dictum, claimed that by age 30 character was "set like plaster." Sigmund Freud wrote volumes on the first few years of life but almost nothing on the later years; certainly they held no major role in his theory of personality. The parallel to other forms of development seemed obvious: By age 20 the vast majority of men and women have reached their full height, and—although they may settle a bit over the years—the tall remain tall, the short, short. The same seems to be true for certain kinds of intelligence. Why should we expect anything different in the case of emotionality or warmth or modesty?

It was therefore a feat of great intellectual daring to propose that

TABLE 1. The Five-Factor Model of Personality

Neuroticism	**Agreeableness**
Calm—Worrying	Ruthless—Softhearted
Even-tempered—Temperamental	Suspicious—Trusting
Self-satisfied—Self-pitying	Stingy—Generous
Comfortable—Self-conscious	Antagonistic—Acquiescent
Unemotional—Emotional	Critical—Lenient
Hardy—Vulnerable	Irritable—Good-natured
Extraversion	**Conscientiousness**
Reserved—Affectionate	Negligent—Conscientious
Loner—Joiner	Lazy—Hardworking
Quiet—Talkative	Disorganized—Well-organized
Passive—Active	Late—Punctual
Sober—Fun-loving	Aimless—Ambitious
Unfeeling—Passionate	Quitting—Persevering
Openness to Experience	
Down-to-earth—Imaginative	
Uncreative—Creative	
Conventional—Original	
Prefer routine—Prefer variety	
Uncurious—Curious	
Conservative—Liberal	

Note. Adapted from Costa and McCrae (1986c).

psychological development might continue throughout life, and one of history's boldest thinkers, Carl G. Jung, was among the earliest to take this step. His chapter on "The Stages of Life" in *Modern Man in Search of a Soul* (Jung, 1933) foreshadowed many of the central ideas in gerontological thinking, including the curve of life (Bühler, 1935), the rise of the repressed (Levinson, Darrow, Klein, Levinson, & McKee, 1978), the feminization of men and masculinization of women (Gutmann, 1970), disengagement theory (Cumming & Henry, 1961), and the midlife crisis (Jacques, 1965).

A more elaborated and systematic position was offered by Erik Erikson (1950), who postulated stages of psychosocial development to parallel Freud's stages of psychosexual development, then extended them beyond adolescence and across the remaining years of life.

The next few decades saw the beginnings of empirical research on personality and aging, some of it guided by the theories of Erikson or Jung, much of it in search of new theoretical perspectives (J. Block,

1971; Butler, 1963; Lowenthal, Thurner, & Chiriboga, 1975; Maas & Kuypers, 1974; Neugarten, 1964; Reichard, Livson, & Peterson, 1962). In the late 1970s, a new generation of theories of adult development emerged (Gould, 1978; Levinson et al., 1978; Vaillant, 1977), Sheehy's *Passages* (1976) became a major best-seller, and the popular press began to feature stories on crises in adulthood, particularly the midlife crisis.

During the 1970s there was also a proliferation of undergraduate and graduate programs in human development and gerontology. Most of these programs were explicitly interdisciplinary, examining the sociology, biology, and economy of aging as well as its psychology. Stage theories of adult development had a powerful appeal as a way of integrating such diverse material: Predictable changes in personality might prepare the individual for the social transitions and economic changes of adult life.

All these intellectual developments were consistent with the *zeitgeist*. The 1950s had focused on children; the 1960s, on youth. As the baby boomers passed 30, their lives still seemed to form the center of the culture's interest. Personal growth and development were promised by humanistic psychology, and theories of life stages seemed to fill a particular need. Personal problems could be attributed to universal developmental changes; predictable crises offered both security and spice to adult life.

The same period also saw the "graying of America," a dramatic increase in the proportion of men and women living beyond age 65, and a concomitant increase in their awareness of their economic and political power. Older people began to demand attention, and academics took up the challenge. Personality development offered an attractive alternative to studies of cognition, where decline, if not inevitable, was the general rule (Arenberg & Robertson-Tchabo, 1977; Salthouse, 1989).

But it is the nature of science to be self-correcting. Not only did scientific ideas generate theories of adult development; they also led to research. Instead of talking about what might be or about what we want to be, we can use the research efforts of the past 40 years to see what is really going on. More and more, we believe, the findings are coalescing into a pattern, and the pattern is one of predominant stability (Costa & McCrae, 1980c). Maddox (1968) showed that well-adjusted elderly people remained active. Havighurst, McDonald, Maculen, and Mazel (1979), who studied professional careers, were led to formulate what

they called "continuity theory." Neugarten (1982) propounded the notion of *age irrelevance* to account for the fact that age is not a very useful predictor of social functioning. As we shall see later, within the field of personality research this emphasis on stability has been strongly seconded by the work of investigators like Jack Block (1981) and Ilene C. Siegler and colleagues (see Costa, Herbst, McCrae, & Siegler, 2000). It is beginning to appear as if James and Freud were right.

But if nothing happens with age, why write a book?

This reaction is shared by some of our colleagues in the field, and it is one with which we have often confronted ourselves. One answer would be to persuade people about stability, to disillusion those who are looking for some magic transformation with age or to reassure those who fear that they face periods of developmental crisis and turmoil and would much prefer to continue the business of their lives.

There is also another, better answer. We have not said, nor will we say, that nothing of psychological importance occurs in adulthood. People live most of their lives in this period; they begin careers, raise children, fight wars, and make peace; they experience triumph and despair, boredom and love. Old age, too, has its share of new experience and new perspectives on old experience. All of this makes a fascinating story (Gullette, 1989). From our point of view, it is all the more fascinating since one of the keys to the story is the individual's personality. People stay much the same in their basic dispositions, but these enduring traits lead them to particular and ever-changing lives.

In Search of a Phenomenon

Most sciences start with a phenomenon and try to explain it. Astronomy arose from attempts to account for the regular changes observed in the moon and stars. Biology tries to explain how different species have come to exist and adapt so differently to their environments. Cultural anthropology began in efforts to explain the puzzling customs of preliterate societies, just as abnormal psychology developed from observation of the bizarre behavior of the mentally ill. But if we ask what students of aging and personality are trying to explain, we are likely to draw a blank. The field of adult personality development seems to have emerged as an afterthought, a logical extension of other branches of study.

Some researchers came to it by way of gerontology, the study of aging. We know that there are major changes in physiology with age, and

the popular belief that old people begin to lose their memory has been confirmed by controlled longitudinal studies that demonstrate declines in certain, though not all, cognitive abilities (Salthouse, 1989). By analogy, some investigators began to wonder about personality. Does it too change with age? Is there a gradual decline in emotional or social functioning? Do older people become increasingly susceptible to mental illness, as they do to physical illness?

Researchers who began as students of personality had a somewhat different basis for their questions. We know (or think we know) that there are changes in personality in childhood and adolescence. Infants become emotionally responsive to familiar faces only around 30 days; at 8 months they are likely to develop separation anxiety when taken away from their parents. Middle childhood is a period of compliance for most children; adolescence is generally conceded to be a period of rebellion and turmoil (Arnett, 1999). Data show that self-esteem is usually low in this period and rises as people reach young adulthood (Bachman, O'Malley, & Johnston, 1978). Recklessness and sensation seeking also seem to decline after adolescence (Zuckerman, 1979).

These observable changes led to theories of child personality development, of which Freud's is historically the most influential. Psychologists trained in this tradition began to ask if the same kinds of developmental changes could be taking place in adulthood. If there were oral, anal, and phallic stages in childhood, might there not be later psychosexual stages for adults?

This investigation by analogy or extension is in the highest tradition of science. Physicists look for (and find) subatomic particles that in some respects parallel known particles. Cognitive psychology has benefited from computer models. Often this procedure can serve to refocus our perspective and allow us to "see" phenomena we have never noticed before but that are obvious once our attention is called to them. The discoveries of lifespan development may be equally convincing once they are made (indeed, we think they are).

The fact that aging and personality constitute a field in search of a phenomenon is itself an interesting phenomenon. What it seems to mean is that the changes in personality that occur in adulthood—if indeed there are any—are less dramatic than those of childhood. There are some stereotypes of old and young people, but these are notably inconsistent. Romantic idealism is thought to be characteristic of the young, but what about Don Quixote? Age purportedly brings a mellowing of the spirit—except to cranky old men.

We can agree that old people are less healthy than young ones and that as they age many of them lose their hair, teeth, and hearing. We cannot seem to agree that they become more or less anxious, loving, or withdrawn. The field of aging and personality was intended to answer such questions.

One possible explanation for the lack of common knowledge about personality change in adulthood is that there *are* no changes. But before we jump to that conclusion, we must bear in mind the particular problems that a common-sense focus has in formulating ideas about aging. In order to detect a pattern, we need to see a phenomenon repeatedly. Some parts of what we see are the result of chance, some the result of an underlying regularity, and only repeated observations can tell which is which. The parents of a first baby are concerned with every change, not knowing what is normal development and what might be a sign of illness. By the third or fourth child, however, the pattern is familiar, and the experienced mother is something of an expert in child development.

But we do not live long enough to have repeated experience with adult development. We know our grandparents as old people, but we do not know what they were like as children. We can watch our parents grow old, but it is difficult to separate our own maturing perceptions from real changes in them. We can, of course, observe our own life and the lives of our friends, but we could expect to draw conclusions then only at the end of our lives. And we have grown up in a particular period of history whose twists and turns, rather than the aging process itself, may have made us what we are.

In short, common sense does not provide the distance, or perspective, from which to grasp any facts about adult development except the most obvious. Historical biographers, who can compare across the centuries, and anthropologists (Myerhoff & Simić, 1978), who can contrast cultures, can offer some insight. As psychologists, we base our approach on the premise that scientific measurement of personality characteristics in aging people can also provide a basis for answering this question. Quantitative investigations of large samples of people followed over a period of years can detect even very subtle changes with great objectivity. And psychologists have been concerned with issues of personality development long enough that we now have data following the same individuals over the greater part of their lives. This book is based, first and foremost, on the results of those studies. As we interpret them, they

point clearly to the conclusion that personality forms part of the enduring core of the individual, a basis on which adaptation is made to an ever-changing life.

It is only fair to warn the reader that the interpretations we make are not universally shared (although they are much more mainstream now than when we first proposed them). A number of theories of adult personality development have been proposed, and many researchers believe that they provide a more insightful account of adulthood than the stability view offers. The evidence on which the stability view rests, like all empirical evidence, is open to alternative interpretations, and a number of these have been advanced. In particular, as we will see in detail in Chapter 10, there is fundamental division on what exactly is meant by *personality*. It may turn out that the aspects we emphasize in personality are stable whereas what others emphasize changes (McAdams, 1994). Special attention will have to be paid to the issue of defining and measuring personality.

A Note on Psychotherapy

An account of some of our research published in the popular press was headlined, "Your personality—you're stuck with it" (Hale, 1981). As clearly as anything else, that phrase illustrates how findings of stability are often seen and why they are frequently unpopular. Our findings seem to be read as a sentence of doom for all people who are unhappy with themselves. But the findings do not necessarily mean that at all. We hope to show in the remainder of this book that the process of aging in itself does not bring about substantial changes in personality and that most people change little from age 30 to age 80 in some of the most central aspects of their social and emotional makeup. Most people do not change—but that does not mean they *cannot* change. It does suggest, however, that the change will not come of itself, nor will it come easily. Effective psychotherapy or major life experiences (such as war or religious conversion) may profoundly alter us, but usually this occurs only if we are ready for a change and willing to work to make it happen.

What is "effective psychotherapy"? Each major school of therapy is able to claim its own victories (e.g., Chambless & Ollendick, 2001; Rogers & Dymond, 1954; Stuart, 1977) and research (VandenBos, 1986) confirms the value of psychotherapy in general. But virtually all psychotherapists would agree that real change in personality cannot be

achieved at all without intensive and generally long-term efforts by skilled professionals who create very special circumstances. We will return later to the issue of personality change associated with the use of therapeutic drugs like Prozac.

When Does Adulthood Begin?

The claim that personality is stable in adulthood needs some clarification. Who, after all, is an adult? Legal definitions of adulthood vary widely, not only by state but by function. A woman is legally of an age to marry at 14 in many states; the driver's license is withheld until age 16, voting until 18, and drinking until 21. Insurance companies, with actuarial wisdom, charge higher rates for drivers under 25. William James and a subsequent generation of hippies set age 30 as the dividing point between youth and settled adulthood.

Most psychologists probably consider college students—at least by the time of graduation—full-fledged adults; and in many respects, of course, they are. There is reason to think, however, that personality development continues, at least for some individuals, for several more years (K. M. White, Spiesman, & Costos, 1983). Studies that trace individuals from college age into later adulthood almost invariably report some changes in the average levels of personality traits and more fluctuations for individuals than are found in studies of individuals who are initially older (Finn, 1986; Helson & Moane, 1987; Jessor, 1983; Mortimer, Finch, & Kumka, 1981; McGue, Bacon, & Lykken, 1993). Haan, Millsap, and Hartka (1986) concluded from their study of personality that important changes may occur after high school:

> Great shifts in personality organization are ordinarily thought to occur *during* adolescence, but these findings suggest that more marked shifts occur, not during adolescence, but at its end when most people make the profound role shifts entailed by entry into full-time work and marriage. (p. 225; emphasis in original)

That somewhat surprising conclusion is bolstered by recent longitudinal data showing that there are few changes in the mean levels of personality traits in the age range from 12 to 16 (Costa, Parker, & McCrae, 2000).

What is the nature of the changes seen in the decade of the 20s?

When we compare the personality scores of college students to those of adults on the NEO Personality Inventory (Costa & McCrae, 1985, 1989a), our measure of the five factors of personality, we find that students are somewhat higher than adults in Neuroticism, Extraversion, and Openness, and lower in Agreeableness and Conscientiousness. These differences suggest (although, as our discussion of cross-sectional research in Chapter 4 will explain, they do not *prove*) that college students mature and mellow a bit, becoming a little less emotional and flexible, but kinder and more responsible.

If we define adulthood as the period from age 18 on, studies like this make it clear that there is indeed adult development in several aspects of personality. We have adopted a different definition of adulthood. The data suggest to us that personality change is the exception rather than the rule after age 30; somewhere in the decade between 20 and 30, individuals attain a configuration of traits that will characterize them for years to come. From the perspective of the trait psychologist, adulthood begins at that point.

OTHER VIEWS: THEORIES OF CHANGE

A brief introduction to theories of change is an essential starting point for this book; much more will be said about the theories of Daniel Levinson and Roger Gould in Chapter 9. Readers may want to consult the original sources for more extended (and perhaps more objective) accounts of these theories.

Among major personality theorists, only two made significant contributions to lifespan theory: Jung and Erikson. The former left relatively unstructured ideas but was very influential in turning attention to the later years. Erikson, on the other hand, produced an elaborate and finely articulated theory that has become the basis of considerable empirical work (e.g., McAdams & de St. Aubin, 1998; Tesch & Cameron, 1987; Whitbourne, 1986a, 1986b). His theory of eight stages of life is probably the most important classic theory of adult personality development.

Jung, it will be recalled, objected philosophically to Freud's emphasis on sexuality. Jung proposed that sexual development was central to personality only in the young, in whom the function of procreation was vested. Past the age of 40 there must, he felt, be other sources of growth,

other areas of concern to the individual. These were more likely to be spiritual than sexual, and instead of revolving around the social function of procreation, they concerned the individual's relation to self. *Individuation* was the term he coined to reflect the continuing process of self-discovery and self-development, which he hypothesized would occur in the second half of life.

One of the key concepts in individuation was a balancing of opposing traits. Jung (1923/1971) conceived of the psyche as having two sets of opposed functions for dealing with internal and external reality: thought versus feeling, and sensation versus intuition. At any time in the life of the individual, one or another of these functions would be dominant and its opposite would be repressed. In order for there to be a full and complete expression of the self, however, the repressed side of the personality would also have to be allowed its chance. The psychological ideal was found in old age, when an integration of opposing functions would mark the culmination of development. Similarly, other personality structures, such as the persona (the mask one wears in social interactions) and shadow (rejected and unconscious aspects of the psyche) and the anima or animus (the feminine side of men or masculine side of women) must also be integrated. In general, this view of adult personality would lead to the expectation that the manifest characteristics of a young person should change markedly with age, either becoming their own opposites or moderating in degree as they were integrated with their complements.

Jung's theories were based on his experience with psychiatric patients and on his own experience of aging, and were buttressed by his scholarly studies of such obscure topics as alchemy and the *I Ching*. Few psychologists have claimed fully to understand his ideas, and few subscribe to them in toto, but some of the basic notions, such as continued and personalized development and the rise of repressed sides of self, have left a profound mark on subsequent theories.

Erik Erikson's (1950) views of adulthood, on the other hand, have become received wisdom in all their details. Erikson belongs to the group of ego psychologists (along with Erich Fromm, Karen Horney, David Rapaport, and Anna Freud) who began with classical psychoanalytic theory and in greater or lesser degree modified it to take into account features they believed had been slighted by Freud. Classical psychoanalytic theory is fundamentally biological in tone and leaves little room for the influences of culture or the individual's own efforts at

growth and change. Erikson's solution to the problem of accounting for social and environmental influences on personality was to argue that the traditional psychosexual stages that formed the backbone of Freudian personality development were paralleled by psychosocial stages. In addition to oral conflicts, the infant was faced with the resolution of the issue of basic trust versus mistrust, and each person's resolution of this conflict was heavily shaped by the cultural traditions that dictated methods of child rearing. Corresponding social issues were postulated for anal, phallic, latency, and genital stages.

Having made the transition from sexual to social stages, Erikson found that he was free to extend the social stages beyond the limit of sexual development. He hypothesized that the young adult needed not only genital gratification but also psychological intimacy in order to form the lasting bonds needed for the establishment of family life. He or she was required to resolve the crisis of intimacy or be left with a pervading sense of isolation. In the period of child rearing and adult careers, a new issue—generativity—became salient. Individuals who do not adopt an orientation that fosters growth in their children and community succumb to a sense of stagnation and meaninglessness. Finally, in old age the approach of death and the completion of life tasks leave the individual with the realization that his or her life is over and that there will be no second chances. Poorly resolved, this crisis leads to bitterness and despair; well resolved, it brings about a sense of ego integrity and an acceptance of both life and death.

Erikson's model of development is *epigenetic,* which means in part that the resolution of each crisis depends on the outcome of former resolutions. The best preparation for ego integrity is a life marked by intimacy and generativity (as well as desirable outcomes of the crises of childhood). But Erikson also admits a considerable element of changeability: At each crisis there is a possibility of new success or failure. The opportunity to redeem a misspent life at any age is one of the more inviting aspects of this theory.

Most of the empirical research on Erikson's stages has been confined to the period of adolescence and the transition to adulthood (e.g., Constantinople, 1969; Whitbourne & Waterman, 1979), but occasional studies have also been conducted on middle-aged and elderly people (McAdams & de St. Aubin, 1998). Erikson's ideas have been more widely adopted, sometimes in modified forms. Certainly the notion of stages of adulthood has become widespread, and the conception that

orientation to life must change with point in the life course seems un-questionable. (As Neugarten, 1968, notes, at some point in middle age, life begins to be measured in terms of time left to live rather than time lived.)

After the 1950s, research took the place of theorizing in this area. Even earlier one investigator had made significant contributions to the literature. Charlotte Bühler (1935) examined diaries and other personal records to chart the course of life in substantial samples of people. She noted a general "curve of life" including periods of growth, mainte-nance, and decline, and focused on the motivational changes that she believed occur with age. For the young person, instrumental strivings are central to daily activities; for the older person, these become much less important and are replaced by concerns for intrinsic values.

A large number of empirical studies were undertaken, in some cases to test the theories proposed by Erikson and Jung, in others sim-ply to see what happened as people aged (Neugarten, 1977). Cross-sectional comparisons of young and old on a plethora of variables were conducted, retrospective accounts were collected from aged men and women, and a handful of longitudinal studies were launched. We will return to these studies in later chapters; they do not concern us here since they did not, in most cases, lead to theories of adult change. A few regularities were reported from the cross-sectional studies, including an increase in the level of introversion with age, but this change was rarely interpreted.

An exception to the atheoretical bent of these researches is found in the work of Neugarten and her colleagues. At least two significant theo-retical concepts of change in adulthood emerged here, based in both cases on research using the Thematic Apperception Test (TAT), in which psychologists interpret the stories told by subjects in response to a standard set of pictures, some commonplace, some bizarre. Neugarten herself (1964) was responsible for the concept of *interiority*. She postu-lated that older individuals turn inward and consolidate their sense of self. The identity that the adolescent takes on and the adult acts on is further distilled in old age, and individuals become more and more like themselves. An increase in social introversion reported in some cross-sectional studies is sometimes taken as evidence of increased interiority, but even Neugarten (1968) admitted that there seems to be no regular change in social and emotional functioning with age. Some intrapsychic

process not readily observable to an outsider must be meant by interiority.

Similarly, David Gutmann's (1964) concept of ego mastery styles is tied to intrapsychic changes inferred from TAT responses. Guttmann finds evidence in his TAT stories for three styles of mastery: active, passive, and magical. The first is seen in stories that show the hero taking forceful action to solve problems; the second is inferred when the hero accepts conditions as they are and adapts to them; the last, magical mastery, is seen in stories in which the hero distorts the situation or fails to see obvious dangers and problems. A "magical" solution has lost contact with reality.

Gutmann proposes that there is a universal developmental sequence in mastery styles. Young men use active mastery; middle-aged men, passive mastery; and old men, magical mastery. Originally found in a sample of men from Kansas City, the same pattern reappears, according to Gutmann (1970, 1974), in rural Mexicans and in the Highland Druze of Israel. A somewhat different pattern is found in women, a tendency to use passive mastery appearing in young women and active mastery in older ones. The crossover of the sexes is interpreted as change in masculinity–femininity, somewhat in conformity with Jung's notions of balancing. As women age they become more masculine in mastery style; as men age, they become more feminine.

It is imperative to note that an ego mastery style is the hypothesized basis for *experiencing* events; it is not the basis for overt action. Gutmann points out that among the Highland Druze the oldest men are the Elders, who have great power in decision making and are vigorous and decisive in running their community. The significance of a magical mastery style is thus far more subtle than it might at first seem. The discrepancy between the overt and observable and the unconscious, intrapsychic, or inferable has bedeviled personality psychology from the beginning; interiority and ego mastery styles are simply the gerontological version of far more pervasive perplexities.

George Vaillant (1977), a psychiatrist, proposed a theory of adult development based on the maturation of defenses. Defense mechanisms in one form or another have been central to many psychodynamic theories from Freud on; Vaillant built on this tradition by proposing that there are 18 basic defenses grouped into four levels that can be ranked in terms of psychological maturity. The least healthy are the psychotic mechanisms of Level I that alter reality for the user and include delu-

sional projection, denial, and distortion. Level II mechanisms operate not by changing reality but by altering the user's distress, either experienced or anticipated. These immature defenses include projection, schizoid fantasy, hypochondriasis, passive aggression, acting out, and dissociation. Neurotic defenses (Level III) include reaction formation, isolation, displacement, and regression. Mature defenses (Level IV), which integrate reality and private feelings, include humor, altruism, sublimation, suppression, and anticipation. Working with the Grant Study of Adult Development, Vaillant and his colleagues studied the use of these mechanisms in a longitudinal sample of 95 Harvard alumni. An extensive file had been maintained for each subject, including transcripts about how they had dealt with recent problems and stressors. Vaillant abstracted over 1,700 vignettes from these files, and raters, blind to the age and identity of the subject, evaluated each to determine the kind of defense mechanism used. (It should be noted that in the psychoanalytic tradition, virtually all behavior, even the most rational and mature, is ultimately defensive, so all vignettes could be scored.)

When the responses were divided into three periods (less than 20, 20–35, and over 35), there were systematic changes in the use of the different categories of defense mechanism. Between adolescence and early adulthood there were clear increases in the use of mature mechanisms and decreases in the use of immature mechanisms; neurotic mechanisms did not show differences. This trend continued, though more weakly, in comparing early adulthood (20–35) with later adulthood (over 35). The data led Vaillant to see adult development in terms of ever more mature forms of defense. Note that this theory is supported by data only for the early years of adulthood—indeed, it may provide further evidence that full adulthood is not reached until age 30. Whether maturation of defenses continues into later life is still a matter of conjecture.

In the 1970s two major theories of adult development were generated at about the same time. (Sheehy's *Passages* was based on early formulations of these.) Daniel Levinson and his colleagues (1978) wrote on the *Seasons of a Man's Life,* whereas Roger Gould (1978) called his work the study of *Transformations.* Both hold that there are distinct stages of personality development in young and middle adulthood, but the differences between the two theories are as notable as the similarities.

Levinson and his coworkers gave intensive interviews to 40 men—

10 executives, 10 workers, 10 biologists, and 10 novelists (his work on women, published posthumously [D. J. Levinson & J. D. Levinson, 1996], claimed to find similar patterns of development). In cooperation with these subjects, the researchers wrote a biography for each man that focused on changes in what Levinson called the *life structure*. The life structure includes personality, but it also includes career, marriage, other relationships, values, and so on. According to the scheme worked out by these writers, adult life is divided into fixed and age-related stages. After the early career beginnings comes a period of reassessment at the age-30 transition. A much more searching reassessment comes at the midlife transition at age 40. In this period, often characterized as a midlife crisis, there is a period of inner turmoil that, according to Levinson, often seems to resemble neurosis. Dreams and aspirations that the young man had repressed in dealing with the realities of starting a career now come to the fore, and often a new career is launched that better addresses the long-denied needs.

Gould, whose version of adult development is more closely tied to personality, devised a version of psychoanalytic thought to explain the changes he thought he saw in adults. At the heart of the theory is the basic insecurity of the child, faced with the uncertainties and dangers of the world. To cope with these fears, the child adopts a set of beliefs that Gould called *illusions of safety*. Thus, children believe that their parents will always be there to take care of them; that there is no real evil or death in the world; that life is simple and controllable. Each of these illusions is comforting to the child, but each leads the adult to a distorted view of the world. Over the course of early adulthood, individuals must come to terms with these beliefs and abandon them to find a more realistic view of the world.

Gould considers that these illusions of safety, like psychodynamic defenses, are unconscious. Young adults are unaware that they assume that parents will always be there to help—in fact, they may explicitly deny such a belief. But, says Gould, they will act as if they harbored these delusions, and that is the key to the action of unconscious forces. Becoming an adult, attaining full adult consciousness, depends on outgrowing these illusions: a painful but salutary process. There is, according to Gould, a regular sequence in which the illusions are tackled and thus a rough correspondence to age, but there are fewer chronological absolutes in his system than in Levinson's.

Perhaps the most ambitious new theory of lifespan development is

called SOC, for *selection, optimization,* and *compensation* (P. B. Baltes, 1997). This theory describes how individuals react to the opportunities and limitations that life presents at each point in the lifespan. Selection refers to the choice of goals; optimization to their effective pursuit; and compensation to the use of alternatives when established methods fail. For example, an older person suffering a loss of vision may give up reading (selection) or may use higher-wattage lights (optimization), or may turn to audio books (compensation). Most people perceive a developmental curve (like Bühler's curve of life) in SOC processes: Our options and abilities increase from childhood into midlife, and decline thereafter.

SOC is not a theory of personality, but it is related to personality variables, because there are individual differences in the success with which SOC is applied. Some people manage their lives well; they have clear and focused goals, pursue them diligently, and show flexibility in their strategies. Other people seem aimless and feckless, unwilling to abandon strategies that have repeatedly proven ineffective. It is perhaps not surprising that measures of SOC are associated with Conscientiousness and Openness (Freund & Baltes, 1998). These associations lead to interesting questions about personality and the lifespan. For example, compensation is most important in the last phase of life, when health limitations are most common. Open people should fare better in old age, and the question of whether people become more or less open with age takes on added significance.

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This review of the major theories of adulthood reveals their major strength and one of their weaknesses. The strength lies in the sheer attractiveness of the proposition that individuals continue to grow and change as adults. Surely all the experience of years counts for something! Surely the universal changes in health, appearance, and intellectual functioning have some parallel in personality! Surely there must be some hope for individuals whose current life is not the kind they would want to repeat for the next 50 years!

The first and in some respects the most troubling weakness with the theories is their mutual inconsistency. A number of very thoughtful and insightful observers of humankind have contemplated the course of adult life and have pointed out patterns they seem to see. But these pat-

terns as often contradict as support one another. Gould sees his patients coming closer and closer to reality; Gutmann detects a retreat from reality. Bühler sees the last phase of life as one of decline; Erikson sees it as the time for the development of wisdom. Levinson puts age limits on his stages of adult change; Neugarten hypothesizes a steady increase in interiority. The view that age brings maturation in forms of defense (Vaillant, 1977) conflicts with the conclusion that older people employ primitive defenses in dealing with stress (Pfeiffer, 1977). When observers from a dozen different perspectives see the same phenomenon, we begin to believe it is really there. When everyone reports something different, it is hard to know how to interpret it. And that is the time to turn away from personal impressions and look at the facts.