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The aging personality and self: diversity and health issues

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Personality may be defined as the pattern of thoughts, feelings, and behaviors that shape an individual's interface with the world, distinguish one person from another, and manifest across time and situations.¹⁻³ Personality is impacted by biological, cognitive, and environmental determinants, including the impact of culture and cohort. Theoretical approaches to personality are as varied as the breadth of the construct they attempt to describe and explain. Yet each approach, to varying degrees, emphasizes stability and change within individuals across time and situations.

The impact of personality across the adult lifespan touches every domain: personal, professional, spiritual, and physical. Some current theories of the regulation of interpersonal relations allude to the possibility that perception of the time remaining to live may have direct influence on behavior. Certainly, personality characteristics have direct and indirect influences on health status, health behaviors, and behavioral interactions with healthcare professionals. Although no single chapter can adequately condense such rich, empirical study, we will attempt to provide a concise overview of stage models, trait theory, and social-cognitive approaches to personality. We will focus on aspects of personality development among cognitively intact older adults, not personality changes that may ensue as the result of dementia. For an overview of social relations research, including social networks, social support, and sense of control, we refer the reader to Antonucci.⁴

In each section of this chapter we provide an overview of classic as well as the most current research on stability and maturational and environmental change within adult personality. The focus is on longitudinal data. Second, we include cross-cultural comparisons of adult personality where available. This focus provides a unique contribution to recent reviews of adult personality and aging.^{4,5} Third, we examine the health correlates of adult personality, focusing on morbidity and mortality, well-being, life satisfaction, positive and negative affect, anxiety, and depression. Finally, we discuss measurement issues and provide examples of current assessment instruments.

PERSONALITY STAGES AND EGO DEVELOPMENT

Freudian theory

The psychoanalytic approach to adult personality development has its roots in the theories of Sigmund Freud. His theories encompass four domains: level of consciousness, personality structure, defense mechanisms, and stages of psychosexual

development.^{6,7} Freudian theory postulates that adult personality is made up of three aspects: (a) the id, operating on the pleasure principle generally within the unconscious; (b) the ego, operating on the reality principle within the conscious realm; and (c) the superego, operating on the morality principle at all levels of consciousness. The interplay of these personality structures generates anxiety that must be reduced through various defense mechanisms (Table 13-1). These mechanisms act to obscure the true, anxiety-laden reasons for one's behavior. Freud's theory of psychosexual development begins in infancy with the oral stage and progresses through the toddler years and the anal stage, with toilet training being the primary developmental challenge. Children then enter the phallic stage of development from age 4 to age 7 or 8. During this stage, boys must resolve the Oedipal complex and girls must resolve the Electra complex, erotic attachment to the

Table 13-1 The most common defense mechanisms postulated by Freud

- *Denial.* Refusing to perceive an unacceptable reality
- *Intellectualization.* Avoiding negative affect by focusing on logic and reason
- *Overcompensation.* Emphasizing desirable characteristics as a means to hide perceived weaknesses
- *Acting out.* Engaging in excessive, socially undesirable behavior as a means of garnering attention
- *Splitting.* Reacting to others in an "all good" or "all bad" manner without taking their full character into consideration
- *Repression.* Preventing undesirable or dangerous thoughts from entering consciousness
- *Projection.* Attributing one's own unacceptable behavior, emotions, or motives to others
- *Reaction formation.* Exaggerated behavior seemingly opposite to one's true feelings
- *Displacement.* Releasing hostile feelings on safe objects other than the threatening objects arousing the hostile feelings
- *Rationalization.* Developing reasonable excuses for one's unworthy behaviors
- *Regression.* Retreating to an earlier developmental stage involving less responsibility and mature behavior
- *Sublimation.* Using frustrated sexual energy in the service of substitute, socially acceptable activities
- *Identification.* Raising one's self-esteem by affiliating with a prestigious person or institution
- *Fixation.* Arresting emotional development by attaching oneself in a dependent way to another person

Source: Adapted from Phares and Chaplin.³

opposite-sex parent and resulting jealousy of the same-sex parent. Freud believed personality development to be essentially complete by adolescence, when individuals progress from the latency to the genital stage of psychosexual development.

Although seminal in the expansion of our understanding of the human psyche, Freud's specific theories receive little attention in the scientific study of personality today.⁶ Freud proposed his theories of development based on an extremely limited sample of affluent, verbal Viennese women presenting to him for psychotherapy. His theories are resistant to scientific inquiry in that they frequently lead to nonspecific hypotheses, wherein failure to find expected effects may simply be due to unknown defense mechanisms. Feminist theorists from Karen Horney to Carol Gilligan have taken issue with Freud's ideas about women and penis envy.^{3,8,9} Additionally, having postulated that personality development essentially ends in adolescence, Freud's theories have limited applicability to the fields of gerontology and geriatric medicine.

Post-Freudian theorists

In contrast, some post-Freudian theorists have conceptualized personality development as a continuing process focused on current interpersonal and/or family-of-origin issues as the source of individual distress and coping patterns. Carl Jung was one of the first to propose that, as individuals age, they achieve a balance between the expression of their masculine characteristics (animus) and feminine characteristics (anima).^{10,11} Findings regarding increased balance of gender roles with age have emerged in different cultures around the world, lending some support to Jung's hypothesis.²

In a series of studies validating a projective sentence-completion test, Jane Loevinger identified six stages of adult personality development: conformist, conscientious-conformist, conscientious, individualistic, autonomous, and integrated.^{12,13} Cross-sectional and longitudinal work shows that these stages have modest correlations with chronological age.² Loevinger proposed that adult development depends on changes in four areas: character (i.e. goals and values), interpersonal style, conscious preoccupation, and cognitive style. Her ego development score has been found to be associated with measures of openness in coping style and resolving social dilemmas.^{14,15}

Erik Erikson's stages of psychosocial development are perhaps the best known of the stage theories of adult personality. The sequence of Erikson's eight stages of development is based on the epigenetic principle, which means that the growing personality moves through these stages in an ordered fashion at an appropriate rate.^{3,16} Two of the eight stages describe personality change during the adult years. From age 25 to 65 the individual is focused on *generativity versus stagnation*. In this stage, individuals seek ways to give of their talents and experiences to the next generation, moving beyond the self-concerns of identity and the interpersonal concerns of intimacy.⁵ Successful resolution of this stage results in the development of a sense of trust and care for the next generation and the assurance that society will continue. Unsuccessful resolution of this stage results in self-absorption.

Ego integrity versus despair is Erikson's final stage of ego development, beginning around age 65 and continuing until death. In this stage, individuals become increasingly internally

focused and more aware of the nearness of death. Successful resolution of this stage results in being able to look back on one's life and find meaning, developing a sense of wisdom before death. Alternatively, meaninglessness and despair can ensue if the process of life review results in focus on primarily negative outcomes.

Erikson, Erikson, and Kivnick interviewed 29 adults aged 75-95 and found evidence of generativity in a focus on "the future well-being of the world as a whole" (p. 66).¹⁷ In a qualitative review of research concerning religion, personality, and aging, McFadden used the lifespan perspective to argue that most of the world's religions facilitate the development of generativity later in life.¹⁸ McFadden posited that Judaism, Christianity, and Islamic traditions motivate concern for creating a world of justice and mercy for future generations. McFadden also proposed that religion promotes the development of ego integrity by fostering an inward turn via meditative practices and symbolic expressions of the connections between humanity and the sacred.

Difficulties arising from attempts to empirically investigate Erikson's theory include the lack of specification regarding how developmental crises are resolved so that an individual may move from one stage to the next. The insistence that these stages are encountered in an orderly, prespecified sequence by all individuals is also problematic. One 22-year empirical investigation of three cohorts found significant age changes supportive of Erikson's theory.¹⁹ Middle-aged adults expressed emotions and cognitions consistent with successful completion of more psychosocial developmental crises than younger adults. The environmental influences of culture and cohort on adult personality, however, have been minimized. Thus, relatively little empirical research has addressed Erikson's psychosocial stages.¹¹ More recent theorists postulate that the ego integrity versus despair period initiates a process of life review.²⁰

Life review

The exception to this lack of empirical investigation regarding stage theories of adult personality is the research attention given to the concept of life review.^{20,21} *Life review* can be thought of as a systematic cognitive-emotional process occurring late in life in which an individual thinks back across his or her life experiences and integrates disparate events into general themes. Although this approach to adult personality development can be conceptualized as a cognitive process in which identity emerges from the story, we have chosen to include it with stage models because it is most frequently described as occurring near the completion of one's life. Nevertheless, it should be acknowledged that individuals likely undergo a process of life review periodically throughout the adult years.

Analytic techniques used to assess the impact and correlates of life review vary from case studies to large, longitudinal investigations of aging.^{22,23} Some investigators have found life review to be associated with themes of generativity and ego integrity as ongoing components of self-identity.^{21,24} Others have failed to find this association, but have found life review to be negatively associated with death anxiety.²⁵ Although Coleman and colleagues revealed maintenance of life story themes,²² there were no differences in tendency to engage in life review between young-old (aged 65-75) and old-old (aged 75+) adults.

In responding to the question "Who am I?," 516 participants of the Berlin Aging Study aged 70–103 revealed central themes of life review, health, and family.²³ Individuals throughout this age range were likely to engage in life review. The focus of self-defining statements was present-oriented; relatively few statements referred to the past or the future. Contrary to expectations, thoughts about death and dying were rare. However, there were some age-related differences in the content of self-definitions. Very old individuals (aged 85+) were more likely to mention daily living routines and sociodemographic variables but less likely to mention family/relatives, interests and hobbies outdoors, social participation, or interpersonal style. They were more likely than individuals aged 70–84 to make statements about the past. Although individuals across the entire age range generated more positive than negative evaluations of their self-definition, the ratio of positive to negative evaluations declined with age.

The life review process has also revealed spirituality themes.^{21,26} Melia conducted life review interviews with 39 older Catholic women religious.²¹ These interviews revealed continuous themes throughout individual lives, but no sequential pattern of late life development. Themes included faith, family, education, friends, community, caring, and prayer. Meddin found that among ten prominent older Australians, acquiring knowledge throughout life, engaging in altruistic behavior and experiencing transcendence were frequent.²⁶ These individuals reported that life review and the sense of developing wisdom were associated with a personal sense of coherence and continuity and an optimistic view of human nature.

Haight and colleagues have conducted a series of interventions incorporating life review in an attempt to improve quality of life among nursing home residents.^{27–29} Haight and Dias found that 8 weeks of structured, evaluative life review performed on an individual basis was most effective in producing positive outcomes in life satisfaction, psychological well-being, and self-esteem.²⁷ Comparing life review to friendly visit comparison conditions, Haight and colleagues have found significant improvement immediately on measures of clinical depression and after 3 years on measures of depression, life satisfaction, and self-esteem.^{28,29}

Stage theories and diversity

Hardly any of the studies investigating stage theories of personality have focused on diverse cultural or racial/ethnic groups. Most of the stage models, like Freud's original theories, were based on highly select samples. Only some investigations of life review have succeeded in recruiting participants reflecting the general population of interest.^{23,28,29} Without such data, the universality of life review and the generalizability of the basic assumptions must be questioned.³⁰

Stage theories and health

There has been limited investigation of the relation between stage approaches to adult personality and health. Once again, the exception to this is the investigation of life review processes. The intervention studies conducted by Haight and colleagues among nursing home residents support the contention that life review, in comparison with nonspecific but

supportive interventions, has a positive impact on health, life satisfaction, well-being, and depression. These effects have been shown to be immediate and maintained up to three years post-intervention.

In the Freund and Smith study, health was a frequently mentioned theme of self-definition for individuals aged 70–103.²³ Forty-one percent of individuals in this age range mentioned hobbies and interests away from home, suggesting that their self-concepts are more active than anticipated. The number of positively evaluated self-definitions was related to experience of positive emotions, whereas the number of negatively evaluated self-definitions was related to the experience of both positive and negative emotions. These relations held even when physical health factors were controlled. Low functional capacity had a negative impact on well-being regardless of the number of domains of self-definition eliciting positive evaluations.

Measurement issues

The primary methodological problem plaguing empirical research involving stage theory approaches to adult personality development is the lack of specification of change mechanisms. Stating precise, testable hypotheses based on these models has proven difficult. Consequently, with the exception of Loevinger's projective sentence-completion test,^{12,13} few standardized assessment instruments have been developed.

The most current stage approach to adult personality in our organizational scheme involves the concept of life review near the end of life. Although recent empirical research and intervention studies have embraced this concept, not every investigation of life review has yielded positive results. Fuchs notes the lack of a standardized approach to life review as a therapeutic technique in the delivery of interventions.³¹ Additionally, methods of measurement vary widely.³¹ A classic methodological limitation in much of this research is the problem of making causal inferences of age-related personality change from cross-sectional studies. In these studies, age-related differences could be observed due to the impact of aging or due to cohort differences. Without cohort-sequential data, it is impossible to tease apart these influences. Yet another issue in need of further study is the potential positive impact negative life events may play in initiating the process of life review and serving as a catalyst for continued development.³² Thus, although stage theories of adult personality have intuitive appeal, their contribution is limited by fuzzy delineation of constructs and methodology.

THE BIG FIVE PERSONALITY TRAITS

In contrast to stage approaches to adult personality development, empirical research regarding trait approaches has experienced a great boon in recent years. In fact, it is safe to say that this is the standard, if not uncontested, method of personality assessment today, with multiple instruments available (see the measurement subsection). The "Big 5 Model" of personality description is intended to provide a broad framework for organizing the hundreds of traits, or individual differences, that characterize people.³³ This approach to personality description is based on the lexical hypothesis—that the most important

individual differences in human transactions will be incorporated into many or most of the world's languages as single descriptors.³³ These five broad domains are obtained from factor analysis of self-report and peer/observer ratings, although some minor variations occur between specific measures.³³ Personality characteristics have been related to behaviors as diverse as handshaking.³⁴ A description of the most commonly identified five factors can be found in Table 13-2.

Early studies suggested that maturational changes in personality continue through the adult years, with age 30 serving as an identifiable cutoff indicative of relative intra-individual stability in traits.³⁵⁻³⁹ Costa and McCrae have shown, via cross-sectional methods, small age-related declines in Neuroticism, Extraversion, and Openness to Experience, with age-related increases in Agreeableness and Conscientiousness from age 18 to 21 to adults at midlife.⁴⁰ Depending on how stability is measured, however, the idea that traits remain stable after age 30 has not received uniform support. For example, Field and Milsap found increases in mean-level agreeableness in a 14-year longitudinal study of adults aged 69-83.⁴¹

A recent meta-analysis of data from 152 longitudinal studies revealed that test-retest correlation coefficients of rank-order stability in trait consistency increased from 0.31 in childhood to 0.54 during college and 0.64 at the conventional cutoff age of 30.⁴² However, trait consistency measured with the time interval held constant at 6.7 years plateaued around 0.74 between ages 50 and 70. It is important to note that this method of evaluating stability measures whether individuals maintain the same rank-order in traits across time. In this review, the majority of test-retest coefficients (77 percent) were coded into one of the Big 5 categories. As one would expect, longer longitudinal time intervals were associated with lower levels of trait consistency. In other words, assessment intervals longer than 6.7 years were more likely to be associated with change in personality traits.

Roberts and DelVecchio observed no gender differences in trait consistency.⁴² Among the Big 5, measures of extraversion and agreeableness were most consistent ($M = 0.55$), although all Big 5 traits exhibited considerable consistency across time (from 0.50 to 0.52). The authors concluded that trait

consistency increases at three points during the life course: from infancy and toddlerhood to the preschool period, from the college years to the early stages of young adulthood, and then from early middle age (age 40-49) to later middle age (age 50-59+). Since the peak level of consistency was well below unity, the authors also concluded that personality traits do not stop changing at some specific point in the life course. Hence, there is movement in the research literature toward process-oriented studies integrating concepts such as generativity and the Big 5 personality traits.⁵

Trait theories and diversity

Cross-cultural studies have most frequently compared non-Hispanic whites in the USA with individuals living in other countries.⁴³⁻⁴⁵ Using the California Psychological Inventory (CPI), two studies compared factor structures similar to the Big 5 among adults in the USA and the People's Republic of China.^{43,45} Such studies seek to estimate the effects of environment on different age cohorts by comparing adults in cultures with different recent histories. To the extent that cross-sectional studies in multiple countries reveal age-related differences that really reflect cohort effects (i.e. are due to different cultural experiences), then the pattern of age-related trait differences should be different across countries.⁴⁵

Comparisons of adults in the USA and the People's Republic of China, however, reveal very similar patterns of age correlations.^{43,45} In the Yang study, the Chinese sample was an average of 25 years younger than the US sample, and age effects were smaller in the US sample. The results were generalizable across gender, however, in both countries. Likewise, Labouvie-Vief and colleagues found high congruence on all four personality factors derived from the CPI: extraversion, control/norm orientation, flexibility, and femininity/masculinity.⁴³ Older cohorts across cultures had lower scores on extraversion and flexibility and higher scores on control/norm orientation. Once again, age differences were more pronounced among Chinese than US adults. Smaller cultural differences were found among the youngest age groups than among the oldest groups.

Using the NEO PI-R, McCrae and colleagues studied parallels in adult personality traits across five cultures: Germany, Italy, Portugal, Croatia, and South Korea.⁴⁴ Once again, these authors argued that different cultures would be likely to produce different patterns of age changes if environmental factors play a major role in adult personality development. In contrast, intrinsic maturational perspectives would suggest that even widely different cultures should show similar age trends. Results showed that, across cultures, midlife adults scored higher on measures of Agreeableness and Conscientiousness and lower on Neuroticism, Extraversion, and Openness than 18- to 21-year-olds. Congruence was strongest for Openness and weakest for Neuroticism, for which only two cultures (Germany, South Korea) replicated the American pattern.

In general, the results of these cross-cultural studies are consistent with the hypothesis that there are universal intrinsic maturational changes in personality.⁴³⁻⁴⁵ Yang and colleagues reported, however, that across the span from 18 to 65 years, age never accounted for more than 20 percent of the variance in

Table 13-2 The Big 5 personality traits

- *Emotional stability vs neuroticism.* Anxiety, depression, emotional instability, self-consciousness, hostility, and impulsiveness vs relaxation, poise, and steadiness
- *Extraversion or surgency.* Gregariousness, assertiveness, activity level, and positive emotions vs silence, passivity, and reserve
- *Culture/intellect or openness to experience.* Imagination, curiosity, and creativity vs shallowness, imperceptiveness, and stupidity
- *Agreeableness or pleasantness.* Attributes such as kindness, trust and warmth that are considered pleasant and attractive to others vs hostility, selfishness, and distrust
- *Conscientiousness or dependability.* Encompasses organization, responsibility, ambition, perseverance, and hard work vs carelessness, negligence, and unreliability

Source: Adapted from Goldberg.³³

CPI scale scores.⁴⁵ Gender did not influence the pattern of results in any of these cross-cultural studies. The authors differed in their interpretation of the influence of environmental factors. In the Yang and McCrae studies, the authors maintained that the results offered little support for historical cohort effects being major determinants of cross-sectional age differences in adult personality traits. Although noting the high degree of similarity in personality traits across cultures, Labouvie-Vief and colleagues also noted that cultural climate and cultural change do impact the relation between age and personality.⁴³ Such effects may best be observed at more precise levels of measurement; the aggregated Big 5 factors, being general descriptors, seem most influenced by maturational processes.

One of the most intriguing theories relevant to personality traits, diversity, and health is the "John Henryism hypothesis."⁴⁶ The term connotes a strong personality predisposition toward prolonged, high-effort coping with difficult psychological stressors in one's environment and refers to the strong African American man of legend who out-worked a steam engine but then died from the strain.⁴⁷ Using the 12-item John Henryism Scale for Active Coping, James and colleagues proposed that John Henryism (JH) traits among lower socio-economic groups without the resources to successfully cope with difficult psychological stressors are primarily responsible for the increased prevalence of hypertension among these groups.⁴⁶ Thus, individuals who are low in socio-economic status but have high JH scores are most at risk for hypertension and elevated blood pressure. Among those low in JH, the prevalence of hypertension and elevated blood pressure does not differ by socio-economic status.^{46,47}

James and colleagues found that JH was significantly associated with life satisfaction and perceived health among blacks and whites.⁴⁷ Race was found to be a highly significant predictor of JH, with blacks scoring higher than whites even after controlling for sociodemographic and perceptual variables. However, these investigators failed to replicate the association between JH and negative health effects among rural white southerners. Black men and women did not differ on their JH scores in James' 1987 study,⁴⁷ but white women scored significantly lower than white men. Similarly, Dressler and colleagues found that, among African Americans, the relation between John Henryism and blood pressure was dependent on gender.⁴⁸ For black men, blood pressure and the risk for hypertension increased as scores on the John Henryism Scale for Active Coping increased. For black women, blood pressure and the risk for hypertension decreased as JH scores increased.

The association between JH and negative health correlates including incidence of hypertension and increased blood pressure has proven illusive in some studies.⁴⁹ For example, the impact of high JH on blood pressure has not been found among well-educated African Americans.^{49,50} Wiist and Flack failed to find the relation with blood pressure, but did find that high JH and low SES were related to higher cholesterol levels.⁵¹ In an age-restricted sample from the CARDIA study (aged 18–30), no association between JH, education, and blood pressure was found.⁵²

In one of the only investigations of the John Henryism hypothesis among African American and white adults aged 50

factors for the John Henryism Scale for Active Coping: tenacity/hard work and personal efficacy.⁵³ An internal consistency estimate for the measure across age and race groups was $\alpha = 0.71$. Reliability was slightly but nonsignificantly higher among older than middle-aged adults ($\alpha = 0.73$ versus 0.67, respectively). There were differences due to race, gender, and education level: African Americans had higher JH scores than whites, men had higher JH scores than women, and those with lower levels of education had higher JH scores than those with more education.

Thus, although more research is needed, the "John Henryism hypothesis" seems to be confined to low-educated, low-occupational-status African American men in the rural southeastern USA. Limitations of the research noted to date include the restricted adult age range, with most studies including individuals aged 20–50. James and colleagues cited the limited variability in SES among blacks in their sample.⁴⁷ Additionally, almost all studies of the John Henryism hypothesis have been cross-sectional. Prospective studies are needed to investigate socio-economic status, race/ethnicity, and the incidence of hypertension among high JH individuals over time. Additional studies of the impact of high JH on job-related stress, particularly in low-status healthcare professions such as Certified Nursing Assistants, are also needed.

Trait theories and health

Numerous investigations using data from the VA Normative Aging Study of adult men have provided data on the relation of adult personality and health. Siegman and colleagues found that the dominance factor derived from the Minnesota Multiphasic Personality Inventory (MMPI-2) is an independent risk factor for incidence of fatal coronary heart disease and nonfatal myocardial infarction among older men with an average age of sixty-one.⁵⁴ Using the three Cook-Medley subscales of hostility from the MMPI, Kubzansky and colleagues found that lower levels of education and greater hostility were associated with greater "wear and tear" on the body in cross-sectional analyses of 818 men.⁵⁵ Niaura and colleagues found that, among such older men, greater hostility may be associated with a pattern of obesity, central adiposity, and insulin resistance, which can exert effects on blood pressure and serum lipids.⁵⁶ In this study, the effects of hostility on the metabolic syndrome appeared to be mediated by body mass index and waist/hip ratio. LoCastro and colleagues found that Neuroticism as measured by the Eyesenck Personality Inventory partially mediated the effects of having a family history of alcoholism on number of drinks per day and the number of alcohol problems.⁵⁷

Measurement issues

Multiple measurement instruments of adult personality traits that in some way contribute to the Big 5 are available.^{58–60} Regardless of the specific measurement instrument used, however, these measures prove remarkably consistent in the derivation of five dimensions of personality via factor analysis.³³

Multiple methodological issues are yet to be resolved within the trait approach to adult personality research. For example,

personality traits among the old-old (aged 75–84) and the very old (aged 85+). Also, some investigations of the relation between personality traits, diversity, and health (i.e. John Henryism hypothesis) are hampered by restriction of research to cross-sectional samples. Trait approaches to the study of personality development overlap considerably with social-cognitive constructs such as the self.⁵ One major complication of stability estimates in adult personality research involves what kind of stability is under consideration: intra-individual stability,⁶¹ mean-level stability, or rank-order stability across time.⁴²

The impact of cohort and time of measurement on trait consistency within the longitudinal studies conducted to date has not been fully considered.⁴² Longitudinal studies of gender role differences have shown that age is not as good a predictor as the life experiences of different cohorts on personality traits of men and women across time.^{62,63} Thus, it may be that earlier-born cohorts have developed more consistent personality traits earlier in life as the result of numerous social/historical and lifespan-related influences.

On a broader scale, the relative impact of biological and environmental variables on stability and change in adult personality has yet to be evaluated. Although the influence of genetic factors has been investigated in the development of personality among monozygotic and dizygotic twins over a 10-year period, no such investigations have addressed the contribution of genetics to the maintenance of personality across the adult age range. Regarding the impact of environmental influences, with time and age individuals may encounter fewer novel experiences.⁴² Thus, the stability of personality factors may be causally related to the decreasing novelty of the environment in which individuals live rather than genetic factors. Sophisticated research designs (i.e. perhaps monozygotic versus dizygotic cohort-sequential twin studies) are needed to parse apart the relative contributions of genetics and the environment to adult personality development. Expansion of theory-driven research in adult personality would also assist in this endeavor. Although research regarding the Big 5 personality traits has been mostly descriptive, social-cognitive approaches to adult personality development have embraced theory-driven research.

SOCIAL-COGNITIVE APPROACHES TO PERSONALITY

The social-cognitive approach to the study of adult personality and self lends itself well to process-oriented investigation. This approach focuses on the processes underlying stability and change in one's perception of the self, and emphasizes the impact of necessary, adaptive adjustments in one's personality. Within this framework, an individual's sense of self is proposed to develop through the interaction of internal and environmental factors. Although the content of the developing self may change, this model proposes that the mechanisms by which changes are integrated into the concept of self are stable. The cohesion of internal and environmental factors in the development of the self is influenced by maturational changes and cohort differences. Thus, the development of the self as a dynamic construct reflects one's identity, perception of

possible selves, need for affiliation, and perceived remaining lifespan.

Identity and the self

Whitbourne describes a lifespan approach to one's core identity development. She refers to *identity* as an individual's developing sense of self, an organizing schema through which internal and external life experiences are interpreted.⁶⁴ Identity includes physical functioning, cognition, social relationships, and environmental experiences.⁶⁵ Two constructs underlie identity: the scenario and the life story. The scenario represents an individual's expectations for a future life path. The life story, in contrast, describes the personal history constructed after significant events occur. Thus, adults must differentiate and resolve the incompatibility between their scenario and life story, societal norms and expectations.² In this model, the impact of context on identity development assumes great importance. This context includes family relationships, work experiences, and life/cohort experiences in the social and historical world.

The scenario and life story provide key frameworks from which life success and the achievement of personal life goals can be evaluated. Assessment of goal achievements occurs through assimilation and accommodation.⁶⁴ Identity assimilation refers to the process through which one interprets life events according to acquired cognitive and affective schemes of identity.⁶⁴ An individual's reaction to medical illness and decisions regarding specific medical treatments, for example, may be dependent on the interpretation of the illness and how it impacts identity.⁶⁶ In contrast, when experience cannot easily be assimilated into the individual's existing framework of the self, the process of identity accommodation modifies both cognitive and affective schemas of self so that these life experiences may be included.⁶⁴ Successful aging consists of integrating information about the self via assimilation and accommodation, providing an organized framework by which experiences are interpreted. Note, once again, that negative life events and acute or chronic stressors such as care-giving may serve as catalysts for positive self-development.³²

Whitbourne and Collins examined the self-report of 242 adults aged 40–95 years regarding the relation between identity and changes in physical functioning.⁶⁷ They found that 40-year-olds were sensitive to age-related changes. Individuals aged 65 and older reported paying particular attention to perceived changes in competence. These individuals were more likely to use identity assimilation (i.e. reinterpretation of experiences to coincide with the self) in the area of cognitive functioning than were other age groups. Across the adult age range, identity assimilation was shown to positively associate with self-esteem. The authors concluded that, by making behavioral changes in one's identity, individuals adapt to the aging process in healthy ways.

In addition to cognitive reinterpretation of events at odds with identity, older adults are believed to closely regulate their emotions on the basis of their thoughts about self and others. The self is linked to emotion through its ability to generate goals;⁶⁸ these goal-oriented aspects of the aging self provide a framework for understanding motivation to engage in social relationships. Researchers interested in understanding the self

from a lifespan perspective often utilize the theoretical framework provided by the "possible selves" model.⁶⁹ The construct of "possible selves" postulates that individuals are guided in their actions by aspects of the self that represent what the individual could become, would like to become, and is afraid of becoming. Possible selves serve as psychological resources that may motivate an individual and direct future behavior. Indeed, there has been a growing literature documenting the positive relationship between achievement of identity-relevant goals and well-being.⁷⁰

Ryff found empirical support for the concept of possible selves.⁷¹ Young, middle-aged, and older adults were asked to judge their past, present, future, and ideal selves on dimensions related to self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth. Ryff found that older people are more likely than younger adults to downwardly adjust their ideal self and to view their past more positively.⁷¹ Cross and Markus found that, in comparison with younger adults, older adults report fewer possible selves that are more closely tied to their current selves.⁷² Thus, older adults may use cognitive reappraisal more frequently than younger adults and may be more facile in doing so.⁷³

Not every social-cognitive approach to adult personality development, however, emphasizes the integration of internal and external information into a cohesive sense of self. Lomranz defined the concept of "aintegration": the notion that there are intra-individual differences in the need for personal consistency.⁷⁴ Some individuals are able to feel well without having integrated all their various biopsychosocial levels into an overriding whole. The concept of "aintegration" has also been related to resiliency, wherein the ability to hold multiple diverse perspectives simultaneously without anxiety is conceptualized as a strength of aging.⁴²

Socio-emotional selectivity theory

Another social-cognitive approach to the study of adult personality development is Carstensen's socio-emotional selectivity theory.⁷⁵⁻⁷⁷ This theory focuses on the agentic choices made by adults in their social world for the purpose of regulating knowledge-oriented and emotion goals. Carstensen proposes that purposeful selective reduction in social interaction begins in early adulthood, and that emotional closeness remains stable or increases within selected relationships as one ages.⁷⁵⁻⁷⁷ The theory postulates two general categories of social motives: those related to the acquisition of knowledge and those related to the regulation of affect. When time is perceived as open-ended, acquisition of knowledge is prioritized. When time is perceived as limited, however, emotional goals assume primacy. Older adults select social relationships in which they want to invest their resources and in which they expect reciprocity and positive affect, thereby optimizing their social networks. Thus, older adults' social networks reduce by choice, as individuals decrease contact with acquaintances but seek to maintain contact with certain relatives and close friends into their eighties and beyond, as a function of increased saliency of emotional attachment to one's life goals.⁷⁵⁻⁷⁷

Carstensen and colleagues suggest that the perception of time left in life is fundamental to motivation and that age is

correlated with time perspective.⁷⁸ They postulate that perceiving an ending plays an important role in identity processes, such that endings promote greater self-acceptance and less striving toward an abstract ideal.^{71,72} Thus, older adults have been shown to be more present-oriented than concerned about the past and less concerned than young adults about the future.⁷⁹ This is not due to maturational changes per se, but due to changes in the perceived time left to live. Rather than age being the causal factor in shifts in self-perception and social goals, it is the inverse association of chronological age with number of years left to live that produces observed relations.

In an effort to decouple chronological age from number of years left to live, Carstensen and Fredrickson examined the salience of affect in preferences for social partners among young gay men similar in age but disparate in health status (i.e. HIV-negative, HIV-positive with symptoms, or HIV-positive without symptoms).⁸⁰ Their findings were supportive of socio-emotional selectivity theory. They found that increasing closeness to death, rather than chronological age, was associated with increasing importance of the emotional connection one has with social partners.

Social-cognitive theories and diversity

There are few empirical investigations incorporating diverse cultural or racial/ethnic groups in the study of social-cognitive approaches to adult personality development, outside the topical arena of social relations.⁴ Hypothetical and empirical research in this area has focused on socio-emotional selectivity theory. For example, Carstensen and colleagues proposed that, since African culture and African American subcultures encourage a temporal focus on the present,⁸¹ the social networks within these cultures may be populated with emotionally close social partners owing to the optimization of emotion goals inherent in a present-time orientation.⁷⁸

Gross and colleagues found consistent age differences in the subjective report of emotional experience and control across diverse cultures: Norwegians, Chinese Americans, African Americans, European Americans, and Catholic nuns.⁸² Across all groups, older adults reported fewer negative emotional experiences and greater emotional control. Likewise, Fung et al. found support for the notion that socio-emotional selectivity is due to perceived limitations in time among adults in the USA and Hong Kong.⁸³ In both countries, older individuals displayed a preference for familiar social partners in comparison with younger adults within usual circumstances. When older adults were asked for their social preferences given an unlimited lifespan, the preference for familiar social partners disappeared.

Moreover, the handover of Hong Kong to the People's Republic of China in 1997 was shown to impact individuals' social preferences. This sociopolitical event appeared to impact the evaluation of time limitations. Specifically, one year before the transition, only older adults showed a preference for familiar social partners. Two months prior to the handover, however, both younger and older adults showed such preferences. This similarity across age in preference for social partners disappeared again one year after the handover, when the typical pattern of relation returned. Thus, perceived limitations in time impacting agentic preferences for social partners are not

restricted to perceived time until death but also include sociocultural endings.

Social-cognitive theories and health

In general, empirical research regarding identity and the self has explored relations with physical health outcomes whereas research regarding socio-emotional selectivity theory has focused on relations with emotional outcomes. Age-related changes in physical functioning have been examined in relation to an individual's sense of self. As one advances in age, people define themselves increasingly in terms of health and physical functioning.²³ It appears that people cognitively manage their expectations and social comparison processes so that they are, in general, no less satisfied with their health status despite increasing physical limitations.

Using her multiple threshold model of aging,⁸⁴ Whitbourne investigated changes in a person's sense of self that coincide with changes in physical functioning.⁶⁵ According to her model, individuals are particularly vigilant to age-related physical changes within areas of functioning that are central to the self-concept. The concept of physical identity refers to the individual's self-perception of the body's appearance, competence, or the body's ability to perform tasks as needed in daily activities, and limitations.⁸⁵ Physical identity is theorized to follow the assimilation and accommodation processes referred to previously; individuals view changes in one's body in terms of current conceptualizations of the self. These self-perceptions often serve to protect one's sense of self, since the physical aging process is a constant challenge to the maintenance of a stable sense of identity by serving as a constant reminder of mortality. A particularly salient example of this for women is the onset of menopause.

The content of possible selves and self-regulatory processes associated with specific possible selves have been examined in relation to subjective well-being, health, and health behaviors. Hooker and Kaus found that having a possible self in the realm of health was more strongly related to reported health behaviors than was a global measure of health values.⁸⁶ Examination of possible selves in older adults living with a chronic illness will provide for a better understanding of how the self handles long-term care management and future outlook.

In socio-emotional selectivity theory, individuals alter their environmental interactions such that optimization of emotional experience is prioritized in later life.⁸⁷ As one ages, there is greater emotional attachment invested in each close relationship.⁸⁸ Lang and colleagues found that average emotional closeness to social network members serves an important adaptive function in late life.⁸⁹ This idea is supported by the finding that older adults reduce the amount of social support they provide to others, while the amount of perceived support received from others does not change.^{4,90} Older adults with limited social contact may still perceive their social networks as supportive. Part of this perceived satisfaction may result from continuity in the quality of social interactions.

Measurement issues

Diverse measurement approaches are associated with social-cognitive investigations of adult personality. The

"possible selves" construct is measured using a questionnaire inventory,⁷² whereby respondents describe hoped-for and feared possible selves and evaluate their ability to achieve or avoid these manifestations of self in their anticipation of their own aging processes. After listing all of their possible selves, participants are asked to identify the three most important hoped-for selves (and the three most feared selves) and explain why each is important (or feared). A series of self-regulatory questions (e.g. "How capable do you feel of achieving this possible self?") are rated on 7-point Likert scales for each possible self. Socio-emotional selectivity theory, in contrast, has relied on self-report, observation of marital interactions, and card sorting of potential social partners on the basis of similarity judgments, with the resulting categories submitted to multidimensional scaling analysis.⁷⁸

The strength of social-cognitive approaches lies in the positing of explanatory processes for personality development. Unlike stage or trait approaches, the identification of specific, testable processes such as identity assimilation, identity accommodation, possible selves, or socio-emotional selectivity promote theoretical advance via empirical hypotheses testing. Much more work is needed regarding identity development within diverse racial/ethnic groups. Likewise, more work relating socio-emotional selectivity theories to health outcomes is needed.

Social-cognitive researchers interested in personality and self in later life investigate domains where, albeit time-limited, growth and development in old age are possible, and contribute to an individual's perception of possible selves, need for affiliation, and content of life review. Today, we are living longer and want our last years to be as enjoyable and productive as our younger years. Research examining the effects of psychosocial and health variables on well-being and quality of life in old age needs to be at the forefront of this research perspective.

SYNTHESIS AND FUTURE DIRECTIONS

This chapter has reviewed several issues central to the conceptualization of adult personality. The issue of stability versus maturational change or cohort differences in personality development is highly dependent on the theory and measurement approach used. For example, the review of trait approaches highlighted the fact that the Big 5 personality variables, being large aggregates of more specific characteristics, may be relatively stable. Thus, the Big 5 may be largely dependent on genetic or biological factors. In contrast, measurement of more precise traits may be more influenced by cognitive and environmental (i.e. cohort) influences. Thus, specific individual traits would be expected to be less stable across time than the Big 5 personality aggregates. As stated in the section on trait theory, clarity in the definition of stability (i.e. intra-individual, mean-level, or ordinal) is critical to ensure that conclusions drawn from differing research methodologies are interpreted uniformly.

In the effort to tease apart environmental and biological influences on stability and change, cross-cultural comparisons of adult personality have been particularly useful. Comparison of adults of the same age who have

experienced different environments across the lifespan provide evidence regarding the extent of environmental influence on personality. More research is needed, however, addressing personality development of very old individuals in diverse cultures. Additionally, investigation of health effects of adult personality in diverse cultures provides invaluable information for health service provision and the development of preventive interventions. Specifically, prospective studies of theories like the John Henryism hypothesis could influence the design of interventions for cardiovascular health and improve the dramatic and alarming health disparities between whites and African Americans in the USA.

Finally, it is time to apply the wealth of accumulated information regarding personality across adulthood to the provision of services designed to enhance quality of life.

KEY POINTS The aging personality and self

- Personality is the pattern of thoughts, feelings, and behaviors that shape an individual's interface with the world, distinguish one person from another, and manifest across time and situations. It is impacted by biological, cognitive, and environmental determinants.
- Stage theorists include Freud, Jung, and Erikson (eight stages of development are based on the idea that the growing personality moves through stages in an ordered fashion). The psychoanalytic approach to adult personality encompasses four domains: level of consciousness, personality structure, defense mechanisms, and stages of psychosexual development. Few studies investigating stage theories of personality have focused on diverse cultures, racial/ethnic groups, or health.
- Trait approaches are the standard method of personality assessment today with multiple instruments available. The Big 5 personality traits include: Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. In general, the results of cross-cultural studies are consistent with the hypothesis that there are universal intrinsic maturational changes in personality.
- The John Henryism (JH) hypothesis describes the strong personality predisposition toward prolonged, high-effort coping with difficult psychological stressors in one's environment. Race was found to be a highly significant predictor of JH, with African Americans scoring higher than whites.
- The social-cognitive approach focuses on the individual's sense of self, developing through the interaction of internal and environmental factors.
- The socio-emotional selectivity theory focuses on the agentic choices made by adults in their social world for the purpose of regulating knowledge-oriented emotion goals. In socio-emotional selectivity theory, individuals alter their environmental interactions such that optimization of emotional experience is prioritized later in life. There are few empirical investigations incorporating diverse cultural or racial/ethnic groups in the study of social-cognitive approaches to adult personality development, outside the topical arena of social relations.

Identification of personality processes that drive specific behaviors (i.e. handshaking) and choices (i.e. medical treatments) is needed. There is powerful evidence that personality characteristics can affect health status and health behaviors. For example, interventions such as life review have successfully enhanced quality of life in the nursing home. Similarly, a knowledge of John Henryism characteristics among certified nursing assistants and other economically disadvantaged but essential healthcare providers could guide the development of interventions to reduce caregiving burnout and job stress. Using social-cognitive approaches to adult personality development and the processes of identity assimilation, identity accommodation, and socio-emotional selectivity could inform interventions designed to improve the process of advance care planning for the implementation of life-sustaining or palliative treatments at the end of life.

Furthermore, applied intervention research will not only enhance service provision but also drive theoretical advances in the concept of the self in old age. For example, palliative care and/or hospice interventions designed to provide services targeting personal, physical, and spiritual needs can inform aspects of socio-emotional selectivity theory involving present-time orientation and time remaining to live. Incorporating aspects of life review could also provide advances in theories driving therapeutic approaches to depression. Interventions for bereaved personal and professional caregivers as well as interventions for the terminally or chronically ill older adult are desperately needed. It is the authors' contention that the time to apply our knowledge of adult personality across the lifespan is now, thereby deriving benefit from accumulated knowledge as well as driving advances in theory.

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