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Using Work Values to Predict Post-Retirement Work Intentions

Anne M. Wöhrmann

Federal Institute for Occupational Safety and Health (BAuA), Dortmund

Ulrike Fasbender

Leuphana University of Lüneburg

and Jürgen Deller

Leuphana University of Lüneburg

Silver Workers Research Institute, Berlin

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Author Note

Anne Marit Wöhrmann, Federal Institute for Occupational Safety and Health, Dortmund, Germany; Ulrike Fasbender, Institute for Strategic HR Management Research and Development, Leuphana University of Lüneburg, Lüneburg, Germany; Jürgen Deller, Institute for Strategic HR Management Research and Development, Leuphana University of Lüneburg, Lüneburg, Germany, and Silver Workers Research Institute, Berlin, Germany. Ulrike Fasbender is now at Centre for Diversity Policy Research and Practice, Oxford Brookes University, Oxford, United Kingdom. Correspondence concerning this article should be addressed to Ulrike Fasbender, Centre for Diversity Policy Research and Practice, Business School, Wheatley Campus, Oxford Brookes University, Oxford OX33 1HX, United Kingdom (e-mail: u.fasbender@brookes.ac.uk)

Abstract

Work values might be proximal predictors of individuals' late career intentions because they serve as guiding principles for the selection, evaluation, and justification of vocational behavior. The purpose of this study was to examine the relationship between work values and post-retirement work intentions. We investigated individual work values within the structure of four higher order values elaborated by Schwartz and colleagues. Relationships between work values and four types of post-retirement work intentions were examined. Data from 1,071 employees of a German logistics company were used to test the hypotheses. The results of a structural equation model indicated that work values were differentially related to the four types of post-retirement work intentions. The identified work value-work type combinations add to the literature on post-retirement work. Practical implications for promoting positive individual and organizational outcomes are drawn from the results.

Keywords: post-retirement work, protean career theory, voluntary activity, work intentions, work values

Using Work Values to Predict Post-Retirement Work Intentions

Traditionally, retirement has been conceptualized as a withdrawal from the labor force and society. In this understanding, work and work-related activities end with the moment of retirement. However, a growing number of individuals who have retired from their main employment continue with some type of work to remain active (Fasbender, Deller, Wang, & Wiernik, 2014). Recently, retirement has been redefined as a late-career developmental stage in which post-retirement work activities play a central role (Kim & Hall, 2013; Wang & Shi, 2014). In the current study, we refer to retirement as a stage beginning with age of eligibility for a pension. In Germany, the retirement age is gradually rising from 65 to 67 years, similar to age of eligibility for social security in the United States (Wöhrmann, Deller, & Wang, 2014a). However, people who are receiving a pension can voluntarily decide whether to work after entering retirement (Wöhrmann et al., 2014a). Individuals' participation in the labor force and society helps them to realize their interests, capabilities, and needs to maintain their quality of life (World Health Organization [WHO], 2002). Furthermore, post-retirement work might help to address the increasing challenges that many industrialized nations are facing due to demographic change, such as skill shortages or strained pension systems (Deller, Liedtke, & Maxin, 2009; Mariappanadar, 2013).

On the one hand, research has already revealed various factors that influence retirement decision-making and post-retirement work (e.g., demographic characteristics, education, health, and financial circumstances; for a review, see Wang & Shi, 2014). On the other hand, several studies focused on work values and its possible generational differences (Parry & Urwin, 2011). However, to our knowledge, the role of work values in retirement decision-making and post-retirement work has not been empirically studied.

In line with recent literature on retirement (Kim & Hall, 2013; Shultz & Wang, 2011; Wang & Shi, 2014), our theoretical approach is based on the protean career theory developed by Hall and colleagues (e.g., Hall, 2002, 2004; Hall, Briscoe, & Kram, 1997). The protean

career theory states that individual work values are crucial for career related decision-making (e.g., Briscoe & Hall, 2006; Hall, 2002; Wang & Shi, 2014). In this context, we define post-retirement work as a late-career stage characterized by individuals engaging in work and work-related activities beyond retirement age. Post-retirement work holds for different types of work activities, including voluntary and paid work activities (Griffin & Hesketh, 2008).

Paid work activities refer to various forms of work inside and outside the career field (Gobeski & Beehr, 2009). According to the employer, paid post-retirement work can be distinguished in working for the same employer, for another employer, or being self-employed (Wang, Adams, Beehr, Shultz, 2009; Wöhrmann, Deller, & Wang, 2013).

Voluntary work activities refer to formal volunteering for civic organizations and informal volunteering for family and friends (Herzog & Morgan, 1992; Wang & Shi, 2014). People are likely to decide whether and in which type of employment they would like to engage according to their values (Brown & Crace, 1996).

In the current study, we aim to explore the relationship between work values and post-retirement work intentions. We differentiate four types of post-retirement work intentions (i.e., voluntary work, same-employer paid work, other-employer paid work, self-employed paid work) to help understand which work values correspond to which type of post-retirement work intention. In doing so, we investigate work values within the universal structure of human values elaborated by Schwartz and colleagues (e.g., Schwartz & Bilsky, 1987; Schwartz et al., 2012) and apply them to the work context. This allows drawing practical conclusions, as the resulting work values-work type combinations might help to promote positive individual and organization outcomes such as organizational workforce planning and recruitment, and individual career decision making, choice, and work adjustment.

Theoretical Background

Work Values

Values can be defined as trans-situational beliefs regarding desirable goals that vary in importance, and guide the selection, evaluation, and justification of behavior (Schwartz, 1992). Further, values are organized in a continuous motivational system that can explain decision making (Davidov, Schmidt, & Schwartz, 2008, Schwartz, 1992; Schwartz et al., 2012). In the work context, values refer specifically to desirable work-related settings or outcomes that influence individual career-related decision making (Brown & Crace, 1996; Lent, 2013; Ros, Schwartz, & Surkiss 1999).

Schwartz and colleagues' (e.g., Schwartz, 1992; Schwartz & Bilsky, 1987; Schwartz et al., 2012) universal structure of human values is a well-established framework for understanding individual values. This universal model distinguishes four higher order values along a circular motivational continuum (Schwartz et al., 2012). Self-enhancement refers to one's own interests, in contrast to self-transcendence, which refers to one's interests for the benefit of others (Schwartz et al., 2012). Conservation refers to self-restriction, order, and preserving the status quo, in contrast to openness to change, which refers to interest in gaining new and different ideas, actions, and experiences (Schwartz et al., 2012).

Work Values and Post-Retirement Work Intentions

Corresponding to the protean career theory (e.g., Hall, 2002; Hall et al., 1997), values rest at the core of career-related decision making (Hall, 2004; Wang & Shi, 2014). The protean career is mainly driven by the subjective perspective of a person dealing with external factors in their current work environment (Briscoe & Hall, 2006; Hall, 2002). With regard to career decisions, the perception of a person's career is related to the protean career orientation as a mindset based on individual values (Briscoe & Hall, 2006).

Individual values are expressed in work and work-related activities as a reflection of personal identity (Briscoe & Hall, 2006; Hall, 2004). Thus, career decisions are influenced by individual values, such that individuals choose certain environments according to the values of their personal identity. The congruence between individual values and organizational

environment appears to be crucial for personal well-being and positive organizational outcomes (Edwards & Cable, 2009; Hirschi, 2011). Therefore, we assume that individual work values drive career decisions in a way that older workers are more likely to express specific late career intentions, such as voluntary work, same-employer paid work, other-employer paid work, or self-employed paid work, if they perceive one of those options to fit their personal value orientation. In the current study, we focused on the specific relationship between work values and post-retirement work intentions.

Self-transcendence. In the work context, self-transcendence values involve altruism and relationship values (Cable & Edwards, 2004). Self-transcendence work values have a social focus and view the benefit of others as highly relevant for vocational decision-making (Hirschi 2011; Schwartz, 1992; Schwartz et al., 2012). In line with this focus, career intentions for older individuals seem to be driven by the desire to interact with others and to maintain good relationships (Mor-Barak, 1995). A meta-analysis by Okun and Schultz (2003) showed that with increasing age, individuals have stronger ambitions to make friends and strengthen social relationships. Older individuals may be likely to meet their self-transcendence values at the workplace (Dendinger, Adams, & Jacobson, 2005). Relationships with others and altruism can be found in voluntary and paid work as workplaces usually allows for social gathering, either by contact with supervisors, colleagues, clients, or external organizations. Recently, Torka, Goedegebure, Van Ewijk, and Looise (2012) found that social motives were equally important for post-retirement volunteers and post-retirement agency workers. Thus, the type of work activity may be of secondary importance for meeting self-transcendence work values. Therefore, we assume that self-transcendence work values are positively related to all types of post-retirement work intentions.

Hypothesis 1: Self-transcendence work values will be positively related to voluntary post-retirement work intention.

Hypothesis 2: Self-transcendence work values will be positively related to the three types of paid post-retirement work, which are (a) same-employer work intention, (b) other-employer work intention, and (c) self-employed work intention.

Self-enhancement. In a vocational setting, self-enhancement values involve salary and prestige values (Cable & Edwards, 2004). Self-enhancement work values correspond to a personal focus concerning the pursuit of one's own interests, which may be highly relevant for vocational decision-making (Schwartz et al., 2012). Retirees are likely to have lower income than they had before retirement (e.g., by receiving pension, retirement funds, or social security). Thus, their income may be insufficient for their preferred lifestyle (Dendinger et al., 2005). Therefore, additional income through paid post-retirement work might be interesting or even necessary for many retirees (cf., Wöhrmann, Deller, & Wang, 2014b). However, salary and prestige are also forms of appreciation for services rendered. Individuals for whom pay and prestige are important values should be especially likely to engage in paid post-retirement work. Research has shown a positive relationship between self-enhancement work values and entrepreneurial intentions among university students (Hirschi & Fischer, 2013). As self-employment in general helps to increase pay and prestige, these findings may be transferred to older individuals (Sagiv, 2002). However, voluntary work may not be of interest to individuals with high self-enhancement work values because it does not provide additional income. Therefore, we assume that self-enhancement work values are negatively related to voluntary post-retirement work intention but positively related to all types of paid post-retirement work intentions.

Hypothesis 3: Self-enhancement work values will be negatively related to voluntary post-retirement work intention.

Hypothesis 4: Self-enhancement work values will be positively related to the three types of paid post-retirement work, which are (a) same-employer work intention, (b) other-employer work intention, and (c) self-employed work intention.

Conservation. In the work context, conservation values involve security and authority values (Cable & Edwards, 2004). Conservation work values describe a preference for what is known, familiar tasks, social norms, and stability (Schwartz et al., 2012). There is a positive association between conservation values and conventional vocational interests, which are characterized as a preference for systematic and unambiguous activities (Holland, 1997; Sagiv, 2002). In a traditional sense, retirement is associated with withdrawal from the labor force and society. Work activities during retirement are not likely to be part of the mindset of individuals with high conservation values as social norms indicate reduced work activities, especially activities involving an environmental change. An exception may be the continuation of work for the same employer because this offers a familiar environment, which is likely to provide a feeling of security. Therefore, we assume conservation work values to be negatively related to voluntary post-retirement work intention and to all types of paid post-retirement work besides same-employer work intention.

Hypothesis 5: Conservation work values will be negatively related to voluntary post-retirement work intention.

Hypothesis 6: Depending on the type of paid post-retirement work, conservation work values will be positively related to (a) same-employer work intention, but negatively related to (b) other-employer work intention and to (c) self-employed work intention.

Openness to change. In a vocational setting, openness to change values refer to the preference for diversification, task variety, change of work environment, and autonomy (Cable & Edwards, 2004). Post-retirement work may be only attractive for individuals with high openness to change values if the type of work contains new elements. Therefore, we assume on the one hand that openness to change work values are negatively related to same-employer work intention. On the other hand, every other work activity potentially contains new elements, which makes it rather attractive to individuals with high openness to change values. Another employer offers a different work environment. Self-employed work can be

freely conceptualized according to one's individual passion. Research has shown that autonomy and variety are highly relevant for entrepreneurial intentions (Douglas & Shepherd, 2002; Hirschi & Fischer, 2013). Furthermore, voluntary work can be very different from ordinary jobs due to reduced competition, pressure to perform, and general economic requirements. Therefore, we assume that openness to change work values are positively related to voluntary work intention, other-employer paid work intention and self-employed paid work intention but negatively related to same-employer paid work intention.

Hypothesis 7: Openness to change work values will be positively related to voluntary post-retirement work intention.

Hypothesis 8: Openness to change work values will be negatively related to (a) same-employer work intention, and positively related to (b) other-employer work intention and to (c) self-employed work intention.

Method

Participants

Data collection took place in a logistics company in Germany in 2012. All industrial and commercial employees aged 45 to 65 at four sites of the company were invited to participate in the study. About half of the employees ($N = 1,128$) voluntarily agreed to participate. Participants who did not provide data on all work values were excluded from further analyses, resulting in a sample of 1,071 employees aged 45 to 65 years (51.44 years on average, $SD = 4.22$). Of the participants, 68.2% were female. With regard to education, 2% never obtained a school-leaving qualification, 75% had lower secondary education or graduated from middle school (9 or 10 years of education), and 21.8% had obtained at least 12 years of formal education, either by obtaining higher education entrance qualifications or graduating from university. In total, 90% of the participants had completed vocational training. Most participants were part-time employed (58%) and more than half of them

worked in alternating shifts (53%). Jobs of the participants were very diverse and ranged from commissioning and product testing to commercial functions and management.

Measures

Work values. We assessed the four basic value dimensions self-transcendence, self-enhancement, conservation, and openness to change using the Work Values Survey (Cable & Edwards, 2004) that was specially constructed to map Schwartz's (1992) four basic value dimensions to the work context. We applied a German language version used in earlier career research (Hirschi, 2011; Hirschi & Fischer, 2013; see Hirschi, 2011, for a description of the double-blind translation and back translation procedure). Participants were asked, "How important are the following aspects for you in occupational activity?" Each of the four work value dimensions was assessed with six items, such as "forming relationships with others" and "the amount of pay." Participants responded on a 5-point Likert scale (1 = *not important* to 5 = *very important*). Self-transcendence was assessed with items related to altruism and relationship ($\alpha = .81$, $M = 3.39$, $SD = .084$), self-enhancement with items related to pay and prestige ($\alpha = .70$, $M = 4.05$, $SD = .58$), conservation with items related to security and authority ($\alpha = .80$, $M = 4.35$, $SD = .62$), and openness to change with items related to variety and autonomy ($\alpha = .80$, $M = 3.90$, $SD = .74$). A confirmatory factor analysis, with items within the work value dimensions allowed to correlate, supported construct validity as it showed a better fit ($\chi^2 (220) = 1178.61$, $p < .01$; CFI = .91; RMSEA = .06; SRMR = .07) than the one-factor solution ($\chi^2 (252) = 5279.73$, $p < .01$; CFI = .51; RMSEA = .14; SRMR = .11).

Post-retirement work intentions. The intentions to engage in different work-related activities in retirement were each measured with one item as has been done in prior research on post-retirement work intentions (e.g., Griffin & Hesketh, 2008; Zaniboni, Sarchielli, & Fraccaroli, 2010). The items were, "I would like to engage in voluntary work after retirement," "I would like to work for my current employer in retirement," "I would like to work for another employer in retirement," and "I would like to become self-employed in

retirement.” Participants responded to each item on a 5-point Likert scale (1 = *does not apply at all* to 5 = *applies completely*).

Control variables. We controlled for age, gender, education, and work ability because earlier research has shown that these aspects play a role in post-retirement work (e.g., Griffin & Hesketh, 2008; Wang, Zhan, Liu, & Shultz, 2008). Work ability was measured with one item from the Work Ability Index (WAI-Netzwerk, 2014). Participants were asked to rate their work ability on a scale (0 = *completely unable to work* to 10 = *work ability at its best*).

Procedure

Participants either filled in web-based questionnaires or completed paper questionnaires during their work hours. The questionnaire contained information on the study and was divided into the three larger sections work situation, individual characteristics and resources, and retirement planning. It took participants about half an hour to complete the questionnaire.

Results

Table 1 shows means, standard deviations, and correlations of all variables used in this study. Self-transcendence was significantly and positively related to voluntary work intention ($r = .10, p < .01$), paid work intention ($r = .11, p < .01$), same-employer work intention ($r = .12, p < .01$), and other-employer work intention ($r = .10, p < .01$). Conservation was significantly and negatively related to self-employed work intention ($r = -.13, p < .01$). Openness to change was significantly and positively related to voluntary work intention ($r = .10, p < .01$). However, no significant correlations were found between self-enhancement and outcome variables. Post-hoc power analysis revealed that the sample of 1,071 achieved 95% power to detect a small effect size ($r = .1$, Cohen, 1992) at a significance level (α) of .05.

We conducted structural equation modeling using Mplus version 7.0 (Muthén & Muthén, 2012) to test our hypotheses simultaneously. Overall, the hypothesized model showed an acceptable fit ($\chi^2 (397) = 1638.64, p < .01$; CFI = .89; RMSEA = .05; SRMR = .07). Although the CFI was slightly under .90 as required to accept a model (Hox & Bechger,

1998), RMSEA and SRMR indicated a good model fit (Hu & Bentler, 1998). The predictors explained 9% of variance of voluntary work intention, 8% of same-employer work intention, 2% of other-employer work intention, and 9% of self-employed work intention. The estimated standardized beta coefficients of the hypothesized model are presented in Table 2 and can be interpreted as small to medium effect sizes (cf., Durlak, 2009; Peterson & Brown, 2005).

With regard to the control variables, age was positively related to same-employer work intention ($\beta = .07, p < .01$), being male was positively related to other-employer work intention ($\beta = .07, p < .01$), and self-employed work intention ($\beta = .14, p < .01$). Educational level was positively related to voluntary work intention ($\beta = .22, p < .01$) and self-employed work intention ($\beta = .12, p < .01$), whereas work ability was positively related to same-employer work intention ($\beta = .18, p < .01$).

Hypotheses 1 to 8 addressed the relationship between work values and post-retirement work intentions. Self-transcendence was positively related to voluntary work intention ($\beta = .16, p < .01$), same-employer work intention ($\beta = .22, p < .01$), other-employer work intention ($\beta = .12, p < .01$), and self-employed work intention ($\beta = .15, p < .01$). These findings support Hypotheses 1, 2a, 2b, and 2c.

The beta coefficients suggested that self-enhancement did not significantly predict voluntary work intention ($\beta = .04, p > .05$), other-employer work intention ($\beta = .07, p > .05$), and self-employed work intention ($\beta = .09, p > .05$), which does not support Hypotheses 3, 4b, and 4c. Although we predicted a positive effect for self-enhancement, it was negatively related to same-employer work intention ($\beta = -.16, p < .01$). Therefore, Hypothesis 4a was not supported.

Conservation was negatively related to voluntary work intention ($\beta = -.17, p < .01$), other-employer work intention ($\beta = -.10, p < .01$), and self-employed work intention ($\beta = -.28, p < .01$), supporting Hypotheses 5, 6b, and 6c. However, conservation did not significantly predict same-employer work intention ($\beta = -.01, p > .05$), not supporting Hypothesis 6a.

Finally, openness to change was positively related to voluntary work intention ($\beta = .09, p < .01$) and negatively related to same-employer work intention ($\beta = -.08, p < .05$).

These findings support Hypotheses 7 and 8a. However, openness to change did not significantly predict other-employer work intention ($\beta = .04, p > .05$) and same-employer work intention ($\beta = .00, p > .05$), not supporting Hypotheses 8b and 8c.

Discussion

We examined individual work values within the universal structure of human values to predict four types of post-retirement work intentions as shown in Table 3. Among the control variables, age and work ability were positively related to same-employer work intention, being male was positively related to other-employer work intention and self-employed work intention. Further, educational level was positively related to voluntary work intention and self-employed work intention. These findings largely replicated previous research (e.g., Griffin & Hesketh, 2008; Wang et al., 2008).

With regard to work values, we found that older workers with high self-transcendence work values were more likely to intend to work in retirement – regardless of the type of post-retirement work. Self-transcendence work values capture one's interest in the benefit of others (Schwartz et al., 2012). Many types of work activities take place in a social environment and therefore align with self-transcendence work values. These findings are consistent with previous studies using related constructs (e.g., Torka et al., 2012).

Regarding self-enhancement, we did not find the predicted negative effect on voluntary work intention, which indicates that self-enhancement work values do not hinder older workers from intending to engage in voluntary work activities after retirement. Further, we did not find the hypothesized positive effects of self-enhancement work values on paid post-retirement work intentions. Self-enhancement work values capture the concern for the pursuit of one's own interests, such as pay and prestige (Schwartz et al., 2012). However, the self-enhancement work values did not guide older workers to intent engaging in any type of

paid work activity after retirement. These results are contrary to previous research on entrepreneurial intentions among university students (e.g., Hirschi & Fischer, 2013). Therefore, it remains questionable whether the mechanisms found among university students are applicable to older workers. Continuing to work for the same-employer, for another employer or being self-employed could increase income compared to receiving pension payments only. However, it does not necessarily increase prestige. Older workers might compare their future post-retirement status with their current pre-retirement status (i.e., they may believe that their post-retirement status will be lower than their pre-retirement status because of age discrimination, e.g., Weiss & Lang, 2012; Wurm, Tesch-Römer, & Tomasik, 2007), which might hinder them to continue working. In addition, it may be that working in retirement is perceived to have lower prestige because working retirees are seen as needing to work rather than doing so to achieve personal fulfillment (Scherger, Hagemann, Hokema, & Lux, 2012). Presumably, other variables (e.g., the meaning of work) influence this relationship. Further research should investigate this relationship in more detail.

We found older workers with higher conservation work values less likely to intend to engage in voluntary work intention. In addition, we found that older workers with higher conservation work values less likely to intend to engage in other-employer paid work, and self-employed paid work. Conservation work values refer to the preference for what is known. Retirement is usually associated with a withdrawal from society and the labor force. Older workers with higher conservation work values are more likely to adhere to this concept of retirement and, therefore, not intend to engage in work after retirement. However, we did not find the hypothesized positive effect on same-employer work intention. This finding indicates that older workers might experience a conflict between being loyal to the same employer and withdrawing from work in general. It could be worth investigating this mechanism more specifically as it becomes increasingly relevant for many employers to keep employees in the workforce longer.

Further, we found that older workers with higher openness to change work values were more likely to intend to work voluntarily and less likely to intend to work for the same employer after retirement. Openness to change work values refer to the preference for diversification. Voluntary work activities enhance older workers' chances for diversification from their current employment situation, while continuing to work for the same employer does not. However, we did not find the hypothesized effects for other-employer work intention, and self-employed work intention. This lack of effect might be due to older workers with high openness-to-change work values preferring non-work activities (i.e., leisure activities and voluntary work activities) over classical work activities. Research should address the concept of work more specifically (i.e., including an analysis of activity elements) to further investigate different types of post-retirement work intentions.

Theoretical and Practical Implications

The results of the current study extend research on retirement and late career intentions. The findings have relevant theoretical and practical implications. Theoretically, the current study highlights the role of work values for retirement decision-making. Retirement is no longer a stage aside from work or work-related activities but rather a late-career developmental stage that offers different opportunities for older people to engage in society. Our results support the protean career theory, which states that individual work values are crucial for career-related decision making also in retirement (e.g., Kim & Hall, 2013; Wang & Shi, 2014), as we found significant relationships between work values and late-career intentions. In contrast to other studies (e.g., Beehr, Glazer, Nielson, & Farmer, 2000; Fasbender et al., 2014) that considered only one outcome variable (e.g., retirement age), we investigated four types of post-retirement work intentions. Voluntary work activities and different types of paid work (i.e., same-employer, other-employer, and self-employed work) were specified as different options to remain active in retirement.

Practically, the identified work value-work type combinations could help foster positive individual and organizational outcomes, such as organizational workforce planning and choice of individual career paths. Our findings suggest that organizations that want to encourage individuals to engage in post-retirement work have different options. First, all types of organizations should focus on older workers with high self-transcendence work values and promote attributes of their organization that address these values (i.e., altruism, relationship) to maintain or attract potential candidates. For example, organizations could present themselves as offering a social environment that fosters cohesiveness and humanity.

Second, organizations offering voluntary work activities could be successful in recruiting post-retirement workers by focusing on individuals with high openness-to-change work values. These organizations can advertise certain attributes of their organization corresponding to these values (e.g., autonomy and variety) to attract potential candidates within and outside their organization.

Third, organizations wanting to recruit post-retirement workers from their older workforce to benefit from the internal knowledge and skills of currently employed workers should focus on older workers with low openness-to-change values. Those organizations should rather promote security by identical work tasks and stability through a familiar social environment that helps to maintain individuals' current employment situation. However, organizations wanting to recruit externally could focus on older workers with high self-enhancement work values and low conservation work values. These organizations can promote attributes such as pay and prestige by providing transparent information on their regulations related to post-retirement work, such as the compensation system. Further, a company culture that is characterized by a positive age climate—for example, a company that openly shows appreciation to their older workers (e.g., by providing special incentives for post-retirement workers such as an own office or technical devices)—can be used to foster prestige of older workers. Organizations can also promote new working opportunities and

renunciation of traditional working styles to attract older workers with low conservation values.

Fourth, self-employment is not of direct interest to any particular organization because a person works for him- or herself. However, there is a societal and economical interest in promoting entrepreneurial ideas, which leads governmental institutions to support those intentions. Those institutions should, therefore, promote the advantages of self-employment, especially regarding the possibility of interacting with different people and creating a new work environment serving the individual's own value orientation.

The results of the current study also suggest that career counselors should assess the work-value orientation of their clients (i.e., self-transcendence, self-enhancement, conservation, openness to change) to ensure that the available late career options fit their individual work value orientation. For individuals just before retirement age, it is strongly advisable for the individual to be informed about different late-career opportunities and also to understand which option might be best. By doing this, external institutions and counselors can provide specific support to help older workers identify suitable post-retirement work options.

Limitations and Future Research

The current study has some limitations. One potential limitation of our study is the cross-sectional design, which does not allow for causal interpretations of our research findings. Future studies should apply longitudinal designs to validate possible causal relationships between work values and different post-retirement work intentions.

Further, our study relied on intentions, which do not directly represent behavior. However, according to the theory of planned behavior (Ajzen, 1991) intentions determine behaviors. Therefore, assessing intentions can help to provide a first prediction about future behavior. There are several factors that might hinder the intention from resulting in the corresponding action. In our case, a lack of work opportunities or familiar responsibilities

might hinder older workers in continuing to work. Furthermore, the time lag between the assessed intentions and the actual work opportunities after retirement lowers the predictability. Thus, research should address not only intentions but also actual behavior to augment the research findings.

Another limitation is that our study relied on self-report measures, which might have inflated correlations between predictor and outcome variables (Podsakoff, MacKenzie, & Podsakoff, 2003). To reduce the potential for common method bias, further research should collect different types of data, such as organizational variables.

Further, the inclusion of data from only one company might have limited the generalizability to other working conditions and might also have reduced variance in the investigated constructs. Nevertheless, data from over 1,000 employees representing all functions and levels of the organization in four different geographical areas of Germany were collected to increase generalizability. Further research should be extended to different work settings and cultures.

To further extend research on late-career decision making, it would be intriguing to investigate the protean career orientation as important element of the protean career theory, such as being value-driven and responsible for one's career (Hall, 2004). Also different individual determinants are likely to moderate the relationship between work values and post-retirement work intentions, such as ethnicity. A recent population-representative study from Fasbender et al. (in press) revealed that people with migration background were more likely to intent working after entering retirement in Germany. More research could shed light on work values across different cultural backgrounds. Additionally, external factors should be taken into account (e.g., employment opportunities in different geographical [urban vs. rural] areas), because these factors build the frame in which individual career planning and decision making takes place.

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Table 1

Means, Standard Deviations, and Correlations for All Variables

Variable	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Control variables													
1. Age	51.44	4.19	-										
2. Gender ^a	0.32	0.46	.05	-									
3. Education ^b	0.22	0.41	.05	.14**	-								
4. Work ability	7.51	1.80	-.12**	.04	.05	-							
Work values													
5. Self-transcendence	3.39	0.84	.01	-.13**	-.08**	.10**	-						
6. Self-enhancement	4.05	0.58	-.04	-.15**	-.13**	.04	.46**	-					
7. Conservation	4.35	0.62	-.03	-.13**	-.14**	.10**	.43**	.60**	-				
8. Openness to change	3.90	0.74	-.04	.02	-.01	.09**	.37**	.45**	.38**	-			
Post-retirement work intentions													
9. Voluntary work	2.55	1.43	.01	.07*	.23**	.07*	.10**	-.02	-.04	.10**	-		
10. Same-employer work	1.88	1.30	.06*	.05	.04	.18**	.12**	-.04	-.04	-.05	.07*	-	
11. Other-employer work	1.67	1.10	.02	.06	.02	.05	.10**	.06	-.02	.02	.22**	.37**	-
12. Self-employed work	1.51	1.05	-.01	.16**	.16**	.05	.06	-.03	-.13**	.04	.25**	.19**	.35**

Note. ^a 1 = male, 0 = female; ^b 1 = at least 12 years of formal education, 0 = less than 12 years of formal education; *N* = 1,035-1,071.

* *p* < .05; ** *p* < .01.

Table 2

Standardized Estimates of Structural Equation Model for Post-retirement Work Intentions Including Control Variables and Work Values as Predictors

Variable	Voluntary work intention	Paid work intentions		
		Same-employer	Other-employer	Self-employed
Control variables				
Age	-.01	.07**	.02	-.03
Gender ^a	.04	.04	.07**	.14**
Education ^b	.22**	.02	.02	.12**
Work ability	.04	.18**	.05	.04
Work values				
Self-transcendence	.16**	.22**	.12**	.15**
Self-enhancement	.04	-.16**	.07	.09
Conservation	-.17**	-.01	-.10**	-.28**
Openness to change	.07*	-.08*	.04	.00
R ²	.09**	.08**	.02**	.09**

Note. ^a 1 = male, 0 = female; ^b 1 = at least 12 years of formal education, 0 = less than 12 years of formal education; *N* = 1,071.

* $p < .05$; ** $p < .01$.

Table 3

Relationships Between Work Values and Post-Retirement Work Intention Types

Work Value	Voluntary work intention	Paid work intentions		
		Same-employer	Other-employer	Self-employed
Self-transcendence	H1 (+) ✓	H2a (+) ✓	H2b (+) ✓	H2c (+) ✓
Self-enhancement	H3 (-) ✗	H4a (+) ✗	H4b (+) ✗	H4c (+) ✗
Conservation	H5 (-) ✓	H6a (+) ✗	H6b (-) ✓	H6c (-) ✓
Openness to change	H7 (+) ✓	H8a (-) ✓	H8b (+) ✗	H8c (+) ✗

Note. Hypotheses 1 to 8 refer to the proposed hypotheses in the text.

(+): Hypothesized positive relationship; (-): Hypothesized negative relationship;

✓: Hypothesis supported; ✗: Hypothesis not supported.