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Review

A motivational framework of personality development in late adulthood

Wiebke Bleidorn and Christopher J. Hopwood

Abstract

Meta-analytic evidence shows that most personality traits tend to increase through early adulthood and middle age but decrease in late adulthood, whereas Emotional Stability continues to increase throughout late adulthood. We propose that these normative patterns of personality development can be explained by motivational theories of aging. Specifically, decreases in Extraversion, Agreeableness, Conscientiousness, and Openness to Experience may reflect a reduced capacity to control one's environment, whereas continued increases in Emotional Stability reflect increases in individual's ability to compensate and cope with age-graded losses. Pairing motivational theories of aging with longitudinal evidence in personality science provides an explanation for empirical patterns of personality trait development and raises interesting possibilities to promote healthy aging.

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Keywords

Personality, Big five, Aging, Late adulthood, Primary control, Secondary control.

Introduction

Will you recognize your high school friend's personality when you meet her again at age 80? Most likely, yes [1]. Does that mean their personality has not changed at all? No, there is broad evidence that personality traits — despite being defined as *relatively stable* patterns of thoughts, feelings, and behaviors — can and do change throughout the lifespan, including late adulthood [2–6].

In this paper, we review this research with a focus on the Big Five personality traits of Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism/Emotional Stability [7]. Specifically, we address three questions about late-life personality development: 1) What is the course of personality development in late adulthood? 2) What drives personality development in late adulthood? 3) Why should we care about personality development in late adulthood?

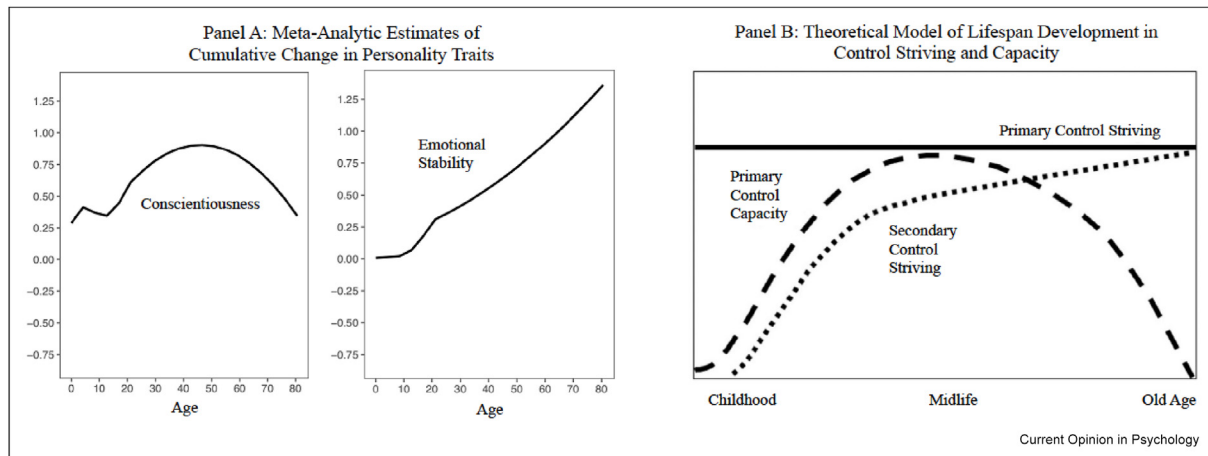
In doing so, we aim to contextualize recent evidence on personality trait development within established theoretical frameworks of lifespan development and aging [8,9] while highlighting the theoretical and practical implications of this research. We close with a section of open questions and directions for future research on personality development in late adulthood.

What is the course of personality development in late adulthood?

Early research syntheses on personality change included only few samples of older adults [10,11]. The scarcity of studies on late-life personality development made it difficult to draw conclusions about trait change in this life stage. Since then, decades of research have amassed more evidence for personality change in older adults [4–6]. We synthesized this research in a recent meta-analysis of over 5000 effect sizes from more than 300 samples, and data from over 280,000 participants aged 3 months to 100 years [12].

Consistent with previous meta-analyses, we found significant mean-level increases in each Big Five trait for the first portion of the lifespan, particularly in Emotional Stability, Conscientiousness, and, to a lesser degree, Openness and Agreeableness. This trend, often referred to as personality maturation [13], appears to revert in late adulthood, suggesting that the levels of most personality traits decrease in late adulthood. For example, Conscientiousness displays an inverted U-shaped trajectory with increases of about 1 standard deviation during early and middle adulthood, peak levels around Age 55, and relatively steep decreases in late adulthood, such that mean levels at Age 80 return to those observed for adolescence (Figure 1, Panel A). A notable exception to the pattern of decreasing trait levels is the trajectory

Figure 1



Changes in personality traits and control across the lifespan. Panel A: Meta-analytic estimates of mean-level change in Conscientiousness and Emotional Stability expressed as cumulative change, assuming a hypothetical cohort assessed every ~4 years from birth to Age 80 that follows the expected age-specific rates of change; adapted from Bleidorn et al., 2022 (figure 5, p. 605). Panel B: Hypothetical life-span trajectories for primary control striving (solid line), primary control capacity (dashed line), and compensatory secondary control striving (dotted line); adapted from Heckhausen et al., 2019 (figure 2, p. 201).

of Emotional Stability. Unlike the other Big Five traits, Emotional Stability followed a relatively linear, monotonically increasing trend amounting to almost 1.5 standard deviations across the life span (Figure 1, Panel A).

These normative changes in personality traits raise questions about the factors that drive personality development among older adults. Late adulthood typically comes with appreciable challenges including decreases in cognitive and physical functioning, reduced financial resources, and relative social marginalization [14–16]. Some late-life changes may also involve new opportunities and increased autonomy, e.g., resulting from reduced work duties and increased leisure time [9,17]. Together, these age-graded changes may affect older adults' patterns of thoughts, feelings, and behavior, and consequently, their personality traits. But how can we explain the finding that older adults seem to decrease in all traits except Emotional Stability?

What drives personality trait development in late adulthood?

We propose that the observed pattern of personality development can be explained within the framework of the motivational theory of lifespan development (MTD) [18,19]. According to this theory, people strive to maximize *primary control* of their environment and developmental outcomes throughout the lifespan. However, people's *capacity for primary control* changes throughout the lifespan, with increases in adolescence and early adulthood, peak-levels in midlife, and gradual

declines in late adulthood. To compensate for the losses associated with a decreasing capacity for primary control, people increase their striving for *secondary control strategies*. These strategies are targeted at internal processes to protect the self against negative affect and blame associated with losses in primary control.

The observed mean-level changes in personality traits are highly consistent with the hypothetical lifespan trajectories for primary control capacity and compensatory secondary control striving depicted in Panel B of Figure 1. Specifically, decreases in Conscientiousness, Extraversion, Openness, and Agreeableness can be considered as decreases in people's capacity to exert primary control over their environment. In fact, the theorized inverted U-shaped trajectory of primary control capacity is perfectly captured by the developmental trajectory of Conscientiousness: throughout the lifespan, people first increase and then decrease in their capacity to invest in long-term goals, work hard, plan ahead, and control their impulses throughout the lifespan. Age-graded losses may also lead to decreases in the capacity to engage in social activities, as reflected in the observed mean-level decreases in Extraversion, a diminishing interest in novel experiences and intellectual behaviors, as indicated by decreases in Openness, and losses in the ability to regulate interpersonal behaviors, as suggested by decreases in Agreeableness. That is, in MTD, these four personality traits may be conceived as generalized primary control strategies that decline with the increasingly negative ratio of gains versus losses that characterizes late adulthood [14,15,19].

Emotional Stability, on the other hand, may be conceptualized, at least in part, as a generalized secondary control strategy that people increasingly rely on to compensate the age-graded losses in primary control capacity. In other words, the gradual mean-level increases in Emotional Stability may reflect age-graded increases in people's ability to minimize losses in, maintain, and expand existing levels of primary control. The normative increases in Emotional Stability are also consistent with a phenomenon that is sometimes referred to as the "paradox of aging" [20], suggesting that, despite the challenges associated with aging, older people tend to be as happy (or even happier) as younger people. Similar to the concept of secondary control, the idea is that this finding may be explained by the fact that older adults prioritize goals that involve emotional meaning and engage in activities that promise immediate gratification and satisfaction [21–23].

In summary, age-graded decreases in levels of most personality traits may reflect declines in primary control during late adulthood, while increases in Emotional Stability may reflect people's increased ability to engage in secondary control strategies to minimize negative affect associated with loss of primary control. Emotional Stability may thus serve as a psychological resource in late adulthood that may become more relevant for well-being and functioning as other critical resources and personality traits decrease [24,25].

Why should we care about personality development in late adulthood?

It is appropriate to ask why we should care about personality trait development in late adulthood. The normative trends described above provide information about population-level changes in older adults' patterns of thoughts, feelings, and behaviors. However, not everyone follows these normative trends. For instance, even though Emotional Stability tends to increase on average in populations of older adults, some people remain stable in this trait or even experience significant declines during late adulthood. Similarly, not everyone decreases in primary control traits; some people may retain stable trait levels or even become more extraverted, open, agreeable, or conscientiousness as they navigate late adulthood [17].

Such deviations from the normative patterns of change are not random but predict healthy aging. For example, both higher baseline levels and increases in Emotional Stability and Conscientiousness have been found to predict improvements in physical health and adaptive health behaviors, mental health outcomes, and social support in late adulthood [26–30]. Focusing on cognitive impairment in a large multinational cohort of >71,000 adults aged 50 and older, Luchetti et al. [31] found that personality traits were more associated with

memory performance in late adulthood, particularly in countries with fewer economic resources. Specifically, higher levels in Conscientiousness, Agreeableness, and Emotional Stability turned out to be relevant psychological resources for older adults' memory performance, particularly for those who lived in less advantageous national contexts.

From an applied perspective, assessing personality trajectories and their interplay with other individual and contextual resources may thus be useful to identify individuals who are at risk. It may also offer fruitful avenues for interventions designed to shift personality trajectories in a more adaptive direction and support healthy aging. To the degree that personality can be considered representations of generalized primary and secondary control strategies, there are good reasons to consider traits as viable targets of interventions. There is growing evidence for psychological interventions that can lead to personality change [32,33]. For instance, a meta-analysis of over 200 intervention studies [34] found that clinical interventions lead to marked changes in personality traits, especially Emotional Stability. Critically, the change experienced as a result of therapy did not fade with time but seemed to last even years after the termination of therapy. Additional work that translates these clinical approaches into personality interventions for the broader populations of older adults is needed to help people maintain or increase traits that support healthy aging.

Open questions and future directions

The success of personality interventions designed to support healthy aging depends on an informed understanding of the course, process, and mechanisms of personality change in late adulthood [35,36]. Despite an increase in the absolute number of studies that have focused on older adults, there still is significantly less research on personality development in late versus young and middle adulthood [12]. More longitudinal research is needed to derive a more precise picture of the course of late-life personality development, particularly in old age.

Another challenge concerns the measurement of personality differences in late adulthood [36,37]. The widespread use of established self-report measures has several advantages; however, existing Big Five measures are typically validated in younger samples or samples with a wide age range. Even less is known about the validity of existing measures in older samples from non-Western cultures. It thus remains unclear whether these measures are also suitable for capturing fine-grained trait changes in late adulthood. Moreover, to the degree that people compare themselves with certain reference groups (e.g., younger vs. older individuals) when processing self-report items [38], researchers may

overestimate or underestimate change in personality traits.

Finally, we still know little about the process and mechanisms of personality change [26]. Existing theoretical attempts – while emphasizing different details – converge on the proposition that trait changes most likely unfold as a consequence of enduring modifications in people's patterns of thoughts, feelings, and behaviors that result in new systems of stable regularities and adjustments of people's self-concept [39–42]. Empirical evidence for personality change processes, however, remains scarce, particularly in late adulthood.

Conclusion

We propose, based on motivational theories of aging, that age-graded decreases in Conscientiousness, Openness to Experience, Extraversion, and Agreeableness during late adulthood reflect shifts in the capacity to control one's environment, whereas continued increases in Emotional Stability reflect an adaptive capacity to cope with the challenges associated with aging. Pairing developmental theory with longitudinal personality evidence provides an explanation for paradoxical aging effects, adds nuance to the maturity principle in personality psychology as it applies to aging populations, and raises interesting possibilities and hypotheses regarding how to promote successful aging.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

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