Older adults are or older adults should be?

Descriptive and prescriptive views of aging and their relation to self-reported behaviors in late adulthood

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Abstract

Views of aging, encompassing conceptions about older adults, old age, and aging, are related to health and well-being via related behaviors. However, little is known about how different views of aging predict behaviors. Descriptive views of aging (DVoA) describe how older adults allegedly are (e.g., unfit or lonely). Prescriptive views of active aging (PVoA) entail beliefs about how older adults should behave (e.g., exercise or engage socially). Two alternatives for the relations between DVoA and PVoA with behaviors are possible - PVoA mirror DVoA as they entail normative expectations that older adults should compensate for deficits expressed via negative DVoA (e.g., older adults are lonely, so they should become socially engaged), indicating that behaviors can be predicted by one or the other. However, PVoA could be more strongly related to behaviors than DVoA, as they directly prescribe age-appropriate behaviors. Focusing on the health and social domains, we tested these predictions in three pre-registered studies (total N = 1,141, 60 – 90 years). All studies showed that higher endorsement of PVoA (e.g., older adults should stay fit) and more positive DVoA (e.g., older adults do a lot for their fitness) were related to more self-reported health-related, prosocial, and socializing behaviors. PVoA was more closely related to self-reported behaviors than DVoA. Our findings underline the importance of PVoA and DVoA for understanding how views of aging could become embodied in older adults' self-reported behaviors. Moreover, interventions aiming at changing older adults' behaviors via views of aging should also target PVoA, not just DVoA.

Public Significance Statement

Older adults are often portrayed as unhealthy or lonely, but they are also expected to stay healthy and socially integrated. Although more negative views of aging might undermine older adults' motivation to become active, endorsing expectations for active aging might increase willingness for active engagement. We found that holding more positive views of

aging (e.g., older adults do a lot for their health) and more strongly endorsing expectations (e.g., older adults should stay fit and healthy) predicted more self-reported health-related and social behaviors. Our results have important implications for designing interventions.

Keywords: prescriptive views of aging, descriptive age stereotypes, active aging, health, prosocial behaviors

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Descriptive and prescriptive views of aging and their relation to self-reported behaviors in late adulthood

Older adults are often portrayed as sickly, frail, and socially isolated (Dionigi, 2015; Rothermund & de Paula Couto, 2024). At the same time, it has been proposed that to age well, older adults should stay healthy, actively engaged, and socially integrated (Havighurst, 1961; Rowe & Kahn, 2015; WHO, 2015). These socially shared ideas of old age and older adults are subsumed under the umbrella term "views of aging". Stereotypes describing how older adults supposedly are, are known as descriptive views of aging (DVoA, de Paula Couto et al., 2022; Rothermund et al., 2021). Social normative beliefs encompassing the idea that older adults should be active and socially engaged are known as prescriptive views of active aging (PVoA, de Paula Couto et al., 2022; Wirth et al., 2023).

Based on stereotype embodiment theory (Levy, 2009), which proposes endorsing views of aging can affect behaviors, many studies have shown a link between endorsement of views of aging and relevant behaviors in the health or social domain (Levy & Myers, 2004; Wirth, de Paula Couto, Molina Sander, et al., 2025). These studies, however, have focused either on DVoA or PVoA for predicting behaviors, and it thus remains unclear whether endorsement of PVoA has an effect above and beyond that of DVoA. PVoA might mirror DVoA by translating negative age stereotypes into normative expectations, such that older adults should compensate for deficits expressed via negative DVoA. For example, if older adults are viewed as sickly, related PVoA would prescribe that they should compensate by attempting to stay fit and healthy. In contrast, PVoA supposedly have more direct implications for behaviors because they inform older adults about which behaviors are age-appropriate (Rasset et al., 2024; Rothermund et al., 2021). Understanding the unique effects of endorsing PVoA for older adults' behaviors will also be informative for interventions aimed at increasing older adults' physical or social activity, as such interventions, apart from self-efficacy or perceived

control, mostly target DVoA rather than PVoA (Beyer et al., 2019; Brothers & Diehl, 2020; Diehl et al., 2023; Wolff et al., 2014).

Previous work has shown that views of aging are multidimensional (Kornadt & Rothermund, 2011a) and that the relation to behaviors is strongest if behaviors match this domain (Kornadt, Hess, et al., 2020; Levy & Leifheit-Limson, 2009). Thus, we assessed endorsement of PVoA and/or DVoA and their relations to self-reported behaviors in three studies (total N = 1,141, 60 – 90 years), covering three distinct life domains: (1) health, (2) social engagement, and (3) friends and acquaintances, matching views of aging and behaviors. Investigating multiple life domains will elucidate whether relations between PVoA, DVoA, and behaviors exist in different domains and show the same pattern regarding directions and strength of the relations (e.g., stronger relation between PVoA and behaviors in all three domains, indicating domain-generality).

Relations between Descriptive and Prescriptive Views of Aging

Descriptive views of aging (DVoA) describe characteristics and behavioral tendencies of older adults (Dionigi, 2015; Mayer et al., 2005). DVoA reduce the complexity of information processing when interacting with older adults, thus influencing expectations, our judgment of, and behaviors towards older adults (Cuddy & Fiske, 2002; Mayer et al., 2005; Rothermund & Brandtstädter, 2003; Voss et al., 2018). DVoA are influenced by representations of older adults in the media, personal experiences with older adults, the aging process, and exposure to others' age-related stereotypes (Kornadt & Rothermund, 2011a). DVoA are highly relevant for an individual's development as they shape possible (feared) future selves and ideas of life in old age (Kornadt & Rothermund, 2011a). Previous studies indicate that DVoA are predominantly negative (e.g., sick, socially isolated, or slow), but can also have a positive connotation (e.g., experienced, wise, or wealthy). Studies indicate that younger and even more so older adults are more likely to endorse negative DVoA (de Paula Couto, Ostermeier, et al., 2022; Kornadt & Rothermund, 2011a). DVoA are multidimensional;

studies with within-person designs showed that older adults are rated more positively in some life domains (e.g., family and partnership) and more negatively in others (e.g., physical and mental fitness; Kornadt, 2016; Kornadt et al., 2016; Kornadt, Hess, et al., 2020; Kornadt & Rothermund, 2011a).

Prescriptive views of active aging encompass beliefs that older adults should stay fit, healthy, socially engaged and integrated (de Paula Couto, Fung, et al., 2022; Ludwig et al., 2025; Pavlova et al., 2023; Wirth et al., 2023; Wirth & Rothermund, 2026b). Similar to DVoA, they function as guiding principles as they entail knowledge about what life is like in old age and what it takes to live a good life as an older adult (de Paula Couto, Fung, et al., 2022; Wirth et al., 2023). PVoA supposedly arose from demographic changes and ensuing intergenerational tensions about socially shared resources such as health care (de Paula Couto, Fung, et al., 2022; North & Fiske, 2012). From a societal perspective, by exercising mind and body, older adults can maintain health and functioning. This, in turn, should lower consumption of health care resources. Although it has been proposed that PVoA might portray positive or benign images of old age (Pavlova et al., 2023), some researchers have criticized them as imposing normative and potentially unrealistic standards for older adults (Holstein & Minkler, 2003; Martinson & Halpern, 2011). Previous studies indicate moderate endorsement of PVoA, with older adults showing stronger endorsement than younger adults (de Paula Couto, Fung, et al., 2022; Ludwig et al., 2025; Wirth et al., 2023). Moreover, it has been shown that PVoA specifically target older, not younger adults (de Paula Couto, Huang, et al., 2022). Similar to DVoA, previous studies indicate that PVoA are multidimensional (Wirth et al., 2023).

Although it has been proposed that there is an urgent need to understand the relations between different views of aging concepts (cf. Shrira et al., 2022), theoretical and empirical work on the relation between DVoA and PVoA is rather limited. Both could be related as they serve similar functions (Rasset et al., 2024): they entail ideas of life in old age, by providing

visions of feared or hoped characteristics one might possess (e.g., being frail vs. being wise) and by entailing information on behavioral tendencies associated with old age or age-appropriate behaviors (Kornadt et al., 2022). DVoA and PVoA should, thus, serve important developmental regulatory functions (Rothermund & Wentura, 2007). Moreover, they can both become an essential part of an individual's self-concept and personal identity (Rothermund, 2026).

PVoA may also involve the translation of DVoA into a moral injunction (Gill, 2004). PVoA might reflect a mirror-image of DVoA and entail normative expectations that older adults should compensate for deficits expressed via negative DVoA. For instance, assuming that older adults are sickly or socially isolated (DVoA) might increase one's endorsement of the idea that older adults should stay fit, healthy, and socially integrated (PVoA). However, as PVoA have different underlying sources that relate to intergenerational tensions (Martinson & Halpern, 2011; North & Fiske, 2012), the overlap with DVoA might be less pronounced.

First, evidence concerning the relation between PVoA and DVoA was found, albeit indirectly, in the study by Kornadt and Rothermund (2011b), which showed that more positive DVoA were related to a stronger endorsement of the willingness to live an active and socially engaged life in old age. A more recent study found that individuals with more positive DVoA also report stronger endorsement of PVoA (Ludwig et al., 2025). This relation was rather small, which is typical for the interrelation of different views of aging constructs and speaks for the idea that these constructs are sufficiently distinct (Kornadt, Kessler, et al., 2020; Shrira et al., 2022). However, this study disregarded the multidimensionality of DVoA and PVoA (Kornadt & Rothermund, 2011a; Wirth et al., 2023), which might have masked stronger relations that could have been obtained with a multidimensional assessment (e.g., Kornadt et al., 2015; Kornadt, Hess, et al., 2020; Voss et al., 2017). Alternatively, the direction of relation between DVoA and PVoA might also differ between domains, being positive in some domains

(especially when DVoA are already positive) but negative in others (such that older adults should compensate for deficits expressed via negative DVoA).

Taken together, DVoA and PVoA are seen as conceptually distinct, but given that both offer information and guidance about life in old age, they should also be related. Although previous work points to weak relations between DVoA and PVoA, more research is needed that represents the constructs' multidimensionality.

Views of Aging and Behaviors

In addition to elucidating the relation between different concepts of views of aging, it has also been deemed highly important to investigate their predictive validity in terms of important developmental outcomes and outcome-related behaviors (cf. Shrira et al., 2022). Views of aging have been linked to health, well-being, and, in the case of DVoA, longevity (de Paula Couto et al., 2025; de Paula Couto, Fung, et al., 2022; Levy et al., 2002; Rothermund & Brandtstädter, 2003; Wurm, 2017). It has been assumed that DVoA might not directly exert their effect on these outcomes but are linked to them via psychological, physiological, and behavioral pathways (Levy, 2009). The physiological pathway is based on the idea that physiological stress responses to negative views of aging undermine health, well-being, and ultimately longevity. The psychological pathway describes the depletion of psychological resources by negative views of aging, which, in turn, has deleterious effects on health or well-being. The third, behavioral pathway, entails that the attitudes and beliefs older individuals hold about older adults have enabling and constraining effects on their actions, performance, and decisions (Dionigi, 2015). Negative (e.g., sick) and positive DVoA (e.g., wise) should regulate actions through feared or hoped-for future selves and related developmental outcomes one attempts to achieve or avoid (Kornadt et al., 2015; Rothermund & Wentura, 2007). In contrast, PVoA should have a more direct relation to behaviors as they prescribe how older adults should behave (Rasset et al., 2024; Rothermund et al., 2021). Assuming that DVoA and PVoA are only weakly to moderately related but are linked to

behaviors via different processes, one could expect similar, albeit independent, relations to behaviors.

Unfortunately, previous work has not investigated the combined effects of DVoA and PVoA in relation to behaviors. Work investigating either DVoA or PVoA has focused on the health or social domain and has shown relations to self-reported behaviors. Specifically, more positive DVoA (e.g., aging is related to increasing capabilities) were related to more health preventive behaviors (Levy & Myers, 2004; Wurm et al., 2010). However, assessment of DVoA in these studies was not specific to the health domain, and matching domains in which views of aging and the outcome are assessed could yield even stronger relations (Levy & Leifheit-Limson, 2009). No previous study has linked endorsement of PVoA to health-related behaviors.

Regarding the social domain, one study has shown no significant relation between DVoA and volunteering (Steward & Hasche, 2024), whereas more positive DVoA were related to characteristics of social relations such as network size (Menkin et al., 2017). Concerning PVoA, higher endorsement of the idea that older adults should contribute to the common good was related to higher volunteering intentions (Wirth, de Paula Couto, Fung, et al., 2025) and more self-reported volunteering (Wirth, de Paula Couto, Molina Sander, et al., 2025).

Taken together, views of aging should be related to older adults' behaviors. More positive DVoA were related to more health-related behaviors, whereas for the social domain, results are equivocal. Higher endorsement of PVoA was related to more self-reported prosocial behaviors. It remains an open question whether DVoA and PVoA are independently related to self-reported behaviors in the health and social domain.

Overview of the Current Research

Views of aging have been linked to important developmental outcomes such as health and longevity (de Paula Couto et al., 2025; de Paula Couto, Fung, et al., 2022; Levy et al., 2002; Rothermund & Brandtstädter, 2003; Wurm, 2017) via behaviors (Levy, 2009).

However, little is known about whether different types of views of aging conjointly or independently relate to such self-reported behaviors. Based on previous findings and theoretical reasoning (Ludwig et al., 2025; Rasset et al., 2024; Rothermund et al., 2021), we predicted the following:

Hypothesis 1: Endorsement of DVoA and PVoA are positively related, such that more positive DVoA are related to higher endorsement of PVoA.

Hypothesis 2: Endorsement of DVoA and PVoA are independently related to self-reported behaviors, such that more positive DVoA and higher endorsement of PVoA are related to more frequent self-reported behaviors.

Hypothesis 3: Assuming that DVoA are only indirectly related to self-reported behaviors via future selves (Kornadt et al., 2015; Rothermund et al., 2021), we expected that PVoA would be more closely related to self-reported behaviors compared to DVoA.

The hypotheses were tested in three studies, each focusing on self-reported behaviors in domains relevant for successful and healthy aging (Havighurst, 1961; Rowe & Kahn, 2015; World Health Organization, 2015). Domain-specific measures were used to assess endorsement of DVoA and PVoA in the life domains that were the focus of the respective study. Specifically, Study 1 investigated the relation between DVoA, PVoA, and self-reported health-related behaviors. Studies 2 and 3 focused on the social domain, with Study 2 investigating self-reported prosocial behaviors and Study 3 self-reported socializing behaviors, that is, maintaining and fostering non-kin social relations (friends and acquaintances).

Study 1

Method

Transparency and Openness

We report how we determined our sample size and describe all data exclusions, manipulations, and all measures that were collected as described in the pre-registration.

Ethical approval was granted by the Ethics Committee of <blinded for review>. Before data collection, study design, hypotheses, and analytic plan were pre-registered. Deidentified data, analysis codes, study material, and supplemental material for all studies are available at https://osf.io/zfx2u/overview?view_only=d13ee00936cb4933a0bb5bf9dd017fcc.

Participants

For Studies 1, 2, and 3, priori power analyses via G*Power 3.1 (Faul et al., 2007), with power set to .80 and α level to .05 and a small effect of $f^2 = .03$ (Wirth, de Paula Couto, Fung, et al., 2025), indicated a minimum of 325 participants. The initial sample comprised 433 adults (60 – 90 years, 49.4% women) who were German native speakers. We excluded 5 participants because of outlying values on main study variables as identified via Grubbs' test (Grubbs, 1950) and 4 participants because their responses had no variance for any of the study measures, indicating careless responding and questioning the validity of their responses. Additionally, 2 participants were excluded from analyses because of missing data on the outcome measures. Running the analyses with the initial sample does not change the main results. Table 1 displays background information on included and excluded participants.

For all studies, participants received monetary compensation, and we were aiming for a sample stratified by gender and age group. Participants were recruited nationwide via bilendi (https://www.bilendi.de/), and participants could only participate in one of three studies. Before data collection, study design, hypotheses, and analytic plan were pre-registered at https://aspredicted.org/4z89-csqh.pdf. Data for this study were collected in May and July 2025.

Measures

The full list of items for Studies 1, 2, and 3 can be found at https://osf.io/zfx2u/overview?view_only=d13ee00936cb4933a0bb5bf9dd017fcc.

Prescriptive Views of Aging. PVoA in the health and fitness domain were assessed using 3 items from previous research (e.g., "Older adults should stay fit and exercise or go for

a walk several times a week"; Wirth et al., 2023). Responses were made on a 5-point Likert scale ranging from 1 (do not agree) to 5 (strongly agree). The three items were aggregated, and higher values indicate higher endorsement. The PVoA scale had a reliability of $\alpha = .75$.

Descriptive Views of Aging. DVoA in the domain of health and fitness were assessed using 3 items that were adapted from previous research (Kornadt & Rothermund, 2011a). Participants were presented with two opposing statements (e.g., older adults do little to maintain their health and fitness vs. older adults do a lot to maintain their health and fitness) representing a negative and a positive view of older adults. Responses were made on an 8-point scale between two opposite poles, with higher values indicating more favorable DVoA. The DVoA scale had a reliability of $\alpha = .82$.

Self-reported Health-related Behaviors. We developed a list of seven items assessing behaviors related to health and health promotion based on recommendations published by the German Federal Center for Health Education concerning health and life quality in late adulthood (Bundeszentrale für gesundheitliche Aufklärung, 2020). The items assessed behaviors that are seen as adverse (e.g., consuming alcohol, tobacco, consuming fatty, salty, or sugary food; inverse coded) or beneficial for health (e.g., endurance sport, walking, sleeping more than 7 hours, consuming vegetables and fruits) and one item regarding preventive health care (for similar items see, Levy & Myers, 2004). Participants indicated how much they engaged in the behaviors on a scale from 1 ("never") to 5 ("very often"). Additionally, we assessed how much participants were willing to prepare for age-related changes with two items from previous research (Kornadt et al., 2015). The items stated that "I am actively working to maintain my health in old age by regular check-ups, avoidance of behaviors that are harmful to my health, etc.," and "I am actively working to maintain my mental and physical fitness by exercise, regular mental activity, etc." In line with previous research, age-related preparation was assessed with a response scale ranging from 1 ("not at all") to 4 ("a lot"). As we aimed to assess health-related behaviors and age-related aspects of

it comprehensively, we combined the seven items assessing behaviors and the two assessing age-related preparation into one outcome. Due to the different scaling, we used Percentage of Maximum Possible (POMP) scoring, and resulting scores are the percentage of the maximum possible value on a scale. Thus, values for the health behaviors outcome ranged from 0 – 100, with higher scores indicating that participants engaged in more health-related behaviors. The health-related behaviors scale had a reliability of $\alpha = .71$.

Covariates. We included age as a covariate. To account for potential hindrances in engaging in health- or fitness-related activity, we included the following covariates. We assessed whether health problems limit participants' physical exercise on a response scale from 1 ("not at all") to 5 ("very much"). We also included subjective health as a covariate, which was assessed by the question "How would you rate your current health?" with a response scale from 1 (very poor) to 5 (very good).

Procedure

The study was conducted online on participants' personal computers and took about 10 – 15 minutes to complete. Participants first provided written informed consent and reported on demographic information subsequently. On the following pages, they indicated their endorsement of PVoA, followed by questions regarding their current health behaviors and fitness level (e.g., dietary habits, physical exercise) as well as how much they prepare for their aging in the domain of health and fitness. Subsequently, participants rated the DVoA statements.

Analytical Approach

We conducted a multiple regression analysis with PVoA and DVoA as predictors and our indicator of self-reported health-related behaviors as outcome. We included age, health problems limiting exercise, and subjective health as covariates. Analyses were conducted using *R* version 4.5.2 (R Core Team, 2026) and the correlation package (Makowski et al., 2020).

Results

As can be seen in Table 2, participants reported moderate endorsement of PVoA, slightly positive DVoA, and moderate levels of self-reported health-related behaviors. PVoA, DVoA, and self-reported health-related behaviors were significantly, positively related. The correlation for PVoA and self-reported health-related behaviors was significantly higher than the one between DVoA and health-related behaviors, $z = 3.132$, $p = .002$.

As can be seen in Table 3, PVoA and DVoA were significant predictors of self-reported health-related behaviors; higher ratings predicted more health-related behaviors. Comparing β coefficients, we found significant differences, estimate = 6.19, $SE = 1.13$, $t = 5.488$, $p < .001$, indicating higher β coefficients for PVoA than DVoA. Additionally, we found that the covariate subjective health was significantly related to health-related behavior, with its β coefficient falling between that of PVoA and DVoA.

Discussion

In line with our prediction, DVoA and PVoA were positively related. Moreover, DVoA and PVoA independently predicted self-reported health-related behaviors. Holding more positive views of older adults in the health domain was related to more often engaging in health-related behaviors. Higher endorsement of the idea that older adults should stay fit and healthy also predicted more self-reported health-related behaviors. Our results attest to the idea that views of aging can become embodied in older adults' behaviors (Levy, 2009). Our results are also consistent with previous studies indicating that more positive DVoA were related to more health preventive behaviors and physical activity (Levy & Myers, 2004; Wurm et al., 2010). Our results provide the first evidence that PVoA are also related to self-reported behaviors in the health and fitness domain. Moreover, PVoA were more closely related to self-reported health-related behaviors than DVoA. The stronger relation between PVoA and self-reported health-related behaviors also speaks for the idea that PVoA could have more direct implications for older adults' behaviors (Rothermund et al., 2021). Interestingly,

subjective health emerged as a significant predictor of health-related behaviors. This underlines the general importance of good (subjective) health in late adulthood for physical activity (Warner, Wolff, et al., 2019) and validates our measure of self-reported health-related behavior.

Study 2

Substantiating the idea that views of aging are embodied in older adults' behaviors, in Study 2, we focused on the social domain, specifically, self-reported prosocial behaviors. Although many studies have linked prosocial behaviors or engagement in late adulthood to important developmental outcomes such as health or well-being, few have investigated the role of views of aging for older adults' self-reported prosocial behaviors (cf. Morrow-Howell & Gonzales, 2024). Holding negative views about older adults' competence to become socially engaged or assuming that older adults are not interested in contributing to the common good might undermine one's motivation for social engagement in late adulthood (Morrow-Howell & Gonzales, 2024). Previous research investigating the relation between DVoA and volunteering hours did not find a significant relation (Steward & Hasche, 2024). However, the sample consisted only of older adults who already volunteered. As studies indicate that volunteers hold more positive views of aging compared to non-volunteers (Huo et al., 2021, 2023), the measure of DVoA may have had limited variance in this volunteer sample. Moreover, volunteering might not fully capture older adults' social engagement, as social engagement also includes caring for others or providing advice outside of a structured volunteer setting (Wirth, de Paula Couto, Molina Sander, et al., 2025). Thus, assessing self-reported social engagement more comprehensively might yield significant relations between endorsement of DVoA and social engagement.

Regarding the embodiment of PVoA in the social domain, previous studies have shown a small but significant relation between endorsing the belief that older adults should contribute to the common good and older adults' self-reported volunteering and volunteering

intentions (Wirth, de Paula Couto, Fung, et al., 2025; Wirth, de Paula Couto, Molina Sander, et al., 2025). Thus, we aimed to replicate these studies and explored whether the relation between endorsement of PVoA and self-reported behaviors in the social engagement domain would be more pronounced when assessing social engagement more comprehensively.

Method

Participants

The initial sample comprised 356 adults (60 – 90 years, 49.7% women) who were German native speakers. We excluded 3 participants because of outlying values on main study variables as identified via Grubbs' test (Grubbs, 1950) and 6 participants because their responses had no variance for any of the study measures, indicating careless responding. Running the analyses with the initial sample does not change the main results. Table 4 displays background information on included and excluded participants. Ethical approval was identical to Study 1. Before data collection, study design, hypotheses, and analytic plan were pre-registered at https://aspredicted.org/nd7w-wpgf.pdf. Data for this study were collected in August 2025.

Measures

Prescriptive Views of Aging. PVoA in the social engagement domain were assessed using 3 items from previous research ("Older adults should do more for other people or for the common good.", Wirth et al., 2023, 2025). Responses were made on a 5-point Likert scale ranging from 1 (do not agree) to 5 (strongly agree). The three items were aggregated, and higher values indicate higher endorsement. The PVoA scale had a reliability of $\alpha = .69$.

Descriptive Views of Aging. DVoA in the social domain were assessed using 3 items that were adapted from previous research (Kornadt & Rothermund, 2011a) and 3 newly developed items. Similar to Study 1, participants were presented with two opposing statements (e.g., older adults do not contribute substantially to society vs. older adults contribute substantially to society). Responses were made on an 8-point scale between two

opposite poles, with higher values indicating more favorable DVoA. The DVoA scale had a reliability of α = .84.

Self-reported Prosocial Intention and Behaviors. We assessed prosocial intentions using 4 items adapted from previous research. Participants indicated their willingness to volunteer (Wirth, de Paula Couto, Fung, et al., 2025; Wirth, de Paula Couto, Molina Sander, et al., 2025), their willingness to help others or to make their knowledge and abilities available to others (Luengo Kanacri et al., 2021). Moreover, we assessed participants' age-related preparation in the social engagement domain: “I actively prepare for social engagement in old age (e.g., by holding public office, participating in neighborhood assistance, or other volunteer activities; Kornadt et al., 2015). Ratings were made on a five-point Likert scale ranging from 1 (do not agree) to 5 (strongly agree).

Self-reported prosocial behaviors were assessed with 5 items. Participants indicated how often in the past 12 months, they had volunteered, offered help or helped someone, participated in a social or political event, donated money, things, or time to a charity, or had cared for or mentored someone (Baumsteiger & Siegel, 2019). Ratings were made on a six-point Likert scale ranging from 1 (never) to 6 (several times per week).

As we aimed to assess participants' engagement in the social domain comprehensively, we combined the items assessing prosocial intentions and behaviors into one outcome. Due to the different scaling, we used POMP scoring. The prosocial scale had a reliability of α = .87.

Covariates. We included age as a covariate. Additionally, based on previous research (Wirth, de Paula Couto, Fung, et al., 2025), we included the following covariates: Whether participants have the opportunity to volunteer or become socially engaged where they live (yes/no) and subjective health, which was assessed by the question “How would you rate your current health?” with a response scale from 1 (very poor) to 5 (very good).

Procedure

Procedure was identical to that of Study 1, with all measures now referring to the social engagement rather than the health domain.

Analytical Approach

The analytical approach was identical to that of Study 1, with predictors and outcome now referring to social engagement, and that opportunity to become socially engaged was used as a covariate.

Results

As depicted in Table 5, participants reported moderate endorsement of PVoA, slightly positive DVoA, and moderate levels of self-reported prosocial behaviors. PVoA, DVoA, and self-reported prosocial behaviors were positively related to each other. The correlation between PVoA and self-reported prosocial behaviors was significantly higher than the one between DVoA and socializing behavior, $z = 3.078$, $p = .002$.

As can be seen in Table 6, PVoA and DVoA were significant predictors of self-reported prosocial behaviors; higher ratings predicted more prosocial behaviors. Comparing β coefficients, we found significant differences, estimate = 8.95, $SE = 1.50$, $t = 5.973$, $p < .001$, indicating higher β coefficients for PVoA than DVoA. Additionally, we found that the covariate opportunities for volunteering was significantly related to prosocial behaviors, with its β coefficient falling between that of PVoA and DVoA.

Discussion

In line with our hypothesis and the results of Study 1, DVoA and PVoA were positively related. Moreover, DVoA and PVoA were significantly related to self-reported prosocial behaviors. Holding more positive views of older adults in the social domain or more strongly endorsing that older adults should contribute to the common good was related to more self-reported prosocial behaviors. Although our results replicate previous findings regarding the relation between PVoA and self-reported prosocial engagement (Lin et al., 2026; Wirth, de Paula Couto, Fung, et al., 2025; Wirth, de Paula Couto, Molina Sander, et al., 2025), they do

not support previous research indicating no relation between DVoA and volunteering (Steward & Hasche, 2024). However, we used a more comprehensive measure of social engagement and included non-volunteering participants, potentially increasing the variance in the measure of DVoA. Interestingly, again, the relation between views of aging and behaviors was more pronounced for PVoA compared to DVoA. This further underlines the idea that endorsement of PVoA might have more direct implications for older adults' self-reported behaviors than DVoA (Rothermund et al., 2021). Interestingly, opportunities for prosocial engagement significantly predicted self-reported prosocial behavior. This underlines that missing opportunities are a main barrier to engaging in prosocial behavior in late adulthood (Hansen & Slagsvold, 2020) and validates our measure of self-reported prosocial behavior.

Study 3

Following proposals that to age well, older adults need to stay healthy, actively engaged, and socially integrated (Havighurst, 1961; Rowe & Kahn, 2015; WHO, 2015), in Study 3, we investigated the relation between views of aging and self-reported social integration. We investigated social integration in terms of maintaining and fostering non-kin social relations. Friend relations (including acquaintances) have been linked to important developmental outcomes such as health and well-being, and these non-kin relations are particularly important for social belonging and integration in late adulthood, when social networks usually become smaller (Ajrouch et al., 2024; Blieszner et al., 2019; Carr & Moorman, 2011; Ng et al., 2023; Sprecher, 2022).

Although previous research has shown slightly negative DVoA in the domain of friends and acquaintances (Kornadt, Hess, et al., 2020; Kornadt & Rothermund, 2011a), research regarding the relation to self-reported behaviors in this domain is sparse (cf. Menkin et al., 2017). One would expect that holding negative views about older adults' ability to socialize and maintain friendships would undermine efforts to invest in maintaining those friendships, resulting in lower levels of behaviors aimed at maintaining or fostering friend relations.

Previous research indicates that more negative DVoA were related to lower support availability, lower number of high-frequency contacts, and reduced network diversity (Menkin et al., 2017). Although this study shows links between DVoA and characteristics of older adults' social relations, it is not informative as to whether DVoA are linked to behaviors aimed at maintaining existing friendships and acquaintances (e.g., actively contacting friends). Although qualitative studies indicate that PVoA also exist in the domain of friends and acquaintances (O'Dare et al., 2019), no study has investigated endorsement of PVoA in this domain or how it is related to maintaining or fostering friendships.

Method

Participants

The initial sample comprised 352 adults (60 – 87 years, 49.4% women) who were German native speakers. We excluded 1 participant because of outlying values as identified via Grubbs' test (Grubbs, 1950). Table 7 displays background information on included participants. Ethical approval was identical to Study 1. Before data collection, study design, hypotheses, and analytic plan were pre-registered at https://aspredicted.org/zv95-kj9x.pdf. Data for this study were collected in September 2025.

Measures

Prescriptive Views of Aging. PVoA in the domain of friends and acquaintances were assessed using 3 newly developed items ("Older adults should maintain their friendships and acquaintances"; "Older adults should spend their time doing lots of things with friends and acquaintances."; "Older adults should have as large a network of friends and acquaintances as possible."). Responses were made on a 5-point Likert scale ranging from 1 (do not agree) to 5 (strongly agree). The three items were aggregated, and higher values indicate higher endorsement. The PVoA scale had a reliability of $\alpha = .69$.

Descriptive Views of Aging. DVoA in the friends domain were assessed using 3 items that were adapted from previous research (Kornadt & Rothermund, 2011a) and 3 newly

developed items. Similar to Study 1, participants were presented with two opposing statements (e.g., older adults spend little time with their friends and acquaintances vs. older adults spend a lot of time with their friends and acquaintances). Responses were made on an 8-point scale between two opposite poles, with higher values indicating more favorable DVoA. The DVoA scale had a reliability of $\alpha = .86$.

Self-reported Socializing Behaviors. We assessed self-reported age-related preparation in the domains of friends and acquaintances ("I actively prepare for maintaining my personal social relationships in old age, e.g., by fostering friendships and staying involved in my network of friends and acquaintances; Kornadt et al., 2015). Ratings were made on a five-point Likert scale ranging from 1 (do not agree) to 5 (strongly agree). We assessed participants' contact with friends and acquaintances within the past 12 months (Pavlova & Lühr, 2023). Ratings are made on a six-point Likert scale ranging from 1 (never) to 6 (several times per week). Additionally, we developed six items assessing people's self-reported behaviors related to maintaining friendships and acquaintances (e.g., "I actively contact my friends and acquaintances."; "I invest time to prevent losing contact with friends and acquaintances."). Ratings are made on a five-point Likert scale ranging from 1 (do not agree) to 5 (strongly agree).

As we aimed to assess participants' self-reported socializing behaviors in the domain of friends and acquaintances comprehensively, we combined all items into one outcome. Due to the different scaling, we used POMP scoring. The socializing scale had a reliability of $\alpha = .82$.

Covariates. We included age as a covariate. Following previous research (Blieszner et al., 2019; Menkin et al., 2017), we included the following covariates: We assessed participants' general sociability by using two items of the shyness and sociability scale ("I approach other people in a relaxed manner."; "I find it easy to get in touch with other people"; Asendorpf, 2002). Ratings were made on a 5-point Likert scale ranging from 1 (do not agree) to 5 (strongly agree). Ratings were aggregated, and higher values indicate higher general

sociability. The sociability scale had a reliability of α = .87. We also included subjective health as a covariate, which was assessed by the question "How would you rate your current health?" with a response scale from 1 (very poor) to 5 (very good).

Procedure

Procedure was identical to that of Study 1, with all measures now referring to the friends and acquaintances rather than the health domain.

Analytical Approach

The analytical approach was identical to that of Study 1, with predictors and outcome now referring to the friends and acquaintances domain, and we included general sociability as a covariate.

Results

As can be seen in Table 8, participants reported moderate to high endorsement of PVoA, slightly negative DVoA, and had moderate to high levels of socializing behaviors. PVoA, DVoA, and self-reported socializing behaviors were positively related to each other. The correlation for PVoA and self-reported socializing behavior as compared to the one for DVoA and socializing behavior did not differ significantly, z = 0.291, $p = .771$.

As can be seen in Table 9, PVoA and DVoA significantly predicted self-reported socializing behaviors; higher ratings predicted more socializing. Comparing β coefficients, we found significant differences, estimate = 6.57, $SE = 1.61$, $t = 4.081$, $p < .001$, indicating higher β coefficients for PVoA than DVoA. Additionally, we found that the covariate general sociability was significantly related to socializing, its β coefficient being lower than that of PVoA and DVoA.

Discussion

In line with our hypothesis, DVoA and PVoA were positively related in the domain of friends and acquaintances. Replicating previous findings (Kornadt, Hess, et al., 2020; Kornadt & Rothermund, 2011a), DVoA in the friends domain were slightly negative. Extending

previous work indicating that DVoA are related to characteristics of social relations (Menkin et al., 2017), our results indicate that more positive DVoA were related to more self-reported behaviors aimed at maintaining or fostering friendships and acquaintances. Moreover, our study offers the first evidence concerning the endorsement of PVoA in the domain of friends and acquaintances. On average, our participants moderately endorsed the belief that older adults should invest time in friendships and should have a large social network. This endorsement was positively related to self-reported socializing behaviors. DVoA and PVoA were independent predictors, but unlike Studies 1 and 2, correlations for DVoA and PVoA with self-reported behaviors did not differ. However, the standardized regression coefficient β was higher for PVoA and DVoA. One potential reason for the stronger relation between DVoA and self-reported behaviors in the friends domain could be that the items capturing DVoA reflected behaviors and activities (e.g., older adults have difficulties maintaining friendships) and thus were more closely related to and showed more overlap with the self-reported behaviors than DVoA items in the health or social engagement domain. This effect did not alter the predictive strength of PVoA, but increased the predictive value of DVoA, in line with the overall finding that relations between both dimensions of views of aging independently predicted self-reported behaviors within each of the domains of our study. Interestingly, sociability emerged as a significant predictor of socializing behavior. This underlines that building or maintaining friendships requires a preference for affiliation (Blieszner et al., 2019) and validates our measure of socializing behavior.

General Discussion

Views of aging provide the background that shapes expectations and interpretations of experiences individuals have as they grow old (Kornadt & Rothermund, 2015). Little is known about the interrelations between different views of aging concepts or their differential relation to self-reported behaviors (cf. Shrira et al., 2022). Our studies, investigating the

relation between DVoA and PVoA and their relation to self-reported behaviors in three life domains, offer important new insights.

Relations between Descriptive and Prescriptive Views of Aging

The small to moderate relations of DVoA and PVoA found in three different life domains attest to the idea of domain-generality of effects. Moreover, they support the idea that these views of aging concepts are related yet sufficiently distinct (de Paula Couto & Rothermund, 2022; Kornadt, Kessler, et al., 2020; Shrira et al., 2022). Put differently, the characteristics and behavioral tendencies that older adults ascribe to other older adults do not necessarily transfer to behavioral prescriptions. Thus, although DVoA and PVoA potentially serve similar functions of providing information and guidance on life in old age, PVoA might not mirror DVoA to a large extent. However, our results are correlational in nature, and our findings should be substantiated by experimental studies. It would be important to show that manipulating PVoA, for example, by having participants reflect on reasons for endorsing them (Wirth et al., 2023), does not affect participants' DVoA. Alternatively, interventions targeting DVoA via educational modules (e.g., Murphy et al., 2025; Shimizu et al., 2022) should show no or minimal changes in PVoA.

The low to moderate overlap could be related to a discrepancy between expectations regarding aging and the assumed malleability or controllability of age-related changes (Weiss, 2022). Specifically, old age is typically associated with expected losses, for example, in physical fitness or the social domain (Heckhausen et al., 1989; Riediger et al., 2014), which is reflected in DVoA (e.g., old adults are frail or socially isolated). PVoA, in contrast, might capture beliefs that age-related changes are (at least to some degree) controllable (e.g., older adults should stay active to avoid health problems or social isolation; de Paula Couto et al., 2022; Wirth & Rothermund, 2025). Expecting age-related changes in functioning, however, might not necessarily mean that one thinks that these changes are inevitable or cannot be delayed by taking appropriate measures (Rothermund & Wentura, 2007; Weiss, 2022).

It is also possible that other views of aging, such as essentialist beliefs, moderate the relation between DVoA and PVoA (Diehl et al., 2014; Shrira et al., 2022; Weiss, 2022). For individuals endorsing that aging is fixed, negative DVoA could be related to lower endorsement of PVoA. For individuals endorsing that aging is malleable, negative DVoA could be related to higher endorsement of PVoA, following the idea that older adults can compensate for deficits portrayed in negative DVoA.

Although this was not the main research focus, our results also attest to the idea that views of aging are multidimensional and multidirectional (Diehl et al., 2021; Kornadt, Kessler, et al., 2020; Wettstein et al., 2022). Similar to studies assessing either DVoA or PVoA in the same sample (Kornadt, 2016; Kornadt, Hess, et al., 2020; Kornadt & Rothermund, 2011a; Wirth et al., 2023), we found that DVoA were slightly negative in the domain of friends and acquaintances, whereas endorsement of PVoA was lowest in the social engagement domain. Similarly, relations between DVoA and PVoA differed across life domains, with higher correlations in the friends and acquaintance domain. Although DVoA were more positive in the health and social engagement domain, they were slightly negative in the domain of friends and acquaintances. Notwithstanding that patterns of multidimensionality and multidirectionality of DVoA and PVoA and their relation need to be replicated in future studies, the complexity of older adults' views of aging might not be adequately captured without taking a multidimensional approach (Kornadt & Rothermund, 2011a; Levy & Leifheit-Limson, 2009; Wirth et al., 2023). As more general views of aging referring to societal ideas about older adults also affect how older adults themselves build their personal identity (Palgi et al., 2021; Rothermund, 2026), it will be important to conjointly investigate PVoA and DVoA in different life domains to better account for the complexity of navigating the aging process. To better understand the complexity of aging, it would also be important to investigate whether PVoA and DVoA show differential long-term trajectories as is typically found for self-perceptions of aging (e.g., age-related gains and

losses; Diehl et al., 2021; Wettstein et al., 2022). While DVoA are mostly stable across time (Kornadt et al., 2017), no studies have investigated changes in endorsement of PVoA. Such studies could elucidate, for example, whether negative DVoA are prospectively related to higher endorsement of PVoA.

Views of Aging and Self-reported Behaviors

Our results are in line with the idea that attitudes and beliefs one holds about other older adults can have constraining or enabling effects for behaviors (Dionigi, 2015; Rothermund & Wentura, 2007). They also mostly support the idea that PVoA are more directly related to self-reported behaviors than DVoA (Rasset et al., 2024; Rothermund et al., 2021). However, overall relations between PVoA or DVoA and self-reported behaviors were small to moderate, on the one hand, reflecting that views of aging are but one potential source of behavioral regulation in late adulthood. On the other hand, there could be intermediary processes between views of aging about other older adults and an older person's self-reported behaviors that we did not sufficiently capture in our study. Specifically, it has been reasoned that an individual's self-concept is the most influential motivational predictor of behaviors (cf. Rothermund, 2026). Views of aging about older adults can become part of an individual's self-concept when these views gain salience and relevance as individuals start to interpret their experiences as related to their age or they self-categorize as belonging to the group of older adults (Kornadt & Rothermund, 2012; Levy, 2009; Rothermund & Brandtstädter, 2003). This internalization or transfer from "older adults are or should" to "I am or should" increases the likelihood of enacting behaviors or holding behavioral intentions entailed in views of aging (Rothermund, 2026; Wirth, de Paula Couto, Fung, et al., 2025). This transfer from other- to self-related views of aging, which then affects behaviors, can also be found in frameworks of subjective aging (Diehl et al., 2014; Shrira et al., 2022). These frameworks highlight potential moderating or mediating factors concerning the relation between views of aging and behaviors. For example, self-regulatory processes such as self-efficacy have been

shown to mediate the relation between views of aging and different behaviors, including volunteering and exercise (Steward & Hasche, 2022).

Given the high correspondence between self- vs. other-related views of aging found in previous studies (Brothers et al., 2021; Wirth, de Paula Couto, Fung, et al., 2025; Wirth et al., 2023) as well as the mostly positive DVoA found in our study, it is also possible that our participants projected their own aging experiences onto other-related views of older adults (Kornadt et al., 2017; Rothermund & Brandtstädter, 2003), although conceptual frameworks of subjective aging assume that projection is less likely than internalization (Diehl et al., 2014; Shrira et al., 2022).

To better understand how views of aging become embodied in older adults' self-reported behaviors, future studies will need to investigate whether an individual's self-concept or personal identity as an older person mediates the relation between views about other older adults and self-reported behaviors. As internalization is seen as a lifelong process, these studies should go beyond the current correlational designs by capitalizing on longitudinal designs or intervention studies. Longitudinal studies could also elucidate whether the relation between DVoA and self-reported behaviors is mediated via PVoA.

Our results are also interesting when focusing on enabling older adults' participation in different life domains. Specifically, similar to previous studies (Diehl et al., 2023; Wurm et al., 2010), holding negative views of aging in our study was related to lower levels of self-reported behaviors. Thus, our results lend support to the idea that older adults' physical fitness or social engagement could be increased by targeting views of aging (Beyer et al., 2019; Brothers & Diehl, 2020; Diehl et al., 2023; Wolff et al., 2014). However, these interventive approaches focused on older adults' DVoA. Based on the positive relation between PVoA and behaviors, it seems important to also integrate PVoA.

Limitations

Our studies offer important insights into the interrelation between two views of aging concepts and their relation to self-reported behaviors in three life domains. However, the following limitations deserve note. The PVoA scales were constructed to be short but general enough to cover the relevant contents of active aging. However, this aim for high construct validity came at the cost of internal consistency (Cronbach & Meehl, 1955). The moderate reliability could have prevented us from finding stronger relations between DVoA and PVoA, as well as between PVoA and self-reported behaviors. Thus, the right balance between comprehensive and reliable assessment of PVoA in different domains needs to be determined in future studies.

PVoA and DVoA were assessed using different scale formats (unipolar vs. bipolar). This difference resulted from using items and scale formats employed in previous research (Kornadt & Rothermund, 2011a; Wirth et al., 2023). As we cannot rule out that scale polarity played a role in our findings, future research should aim at using scales with identical polarity for views of aging measures.

Our results are based on self-reports. These could be affected by self-presentation and social desirability. Concerning views of aging, in refraining from (explicitly) endorsing PVoA or rating characteristics of other older adults as more negative, individuals aim not to appear too restrictive on others or too condescending (de Paula Couto, Huang, et al., 2022). To circumvent potential limitations of self-report measures of views of aging, one could use implicit measures (de Paula Couto, Huang, et al., 2022; Kornadt et al., 2016). Regarding behaviors, there usually is a gap between self-reported and objective behaviors, especially if targeting socially desirable behaviors (e.g., exercising; Prince et al., 2008). Future studies should also include objective behaviors either directly (e.g., via accelerometers) or incorporate informant-based behavior reports.

Our work focused on three life domains, but previous research has investigated up to eight life domains (Kornadt, Hess, et al., 2020; Kornadt & Rothermund, 2011a). Thus, future

work could include more life domains, especially those in which intergenerational tensions might be higher, such as work or finances (North, 2019). In these domains, DVoA is less positive (e.g., older adults do not financially support others; Kornadt & Rothermund, 2011a), and endorsement of PVoA (e.g., older adults should financially support others) might be lower, thus potentially resulting in different relations to behaviors. Future studies could also investigate the multidimensionality of DVoA, PVoA, and their relation to behaviors directly within the same sample. Such a within-person design allows to directly investigate domain-specificity of the relations (e.g., higher in one domain but lower in another). With our focus on domain-generality and applying a between-person approach, our studies offer limited insight concerning domain-specificity.

Many of our participants had moderate to high levels of education and reported good health. Good health and a high SES have been related to higher willingness and opportunity for health-related or social engagement behaviors (Levy & Myers, 2004; Shankar et al., 2010; Warner, Jiang, et al., 2019). Follow-up studies should include a more diverse sample concerning health and SES. Moreover, older adults with higher levels of education could be more likely to own and actively use computers. Thus, future studies should also enable offline participation. Such work could help to better understand how to facilitate participation and engagement of older adults from diverse socioeconomic backgrounds and with different health statuses.

The cultural-societal contexts we live in shape how we perceive and evaluate others and ourselves as aging individuals (Kornadt et al., 2022; Segel-Karpas & Bergman, 2022; Shrira et al., 2022). As previous research points to cultural differences in DVoA (Voss et al., 2018), PVoA (Rothermund, 2024), and their relation to developmental outcomes such as well-being (Shenkman et al., 2024; Wirth & Rothermund, 2026a), future studies should be conducted in additional countries. It would be interesting to compare our results to countries without statewide social security, in which individuals hold more responsibility for their aging. Higher

responsibility for one's aging could go hand in hand with increased demands to lead an active lifestyle to ward off aging-related losses (Wirth & Rothermund, 2026b) and, thus, potentially a higher relation between PVoA and behaviors.

Conclusion

Older adults are often portrayed as unhealthy or lonely, but they are also expected to stay healthy and socially integrated. Although holding more negative views of aging might undermine older adults' motivation to become active, endorsing expectations for active aging might increase willingness for active engagement. We tested the assumed interrelation between descriptive and prescriptive views of aging and self-reported behaviors in three studies, covering the life domains of health, social engagement and integration. All studies showed that higher endorsement of PVoA and more positive DVoA were related to more self-reported health-related, prosocial, and socializing behaviors. Our findings support the notion that views of aging are important for understanding how individuals negotiate growing older and how we could enable participation for older adults in different life domains.

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Table 1

Demographic information for included and excluded participants Study 1

	included (N = 422)	excluded (N = 11)	difference
Mean age (*SD*)	69.777 (6.29)	66.909 (6.02)	$t(10.575) = 1.557$, $p = .149$
Age group (%)			$\chi(1) = 1.436$, $p = .231$
60 – 70 years	210 (48.5)	8 (1.8)	
71+ years	212 (49.0)	3 (0.7)	
Gender (%)			$\chi(2) = 0.140$, $p = .933$
female	208 (48.0)	6 (1.4)	
male	213 (49.2)	5 (1.2)	
other	1 (0.2)	0 (0.0)	
Education (%)			$\chi(2) = 4.804$, $p = .091$
< 10 years	87 (20.0)	4 (1.0)	
10 years	160 (37.0)	6 (1.4)	
> 10 years	175 (40.4)	1 (0.2)	
Vocational training (%)			$\chi(4) = 13.920$, $p = .008$
no vocational training	9 (2.1)	2 (0.5)	
vocational training	213 (49.1)	7 (1.6)	
college	88 (20.3)	0 (0.0)	
university degree	104 (24.0)	2 (0.5)	
other	8 (1.8)	0 (0.0)	
Occupation (%)			$\chi(3) = 3.704$, $p = .295$
employed	98 (22.7)	3 (0.6)	
unemployed	7 (1.6)	1 (0.2)	
retired	305 (70.4)	7 (1.6)	
other	12 (2.8)	0 (0.0)	
satisfaction with life (*SD*)[a]	4.896 (1.36)	4.364 (2.01)	$t(10.24) = 0.872$, $p = .404$
subjective health (*SD*)[b]	3.358 (0.78)	3.636 (0.88)	$t(10.488) = -1.128$, $p = .284$

Note. [a]Satisfaction with life was assessed with one item "I am satisfied with my life"; on a response scale of 1 (does not apply at all) to 7 (fully applies). [b]Subjective health was assessed by a single item, "How would you rate your current health?" with a response scale from 1 (very poor) to 5 (very good).

Table 2

Means, SDs, and correlations for main study variables in Study 1.

	M (*SD*)	1.	2.
1. PVoA	4.236 (0.655)	-	
2. DVoA	5.513 (1.334)	.134**	
3. Health-related behavior	63.575 (14.588)	.415***	.217***

Note. *p*-values were adjusted for multiple comparisons using the method proposed by Holm (1979). *** $p < .001$, ** $p < .01$, * $p < .05$

Table 3

Results of multiple regression analyses predicting health-related behavior in Study 1

Predictors	*B*	*SE B*	*95% CI*	*β*	*p*-value	r
Intercept	1.712	8.457	[-14.912, 18.337]		.840	
PVoA	7.841	0.980	[5.915, 9.766]	.352	< .001	.41
DVoA	1.647	0.467	[0.728, 2.565]	.151	< .001	.22
Covariates						
age	0.131	0.102	[-0.070, 0.331]	.056	.200	.14
problems sport	-1.029	0.859	[-2.717, 0.659]	-.068	.232	-.21
subjective health	3.738	1.067	[1.642, 5.835]	.199	.001	.30
Observations	422					
R^2	.260					
AIC	3345.336					

Note. B represents unstandardized regression weights. β indicates the standardized regression weights. CI = confidence interval. Square brackets are used to enclose the lower and upper limits of a confidence interval. r represents the zero-order correlation.

Table 4

Demographic information for included and excluded participants Study 2

	included (N = 347)	excluded (N = 9)	difference
Mean age (*SD*)	70.110 (6.37)	69.889 (8.28)	$t(8.247) = 0.080$, $p = .939$
Age group (%)			$\chi(1) = 0.479$, $p = .489$
60 – 70 years	171 (48.0)	6 (1.7)	
71+ years	176 (49.5)	3 (0.8)	
Gender (%)			$\chi(2) = 0.146$, $p = .930$
female	172 (48.4)	5 (1.4)	
male	174 (48.9)	4 (1.2)	
other	1 (0.1)		
Education (%)			$\chi(2) = 7.454$, $p = .024$
< 10 years	70 (19.7)	5 (1.4)	
10 years	123 (34.7)	3 (0.8)	
> 10 years	154 (43.3)	1 (0.1)	
Vocational training (%)			$\chi(4) = 14.119$, $p = .007$
no vocational training	11 (3.2)	2 (0.1)	
vocational training	176 (49.5)	7 (2.0)	
college	63 (17.8)	0 (0.0)	
university degree	91 (25.6)	0 (0.0)	
other	6 (1.8)	0 (0.0)	
Occupation (%)			$\chi(3) = 0.198$, $p = .978$
employed	81 (22.9)	2 (0.1)	
unemployed	1 (0.1)	0 (0.0)	
retired	259 (72.9)	7 (2.0)	
other	6 (1.8)	0 (0.0)	
satisfaction with life (*SD*)[a]	4.853 (1.44)	4.444 (2.07)	$t(8.202) = 0.589$, $p = .572$
subjective health (*SD*)[b]	3.248 (0.81)	3.444 (1.33)	$t(8.152) = -0.440$, $p = .267$

Note. [a]Satisfaction with life was assessed with one item "I am satisfied with my life"; on a response scale of 1 (does not apply at all) to 7 (fully applies). [b]Subjective health was assessed by a single item, "How would you rate your current health?" with a response scale from 1 (very poor) to 5 (very good).

Table 5

Means, SDs, and correlations for main study variables in Study 2.

	M (*SD*)	1.	2.
1. PVoA	3.393 (0.769)	-	
2. DVoA	5.622 (1.155)	.334***	
3. Prosocial behavior	40.828 (19.505)	.578***	.391***

Note. *p*-values were adjusted for multiple comparisons using the method proposed by Holm (1979). *** $p < .001$, ** $p < .01$, * $p < .05$

Table 6

Results of multiple regression analyses predicting prosocial behavior in Study 2

Predictors	*B*	*SE B*	*95% CI B*	*β*	*p*-value	r
Intercept	0.669	10.465	[-19.915, 21.254]		.949	
PVoA	11.994	1.103	[9.824, 14.163]	.473	< .001	.58
DVoA	3.042	0.730	[1.607, 4.478]	.180	< .001	.39
Covariates						
age	-0.132	0.126	[-0.379, 0.115]	-.043	.295	-.03
opportunity for volunteering	-10.066	1.820	[-13.645, -6.486]	-.239	< .001	-.39
subjective health	1.468	1.011	[-0.520, 3.455]	.060	.147	.18
Observations	347					
R^2	.447					
AIC	2853.675					

Note. B represents unstandardized regression weights. β indicates the standardized regression weights. CI = confidence interval. Square brackets are used to enclose the lower and upper limits of a confidence interval. r represents the zero-order correlation.

Table 7

Demographic information for participants in Study 3.

	included (N = 351)
Mean age (*SD*)	70.405 (6.102)
Age group (%)	
60 – 70 years	178 (50.7)
71+ years	173 (49.3)
Gender (%)	
female	174 (48.4)
male	177 (48.9)
other	0 (0.0)
Education (%)	
< 10 years	60 (17.1)
10 years	138 (39.3)
> 10 years	153 (43.6)
Vocational training (%)	
no vocational training	16 (4.6)
vocational training	163 (46.4)
college	67 (19.1)
university degree	98 (27.9)
other	7 (2.0)
Occupation (%)	
employed	75 (21.4)
unemployed	7 (2.0)
retired	264 (75.2)
other	5 (1.4)
satisfaction with life (*SD*)[a]	4.977 (1.318)
subjective health (*SD*)[b]	3.356 (0.753)

Note. [a]Satisfaction with life was assessed with one item "I am satisfied with my life"; on a response scale of 1 (does not apply at all) to 7 (fully applies). [b]Subjective health was assessed by a single item, "How would you rate your current health?" with a response scale from 1 (very poor) to 5 (very good).

Table 8

Means, SDs, and correlations for main study variables in Study 3.

	M (*SD*)	1.	2.
1. PVoA	4.045 (0.629)	-	
2. DVoA	4.874 (1.326)	.390***	
3. Socializing behavior	71.477 (18.810)	.570***	.554***

Note. *p*-values were adjusted for multiple comparisons using the method proposed by Holm (1979). *** $p < .001$, ** $p < .01$, * $p < .05$

Table 9

Results of multiple regression analyses predicting socializing in Study 3

Predictors	*B*	*SE B*	*95 % CI B*	*β*	*p*-value	r
Intercept	-6.170	10.223	[-26.276, 13.937]		.547	
PVoA	11.602	1.300	[9.045, 14.159]	.388	< .001	.57
DVoA	5.035	0.630	[3.796, 6.274]	.355	< .001	.55
Covariates						
age	-0.069	0.122	[-0.308, 0.171]	-.022	.572	.05
general sociability	3.191	0.939	[1.344, 5.040]	.147	.001	.39
subjective health	-0.387	0.999	[-2.353, 1.579]	-.015	.699	.09
Observations	351					
R^2	.473					
AIC	2844.152					

Note. B represents unstandardized regression weights. β indicates the standardized regression weights. CI = confidence interval. Square brackets are used to enclose the lower and upper limits of a confidence interval.