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Is There a New Meaning of Work? The How and Why of a Change in Altruistic Work Values in Germany between 1989 and 2016**

Abstract

This study complements the discussion on changes in work values by insights about the dimension of altruistic work values, which to date has been largely neglected. In particular, we analyze how a change in the structure of the workforce (gender, age, and generation) has affected the importance of altruistic work values in the past decades. Using German data from four different years (1989, 1997, 2006, and 2016), we found that work values' importance has increased during the observed periods, while extrinsic work values have become less important and intrinsic work values have not changed. An increase of women and an aging workforce marginally have contributed to a change in altruistic work values, while shifting generational distribution had no effect. Overall, the explanatory powers of the included determinants are, despite their importance in theoretical discussions, fairly small. Thus, we discuss alternatives for explaining the change in altruistic work values.

Keywords: work values, altruistic work values, gender differences, aging workforce, generation
(JEL: M12, J17, A13)

Introduction

Work values describe the importance that individuals give to different work and employment conditions (Dose, 1997; Jin & Rounds, 2012; Ros et al., 1999) and, therefore, serve as a central reference point in order to asses if a job is good or bad. Importantly, work values are not stable and thus the evaluation of work and employment conditions changes over time. Indeed, Inglehart's thesis (1971) about a change from materialistic to post-materialistic values marked the beginning of an intensive debate about changes in values. To date, numerous researchers have dis-

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cussed a change from materialism to post-materialism in value orientation in controversial ways (e.g. Inglehart, 1971; Klages, 1993; Rosenstiel et al., 1993; Roßteutscher, 2004). In the context of this debate, changes in work values have also been addressed in several studies (e.g. Harding & Hikspoors, 1995; Hauff, 2008, 2010; Hauff & Kirchner, 2014; Heidenreich, 1996; Strümpel & Pawlowsky, 1993; Zanders, 1993), and domain-specific instruments for the measurement of work values were developed (e.g. Super, 1970; Lofquist & Dawis, 1978; Pryor, 1979, 1981). However, the discussion on changes in work values has been focused on the potential shift from extrinsic (e.g. income, security) to intrinsic (e.g. autonomy, interest) work values, while altruistic work values (e.g. a job that is useful to society) have largely been neglected. This is remarkable since altruistic work values are usually mentioned and highlighted as a key facet of work values, besides extrinsic and intrinsic work values (Elizur, 1984; Lyons et al., 2010).

For different reasons, complementing research on work values by the dimension of altruistic work values is relevant. First, ignoring altruistic work values prevents a holistic view on the changes in work values. Work values are important for the evaluation of a workplace, attitudes to specific workplace situations, and various behavioral responses (Gahan & Abeysekera, 2009; Ros et al., 1999). Not considering altruistic work values implies turning a blind eye to a key facet of work values, which may lead to an erroneous understanding of workers' attitudes and responses to specific work and employment conditions. Thus, findings about the importance of altruistic work values for employees could be used to optimize jobs and positively influence work-related outcomes such as job satisfaction or tenure (Jin & Rounds, 2012) and help to answer the question of what makes a job a good job. This is of interest in times where human resources are a relevant resource in global competition (Lis, 2012). Second, there are transformations in the structure of the workforce such as an increasing share of women (Brewster & Rindfuss, 2000; Sayer, 2005), an aging workforce (Drabe et al., 2015), and new generations entering the labor market (Twenge et al., 2010). Several studies provide reasons to assume that these developments may lead to changes in altruistic work values: women differ in what they require from work compared to men (Konrad et al., 2000; Marini et al., 1996; Vaus & McAllister, 1991), age influences employees' goals and work motivations (Kooij et al., 2011; Lang & Carstensen, 2002; Zacher et al., 2009), and different generations focus on different work values (Kowske et al., 2010; Twenge et al., 2010).

We address this research gap by analyzing how and why altruistic work values have changed in the past decades. Thus, our prior interest is to evaluate if the importance of altruistic work values has changed and, if so, how these changes can be explained. To answer this question, we focus on the sociodemographic composition of the workforce. We elaborate hypotheses regarding how changes in the workforce sociodemographic composition (gender, age, and generation) affect the importance of altruistic work values. We test these hypotheses based on representative data for

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West Germany and four different times (1989, 1997, 2006, and 2016). Our study contributes to the literature by taking up the discussion about the changes in work values and complementing it by insights into altruistic work values.

Theoretical Background

The Structure and Changes in Work Values

Which dimensions or work values types exist is crucial to the study of work values. There is a consensus on two key dimensions of work values among the various typologies (Lyons et al., 2010; Sagie et al., 1996). *Extrinsic work values* (security, material, or instrumental values) refer to aspects such as job security or income. *Intrinsic work values* (self-actualization or cognitive work values) relate to aspects such as the pursuit of autonomy or interesting tasks (Elizur, 1984; Elizur et al., 1991; Gahan & Abeysekera, 2009; Lyons et al., 2010; Ros et al., 1999). However, there is another key dimension of work values: altruistic work values. *Altruistic work values* refer to humanity components, including the desire to help others or having a job that is useful to society (Cennamo & Gardner, 2008; Jin & Rounds, 2012; Lyons et al., 2010).

Building on Inglehart's thesis on the shift from materialistic to post-materialistic values, based on Maslow's hierarchy of needs (1943), there has been a debate about the changes in work values. Yankelovich et al. (1985), for instance, assumed a shift from instrumental towards expressive work orientations. Also, Ester et al. (1993) assumed that modernization and individualization can lead to an increasing importance of values that stress self-determination, self-development, and self-realization. Research by Zanders (1993) (see also Zanders & Harding, 1995) has demonstrated that intrinsic values have moderately increased in the 1980s. Heidenreich (1996), using the data from the German General Social Survey (ALLBUS), demonstrated that the importance of an interesting and self-determined work has increased significantly between 1982 and 1991. In contrast, the relevance of extrinsic work values declined slightly but not significantly. Braun and Borg (2004) also analyzed the changes in work values using the ALLBUS data, but for the period from 1980 to 2000. They ascertained a declining long-term importance of extrinsic and to a lesser extent social values as well as a stability of the intrinsic aspects of work. Finally, Cozma (2011) analyzed changes in extrinsic and intrinsic work values from 1981 to 2009 in 47 countries and found no general trend.

The studies on changes in work values primarily focus on changes in extrinsic and intrinsic work values and have so far or less neglected the development of altruistic values. Thus, we focus on the change in altruistic work values. We are interested in how the mean importance of altruistic work values has collectively changed in the workforce for the observed period and how this change in altruistic work values could be explained by workforce sociodemographic structure changes. Thus, we identify determinants of the workforce that have changed over the past decades: the

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increase of women participating in the labor force (Brewster & Rindfuss, 2000), an aging workforce (Drabe et al., 2015), and new generations entering the workforce (Twenge et al., 2010). These determinants offer starting points for explaining a change in altruistic work values. Reviewing previous research, we have developed assumptions of how changes in these three determinants of the workforce (gender, age, generational differences) may shape the development of altruistic work values.

Determinants of Changes in Altruistic Work Values

Gender

Women are increasingly participating in the labor force (Brewster & Rindfuss, 2000), which may affect the importance of altruistic work values. Several research projects have asked whether men and women have different value preferences. Scholars have explained the differences between the genders' value orientations using psychological, evolutional, neoclassical economic, and sociological explanations (e.g. Konrad et al., 2000; Marini et al., 1996; Schwartz & Rubel, 2005; Pollmann-Schult, 2009). These offer adaptable approaches to analyze how an increase of women participating in the workforce may influence the relevance of altruistic work values. One line in this research is based on *varying socialization experiences* between men and women (Marini et al., 1996; Pollmann-Schult, 2009). Different socialization of males and females result in different gender stereotypes and gender roles (Konrad et al., 2000, Pollmann-Schult, 2009). While gender stereotypes describe characteristics associated with men and women and their gender characteristics (Best & Williams, 2001; Eagly, 1987; Konrad et al., 2000), gender roles comprise social norms about expected behaviors (Konrad et al., 2000; Eagly, 1987; Eagly et al., 2000). Both gender stereotypes and gender roles can be connected to different job attribute preferences (Konrad et al., 2000): men are assumed to value challenge, leadership, freedom, and power higher than women; in contrast, women are assumed to rate interpersonal relationships and helping others higher than men. Furthermore, women are usually seen as 'communal' and community-minded (Eagly & Steffen, 1984), which is depicted in altruistic work values (help others, a job useful to society).

Various studies have addressed the differences between men and women's (work) value orientations. For example, researching the genders' fundamental value orientations, Beutel and Marini (1995) found that men prefer material values, while women valued others' well-being higher. Marini et al. (1996) found differences in the valuations of intrinsic and altruistic rewards – but not in extrinsic ones – in which women valued altruistic rewards more than men. Pollmann-Schult (2009) found that men perceive extrinsic work values as more important, while women valued altruistic work values more. Braun and Borg's (2004) findings suggest that in Germany, women appreciate altruistic work values more and extrinsic work values less than men do. Also, Tolbert and Moen (1998) found that men preferred extrin-

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sic work values more, whereas women valued intrinsic work values more. In sum, the results are heterogeneous and partially inconsistent, however, they have one thing in common: women value altruistic work values more than men (Konrad et al., 2000). In line with these findings, we assume that the increasing participation of women in the workforce (Brewster & Rindfuss, 2000; Sayer, 2005) intensifies altruistic work values' importance:

Hypothesis 1: Women's increasing workforce participation will lead to an increasing importance of altruistic work values.

Age

The labor force in OECD countries is increasingly aging (Martin, 2018). How this affects work value shifts is of particular interest in order to develop human research management strategies that consider the needs of the – growing – group of older employees (Drabe et al., 2015; Kooij et al., 2008). Reviewing the literature, we found that there has been very little research into this topic (e.g. Kanfer & Ackerman, 2004; Rhodes, 1983). Especially age's influence on work values is unexplored. However, approaches and studies concerned with the relationships between age and goals (e.g. Carstensen et al., 1999; Lang & Carstensen, 2002; Zacher et al., 2009) as well as between age and work motives (e.g. Kanfer & Ackerman, 2004; Kooij et al., 2008; Kooij et al., 2011) offer transferable theories.

Socioemotional selectivity theory (e.g. Carstensen, 1995; Carstensen et al., 1999; Lang & Carstensen, 2002) seeks to explain differences between the aims and motivations of younger and older people. A key assumption is that goals of individuals depend on the perception of the future. Older individuals usually see their future as more limited than younger individuals. As a result, older people attach greater importance to meaningful goals such as generativity and social embeddedness than younger people do (Carstensen et al., 1999; Kooij et al., 2011; Lang & Carstensen, 2002; Zacher et al., 2009).

Lang and Carstensen (2002) empirically confirmed these assumptions, showing that perceived limited time increases emphasis on emotional goals and a stronger prosocial orientation. This includes generativity and a sense of responsibility for future generations. Further support is provided by Kooij et al. (2011) who found in their research into age and work-related motives that the importance of helping others and contributing to society positively relates to age.

Thus, considering socioemotional selectivity theory and prior research results, older employees should have a stronger desire for altruistic work than younger employees:

Hypothesis 2: An aging of the workforce will lead to an increasing importance of altruistic work values.

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Generational differences

The entry of younger generations into the labor market is widely associated with the different and new values these generations bring into the world of work. Lately, the characteristics of generation Y and differences to previous generations in view of their goals and requirements have been discussed in management magazines, business consultancy publications, and newspapers (Cennamo & Gardner, 2008; Kowske et al., 2010; Macky et al., 2008; Twenge, 2010). The underlying idea is that every individual grows up under specific social and historical conditions and experiences different social problems. Thus, individuals build up different attitudes and values sets (Inglehart, 1971, 1989). Since every generation shares social and historical life experiences, individuals in a generation share similar value systems and attitudes (Parry & Urwin, 2011; Twenge et al., 2010; Wey Smola & Sutton, 2002).

A generation (cohort) is a group of individuals born in the same period who share experiences of historical and social events (Ryder, 1965). For our paper, generation Y (also called GenMe, Millennials, or iGen; born 1982 to 1999) is of interest since it is the generation entering the labor market in the observed period (1989 to 2016). New technologies and the rise of the internet (Cennamo & Gardner, 2008; Lub et al., 2015; Wey Smola & Sutton, 2002) as well as the economic abundance with low levels of unemployment and global economic wealth on the one hand and the recent global regression on the other hand (Lub et al., 2015) are of utmost importance for the forming of this generation's identity. However, the labor market this generation is entering is highly competitive, and a considerable proportion of the employees holds post-secondary degrees (Lyons et al., 2015). Characteristics ascribed to generation Y are self-confidence (Lub et al., 2015), individualism (Twenge & Campbell, 2008), self-esteem, narcissism, and lower needs for social contact (Lub et al., 2015; Twenge & Campbell, 2008).

To date, the assumption that there are significant differences between generations has little empirical evaluation (Cennamo & Gardner, 2008; Kowske et al., 2010; Parry & Urwin, 2011; Twenge, 2010). Most studies have been conducted in the U.S. (Cennamo & Gardner, 2008) and cannot readily be applied to other countries. However, the transferability of the results to Germany is possible, owing to the similar or comparable social and historical events in the observed time span. Generational differences in workplaces have been researched by cross-sectional studies (Cennamo & Gardner, 2008; Hansen & Leuty, 2012; Lub et al., 2015; Wong et al., 2008) and time-lag studies (Kowske et al., 2010; Twenge et al., 2010; Wey Smola & Sutton, 2002). However, since cross-sectional studies cannot separate generation from the effects of career stage and age, we focus on the findings of the time-lag studies that can make this difference. The studies by Kowske et al. (2010) and Twenge et al. (2010) analyzed differences in work values and attitudes between generation Y and previous generations. Kowske et al. (2010) found only small differences in work attitudes between generations, with generation Y being more satisfied

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with job security as well as career development and advancement than previous generations. Twenge et al. (2010) conclude that the main difference between different generations is that generation Y appreciate leisure time more than baby boomers and generation X, while there is no significant difference between the generations concerning altruistic values. Generation Y values a job with the opportunity to help others slightly less than baby boomers. Twenge and Campbell (2008) analyzed differences in psychological traits and attitudes by minimizing career and age effects. For generation Y, they found higher self-esteem and narcissism and a lower need for social approval than for previous generations. Generation Y's higher narcissism makes us assume that aspects of altruistic work values are not that relevant for this generation. Twenge et al.'s findings as well as the assumption that generation-specific values sets and attitudes established through different socializations lead us to the conclusion that generation Y values altruistic work values less than previous generations:

Hypothesis 3: Generation Y's entry into the workforce will reduce the importance of altruistic work values.

Data and Methods

Data

Our empirical analysis is based on the (West) German data from the Work Orientation Modules of the International Social Survey Program (ISSP) from 1989, 1997, 2006, and 2016. The last modules are usually dated 2005 and 2015 in the ISSP. However, since the German data was collected in the German General Social Survey (ALLBUS) in 2006 and 2016, we refer to the exact survey date. Due to the division of Germany into the German Federal Republic and the German Democratic Republic until 1990, no data are available for East Germany for the survey year 1989. We therefore only use data from West Germany to analyze the development of work values over a period as long as possible.

The ISSP is an international cooperation project that conducts attitude surveys on different topics. Using a multistage stratified random sample procedure for data collection, the ISSP dataset contains representative random samples of the adult population in every participating country. The ISSP adheres to high quality standards. For instance, to increase questionnaire validity, it conducts thorough discussion of questionnaires and pretests (Jutz et al., 2017).

We limited our analysis to Germany in order to exclude potential moderating effects from institutional and cultural differences (Brewster & Mayrhofer, 2009). We chose West Germany because it is a leading economy in Europe and is often seen as a role model in the comparative capitalism literature (Hall & Soskice, 2001). Further, we limited our analysis to employees in the manufacturing or service sectors, not considering the primary sector (i.e. agricultural, forestry, and fishery workers).

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This resulted in a final sample size of n = 2,296 employees (1989: 576; 1997: 622; 2006: 456; 2016: 642).

Measures

Our dependent variable is the German workforce's altruistic work values, measured with two items: (1) a job that allows someone to help other people and (2) a job that is useful to society. To measure the importance of these aspects, we asked the respondents to use a five-point scale (between 1 = *not important at all* and 5 = *very important*).

To assess the magnitude of the changes in altruistic work values, we compared them to central extrinsic and intrinsic work values. We used three items (importance of job security, high income, good opportunities for advancement) to measure extrinsic work values and two items (an interesting job, a job that allows to work independently) to measure intrinsic work values. Together, the items resemble the items used by Kraut and Ronen (1975) as well as Hofstede (1980) (see also Hattrup et al., 2007). Table 1 shows the variables and their factor structure. Building on this factor structure, we summarized the single items for altruistic, extrinsic, and intrinsic work values to an overall measure for each dimension of work values and used these aggregated measures as the basis for our analyses.

Table 1. Factor Structure of Work Values

	Component		
	1	2	3
Personally important: job security	.719		
Personally important: high income	.819		
Personally important: opportunities for advancement	.663		
Personally important: an interesting job			.816
Personally important: work independently			.819
Personally important: help other people		.882	
Personally important: a job useful to society		.884	

Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalization.
Source: ISSP, own calculation

Our main determinants of work values and their changes are gender, age, and generation. We measured gender with a binary variable (0 = female, 1 = male). Age refers to calendar age (Kooij et al., 2008), measured in years. We adopted Twenge's (Twenge, 2010; Twenge et al., 2010) classification of generations. Accordingly, we distinguished between the silent generation (born 1925 to 1945), baby boomers (born 1946 to 1964), generation X (born 1965 to 1981), and generation Y (born 1982 to 1999).

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Beyond these variables, we also controlled for the potential influences of education, occupation, legal partnership status, number of persons in the household, and weekly working hours. Control for education (up to lower secondary education, upper and post-secondary education, university degree and beyond) is necessary because a higher education is often accompanied by high salary (Martins & Pereira, 2004) and higher job security (Ashenfelter & Ham, 1979). Following Maslow's hierarchy of needs, higher earnings and greater job security help to fulfill higher-educated employees' physiological and safety needs. Thus, higher-educated persons value higher needs (altruistic work values) because they are not satisfied, while lower-educated persons value safety and physical needs (extrinsic work values) higher because they are not content (Maslow, 1943). Inglehart's approach underlines the importance to control for education. Inglehart assumed that what individuals experience in childhood and adolescence shapes their values in adult life. In concrete terms, those who grew up under difficult economically conditions in childhood and adolescence would give relatively high priority to economic needs (Inglehart, 1971). The level of education is a primary indicator of the social class and thus goes hand in hand with the respective economic conditions of the corresponding social class (Winkleby et al., 1990). Following the above-mentioned logic of Maslow's hierarchy of needs, we also controlled for occupation (managers, professionals, clerks, service and sales workers, craft and related trades workers, plant/machine operators, and elementary occupations).

Table 2. Correlation of Dependent, Independent, and Control Variables

	1	2	3	4	5	6	7	8
1. Altruistic work values								
Independent variables								
2. Gender	0.095**							
3. Age	0.048*	-0.022						
4. Generation	0.028	0.076**	-0.674**					
Control variables								
5. Education	0.037	0.015	0.039	0.190**				
6. Occupation	-0.083**	-0.250**	-0.057*	-0.083**	-0.537**			
7. Legal partnership status	-0.016	0.020	-0.478**	0.407**	0.035	0.026		
8. Persons in household	0.039	-0.054*	-0.080**	0.078**	0.002	-0.013	-0.350**	
9. Hours worked weekly	-0.033	-0.405**	0.003	0.007	0.078**	0.053*	0.076**	-0.102**

Notes: Significance levels (two-tailed): * 5 %; ** 1 %;
Source: ISSP, own calculation

Legal partnership status (married/civil partnership, widowed/divorced/separated, never married/in a civil partnership, single) and the number of persons in the household as well as working hours could be relevant for the importance of altruistic work values. Persons in a steady relationship, who live with others and do not

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work long hours, have the possibility to satisfy their altruistic needs in their private lives, which could influence the need for altruistic work values (Maslow, 1943). Table 2 provides an overview of the correlation of all dependent, independent, and control variables.

Analytical Strategy

To assess the change in altruistic work values and to determine influencing factors, we conducted various analyses. First, we assessed the changes in terms of mean differences, which is common in work value research (Braun & Borg, 2004; Cennamo & Gardner, 2008; Cogin, 2012; Hauff, 2008, 2010). Second, we applied regression analysis to examine the independent variables' effects on altruistic work values. This allows us to establish whether the changes in a predictor may be a reason for the change in altruistic work values. Third, we also applied a decomposition analysis (Jann, 2008), which revealed how much the differences in independent variables contribute to mean differences of a dependent variable (i.e. altruistic work values) between distinct groups (i.e. different years). In short, this analysis shows the characteristics that contribute to the differences in altruistic work values across years; it also shows *how much* these characteristics contribute to the overall differences.

Results

Table 3 shows the differences in work values between 1989 and 2016, expressed in mean values. Overall, the results show the largest differences in mean values for altruistic work values (help other people, a job that is useful to society). The mean values of altruistic work values developed in a positive direction, while extrinsic work values (job security, high income, advancement opportunities) developed negatively, and intrinsic work values (interesting job, work independently) gained only slightly in importance. To test whether the central tendencies in the sample differed at the four survey times, we conducted a Mann-Whitey U-test. We found significant differences between 1989 and 2016 for altruistic ($p < 0.01$) and extrinsic work values ($p < 0.001$), while the differences in intrinsic work values were not significant for the whole period. The largest positive difference in altruistic work values was observed between 1997 and 2006. For extrinsic work values, our results showed a significant negative development between 1989 and 1997 as well as between 2006 and 2016. The mean values of intrinsic work values were significantly different and showed that intrinsic work values gained in importance between 2006 and 2016.

Table 4 displays how our main determinants (the proportion of women, the average age, and generational distribution) changed in our dataset. The various results are in line with other studies' assumptions and observations: the proportion of women increased, the average age raised, and a new generation entered the labor market while the older generations left it (Table 4).

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Table 3. Changes in Work Values Between 1989 and 2016

	1989	1997	2006	2016	1989 to 1997	1997 to 2006	2006 to 2016	1989 to 2016
	Means				Differences in means			Differences in means
Altruistic work values	3.65	3.60	3.79	3.82	-0.05	0.19***	0.03	0.17**
Extrinsic work values	4.21	4.09	4.13	4.04	-0.12***	0.04	-0.09***	-0.17***
Intrinsic work values	4.36	4.41	4.34	4.41	0.04	-0.06	0.07*	0.05

Notes: Means, Mann-Whitney U-test, significance levels (two-tailed): * 5 %; ** 1 %; *** 0.1 %.
Source: ISSP, own calculation

Table 4. Development of Proportion of Women, Average Age, and Generational Distribution

	1989	1997	2006	2016
Proportion of women	42.7	41.3	43.0	51.4
Average age	38.06	40.09	41.66	43.29
Generational distribution				
The silent generation (born 1925 to 1945)	34.7	20.5	4.6	1.1
Baby boomers (born 1946 to 1964)	51.3	47.7	52.9	29.9
Generation X (born 1965 to 1981)	14.0	31.8	33.7	42.4
Generation Y (born 1982 to 1999)	0.0	0.0	8.8	26.6

Source: ISSP, own calculation

To establish whether the changes in our main determinants may be a reason for the changes in altruistic work values, we first applied regression analysis. To avoid the issue of multicollinearity between age and generation, we calculated two models, one with age and one with generation as the independent variable. The results, which appear in Table 5, show that altruistic work values are more important for women than for men ($p < 0.001$, Model 1 and Model 2). Along with the increasing proportion of women in the labor force, this supports H1. Model 1 shows that increasing age is accompanied by a growth in the importance of altruistic work values ($p < 0.05$). The average age is increasing, which supports our assumptions in H2 – that an aging workforce may increase the importance of altruistic work values. Models 2a to 2c, with generation as the independent variable, showed no significant differences in the relevance of altruistic work values between generation Y and previous generations. Significant effects could only be found between the silent generation and generation X ($p < 0.01$). Thus, these results do not support H3.

For education, legal partner status, number of persons in the household, and weekly working hour, there is no evidence that they are responsible for differences in the importance of altruistic work values. Only for occupation ($p < 0.05$), we could find

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significant differences for managers and professionals as well as service and sales workers.

Table 5. Determinants of Altruistic Work Values

	Model 1	Model 2a	Model 2b	Model 2c
Year	.090***	.130***	.130***	.130***
Gender (1 = male)	-.097***	-.097***	-.097***	-.097***
Age	.068*	-	-	-
Generation				
The silent generation (born 1925 to 1945)	-	-	.048	.080**
Baby boomers (born 1946 to 1964)	-	-.068	-	.045
Generation X (born 1965 to 1981)	-	-.106**	-.042	-
Generation Y (born 1982 to 1999)	-	-.045	-.005	.022
Education				
(Ref: Up to lower secondary education)				
Upper and post-secondary education	-.018	-.014	-.014	-.014
University degree and beyond	-.058	-.053	-.053	-.053
Legal partnership status				
(Ref: Married/Civil partnership)				
Widowed/Divorced/Separated	-.001	-.001	-.001	-.001
Never married/in a civil partnership, single	.025	.007	.007	.007
Number of people in the household	.051*	.045	.045	.045
Weekly working hours	-.013	-.016	-.016	-.016
Occupation				
(Ref: Plant/Machine operators and elementary occupations)				
Managers and professionals	.082*	.078*	.078*	.078*
Clerks	-.021	-.023	-.023	-.023
Services and sales workers	.065*	.061*	.061*	.061*
Craft and related trades workers	.015	.010	.010	.010
Adjusted R^2	.032	.032	.032	.032

Note: Significance levels (two-tailed): * 5 %; ** 1 %; *** 0.1 %.
Source: ISSP, own calculation

Table 6 displays the decomposition results. Models 1 to 4 tested for possible underlying effects of gender and age, considering several combinations of the observation years. We also performed a decomposition using generational membership instead of age for 2006 and 2016 (Model 5). A significant overall explained part would indicate a systematic contribution of shifts in the independent variables to the overall difference across years. Significant results of single variables in the explained part would indicate a systematic contribution of these variables.

The decomposition results showed that differences in altruistic work values do *not* systematically derive from major structural shifts in the independent variables. Only

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two models exhibited explained parts that are significant at the 5 % level. Considering contributions of specific dependent variables, only in Model 2 (1989 vs. 1997) age had a statistically significant effect at the 5 % level. However, this was absent in all the other models. Thus, considering the individual variables' contributions, we found no consistent pattern that would explain the observed differences in the dependent variable.

Table 6. Decomposition Model of Altruistic Work Values

Model	(1) 1989 vs. 2016	(2) 1989 vs. 1997	(3) 1997 vs. 2006	(4) 2006 vs. 2016	(5) 2006 vs. 2016 generations
Overall					
Group mean 1: earlier year	3.72***	3.72***	3.83***	3.92***	3.92***
Group mean 2: later year	3.87***	3.83***	3.92***	3.87***	3.87***
Difference	-.15*	-.10	-.09	.05	.04
Explained part (overall)	-.10*	-.07*	-.03	-.04	-.05
Unexplained part (overall)	-.05	-.03	-.06	.09	.09
Explained part (single variables)					
Gender (1 = male)	-.01	.00	-.01	-.01	-.01
Age	.00	-.02*	-.01	.00	
Generation: The silent generation (born 1925 to 1945)					.00
Generation: Baby boomers (born 1946 to 1964)					.00
Generation: Generation X (born 1965 to 1981)					.00
Generation: Generation Y (born 1982 to 1999)					-.01
Education: Up to lower secondary education	-.01	.00	.00	-.01	-.01
Education: Upper and post-secondary...	.00	-.01	.00	.00	.00
Education: University degree and beyond	.00	.01	.00	.00	.00
Legal partnership status: Married...	.00	.00	.00	.00	.00
Legal partnership status: Widowed...	.00	.00	.00	.00	.00
Legal partnership status: Never married...	.00	.00	.00	.00	.00
Number of people in the household	.00	-.01	.01	.00	.00
Weekly working hours	.00	.00	.00	.00	.00
Occupation: Managers and professionals	-.03	-.01	.00	-.01	-.01
Occupation: Clerks	-.01	.00	.00	-.01	-.01
Occupation: Services and sales workers	.00	.00	.00	.00	.00
Occupation: Craft and related trades...	.00	.00	.00	.00	.00
Occupation: Plant/Machine operators...	-.03	-.02	.00	.00	.00
N	1,069	1,017	967	1,019	1,017

Notes: Significance levels (two-tailed): * 5 %; ** 1 %; *** 0.1 %; for instance, for Model 1, earlier year = 1989 and later year = 2016; decomposition results reported as seen from the later year; minor differences between means and decomposition estimates due to missing values.
Source: ISSP, own calculation

Discussion and Conclusion

With our theoretical and empirical analyses we have contributed to a more comprehensive understanding of the shifts in work values and how changes in the demo-

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graphic structure of the workforce contribute to these. We found an increase in altruistic work values (the importance to help other people, a job that is useful for society) between 1989 and 2016, while extrinsic and intrinsic work values either became less important (in the case of extrinsic work values) or remained similar in their importance (in the case of intrinsic work values). This is not trivial because it contradicts the prevailing assumption of a change from extrinsic to intrinsic work values (Zanders, 1993) and highlights that altruistic work values should be considered when analyzing changes in work values.

Our analyses provide some indication that the increasing importance of altruistic work values may be caused by a shift in key determinants of the workforce, particularly gender and age. According to our analysis, gender affects the importance of altruistic work values since women – as anticipated – value altruistic work values higher than men. Our findings also show significant effects of age on the importance of altruistic work values. Thus, the rise in the number of women who become part of the workforce and the aging of the workforce may offer plausible explanations for an increase in the importance of altruistic work values. However, the regression models' explanatory power is low, and the decomposition analysis results do not support these findings.

In contrast, we found no indication that members of generation Y value altruistic work values less than previous generations (H3). Indeed, generation Y valued altruistic work values higher than generation X and lower than the silent generation and baby boomers, but the differences are small and insignificant. This reflects a common finding when analyzing generational differences (Cennamo & Gardner, 2008; Kowske et al., 2010; Parry & Urwin, 2011; Twenge, 2010). Previous time-lag studies have only found small and overall insignificant differences between the generations (Twenge et al., 2010; Wey Smola & Sutton, 2002). Clearer differences between generations were found in cross-sectional studies (Lub et al., 2015; Wong et al., 2008), but cross-sectional studies cannot separate the effects of generation, career stage, and age. For instance, in their cross-sectional study, Wong et al. (2008) concluded that differences between generations relate more to age than to generation. Studies that concluded that generation influences work values more than age state small differences and no significant discrepancy in view of the relevance of altruistic work values (Cennamo & Gardner, 2008; Kowske et al., 2010; Twenge et al., 2010). Also, we cannot completely separate age and career effects. In view of this as well as our results, we must conclude that being a member of generation Y does not result in significant differences in the meaning of altruistic work values. Thus, the notion that generation Y is characterized by a higher narcissism is disputable.

Overall, our analysis shows that the explanatory power of gender, age, and generation for differences in work values – despite their theoretical importance – is fairly small. An additional explanation that could account for the increase of altruistic

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work values could be based on the fulfillment of needs because of the economic situation. For the observed period, we found an increase in the nominal and the real wage index (Federal Statistical Office, 2018) and a decrease in West Germany's unemployment rate (Federal Employment Agency, 2017). These circumstances imply rising incomes and greater job security for employees. The logic of Maslow's hierarchy of needs (Maslow, 1943, 1970) implies that the satisfaction of one need results in the emergence of another need. Rising incomes and greater job security satisfy extrinsic work values; thus, satisfaction in extrinsic work values could cause altruistic work values to become more important. Hence, the increase in the relevance of altruistic work values could be generated by wealth effects. Besides an improved economic situation for employees owing to higher wages and greater job security, the gross domestic product has also increased during the observed time (Federal Statistical Office, 2017). Thus, the fulfillment of needs owing to the economic situation offers an alternative explanation for an increase in the relevance of altruistic work values for the considered time. The relationship between economic situation and the changes in (altruistic) work values must be analyzed in future research.

Our study has several *practical implications* for human resource managers as well as for trade unions' work and goals. First, work values affect work-related outcomes such as job satisfaction, tenure (Leuty & Hansen, 2011), or organizational commitment (Elizur & Koslowsky, 2001). Getting information about which work values are important for employees will help managers to develop working conditions that meet employees' needs. In this regard, our study shows that altruistic work values are gaining more importance. This knowledge should be considered in human resource management when thinking about attracting, motivating, and retaining employees. Second, trade unions represent employees' interests such as safe working conditions, decent wages, high-quality workplaces, or continuing education (European Trade Union Confederation, 2015). This covers employees' extrinsic and intrinsic work values but not altruistic ones. Working conditions that offer opportunities to contribute to society or help others could support the key goal of the Confederation of German Trade Unions: to humanize work (Confederation of German Trade Unions, 1996). Thus, unions should consider all needs in their strategies, not only extrinsic and intrinsic ones.

Beside our contributions regarding new insights into the change in altruistic work values, this study has *limitations*. We used self-reported data and collected the dependent and independent variables by participants of the studies. This constitutes the risk of common method bias. However, to evaluate demographic variables this way is usually not a problem (Chan, 2015; Podsakoff & Organ, 1986), and work values are inherently subjective. Further, we used cross-sectional data from four years (1989, 1997, 2006, and 2016). Therefore, making causal inferences is problematic. An additional problem of cross-sectional data is evaluating generational differences because they could be affected by career and age effects. Thus, it would be interesting to test this with longitudinal studies.

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In conclusion, our study offers fundamentally new and up-to-date findings about the change in altruistic work values in Germany. We have advanced the research in work values for three reasons. First, we complemented knowledge about changes in work values in the dimension of altruistic work values, which have not been considered to date. Second, we showed that altruistic work values are becoming more important, which stands in contrast to the decline in extrinsic work values and the constant importance of intrinsic work values. In this way, our study shows what is important to employees and helps to gain insights into what makes a job good or bad. Third, we analyzed how changes in the structure of the workforce (gender, age, generation) have contributed to these changes. Although these determinants are discussed at length in literature, our findings point out that demographic variables' explanatory power to explain the change in altruistic work values is fairly small. The contrast of our results to previous assumptions and theoretical considerations includes a high news value. However, further studies are needed to analyze alternative explanations (e.g. socio-economic variables) for shifts in altruistic work values.

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