Personality and Emotion in Late Life

Nicole Alea, Manfred Diehl, & Susan Bluck

University of Florida

OUTLINE

GLOSSARY

affect optimization: Tendency to regulate emotional states towards more positive affective

experiences, and away from negative emotion.

primary emotions: Set of emotions that are fundamental in organizing human thought and action across the lifespan, include happiness, fear, anger, sadness, surprise, disgust, and interest.

cohort: Group of people who are part of the same generation, and as a consequence share similar life experiences and historical influences.

cohort-sequential design: A study design that allows researchers to disentangle the effects of cohort and age, as it tests different cohorts at the same ages across a period of time.

cross-sectional design: A study design that allows researchers to draw conclusions about age differences by testing individuals of different ages at one point in time.

emotions: Short-lived negative or positive responses and reactions to events in the environment, or internal cognitions, that involve changes in body physiology, subjective experiences, and expressive behaviors.

emotion regulation: The ability to self-regulate or manage the internal experience and external expression of emotion.

life-span development: Development of individuals across the life span characterized by multidirectionality and multidimensionality; that is, developmental trajectories are assumed to include growth, stability, and decline within and across behavioral domains.

longitudinal design: A study design that allows researchers to draw conclusions about age-related changes by examining the same group of individuals at different ages over a period of time.

personality: Characteristics of an individual that are relatively stable and endure across time and settings.

rank-order consistency: The consistency of an individual's relative placement or rank within a

group over time.

I. ABSTRACT

This chapter reviews the literature on personality development and emotional experience across the adult life span, with a particular emphasis on late life. We review theoretical developments and challenges, discuss methodological issues, and present the major empirical findings about personality and emotion in late life. We conclude with a discussion of how future work that better integrates these two areas would be beneficial in advancing our understanding of well-being in late life.

II. Introduction

Advances in health care and public health practices have created a new culture of "old age." But, what are old people like? Negative stereotypes suggest that older adults have certain personality characteristics: that they are stubborn, set in their ways, or afraid to take risks. Competing positive stereotypes suggest that older people are full of grace and dignity, compassionate, and wise. How do old people feel? Again, there are competing cultural conceptions. It is often believed that old people are lonely and depressed; on the other hand, old people are often viewed as carefree and satisfied. In this chapter, we move beyond cultural stereotypes of personality and emotion in later life, to present the theories, methods, and findings gleaned from scholarly research.

Historically, many psychological characteristics (e.g., intelligence, learning ability) were characterized by decline in late life. More recently, however, psychologists have begun to focus on the positive experiences associated with aging. This dynamic tension between the positive and negative aspects of late-life functioning was elucidated in a 1987 paper written by Paul Baltes, Director of the Max Planck Institute for Human Development in Berlin, Germany. He proposed

the life-span approach, and postulates that life-span development is multidirectional and multidimensional. That is, different psychological characteristics show different developmental trajectories (i.e., growth, stability, decline) and different trajectories may co-exist for behavioral functions within the same domain, making growth and positive development possible even into late life. Indeed, Jacqui Smith's findings from the longitudinal Berlin Aging Study show that successful aging can be defined in terms of the ratio between gains and losses.

Personality and emotion have been at the forefront of research showing positive gains or maintenance of functioning in late life. As such, research on personality and emotion offer a window on facets of successful aging. We review each area of work separately, focusing on major theories, methods, and empirical results.

III. Personality in Late Life

The term "personality" refers to the relatively stable characteristics of an individual that endure across time and settings. At first glance, this definition suggests that personality must be stable across adulthood: an extroverted 30 year-old is expected to be extroverted when 65. Evidence supports a good deal of continuity in adult personality, but there is also data showing that change occurs. Whether a researcher favors a view of stability or change depends mostly on his or her theoretical perspective.

A. Theoretical Issues

1. Personality theories. Gisela Labouvie-Vief and Manfred Diehl, in a review of life-span theories, point out that two major theoretical perspectives have led the area of personality development. The developmental level approach is rooted in the psychodynamic tradition, with theorists such as Sigmund Freud, Carl Gustav Jung, and Erik Erikson. This approach is categorized by developmental stages that emphasize qualitative changes in personality in

4

different life periods. For example, Erikson theorized that each stage of development is characterized by a "psychosocial crisis" between opposing tendencies (e.g., generativity versus stagnation in midlife) that must be integrated in order for the self to fully develop. Although Freud's theory emphasized that personality was set at a fairly young age, later modifications and extensions included lifelong processes of personality development (e.g., Erikson, Loevinger).

The trait approach assumes that personality is comprised of a number of basic, behavioral tendencies (traits), and has focused on the measurement of these basic traits. Paula Costa and Robert McCrae's "Big Five" model of personality is one prominent example of this approach. According to this theory, there are five broad traits that make up human personality: Neuroticism, Extraversion, Openness to Experience, Agreeableness, and Conscientiousness. Trait theorists emphasize the stability of personality beginning in early adulthood.

A fairly recent addition to the personality literature is the contextual approach, which considers socio-cultural and environmental influences that may affect how personality develops across the life span. Researchers such as Ravenna Helson at the University of California, Berkeley, emphasize that a person's environments and experiences, at least in part, influence whom they become. In contrast to the developmental level and trait theories, the contextual approach argues for the malleability of personality across a lifetime. What are the mechanisms that lead to changes, or sustain continuity, in personality?

2. **Mechanisms of continuity and change.** Caspi and Roberts summarized mechanisms that support continuity and those that facilitate change in personality across the adult life span in a 1999 review chapter. Genetics are thought to be a major mechanism leading to continuity. Data such as the MacArthur Longitudinal Twin Study suggest that about 80 percent of personality stability can be attributed to genetic factors. Notable, however, is that in late life genes seem to

become less influential; as twins age they become less similar, suggesting that environmental influences play an increasingly stronger role as individuals age.

Environmental factors, such as differences in life experiences and socialization, are the mechanisms thought to produce changes in personality. For example, in a classic study, Helson and Moane showed that interpersonal dominance tends to increase in women who actively pursue a professional career, whereas raising children tends to heighten a woman's level of empathy. Thus, social roles that carry implicit and explicit demands can shape personality in adulthood. Individuals can also, at any age, learn new behavioral patterns by observing others or by getting feedback from others. This type of social learning refutes the old adage that "you can't teach an old dog new tricks". Social and physical environments can, however, also play a role in maintaining continuity. To the extent that people's environments remain stable, they foster stability in personality. Consistent environments tend to encourage consistency in personality across the life span. Thus, genetics and environment contribute to personality continuity and change in a complex, integrated fashion. Researcher's theoretical perspectives, and views of continuity and change affect the questions they ask and the methods and measures they use.

B.   Methods and Measures

Early theorists like Gordon Allport, Raymond Cattell, or Henry Murray suggested that personality should be studied over time. In more recent years, Jack Block has advocated studying personality "the long way," using longitudinal methods. Although the majority of personality research is still cross-sectional in nature, the number of longitudinal studies has risen considerably in recent years and invaluable information has been obtained regarding personality continuity and change in late life.

1. **Types of continuity in longitudinal research.** Everyday conceptualizations of continuity and change in personality are typically thought of at the individual level, involving intra-individual variability in personality (referred to as <u>ipsative continuity</u>). For example, has grandpa changed in the last ten years or is he the same person he used to be? Investigating personality in this way has only recently received adequate attention since it requires complicated longitudinal designs of intra-individual change and advanced statistical analyses. Rather, researchers have focused their attention on two other types of continuity. <u>Differential continuity</u> refers to the consistency of an individual's relative placement within a group over time (i.e., rank-order consistency). For example, in the case of high rank-order consistency, individuals are expected to preserve their rank over time, whereas low rank-order consistency is indicative of the fact that people are shifting around in terms of their rank. The second commonly studied continuity is <u>absolute continuity</u>, which refers to stability in the level of a particular personality characteristic over time. It is important to note that, when most individuals change in the same direction, changes in mean level can occur over time without great changes in rank-order consistency. Thus, there can be various types of continuity, or lack there of, observed in longitudinal assessments. There are also various factors that affect whether change or continuity is observed.

2. **Factors affecting whether continuity or change are observed.** Recent meta-analyses conducted independently by Monika Ardelt at the University of Florida, and Brent Roberts and Wendy DelVecchio at the University of Illinois at Urbana-Champaign, identified similar factors affecting whether change or continuity in personality are observed in longitudinal studies. Three factors tend to bias results toward stability. An individual's age at the initial time of testing is one. The older people are when personality is first assessed, the greater stability coefficients tend to be. Second, length of retest interval can affect findings: the closer together the times of testing,

the more consistent personality appears. Third, the type of measurement instrument can also bias results. Self-report checklists of personality traits, the most commonly used instruments with older adults, tend to overestimate personality stability because individuals are usually biased in favor of reporting continuity. Behavioral observations get around the self-report bias as they involve observations of how a person behaves across contexts. Given their contextual nature, behavioral observations are more sensitive to changes in personality, but they have rarely been used with older adults.

Other factors have an affect on whether change in personality is likely to be observed. Life events and transitions (e.g. retirement, widowhood) that individuals go through while participating in a longitudinal study may suggest change in personality. That is, as individuals respond to new role demands they may be learning new ways to cope. For example, financial strain that can accompany retirement may lead a person to become more worried (with "worrying" being part of the trait of Neuroticism) than they usually are because of the loss of income. This may be a new behavior that emerged as a result of the social transition and becomes incorporated into the individual's personality if reinforced over time, or it may be a temporary way of dealing with a new life transition. Unknowingly, researchers would observe changes in personality.

Historical experiences and generational effects can also affect whether personality change is observed. In his classic work about the Children of the Great Depression, sociologist Glen Elder demonstrated how historical events affect people's personalities differently depending on their life stage. Elder found personality change for middle-aged men in reaction to the depression; personality continuity was more often found for younger men, because these men were able to seize newly emerging opportunities after the depression. Conclusions about

personality development however were confounded with individuals' birth cohort, thus it was unknown whether the findings were a result of maturational change, the time of testing and historical influences, or the participants' generation. In 1965, K. Warner Schaie developed the cohort-sequential design to tease apart the effects of these factors, yet this elaborate design is rarely used. In sum, longitudinal studies, although offering us the most comprehensive picture of personality development, can be limited about personality continuity and change. Thus, when reviewing empirical results regarding personality across adulthood in the section that follows, we pay close attention to the types of continuity found and the methods employed.

C.   Major Findings

Table 1 summarizes the types of continuity and change evident in research on personality in late life, the typical statistical methods used, and the general conclusions. We review major empirical results supporting both continuity and change in personality.

1. Evidence for continuity. There is quite a bit of evidence pointing towards continuity of personality in adulthood and late life. Costa and McCrae's Baltimore Longitudinal Study began in 1980, and consists of approximately 1,000 participants aged 20 to 96. Participants were given the NEO Personality Inventory, which measures the "big five," basic personality traits. In this, and other work, they have found moderate to high rank-order consistency for personality traits, across time intervals of 5-6 years. Costa and McCrae interpret their results as indicating that personality does not change, except in trivial ways, after the age of 30.

Other researchers espousing the individual differences approach, such as James Conley, have also found a great deal of stability in personality across adulthood. Using a different self-report personality measure as part of the Kelly Longitudinal Study, Conley and his colleagues found that personality traits such as neuroticism, social introversion-extroversion, and impulse

9

control, demonstrated fairly stable patterns across 25- and even 40-year time intervals. Focusing on late life, Troll and Skaff found continuity in self-concept in the oldest old (85 years and older). Participants were asked how they thought they had changed over the years and how they had remained the same. These older adults reported that their core self-concept had remained stable over the years and their self-descriptors were also relatively consistent. In sum, for different measures used to assess personality, there seems to be differential consistency of personality in adulthood and late life.

2. Evidence for change. Advocates of the contextual view, such as Ravenna Helson, have argued that trait theorists seek to confirm hypotheses about the stability of personality, rather than to explain why and how changes in personality occur when they do. In the Mills College Longitudinal Study, Helson found changes in adult women's personalities across a 30-year time period. For example, women became more assertive (i.e., mean-level increase on the masculinity scale) from ages 20 to age 30, and more compassionate (i.e., mean-level increase on the femininity scale) as they approached late life (age 52). But, what happens in very old age? In 1991, Field and Millsap analyzed data from the Berkeley Older Generation Study and found consistent age-related trends for the mean level of some personality traits. For example, for this very old sample they found increases in Agreeableness and decreases in Extraversion with age. Thus, there seem to be changes in mean levels of personality characteristics, even though rank-order consistency is fairly constant. Studies of intra-individual variability also suggest both change and continuity in personality across individuals' lives.

3. Intra-individual variability: evidence for continuity and change. Although few studies of intra-individual variability have been conducted, they provide a comprehensive picture of the variability of personality in late life. A classic study by Jones and Meredith examined individual

patterns of personality development over a 30-year time span. They found, for example, that some participant's self-confidence was stable until age 30 and then increased in middle age, others remained stable across the time period, and other participant's self-confidence declined with age. In a 2003 study, Mroczek and Spiro found variability in the rate and direction of change in personality among men ranging in age from 43 to 91. Although they found that many men showed declines in neuroticism and stability in extraversion, there were also many men who deviated from this overall pattern. Thus, demonstrating individual variability even in old age.

<< Insert Table 1 about here. >>

In conclusion, personality in late life is undoubtedly characterized by both differential continuity as well as changes in mean levels of personality characteristics (absolute continuity). Studies of intra-individual variability (ipsative) reiterate that continuity and change in personality both occur in late life differentially for individuals, and that group means can be deceiving. Mean-level changes that occur, however, are relatively positive (e.g., decreases in neuroticism, maintenance in extraversion). Multiple dimensions and directions of change characterize personality in late life. Does a similar, variable pattern exist for how people feel in late life?

IV. Emotion in Late Life

Emotions have been defined as short-lived responses to events in the environment that involve changes in body physiology, subjective experiences, and expressive behaviors. That is, emotions are transient and happen on multiple levels. Emotions, such as happiness, do not endure over a lifetime, but are dynamically and subtlety tied to specific events and experiences, to cognitions, memory, and personality. The important questions for emotion research have been whether older adults, given their unique life circumstances, cognitive abilities, and personality, experience or feel emotions to the same degree as younger adults, experience the same types of

11

emotions as younger adults, and regulate and express emotions in the same way as younger

adults. The following theories of emotion in late life address these central questions.

A. Theoretical Issues

1. Emotion regulation and affect optimization. Powell Lawton, in 1989, proposed a theory of

the regulation processes of emotion in adulthood, emphasizing positive gains in regulation with

age. Further, he postulated that in late life, adults regulate emotion towards affect optimization: a

minimization of negative affect and maximization of positive affect. He contended that better

affect regulation in late life occurs as a function of positive changes in personality as well as

changes in social contexts in late life. Examination of social context became a focal area for

further theoretical expansion, as seen in the next theory.

2. Socioemotional selectivity theory. In 1992, Laura Carstensen at Stanford University

proposed the Socioemotional Selectivity Theory (SST), which situates emotion in the context of

social goals associated with different life phases. This theory focuses on the salience of emotion

in older adults' everyday lives. Carstensen, like Powell Lawton, emphasizes regulating emotion

towards obtaining positive affective experiences. The core of Carstensen's theory is that older

adults show a selective narrowing of social networks to more emotionally close, gratifying social

relationships. That is, the regulation of emotion is, in part, a function of social choices:

maintaining a positively valenced emotional life is realized through selection of positive social

relationships. Carstensen's theory ties emotion regulation to life phase specific choices regarding

social networks. The next theory also ties emotion to life phase, but largely through the relation

of emotion to cognition and personality at different points in the lifespan.

3. Cognitive-affective developmental theory. Gisela Labouvie-Vief at Wayne State

University proposes a cognitive-affective developmental theory of emotion, which delineates the

role of emotional functioning in conjunction with the development of cognitive and ego processes (the self) that occur across the life span. She argues that emotion is qualitatively different at various points in the life span. Specifically, with more complex ways of processing information and higher levels of ego development, emotional expression moves from being based upon societal standards in adolescence, to more sophisticated emotional functioning in adulthood. This includes increases in the complexity of experienced emotion, heightened emotional flexibility, and more tolerance for ambiguous emotions. Labouvie-Vief's theory clearly delineates the connection between emotion and personality, or self-development, as does the discrete emotions theory advocated by Carol Magai.

3. Discrete emotions functionalist theory. In the 1980s, Carol Magai integrated emotion theory with personality theory by introducing the discrete emotions functionalist theory to research on adult development. Rooted in the differential emotions tradition, this theory emphasizes the functional nature of the primary emotions (e.g., happiness, fear, anger, sadness), focusing on how emotions are used to organize thought and behavior. Carol Magai's work suggested that discrete emotions are hardwired from birth, but serve similar functions across the life span. What changes with age is the way that emotions are expressed; that is, with increasing age the complexity and elaboration of emotions increases. In addition, Magai delineates how emotion and personality are intertwined, particularly in late life: she suggests that discrete emotions experienced repeatedly early in life become trait-like and integrated as "emotion traits" within an individual's personality.

These four theories make unique contributions to the literature regarding how emotion is regulated towards positive affect in late life, how social processes are used to regulate emotion in late life, how life-span development of self and cognition encourage more sophisticated

processing of emotion with age, and how emotions play a functional role in directing thought and behavior from early childhood, but gain increasing complexity and elaboration across adulthood. Despite their differences, each theory, in some way, addresses one of the central issues of how older adults experience emotion, regulate emotion, and express emotion.

B. Methods and Measures

Correspondent with the central questions of emotion research, most work has been cross-sectional rather than longitudinal. Emotion researchers use a rich array of methodological tools, ranging from objective to subjective measures.

1. Objective measures. Objective assessments of emotion are psycho-physiological measures tied to the basic neurology of emotion (e.g., autonomic nervous system activity, discrete musculature changes during facial expression). Studies assessing the psycho-physiological aspects of emotion involve asking participants to look at emotional pictures (e.g., a child playing in a field) or to relive emotional experiences (e.g. a surprising event). Autonomic activity, such as changes in heart rate or breathing, is assessed on-line, during these tasks. Similar stimuli are used when examining facial expressions of emotions. Paul Ekman at the University of California, San Francisco, developed an elaborate system for coding universal emotion-specific facial expressions. For example, people universally express sadness by pulling down the corners of their lips, and surprise is expressed by the widening of eyes. These objective measures of emotion inform researchers about the underlying processes and universal nature of emotions.

2. Subjective measures. Subjective measures of emotion are more commonly employed. They typically include self-report ratings, and more recently, behavioral observations (e.g., coding the types of emotion present during social exchanges), and open-ended verbal narratives (e.g., coding emotional content of remembered narratives). Self-report measures (e.g., the Positive and

Negative Affect Scale developed by Watson and colleagues) are undoubtedly the most common means of assessing emotion in late life. Adults answer questions about whether, and how intensely, they have felt several negative and positive emotions, (e.g., sadness, happiness) over the past month or the past week. Self-reports are subject to response biases, and as Levine and Bluck demonstrated in 1997, have a memory component that may lead to greater biasing in older adults. For example, questions about general emotional experience (e.g., How salient is emotion to you in your everyday life?) probably require effortful processing if a person actually recalls everyday events in order to provide an estimate of the general emotional content. Results using such scales are thus prone to memory error. More naturalistic and ecologically valid measures, such as observing emotional behaviors, or collecting emotional memory narratives, may be better suited as subjective measures of emotion in late life. Bluck and Alea have recently found that autobiographical narratives and scalar self-reports sometimes provide divergent information about the emotional lives of older adults.

In sum, both objective and subjective measures have been used to examine different aspects of emotion in late life. In terms of subjective measures, a variety of tools exist that vary in level of reliability and ecological validity. In the next section, we review major findings about emotional functioning in adulthood and late life, paying special attention to the type of measurement employed.

C. Major Findings

The major empirical findings mirror the chief theoretical concerns in this area: the overall experience of emotion, the regulation of emotion, and the expression of emotion in adulthood and late life. Table 2 summarizes the major empirical findings by method of investigation.

1. Experience of emotion. Research on the experience of emotion includes both physiological measures as well as the subjective experience of emotion in daily life. Robert Levenson and his colleagues at the University of California, Berkeley, have conducted a series of studies investigating whether older adults experience the same intensity of physiological reactions as younger adults when they relive emotional experiences. Using on-line physiological assessments, he has found that, for the most part, older adults exhibit the same physiological responses as younger adults for discrete emotions. For example, both young and older adults have increases in heart rate when experiencing fear. The magnitude or intensity of these responses, however, is often lower in late life.

The intensity of experienced emotion has also been examined using self-report measures. Diener, Sandvik, and Larson, for example, conducted a large-scale study to assess age differences in the self-reported intensity of emotions in adolescents, young, middle-aged, and older adults. They used the Affect Intensity Measure, which assesses how intensely individuals experience emotion in various situations (e.g., "I can remain calm even on the most trying days"). Older adults reported less intense emotional experiences than younger adults. Thus, older adults tend to show the same pattern of physiological reaction as younger adults, but emotions generally seem to be experienced with less intensity in late life. This holds for both physiological measures and self-reports. But what happens if we look at emotional valence? That is, do older adults experience both positive and negative affect with less intensity than younger adults?

2. Emotion regulation. Empirical work investigating the balance between positive and negative affect with age has often been conducted in the context of emotion regulation. Most (not all) work on emotion regulation is congruent with existing theoretical accounts claiming that older adults tend to regulate their emotions towards affect optimization. Older adults self-report

experiencing more positive and less negative affect than younger age groups. Daniel Mroczek at Fordham University in New York and Christian Kolarz at Warsaw University in Poland, for example, analyzed data from over 2,000 adults ranging in age from 25 to 74. Using the Bradburn Affect Balance Scale, a self-report scale of positive and negative affect, they found an increase in positive affect after the age of 45, and a linear decrease in negative affect across age groups. Charles, Reynolds, and Gatz found similar results concerning negative affect in a 14-year longitudinal study of self-reported positive and negative emotion. Further, Gross, Carstensen and colleagues have demonstrated that increases in positive affect states and decreases in negative affect states, also apply to discrete emotions, such as happiness and anger. Thus, although researchers have found overall decreases in the intensity of emotion with age, it seems to depend on whether the emotion is positive or negative: negative emotion is often down regulated, whereas positive emotion is often up-regulated in late life.

In addition to examining the regulation of emotion through valence, researchers have also explicitly asked adults about their ability to self-regulate emotions. In the study by Gross and colleagues, emotion regulation was investigated in a diverse sample (e.g., European Americans, African Americans). Participants were asked how well they could control both their inner and outer expressions of emotion (e.g., "Overall, how much control would you say you have over your emotions?"). They found that across age groups there was an increase in self-reported ability to regulate emotion. Using a different technique, Gisela Labouvie-Vief and her colleagues reported similar results as far back as 1989. They asked participants to recall emotional experiences and then conducted semi-structured interviews about the types of emotional control or regulation strategies individuals used. They found age differences in emotion regulation, although the primary difference was between adolescents, and the two older age groups (middle-

aged and older adults). Thus, using self-reports, there is reasonable evidence suggesting that older individuals are better at regulating emotions than younger individuals, and that they tend to regulate their emotions toward positive affective states. Emotion regulation usually refers to internal experiences of emotion. What about the emotional face that we show to the world, that is, does emotional expression differ by age?

3. Expression of emotion. Emotion can be expressed in three basic ways: through facial expressions, verbal expression, and specific behaviors. Levenson, Carstensen, Friesen, and Ekman in 1991 examined the facial expressions of young and older adults while they were remembering and describing emotional experiences. They failed to find age differences in how adults expressed the primary emotions, anger, disgust, fear, happiness, and surprise. In contrast, Carol Magai found that older adults were at times more expressive than younger adults, but that physical changes in the face with age (e.g., wrinkles) can mask their expressivity.

Research examining the verbal expression of emotion has also found that older adults express greater emotion than younger adults. Carstensen and Turk-Charles conducted a study in 1994 where they asked young and older adults to remember narrative passages. Compared to younger adults, older adults spontaneously focused more on the emotional aspects of the narratives than the factual information. Alea, Bluck, and Semegon have found similar age results in their work using autobiographical narratives. Specifically, older adults remembered more emotional information than younger adults about an autobiographical event.

Behavioral observations of emotional expression, common in the child development literature, have been less common in studies of adulthood. Emotionally expressive behaviors include gestures (e.g., banging one's fists when angry, crying when sad) and body movements (e.g., looking away from something in disgust, shifting when nervous). Carstensen, Gottman, and

18

Levenson conducted one of the few studies examining such behaviors in older adults. These researchers videotaped older and middle-aged married couples discussing positive, negative, and neutral marital issues. They found, after controlling for level of marital satisfaction, that older couples showed less negative emotional behaviors during discussions of unpleasant topics and were more affectionate toward their partners than the middle-aged couples. Thus, work on emotional expressivity suggests greater expressivity in older adults' verbalizations and behaviors, though the basic facial configurations used to express emotion do not appear to change with age.

<< Insert Table 2 about here. >>

In summary, empirical results regarding emotional functioning in late life are centered on the issues of experience, regulation, and expression of emotion with age. Using various measures has provided a rather complex, yet comprehensive picture of emotion in late life. In general, emotions are sometimes experienced less intensely with age and at other times just as intensely in late life as earlier in life; but, for the most, emotions are regulated towards positive affect and expressed in a variety of ways across the life span. Thus, the pattern of emotional functioning in adulthood is also mostly characterized by gains and maintenance of functioning in late life.

V. Concluding Remarks: Linking Personality and Emotion

We began this chapter with a discussion of the competing negative and positive cultural stereotypes about old people's personality and emotional life. Does scholarly work support or refute these different pictures of late life? Theoretical and empirical work on personality development and emotional functioning suggests that although older adults certainly face losses (e.g., widowhood) and challenges (e.g., increases in physical ailments), they also have psychological resources available to compensate for, or moderate, losses in functioning.

Personality is mostly stable in late life, and on the whole, changes seem to be relatively positive. Changes in emotional functioning with age, such as better emotion regulation and decreases in the intensity of physiological arousal levels, may also help individuals to face late life challenges. Thus, both personality development and emotional functioning represent areas of stability or growth that enhance the experience of growing old.

Consequently, a clear step towards better understanding well-being in late life is further delineating the integral relation between personality and emotion. Although the major personality theories imply that traits have an inherent emotional component, the assessment of personality and emotion linkages have been rather sketchy so far. Emotion theories have been better at delineating the relation between personality and emotion. For example, Labouvie-Vief's work suggests that emotional development occurs in adulthood in part due to development of the self, and Magai's work postulates that emotions that are repeatedly experienced early in life become salient to an individual and integrated into an individual's self-representations across the life span. Recently, with the publication of Jack Block's book *"Personality as an Affect-Processing System"*, there is a growing awareness that the traditional, distinct, notions of personality and emotion may limit our understanding. Block suggests these approaches can be fused in a creative way to examine both phenomena more comprehensively while including a life-span developmental perspective relevant to the study of aging. The task for future researchers will be to explore empirically how emotion and personality are inter-related, and how they act together to influence quality of life in later life.

VII. Further Readings

Baltes, P. (1987). Theoretical propositions of life-span developmental psychology: On the
dynamics between growth and decline. Developmental Psychology, 23, 611-626.

Block, J. (2002). Personality as an affect-processing system: Toward an integrative theory.
Mahwah, NJ: Erlbaum.

Carstensen, L.L. (1992). Motivation for social contact across the life span: A theory of
socioemotional selectivity. In J.E. Jacobs (Ed.), Nebraska symposium on motivation (pp.
209-254). Lincoln, NE: University of Nebraska Press.

Caspi, A. & Roberts, B.W. (1999). Personality continuity and change across the life course. In
L.A. Pervin & O.P John (Eds.), Handbook of personality: Theory and research (2nd ed.,
pp. 300 – 326). New York: Guilford.

Helson, R. & Kwan, V.S.Y. (2000). Personality development in adulthood: the broad picture and
process in one longitudinal sample. In S. E. Hampson (Ed.) Advances in personality
psychology (Vol. 1, pp. 77 – 106). Hove, England: Psychology Press.

Labouvie-Vief, G., & Diehl, M. (1998). Life-span developmental theories. In A.S. Bellak & M.
Hersen (Series Eds.), & C. E. Walker (Vol. Ed.). Comprehensive clinical psychology.
Vol. 1: Foundations (pp. 261-296). Oxford, UK: Pergamon.

Magai, C. (2001). Emotions over the life span. In J. E. Birren & K.W. Schaie (Eds.), Handbook
of the psychology of aging (5th ed., pp. 399-426). San Diego, CA: Academic Press.

McCrae, R. R., & Costa, P. T. (2003). Personality in adulthood: A five-factor theory perspective
(2nd ed.). New York: Guilford.

Pasupathi, M., Carstensen, L. L., Turk-Charles, S., & Tsai, J. (1998). Emotion and aging. In H.

S. Friedman (Ed.), <u>Encyclopedia of mental health</u> (Vol. 2, pp. 91-102). San Diego, CA:

Academic Press.

VIII. Tables

Table 1

Summary of personality in late life: Types of continuity, typical methods, and empirical results

Types of Continuity	Typical Methods	Empirical Results
Differential continuity	Rank-order consistency	Stability: ranks of personality characteristics are relatively stable in late life
Absolute continuity	Mean-levels	Change: older adults show decreases in neuroticism, increases in agreeableness, decreases and maintenance in extraversion
Ipsative continuity	Intra-individual differences and variability	Stability and change: growth, stability, and decreases in personality characteristics within individuals

Table 2

Summary of emotion in late life: Aspect of emotion, typical methods, and empirical results

Aspect of Emotion	Typical Methods	Empirical Results
Emotional experience	Psycho-physiological	Mixed: no age difference for physiological experience of primary emotions; lower intensity with age.
	Self-reports	Lower intensity with age
Emotion regulation	Self-reports	Increase in positive, decrease in negative affect with age. Better emotion regulation with age.
Emotional expression	Facial expression	Mixed: no age differences; more expressive with age; harder to decode expressions with age
	Verbal expression	Express more emotion with age
	Behavioral indicators	Fewer negative behaviors, more positive behaviors