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Editorial

Does Age Matter for Personality Psychology?

Over the last two decades, evidence accumulated that personality characteristics, such as Big Five traits, motivational dispositions, self-esteem, and other aspects develop not only during childhood and adolescence but also during adulthood until old age (for overviews, see McAdams & Olson, 2010; McAdams, Shiner, & Tackett, 2019). The resulting question for (some) personality psychologists and for this special issue was: If levels of personality characteristics change over the lifespan, do personality effects on intrapersonal or interpersonal outcomes change as well? That is, do personality effects on outcomes such as task performance, health, or social relationships—effects that have been repeatedly observed in samples of mainly young adults (Ozer & Benet-Martinez, 2006; Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007)—occur alike in children or older adults? For example, are the effects of affiliative motives on social relationships similar in young and later adulthood? Do Big Five traits predict task performance differently among children, adolescents, younger, and older adults?

The current special issue addresses the question whether personality effects vary over the lifespan in nine empirical examples. Furthermore, the special issue contains two methodological articles to assess and analyse age-related effects in personality research. This editorial first describes the current state of how age is considered in personality research before briefly introducing the articles of the special issue. At the end, I discuss preliminary implications and future routes to examine and understand when and why age might matter for personality effects on intrapersonal or interpersonal outcomes.

AGE-RELATED EFFECTS IN PERSONALITY RESEARCH

The average age of all samples published in 2007 in major personality science journals (i.e. *European Journal of Personality*, *Journal of Personality*, *Journal of Personality and Social Psychology*) was 26.0 years, with an average standard deviation of 5.1 years (Wrzus, 2019). These numbers suggest that the samples represented a quite selective segment of the adult population. This impression was substantiated given that 49% of all samples included participants with an age range of 18–29 years, while no sample belonged to specific higher decades (e.g. 50–59 years). Nevertheless, 45% of samples had age ranges that spanned several decades of the adult lifespan (e.g. 18–60 years). The picture improved somewhat over the next decade (Wrzus, 2019): In 2017, the average age of the samples was 28.5 years (mean $SD = 7.0$) in the same journals, with now only 30% of the samples belonging to the 18–29 years age range and 60% of the samples covering several decades of the adult life.

Having age-heterogeneous samples is one issue, but another issue is the number of studies that tested age-dependent personality effects, that is, whether age moderated the personality effects examined in the studies. In 2017, again in the same journals, 227 samples had a sufficient age range (i.e. range > 15 years or $SD > 5$ years), yet only 20 studies (i.e. 8.8%) tested age as a moderator of the personality effects and 14 studies observed (at least one) significant age moderations (Wrzus, 2019). The *European Journal of Personality* was somewhat more aware of the relevance of participants' age compared to the other two journals ($X^2 = 31.6$, $p = .005$) with only 28% of samples having the restricted age range of 18–29 years and 66% of samples covering several age decades. The numbers will increase further in 2019 due to this special issue.

OVERVIEW OF SPECIAL ISSUE ARTICLES

The special issue covers personality characteristics broadly and includes Big Five traits, different types of goals, and attitudes (Table 1). This highlights that personality is broader than the Big Five and, at the same time, that the Big Five traits are a valuable taxonomy to compare and integrate findings.

As the readers will learn when reading the special issue, the papers have different strengths regarding innovative topics, sample sizes, multi-method approaches, or statistical analyses. The studies implemented longitudinal, experience sampling, or twin designs approaches, or a combination of these (Table 1), and they analysed the data with complex structural equation modelling, multilevel modelling, genetic algorithms, or, again, with a combination of these. Next, I discuss common theoretical assumptions as well as similarities and differences in result patterns.

INTEGRATIVE DISCUSSION OF ARTICLES

The question that served as a title for this special issue 'Does age matter for personality psychology?' calls for a yes/no answer. So 'yes', age matters for personality psychology because most personality characteristics change with age regarding mean levels and individuals' rank orders to a certain degree (Lucas & Donnellan, 2011; McAdams & Olson, 2010; Orth, Erol, & Luciano, 2018; Roberts, Walton, & Viechtbauer, 2006). And these changes can differ over the

Table 1. Overview of articles, topics, and designs included in the special issue

Authors	Personality domains	Topic	Age range	Method
			10–25	Twin design
Kandler et al., 2019	Big Five	Behavioural genetic and environmental effects	15–20	Longitudinal
Pusch et al., 2019	Big Five	Life events and different types of Big Five development	18–30	Longitudinal
Olaru et al., 2019b	Big Five	Age sensitivity of Big Five indicators (NEO-FFI item types)	16–66	Genetic algorithms
Noftle & Gust, 2019	Big Five	Situation experiences and situation-behaviour contingencies	18–81	ESM
Müller et al., 2019	Big Five	Personality-situation fit	18–89	ESM
Zheng et al., 2019	Achievement goals	Behavioural genetic effects and environmental influences	8–18	Twin design
Nikitin et al., 2019	Social goals	Differential effects on well-being in social interactions	18–83	Daily diaries
Bühler et al., 2019	Life goals	Prediction of general and domain-specific satisfaction	18–92	Longitudinal
Allemand & Hill, 2019	Attitudes	Effects of general and momentary future-time-perspective on gratitude	18–77	Daily diaries
Olaru et al., 2019a	na	'Age-fair' measurement: item and sample selection using ant colony optimization and local SEM, respectively	na	Overview
Wagner et al, 2019	na	Introduction to trait-state-occasion models, local SEM, and continuous time dynamic models	na	Overview

Note: ESM, experience sampling method; na, not applicable.

lifespan (e.g. Pusch, Mund, Hagemeyer, & Finn, 2019; Roberts et al., 2006).

At the same time, perhaps surprisingly, age matters 'maybe not so much' regarding the function of personality because personality effects often seem similar across the lifespan in the current special issue. For example, Big Five traits did not differ between emerging and young adults in predicting the occurrence of life events such as first job, marriage, or separation with one exception (out of 30 effects): During emerging adulthood, higher extraversion predicted a greater probability of entering a partnership, which was not the case for young adults (Pusch et al., 2019). Also, affective experiences when being in personality-congruent situations might not differ with age (Müller et al., 2019). In contrast, associations between momentary situations and Big Five-related behaviour often differed by age (Noftle & Gust, 2019)—especially for extraverted, open-minded, and conscientious behaviour and in situations that differed in interestingness or decision making.

Extraversion and openness to new experiences (and agreeableness) were also the domains of the NEO-FFI (Ostendorf & Angleitner, 2004), where most items were not 'age-fair' (Olaru, Schroeders, Wilhelm, & Ostendorf, 2019b). This means, the items did not seem to measure the same construct equally well for young, middle-aged, or older adults. Olaru and colleagues (2019b) associate the differences between traits in age-related measurement invariance to the item type; they demonstrate that items, which refer to emotions, abilities, behaviours, or evaluations, are rather age-invariant (i.e. 'age-fair'), whereas items based on specific interests, attitudes, and social effects are more age-specific—which partly ties in with the findings reported by Nikitin and Freund, Müller and colleagues, as well as Noftle and Gust in this issue.

Two studies examined whether genetic and environmental effects differ between late childhood and adolescence in explaining individual differences and change in Big Five traits and achievement motivation (Kandler, Waaktaar, Mõttus, Riemann, & Torgersen, 2019; Zheng et al., 2019). For Big Five traits, genetic variance increased from childhood to adolescents, and this was attributed to the accumulation of novel genetic influences instead of a strengthening of initial genetic variation (Kandler et al., 2019). Effects of genetic and environmental variation differed between types of achievement motivation: Mastery orientation exhibited similar increases in genetic variance during adolescence as Big Five traits; performance orientation showed generally stable genetic variance but shared environmental effects were somewhat higher among adolescents compared to children and school as well as parental goals contributed to the environmental effects (Zheng et al., 2019).

Goals, specifically social and life goals, were also examined in two studies examining the adult lifespan (Bühler, Weidmann, Nikitin, & Grob, 2019; Nikitin & Freund, 2019). Younger, middle-aged, and older adults differed in how important and how attainable they perceived distinct domains of life goals (e.g. work, health, and social relationships), yet goal importance and especially goal attainability predicted later general and domain-specific satisfaction rather similarly for adults of different age (Bühler et al., 2019). When differentiating social goals into approach and avoidance goals in very close, close, and peripheral social relationships, a more distinct pattern of associations with daily well-being and satisfaction arose (Nikitin & Freund, 2019): Age-related differences in social goals became most apparent in peripheral relationships compared to close relationships. Age differences in peripheral relationships are often explained with age-related differences in remaining life time or future time perspective (Lang & Carstensen, 2002). Allemand and Hill (2019) examined age differences and daily variation in future time perspective in relation to daily gratitude. Interestingly, people with habitually more open future time perspective (i.e. who perceive having much remaining life time) felt gratitude more often, yet this effect was less pronounced the older adults were (Allemand & Hill, 2019).

The study by Allemand and Hill (2019) highlights the importance of time by directly assessing perceived remaining lifetime. In contrast, the other empirical articles focus on

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factors that change with time, that is, over the life course: biological factors (e.g. gene expression and health), environmental factors (e.g. new physical and social environments), and psychological factors (e.g. developmental tasks and self-knowledge). Unsurprisingly, these factors interact. For example, genetic influences might strengthen (or weaken) in relation to other biological (e.g. puberty; Kandler et al., 2019) and environmental changes (e.g. school and relationship transitions; Zheng et al., 2019). Changes in developmental tasks often co-occur or necessitate environmental changes (e.g. changes in social relationships; Nikitin & Freund, 2019; Pusch et al., 2019, and changes in daily situations; Müller et al., 2019; Noftle & Gust, 2019).

So do we know when and why age might matter for effects how personality characteristics contribute to intrapersonal and interpersonal outcomes? Only vaguely yet. It is often assumed that with increasing age, people have a more accurate self-knowledge and therefore might act more strongly according to their personality preferences or defaults (Müller et al., 2019; Noftle & Gust, 2019; Wrzus, Wagner, & Riediger, 2016). However, the studies in the special issues and other previous studies showed that this was not always the case: Personality effects were sometimes weaker, sometimes stronger, and often quite similar at different ages. One likely explanation is that people might indeed know themselves better in certain domains, but these domains may vary between individuals. For example, people higher in introversion might be quite aware of their social preferences, that is, preferring solitude more often (Nestler, Back, & Egloff, 2011), but people with high levels of extraversion tend to vary more in extraverted behaviour (Fleeson & Gallagher, 2009) and might thus perceive their social preferences also as more flexible and act accordingly. In addition, people might not always be able to act on their personality dispositions due to (social) environmental constraints: For example, people higher in introversion have to interact frequently with others during classes or meetings, and environmental conditions can buffer personality effects (e.g. Bleidorn et al., 2016; Gerstorf et al., 2010).

Thus, it seems somewhat early for strong conclusions on when personality effects vary with age (or not). To begin with, age-heterogeneous samples are necessary in personality research, and in addition, age-related effects have to be analysed so that these cumulative results can be integrated and synthesized. Clearly, biological, environmental, and societal constraints exist and change over the entire lifespan (Baltes, Reese, & Lipsitt, 1980; Kaplan & Gangestad, 2005; Wrzus, 2019), which make it implausible that personality effects are exactly the same from childhood to old age. This does not preclude that some functions of personality characteristics might remain the same or very similar (i.e. homotopy).

Also, to further advance the study of personality influences over the lifespan, (at least) three methodological issues need to be addressed. First, it needs to be ensured that the indicators (questionnaire items, cognitive tasks, or behavioural indicators) are equally indicative of the trait—might it be a latent factor or a network of related states (Cramer et al., 2012) over the entire studied age range. Olaru and colleagues (2019b) discuss several routes to test 'age-fairness' of existing measures as well as to plan and check age-fairness during the test construction process. Second, during the analysis of personality effects on diverse outcomes, the dynamic (i.e. changing) nature of both personality characteristics and outcomes (e.g. work performance, health, and relationship satisfaction) should be taken into account. Wagner and colleagues (2019) describe innovative statistical models to test such dynamic reciprocal influences to move beyond relatively static age moderations of personality traits predicting outcomes. Third, the current articles included no children before elementary school (e.g. Kandler et al., 2019; Zheng et al., 2019) likely due to methodological issues such as understanding and following the study set-up. Therefore, creative designs are necessary to examine personality effects from early childhood to adolescence and young adulthood or even later in life to test how effects of personality characteristics change yet perhaps also cumulate over the lifespan (e.g. Roberts et al., 2006; Roberts & Caspi, 2003).

In closing, I want to thank all contributing authors! I very much enjoyed reading the articles and I learned a lot—hopefully, the readers will enjoy the articles and learn as much as I did.

Cornelia Wrzus
Psychological Institute, Ruprecht Karls University Heidelberg, Heidelberg, Germany
Email: wrzus@psychologie.uni-heidelberg.de

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