

Don't Forget the Person When Promoting Healthy Cognitive Aging: A Comment on Smith (2016)

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Smith (2016) provided a valuable review on healthy cognitive aging, addressing potential risk factors for dementia, as well as multiple mechanisms for preventing dementia. However, missing in this discussion was an acknowledgment of the potential that personality may play in shaping trajectories of cognitive aging. The current response provides a brief review of the ever accruing evidence that our dispositional traits and self-efficacy beliefs can predict trajectories of cognitive aging, as well as the mechanisms that produce these trajectories, including participants' likelihood to adhere to intervention efforts to reduce cognitive decline. We conclude by presenting recommendations for how cognitive aging researchers and practitioners can integrate personality science into their work.

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Smith (2016) provided a valuable review of potential proximal risk factors for dementia and interventions by which older adults could reduce their risk for normative and nonnormative cognitive declines. However, throughout the review, there was a surprising lack of discussion with respect to how individuals' dispositional characteristics shape their cognitive aging process. Dispositional traits and beliefs can not only help medical professionals identify those at greater or less risk for cognitive decline, but also serve as precursors to the risk factors identified by Smith (2016), as well as moderators of the efficacy for cognitive health promotion approaches. In response, we posit that it is crucial for researchers to more thoughtfully consider the role of dispositional characteristics, or one's personality, in future research on healthy cognitive aging. In support of this claim, we present below the evidence for personality as (a) a predictor of cognitive declines, (b) a precursor to cognitive health risks, and (c) a promoter of intervention efficacy. In so doing, we adopt a contemporary perspective on personality that combines work investigating trait-like dispositions with that focused on a more social–cognitive view of the person, involving the individual's perceived efficacies and motivations, to better understand the person as a whole.

Personality as Predictor

To start, research has provided convincing evidence that personality traits are predictive of individual differences in rates of cognitive decline in aging. For instance, meta-analytic work suggests that, in large panel studies of adult development, personality traits do regularly predict level and change in cognitive functioning during the middle and older adult years (Luchetti, Terracciano, Stephan, & Sutin, 2016). Another recent meta-analysis has linked traits such as conscientiousness, a disposition defined by proclivities toward self-control, organization, and industriousness, to a reduced risk for incidence of Alzheimer's disease (e.g., Terracciano et al., 2014). This trait may hold particular importance for predicting patterns of cognitive aging, because conscientious individuals may engage in more memory recall and long-term planning, to maintain their dispositionally organized and self-controlled manner. Following from these meta-analytic reviews, researchers have sought to identify the mechanisms that help explain these personality–cognition associations, for which Smith (2016) unintentionally provided an excellent foundation.

Personality as Precursor

Smith (2016) presents the case that prevention of cognitive decline can come when researchers emphasize health promotion, activity engagement, and greater adherence to cognitive training programs. Each of these mechanisms for promoting cognitive resilience has been associated with personality traits in multiple studies. Indeed, personality traits predict the (a) likelihood for onset for several of the chronic conditions nominated by Smith (2016) as risk fac-

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tors for cognitive decline (Weston, Hill, & Jackson, 2015), (b) tendency to engage in physical activities (Wilson & Dishman, 2015), and (c) proclivity toward adherence to medical regimens (e.g., Molloy, O'Carroll, & Ferguson, 2014). The personality–adherence link is particularly important to consider when attempting to promote healthy cognitive aging, insofar that it presents the possibility that researchers may be able to identify those participants more or less likely to engage with a cognitive intervention, and accordingly gain more from it.

Personality as Promoter

Smith's (2016) review highlights the impact that cognitive training interventions have on cognitive health promotion and rehabilitation in the face of cognitive decline. Smith distinguishes between interventions that focus on (a) generalized engagement in cognitively demanding activities, (b) cognitive strategy training, and (c) repetitive practice in targeted cognitive tasks. Importantly, there is a growing literature showing that individual differences in personality traits, such as openness, conscientiousness, neuroticism, and self-efficacy beliefs impact cognitive intervention effectiveness in both younger and older adults. For example, self-efficacy beliefs about memory ability in older adulthood predict individual differences in cognitive training outcomes (e.g., Payne et al., 2012; West, Bagwell, & Dark-Freudeman, 2008). Moreover, adherence rates to long-term home-based cognitive training are also predicted by baseline self-efficacy beliefs (Payne et al., 2012) and personality traits (Stine-Morrow et al., 2014), and studies examining integrated cognitive training and self-efficacy improvement have shown promise in increasing memory performance in older adults (West et al., 2008). Such findings are particularly important because, as Smith (2016) highlights, adherence plays a critical role in the effectiveness of programs designed to improve cognitive health.

Why Consider Personality?

In the previous sections, we underscored why cognitive aging studies need to consider personality at all stages of research, given its potential as a predictor, precursor, and promoter of healthy aging. Furthermore, when answering the question, "Why consider personality?" it is worth noting that evidence has accrued to suggest that trait-like dispositions can evidence meaningful changes even late in the life span (Roberts, Walton, & Viechtbauer, 2006). In fact, it has been speculated that cognitive interventions may influence personality change later in the life span (Jackson, Hill, Payne, Roberts, & Stine-Morrow, 2012). Therefore, it may be the case that personality is not only of central interest for researchers focused on healthy cognitive aging, but future work may even consider it as an additional outcome of the dementia prevention process.

In conclusion, while we appreciate Smith's (2016) overview, researchers of cognitive aging and medical professionals

should consider integrating personality science in at least three important ways. First, personality inventories should be administered at the onset of an intervention or treatment, to assist with person-centered approaches to promote cognitive resilience, and to better understand which individuals are more likely to gain from the treatment. Second, after doing so, researchers should focus on understanding the multiple pathways that link personality constructs to patterns of cognitive decline, as well as whether these associations hold across adulthood. Third, we encourage researchers also to consider the possibility for cognitive interventions to hold transfer effects on dispositional characteristics, such as traits and self-efficacy beliefs, which may ultimately influence the long-term effectiveness of methods to prevent cognitive decline.

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