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Article

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ORIGINAL ARTICLE

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The relationship between voluntary employer change and work ability among older workers: investigating the honeymoon-hangover effect

Nina Garthe* and Hans Martin Hasselhorn

Abstract

The aim of the study was to investigate the effect of voluntary employer changes on self-reported work ability among older workers in Germany and whether a honeymoon-hangover effect (HHE) exists here. In research on job satisfaction, three typical periods around a voluntary employer change characterize a HHE: a deterioration in the old job (deterioration), an initial increase in the new job (honeymoon) and a subsequent decline over time (hangover). Whether a HHE exists in respect to work ability following a voluntary employer change remained open. The analyses are based on data from the first three waves of the lidA study (2011, 2014, 2018), a representative cohort study of older employees in Germany born in 1959 or 1965. Data from 2502 workers who participated in all three study waves was analyzed. Fixed-effects regression analyses including lag and lead variables were conducted. A deterioration, honeymoon and hangover period were found. Work ability increased substantially following the voluntary employer change. Our study shows that voluntary employer changes have the potential to maintain work ability at higher working age, but not to increase the work ability in the long-term perspective. However, despite the existence of a hangover period, the positive overall effect of the voluntary change should not be underestimated.

Keywords: Turnover, Older workers, Work ability, Honeymoon-hangover effect, Cohort study, Fixed-effects regression

1 Introduction

At times of worldwide extended working life policies, maintaining work ability at higher working age has received increased public and policy attention (Nilsson et al. 2011). Work ability can be defined as the result of the fit between the individual's resources and his or her work demands (Tuomi et al. 1997) and may answer the question 'How good is the worker at present, in the near future, and how able is he or she to do his or her work with respect to work demands, health, and mental resources?' (Tuomi et al. 1991). Therefore, work ability depends on the actual work situation (Frieling and Kotzab 2014) and is not limited to the individual worker's resources such as health and functioning (Ebener and Hasselhorn 2019). For over 30 years, work ability has been assessed worldwide with the work ability index (WAI), which has shown to predict various employment-related outcomes such as work motivation (Feißel et al. 2018), long-term sick leave, early exit from work and disability (Ebener and Hasselhorn 2019). Today, the WAI is used globally in occupational health practice to assess and maintain the workers´ work ability (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin 2013).

Strategies to sustain the fit between older workers and their work are needed as work ability often decreases with age (de Wind et al. 2015; Oakman et al. 2018). One strategy for older workers might be a voluntary change

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of employer, which enables the worker to leave unsuitable workplaces and thereby actively adapt unfavorable working conditions. The change bears the potential to attain suitable working conditions and to increase the ability to work longer at higher working age (Wilke et al. 2019).

The large body of research on voluntary employer changes mainly focuses on determinants such as job satisfaction, performance, health, leadership quality (see meta-analysis by Rubenstein et al. 2018) and also work ability (e.g. Rongen et al. 2014). The focus on determinants—in contrast to outcomes—was often due to limitations of the data, which did allow researchers to track employees up to the change, but not subsequently. Thus, there is still little research on the consequences of employer changes. The few previous studies confirm that voluntary employer changes have a positive effect on mental health (Liljegren and Ekberg 2009) and job satisfaction (Chadi and Hetschko 2014) and is associated with improved working conditions such as increased job security, reduced working hours (Carless and Arnup 2011), better salary, better possibilities for development and more appropriate work tasks (Grund 2009). To our knowledge, there is no scientific report about the effect on the workers' work ability.

In some studies, it was observed that the positive effects found following the employer change faded over time (Boswell et al. 2005, 2009, Chadi and Hetschko 2014). In theory, this phenomenon is called the honeymoon-hangover effect (HHE) (Boswell et al. 2005). Boswell et al. (2005) first described and examined the honeymoon-hangover effect in voluntary employer changes with respect to job satisfaction. According to the authors, three periods describe the honeymoon-hangover effect:

(1) In the first period, which may be called deterioration, employees experience a decline in job satisfaction in the old job. This job dissatisfaction precedes turnover.
(2) After turnover, job satisfaction strongly increases. This is referred to as the honeymoon period. The increase is explained by organizations creating an overly positive picture of the job for new hires, as well as the employee's tendency to portray the new organization in a positive light due to high expectations. Unfavorable information about the new job is suppressed.
(3) The initially high job satisfaction with the new job declines over time to an individual 'normal' level, which is called the hangover period. The longer tenure with the new job brings along increased knowledge of the organization and employees begin to recognize the less attractive aspects of the job; a subsequent disappointment and disillusionment.

The honeymoon-hangover effect was confirmed for job satisfaction in three different studies. Boswell et al. (2005) investigated the HHE by measuring job satisfaction in one-year intervals and found the three periods of the HHE in three to four subsequent years. In 2009, Boswell et al. conducted a similar study with four measurement points (day 1, 3 months, 6 months, 1 year). Within this year, they identified the periods honeymoon and hangover for job satisfaction. A third study by Chadi and Hetschko (2014) distinguished between employer changes due to quitting on own initiative, mutual agreement, dismissal and plant closure. They found a strong HHE for employees, who changed on own initiative and a slight HHE for employees, who changed due to mutual agreement. No HHE was found among employees, who changed due to dismissal or plant closure. Furthermore, Clark et al. (2008) found that life satisfaction significantly decreased before and increased after layoffs, but this increase was not long-lasting. However, voluntary employer changes were not investigated.

Inspired by the studies on the HHE, we aimed to investigate the effect of voluntary employer changes on the work ability of older workers in Germany and whether HHE exist here. However, HHE may not develop in parallel for all possible outcomes (Roe 2008). Oakman et al. (2018), who investigated pathways of work ability over 6 years, state that sustained changes in work are required to change work ability and that these changes in work take time to make an impact. Thus, while an employer change may affect the course of job satisfaction immediately, this is followed by a re-adaptation after a shorter period of time. We suspect that for work ability, a longer time period is required for re-adaptation as the workers have to adapt to the new work situation, taking into account their health, competencies and values (Tuomi et al. 1997).

Now, the German lidA Cohort Study provides the opportunity to investigate the HHE for work ability among older workers in a large representative sample. In line with the theory on the *honeymoon-hangover effect*, we expect that the work ability of the employer changers is deteriorating in the old job and is therefore lower than the work ability after the change. Therefore, we postulate the following hypothesis:

Hypothesis 1 The work ability in the old job is deteriorating before a voluntary employer change (*deterioration*).

Further, we expect an increase of the work ability following the employer change due to the new, probably more appropriate working conditions and the positive expectations in the new job:

Hypothesis 2 The work ability at the new job is initially higher than the work ability with the old job (honeymoon).

Lastly, we suppose that the higher work ability declines over time up to a level which is similar to the employees who have stayed with their employer, as the voluntary employer changers adapt to the new work situation and negative aspects of the job are also recognized.

Hypothesis 3 The initial high work ability in the new job will decline over time (*hangover*).

2 Methods

2.1 Data and sample

The data used for this study derive from the German lidA Cohort Study on Work, Age, Health and Work participation, a representative cohort study of older employees in Germany. Initially, employed people subject to social security contributions (no self-employed or sworn civil servants), born in either 1959 or 1965, are interviewed every three to four years in their homes (computer-assisted personal interviewing, CAPI). The analyses are based on data from the first three waves of the study, 2011 ($n=6585$), 2014 ($n=4244$) and 2018 ($n=3586$). In 2018, the participants were 53 and 59 years old. A more detailed description of the lidA Cohort Study and its design has been given elsewhere (Hasselhorn et al. 2014; Rauch et al. 2015).

For this study, participants were excluded if they were not employed full time, part time or marginally in any of the waves, if they were self-employed and if they had an involuntary change of employer between any of the waves. This balanced sample allows examination of intra-individual changes in work ability over the course of the three study waves. In all, 2502 workers were included who participated in all three study waves.

2.2 Measures

2.2.1 Groups of voluntary employer change

In wave two (2014) and three (2018), the participants were asked whether they changed employer on their own initiative. If the participants had multiple changes between two waves, only the last change was measured.

In the analyses we distinguish four groups: (1) participants, who had no change, either between 2011 and 2014 nor between 2014 and 2018, thus, they stayed in the same job for all three waves (Job A, Job A, Job A; AAA), (2) participants, who had no change between 2011 and 2014 and changed between 2014 and 2018, thus, they had a new job since wave 3 (Job A, Job A, Job B; AAB), (3) participants, who changed between 2011 and 2014 and had no change between 2014 and 2018, thus, they had a new job since wave 2 (Job A, Job B, Job B; ABB) and (4) participants, who changed between 2011 and 2014 and between 2014 and 2018, thus, they had new jobs in wave 2 and also in wave 3 (Job A, Job B, Job C; ABC).

2.2.2 Work ability

In each wave, work ability was measured by the second dimension (WAI2) of the Work Ability Index (WAI). The WAI is an established questionnaire to assess work ability in occupational health research. Short measures such as the WAI2, which assesses the work ability in relation to the demands of the job, were recommended for large surveys and shown to be suitable short measures for work ability in occupational health research and employee surveys (Ebener and Hasselhorn 2019). The WAI2 consists of three questions: In two questions the participants were asked to rate their actual work ability with respect to mental and physical demands at work, respectively (very poor/rather poor/moderate/rather good/very good). The answers were weighted depending on the third question, which measures whether the participant was mainly mentally active in the main job, mainly physically active or both equally. The weighting of the WAI2 is described by Hasselhorn and Ebener (2016). The resulting sum score ranges from 2 (no work ability) to 10 (high work ability).

2.2.3 Socio-demographics

Socio-demographic information includes gender (male/female), year of birth (1959/1965), vocational education (low/medium/high) (based on Jöckel et al. 1998) as time-independent variables and having a partner (yes/no) assessed in each wave.

2.2.4 Work factors

The work factors include working hours (full time/part time/marginal employment), mental and physical work (mainly mental/mainly physical/both) and the income level (up to 1500 Euro/1500 to 3000 Euro/3000 Euro and more), each assessed in each wave.

2.2.5 Health

Mental and physical health were assessed with the Short Form Health Survey (SF-12) (Ware et al. 1995, Nübling et al. 2006). The component scores range from 0 to 100 with high scores indicating better health. Both SF-12

scales were found to have acceptable psychometric properties and validity (Ware et al. 1996).

2.2.6 Statistical analyses

The analysis consists of two steps, the description and the regression analysis.

In the description, the four groups of voluntary employer change described above were compared in terms of socio-demographics, work factors, health and work ability across the three study waves. For work ability, the group means were displayed along with confidence intervals for each wave. This allows depicting the course of work ability for each group over time.

The regression analysis is conducted as a fixed effects regression analyses including lag and lead variables for employer changes in order to investigate the individual changes of work ability before and after a voluntary employer change. To examine the individual effect of voluntary employer changes, only participants who reported a change in one or more of the waves were included in the regression analyses. With the fixed effects transformation, the individual mean value for work ability over the three waves is subtracted from each single work ability score for each participant. Through this transformation, the individual relationship between the values of each participant remains the same, but potential level differences between the participants are eliminated. Therefore, the fixed effects regression analyses allow to investigate individual work ability changes and unobserved individual heterogeneity, i.e. level differences between study participants, is removed from the work ability data.

The honeymoon-hangover effect is examined by including lag or lead dummy variables for voluntary employer changes, respectively. The three study waves allow to integrate two lag variables, which indicate whether a participant has a new job since one or two waves (examining the honeymoon and hangover period, models 1 and 2). Similarly, two lead variables could be integrated, which indicate whether a participant will have a new job in one or two waves (examining the deterioration period, models 3 and 4). In Models 2 and 4 control variables are added. Sensitivity analyses were conducted by performing separate analyses for men and women and for participants born in 1959 and 1965.

All statistical analyses were performed using SPSS version 26.0.

3 Results

3.1 Description

Table 1 shows the socio-demographics, work factors, health and work ability in the total sample and across the change groups. The majority of the participants stayed with their employer over the seven years (89.6%; *AAA*). 9.2% of the participants changed once *(AAB, ABB)* and 1.2% changed twice *(ABC)*. In some aspects, these three change groups differed from the group of stayers. Women and the younger cohort born in 1965 were overrepresented in all change groups. Participants with medium educational level were overrepresented in groups AAB and ABB and participants with low educational level were overrepresented in group ABC. In all change groups, participants more often had a partner. Participants who changed once were less likely to work full-time in each of the waves. Only in wave one, those marginally employed were overrepresented among the three change groups. In wave three, participants working full-time were overrepresented in the ABC group. Furthermore, participants, who work mainly physically, were overrepresented among all change groups. After changing, these participants more often did both, physical and mental work. More participants with a low income changed employer voluntarily. Mental health increased after a voluntary change. In relation to the stayers, changers reported worse mental health before a change and better physical health afterwards.

Figure 1 displays the course of work ability for the four groups of voluntary employer change over time. The figure indicates different patterns for each groups' work ability: the work ability of the stayers (AAA) slightly deteriorated over time and the work ability of the group, who changed twice (ABC), considerably improved after each change. The groups, who changed once (AAB, ABB), had reverse patterns. The work ability of group ABB initially improved following the change and then deteriorated considerably while staying with the new employer. The work ability of group AAB slightly deteriorated while staying with the old employer and improved following the change. Overall, these patterns indicate a honeymoon-hangover effect, as the work ability of the group AAB deteriorated before the change (deterioration), the work ability of all change groups (AAB, ABB, ABC) improved after the change (honeymoon) and the work ability of the group ABB deteriorated while staying with the new employer (hangover). This supports hypotheses 1, 2 and 3.

3.2 Regression analyses

The regression analysis provides further insight into the honeymoon-hangover effect, while controlling for socio-demographic information and work factors. The fixed-effects transformation of the outcome work ability allows prediction of the individual changes of work ability, as positive values do not indicate high work ability, but higher work ability in relation to another observation of the same individual. In all models, only

Table 1 Sample socio-demographics, work factors, health and work ability in the total sample and across change groups

			Groups of voluntary employer change (jobs in 2011, 2014, 2018)							
	Total sample		Job A, Job A, Job A (AAA)		Job A, Job A, Job B (AAB)		Job A, Job B, Job B (ABB)		Job A, Job B, Job C (ABC)	
n (%)	*N* = 2502 (100.0)		*n* = 2242 (89.6)		*n* = 139 (5.5)		*n* = 92 (3.7)		*n* = 29 (1.2)	
	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)
Socio-demographic factors										
Gender	*n* = 2502		$\chi^2_{(3)} = 11.98, p = 0.007$							
Male	45.3		46.5		33.8		38.0		34.5	
Female	54.7		53.5		66.2		62.0		65.5	
Year of birth	*n* = 2502		$\chi^2_{(3)} = 19.79, p = 0.000$							
1959	45.6		47.1		34.5		30.4		31.0	
1965	54.4		52.9		65.5		69.6		69.0	
Vocational education	*n* = 2488		$\chi^2_{(6)} = 5.31, p = 0.504$							
High	23.1		23.6		19.0		16.3		20.7	
Medium	57.2		56.9		61.3		62.0		51.7	
Low	19.7		19.5		19.7		21.7		27.6	
Partner (2011)	*n* = 2493		$\chi^2_{(3)} = 3.89, p = 0.273$							
Yes	88.2		87.8		92.8		89.1		[a]	
No	11.8		12.2		7.2		10.9		[a]	
Partner (2014)	*n* = 2499		$\chi^2_{(3)} = 6.07, p = 0.108$							
Yes	88.1		87.6		93.5		91.3		[a]	
No	11.9		12.4		6.5		8.7		[a]	
Partner (2018)	*n* = 2480		$\chi^2_{(3)} = 3.36, p = 0.339$							
Yes	86.9		86.5		91.4		89.1		89.7	
No	13.1		13.5		8.6		10.9		10.3	
Work factors										
Working hours (2011)	*n* = 2502		$\chi^2_{(6)} = 43.07, p = 0.000$							
Full time	67.5		69.0		52.5		53.3		69.0	
Part time	27.5		26.8		33.8		38.0		20.7	
Marginal employment	5.0		4.2		13.7		8.7		10.3	
Working hours (2014)	*n* = 2502		$\chi^2_{(6)} = 39.62, p = 0.000$							
Full time	66.9		68.3		51.8		55.4		62.1	
Part time	29.3		28.2		36.7		[a]		[a]	
Marginal employment	3.9		3.4		11.5		[a]		[a]	
Working hours (2018)	*n* = 2502		$\chi^2_{(6)} = 26.05, p = 0.000$							
Full time	67.5		68.9		51.1		58.7		72.4	

Table 1 (continued)

			Groups of voluntary employer change (jobs in 2011, 2014, 2018)							
	Total sample		Job A, Job A, Job A (AAA)		Job A, Job A, Job B (AAB)		Job A, Job B, Job B (ABB)		Job A, Job B, Job C (ABC)	
n (%)	*N* = 2502 (100.0)		*n* = 2242 (89.6)		*n* = 139 (5.5)		*n* = 92 (3.7)		*n* = 29 (1.2)	
	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)
Part time	29.4		28.0		[a]		[a]		[a]	
Marginal employment	3.0		3.1		[a]		[a]		[a]	
Mental and physical work (2011)	*n* = 2502		$\chi^2_{(6)} = 17.36$, $p = 0.008$							
Mainly mental	50.0		50.8		41.7		42.4		48.3	
Mainly physical	9.9		9.1		15.1		18.5		17.2	
Both	40.1		40.1		43.2		39.1		34.5	
Mental and physical work (2014)	*n* = 2502		$\chi^2_{(6)} = 16.48$, $p = 0.011$							
Mainly mental	51.0		52.3		40.3		40.2		34.5	
Mainly physical	9.9		9.5		14.4		10.9		13.8	
Both	39.2		38.2		45.3		48.9		51.7	
Mental and physical work (2018)	*n* = 2502		$\chi^2_{(6)} = 13.98$, $p = 0.030$							
Mainly mental	51.0		52.1		41.0		44.6		[a]	
Mainly physical	7.4		7.3		7.9		9.8		[a]	
Both	41.6		40.5		51.1		45.7		62.1	
Income level (2011)	*n* = 2404		$\chi^2_{(6)} = 50.43$, $p = 0.000$							
Up to 1500 Euro	40.1		37.8		63.3		57.8		50.0	
1500 to 3000 Euro	47.0		49.1		28.1		27.8		32.1	
3000 Euro and more	12.9		13.1		8.6		14.4		17.9	
Income level (2014)	*n* = 2459		$\chi^2_{(6)} = 56.32$, $p = 0.000$							
Up to 1500 Euro	34.7		32.4		59.0		51.6		44.8	
1500 to 3000 Euro	49.7		51.7		30.6		31.9		34.5	
3000 Euro and more	15.7		15.9		10.4		16.5		20.7	
Income level (2018)	*n* = 2438		$\chi^2_{(6)} = 46.85$, $p = 0.000$							
Up to 1500 Euro	27.1		25.1		48.9		40.7		37.9	
1500 to 3000 Euro	52.4		53.8		38.3		42.9		44.8	
3000 Euro and more	20.5		21.1		12.8		16.5		17.2	
Health	*n* = 2495		$F(3, 2491) = 0.766$, $p = 0.513$, partial $\eta^2 = 0.00$							
Mental health[b] (2011)		52.1 (9.5)		52.2 (9.4)		52.6 (10.0)		50.7 (10.7)		51.9 (9.1)

Table 1 (continued)

			Groups of voluntary employer change (jobs in 2011, 2014, 2018)							
	Total sample		Job A, Job A, Job A (AAA)		Job A, Job A, Job B (AAB)		Job A, Job B, Job B (ABB)		Job A, Job B, Job C (ABC)	
n (%)	*N* = 2502 (100.0)		*n* = 2242 (89.6)		*n* = 139 (5.5)		*n* = 92 (3.7)		*n* = 29 (1.2)	
	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)
Mental health[b] (2014)	*n* = 2490		F(3, 2486) = 3.170, *p* = 0.023, partial η^2 = 0.00							
		50.6 (10.0)		50.7 (9.9)		48.5 (11.4)		51.7 (9.4)		53.4 (7.7)
Mental health[b] (2018)	*n* = 2495		F(3, 2491) = 1.777, *p* = 0.149, partial η^2 = 0.00							
		51.7 (9.7)		51.5 (9.7)		53.2 (9.9)		51.9 (9.3)		53.9 (7.5)
Physical health[b] (2011)	*n* = 2495		F(3, 2491) = 0.632, *p* = 0.595, partial η^2 = 0.00							
		50.3 (8.8)		50.3 (8.8)		50.8 (8.8)		51.3 (8.0)		51.0 (7.3)
Physical health[b] (2014)	*n* = 2490		F(3, 2486) = 3.253, *p* = 0.021, partial η^2 = 0.00							
		50.0 (8.8)		49.8 (8.9)		51.3 (8.5)		50.9 (8.5)		53.7 (7.7)
Physical health[b] (2018)	*n* = 2495		F(3, 2491) = 2.928, *p* = 0.033, partial η^2 = 0.00							
		48.2 (9.2)		48.0 (9.2)		49.6 (9.0)		49.9 (8.4)		50.5 (7.2)
Work ability										
Work ability[c] (2011)	*n* = 2493		F(3, 2489) = 1.359, *p* = 0.253, partial η^2 = 0.00							
		8.1 (1.5)		8.1 (1.5)		8.3 (1.4)		8.1 (1.6)		7.7 (1.6)
Work ability[c] (2014)	*n* = 2494		F(3, 2490) = 5.022, *p* = 0.002, partial η^2 = 0.01							
		8.0 (1.4)		7.9 (1.4)		7.9 (1.7)		8.5 (1.4)		8.3 (1.1)
Work ability[c] (2018)	*n* = 2497		F(3, 2493) = 7.727, *p* = 0.000, partial η^2 = 0.01							
		7.8 (1.5)		7.7 (1.5)		8.2 (1.6)		7.9 (1.4)		8.6 (1.2)

SD standard deviation

For each socio-demographic and work factor Chi-square tests and for health and work ability one-way ANOVAs are shown for the groups comparisons between the four groups AAA, AAB, ABB and ABC

[a] This data cannot be shown for reasons of data protection

[b] Range from 0 to 100. High scores indicate good health

[c] Range from 2 to 10. High scores indicate high work ability

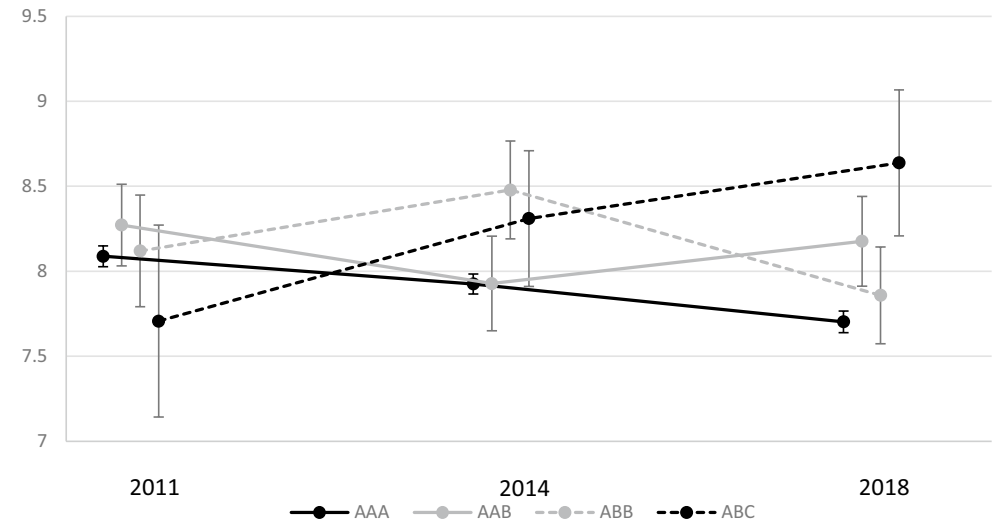

Fig. 1 Work ability of voluntary employer changers between 2011 and 2018 with confidence intervals (2011: n = 2493, 2014: n = 2494, 2018: n = 2497). Notes: Possible range from 2 (no work ability) to 10 (maximal work ability). AAA: Job A, Job A, Job A (n = 2234–2237); AAB: Job A in 2011, Job A in 2014, Job B in 2018 (n = 138–139); ABB: Job A in 2011, Job B in 2014, Job B in 2018 (n = 92); ABC: Job A in 2011, Job B in 2014, Job C in 2018 (n = 29)

observations of participants reporting a change (groups AAB, ABB; ABC) were included (Table 2).

Models 1 and 2 include the two lag variables, which allow to investigate the effect of being in a new job since one or two waves on work ability. The two lag variables are dummy variables indicating if a participant was in a new job since one or two waves, respectively. The models show that the work ability in the new job was significantly higher one wave after the change. The lag variable 'new job since 2 waves' showed no significant effect, which indicates that the work ability was not significantly higher two waves after the change. This supports hypotheses 2 and 3 and the existence of a honeymoon and hangover period.

Models 3 and 4 include the two lead variables, which allow to examine if and how the individual work ability before changing the employer differed from work ability following the change. The two lead variables are dummy variables indicating if a participant will be in a new job in one or two waves, respectively. The models show that work ability in the wave prior to the change was significantly lower than after the change, which is indicated by the negative regression coefficient. The lead variable 'new job in 2 waves' showed no significant effect. This result supports hypothesis 1 and the *deterioration* period, as the work ability one wave before the change was significantly lower than after the change (significant negative regression coefficient), but not two waves before (no significant regression coefficient).

The inclusion of control variables in models 2 and 4 did not affect these results. In the sensitivity analyses (not shown), similar patterns as described above were found for men and women, participants born in 1965 and 1959 and when including the observations of all participants (groups AAA, AAB, ABB and ABC) in the regression analyses. However, significant regression coefficients were only found for women and younger workers, which may be due to the low number of cases among male participants and participants born in 1959 reporting a voluntary employer change. In further sensitivity analyses covering not only those who changed job but all participants (n = 2479) and observations (n = 7437), the findings and significances remained largely stable. However, the corrected within R^2 was considerably lower which may be explained by a dilution effect due to the—logically—reduced within-panel variation of the lag and lead variables.

4 Discussion

In summary, our data indicate that voluntary employer changers are a specific group of employees among older workers. In this study younger and female employees were overrepresented among changers. The higher proportion of female changers may be due to the fact that women are more likely to work in jobs with more opportunities and needs to change employer. For example, in part-time and marginal employment, in jobs with a lower income level and in occupations which more easily allow

Table 2 Fixed effects regression analyses. Work ability before and after voluntary employer change

	Model 1	Model 2	Model 3	Model 4
Leads				
New job in 2 waves			− 0.005	− 0.005
New job in 1 wave			− 0.114**	− 0.106**
Lags				
New job since 1 wave	0.132***	0.135***		
New job since 2 waves	− 0.038	− 0.039		
Working hours (Ref.: full time)				
Part time		0.005		0.009
Marginal employment		0.015		0.012
Mental and physical work (Ref.: mainly mental)				
Mainly physical		− 0.059		− 0.055
Both		0.006		0.015
Income level (Ref.: 1500–3000 Euro)				
Up to 1500 Euro		− 0.004		− 0.003
3000 Euro and more		− 0.016		− 0.008
Number of observations	777	750	777	750
Number of individuals	259	250	259	250
Corrected within R^2	0.017	0.015	0.010	0.005

Regression coefficients: Standardised beta (β). *$p < 0.05$, ** $p < 0.01$, ***$p < 0.001$. Only participants reporting a change were included

for changes such as social and health care professions. Many changers seem to leave marginal employment over time and tend to change to full-time employment. Also, a higher proportion of employees with low or medium vocational education and mainly physical work changed employer voluntarily; groups with a higher risk for early retirement in Germany (Brussig 2015). Moreover, employees with a lower income level, a partner and better physical health changed more frequently.

The work ability patterns over time shown in Fig. 1 and the regression analyses supported all three hypotheses: (1) The work ability in the old job had deteriorated before a voluntary employer change, (2) the work ability at the new job was initially higher than the work ability with the old job, and (3) the initial high work ability at the new job declined over time.

4.1 The role of time

Our findings confirm that the time interval matters. Boswell et al. (2005), who investigated the HHE for job satisfaction, measured job satisfaction in five consecutive years and found a deterioration period two years before the employer change, a honeymoon period in the assessment one year after the change and a hangover period one year later. In our study, we also found an HHE, although work ability was measured in three- to four-year periods. Roe (2008) assumed that the time period until the onset of effects can widely differ. In our case, employer changes may have an immediate impact on some and a delayed effect on other outcomes. We suppose the latter when it comes to work ability. This is because the employer change may go along with many small changes in work and private life to which the employees have to adapt to and which are eventually integrated into everyday life. For example, the new job may require shorter commuting allowing for more time at home, for hobbies, friends, household and sports. It may therefore have a positive effect on leisure activities, physical and mental health and life satisfaction, which, in turn, increase resilience to stress and workload.

4.2 The honeymoon-hangover effect for work ability

In theory, the honeymoon-hangover effect constitutes three periods, deterioration, honeymoon and hangover (Boswell et al. 2005). In our study, we identified a deterioration period for work ability. However, the work ability prior to changes (in AAB and ABB) was not significantly lower than that of the stayers (AAA, see Fig. 1). Therefore, low work ability does not seem to be a primary reason for a voluntary employer change among older workers, unlike job satisfaction as indicated by most of the turnover theories and models (see review by Hom et al. 2017). To what extent the deterioration period can be attributed to poor working conditions or age effects, remains open. Nevertheless, Garthe and Hasselhorn (2020) showed that older voluntary employer changers reported significantly worse psychosocial working

conditions before their change than stayers indicating a strong impact of work.

Furthermore, we confirmed the existence of a honeymoon period for work ability. Work ability improved substantially following a voluntary change of employer. Theory on the honeymoon-hangover effect explains the honeymoon period for job satisfaction by the assumption that the new organization creates an overly positive picture of the job and that the employees portray the new organization in a positive light (Boswell et al. 2005). Yet, we suppose that there is more to it than that, when it comes to work ability. Many working conditions can change due to a voluntary employer change, which may have a direct impact on work ability—and of course job satisfaction—such as leadership quality, work-privacy conflict, travel time to work, colleagues, work tasks, influence at work, working environment and work equipment (Grund 2009; Carless and Arnup 2011; Garthe and Hasselhorn 2020). Several studies confirmed the relationship between physical and psychological working conditions and work ability (Alavinia 2008; van den Berg et al. 2008; Sanders et al. 2011; Attarchi et al. 2014; Weale et al. 2019). It can also be assumed that only those employees change, who expect an improvement, which implies that changers to some degree may constitute a selective group. Thus, there may be real positive changes in work that can cause a honeymoon period; it is not just a question of perception.

Although we assume that the voluntary change actually improves the work situation, we found a hangover period for work ability. Figure 1 depicts (see pattern of ABB), and the regression analysis confirms that voluntary employer changes had a strong positive effect on the work ability in the following wave, which did not hold until the next wave. As assumed in theory, the adaption to the new job, the routine, the knowledge of the organization and the negative aspects of the job appear with time and may affect the self-reported work ability as well (Boswell et al. 2009). We suppose that this hangover period cannot be explained solely by age effects, as the self-reported work ability deteriorates strongly to a 'normal' level after the honeymoon period within four years. Furthermore, we did not find a hangover period among the participants who changed twice (ABC). In contrast to the single time changers, this group seems to experience another honeymoon period. Gielen (2013) examined the relationship between repeated job quits and job satisfaction in men and found a strong increase of job satisfaction after each employer change and a slight decrease in job satisfaction, when the participants stayed with the new employer. She concludes that most of the repeated job quits were stepping stones to find the most preferred job. For our study, we cannot exclude a hangover period for these participants when they stay for a longer period of time with their current employer.

In conclusion, although we detected a hangover period, we suppose that the change was not in vain and is a strategy to maintain work ability at higher working age for three reasons. First, a voluntary change actually goes along with improvements of working conditions and work ability. Second, the voluntary change has the potential to induce a better match between the work and the aging workers, whose health and work ability are likely to deteriorate at higher working age (Frieling and Kotzab 2014). Third, we assume that the changers might have experienced a considerable deterioration in their work ability if they had not taken the opportunity to change. Studies on job lock and stuck at work showed that workers' health and job satisfaction deteriorated over time while staying with a non-desired employer (Huysse-Gaytandjieva et al. 2013; Canivet et al. 2017).

4.3 Limitations

In addition to its strengths, this study also has limitations. First, we had no data on work ability before 2011 and after 2018 to investigate the work ability pattern of the changers two periods before or after the change. Second, we only had data with a 3- and a 4-year period between waves and could not investigate in-between changes in work ability. Third, we could not exclude selection effects, because we only included employees, who participated in all three waves.

5 Conclusions

Maintaining the work ability of older employees is relevant for the society and the employers, who will be increasingly dependent on older workers and certainly for the older employees themselves, who want to, or have to work longer. Our study shows that voluntary employer changes have the potential to maintain work ability at higher working age, but not to increase work ability long-lasting. We found a honeymoon-hangover effect for work ability, meaning a substantial increase of work ability shortly after the change and a decrease of the work ability over time, while staying with the new employer. On the one hand, our analyses suggest that the increase of work ability should not be overestimated in its duration or sustainability. On the other hand, the findings indicate that despite the decrease in the work ability, the potential positive overall effect of the voluntary change should not be underestimated.

Our study is the first to investigate the consequences of voluntary employer changes on older workers' work ability. Future studies should examine in depth, why there is a hangover period, while staying with the new employer, although real improvements in working conditions can

be expected. Another question is, if the changers' work ability remains higher than the work ability of the stayers over time. Further, shorter time intervals should be considered to investigate short-term effects. In addition to the employer changers, employees who are stuck at their work and employer, need to be investigated over time, because among them a stronger decrease in work ability can be expected than among employees, who voluntarily stay with their employer.

Abbreviations

HHE: Honeymoon-hangover effect; AAA: Job A, Job A, Job A (in the years 2011, 2014 and 2018); ABB: Job A, Job B, Job B (in the years 2011, 2014 and 2018); AAB: Job A, Job A, Job B (in the years 2011, 2014 and 2018); ABC: Job A, Job B, Job C (in the years 2011, 2014 and 2018).

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Authors' contributions

NG conceptualized und wrote the manuscript, analyzed and interpreted the data. HMH contributed to the interpretation of the data and the writing of the manuscript. Both authors have read and approved the final manuscript.

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Availability of data and materials

The datasets used for the current analysis are not publicly available due to protection of data privacy (www.lida-studie.de). A Scientific Use File will be available in 2023.

Declarations

Competing interests

The authors declare that they do not have competing interests.

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