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The Use of HR Policies and Job Satisfaction of Older Workers

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ABSTRACT

Against the backdrop of aging populations and policies to extend working lives, this study advances prior research by examining how job satisfaction of older workers is associated with not only own, but also coworkers' usage of 3 human resource (HR) policies: phasing out (i.e., lighter workload, additional leave, and semi-retirement), demotion, and training. Exploiting unique, linked organization-department-employee data from the European Sustainable Workforce Survey (ESWS), hypotheses derived from the job demands-resources (JD-R) model and relative deprivation theory are tested with 3-level regression analysis. The findings show that demotees are less satisfied with their job compared to older employees who were not demoted, whereas participation in phasing out arrangements is not related to older workers' job satisfaction. Older employees who received training are more satisfied with their job than those who did not. Moreover, in departments where coworkers participated in training, older employees who did not receive training are more satisfied than those in departments where training is unavailable or in which training is offered, but not used. Phasing out and demotion of colleagues are not associated with job satisfaction of older workers. These results are largely in line with the JD-R model, as demotion would decrease motivation and, in turn, job satisfaction, whereas training would increase job resources and motivation and, in turn, job satisfaction. This study concludes that providing training to older workers is a fruitful HR strategy for employers to stimulate job satisfaction among their older employees and facilitate longer working lives.

Population aging is a major concern for many governments worldwide. This demographic trend has profound implications for intergenerational solidarity, health care, and the pension landscape. Contemporary labor market policies at the national level generally focus on longer working lives to ensure that pension systems remain financially sustainable. Commonly implemented measures are abolishing early retirement schemes and increasing the state pension age. Such national policies seem successful as labor force participation rates of older people are on the rise (OECD, 2017). However, progress is slow in some countries and older workers in physically demanding jobs are not always able to extend their working life (Visser, Gesthuizen, Kraaykamp, & Wolbers, 2016).

Against the background of aging populations and policies to promote longer working lives, job satisfaction of older people becomes relevant because low reported job satisfaction is associated with a wide range of undesirable outcomes for both older workers and their employers. To begin with, workers with low job satisfaction are more likely to have lower performance (Iaffaldano & Munchinsky, 1985; Judge, Thoresen, Bono, & Patton, 2001) and to quit or switch jobs (Green, 2010; Tett & Meyer, 1993). Low job satisfaction is also related

to more frequent and longer sickness absence (Roelen, Koopmans, Notenbomer, & Groothoff, 2008; Ybema, Smulders, & Bongers, 2010), as dissatisfied employees report stress, burnout, and depression more often (Faragher, Cass, & Cooper, 2005). Furthermore, older workers who are dissatisfied with their job (intend to) retire at younger ages (Kosloski, Ekerdt, & DeViney, 2001; Schnalzenberger, Schneeweis, Winter-Ebmer, & Zweimüller, 2014; Zacher, & Rudolph, 2017), which is at odds with the policy focus on longer working lives. Notwithstanding these negative consequences, older employees usually have comparatively high job satisfaction (Clark, Oswald, & Warr, 2011; Gazioglu & Tansel, 2006). However, as statutory retirement ages increase and early exit routes for those dissatisfied with work are increasingly closed, measures to improve older workers' job satisfaction become ever more relevant.

Because older workers have different needs and skills than younger workers, human resource (HR) policies tailored to the needs of older employees are instrumental in fostering their employability and work motivation (Boehm, Kunze, & Bruch, 2014; Kooij, Jansen, Dikkers, & De Lange, 2014). Organizations play a significant role in shaping work outcomes of their employees in later life and face the challenge

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to design and implement HR policies that promote healthy and productive longer working lives. These HR practices, in turn, potentially influence older workers' performance (Göbel & Zwick, 2013) and retirement decisions (Furunes et al., 2015; Oude Mulders, Henkens, & Schippers, 2017). This clearly highlights the potential of personnel policies for older workers' job satisfaction as well.

While prior studies on the drivers of job satisfaction are plentiful (e.g., Kooij, Jansen, Dikkers, & De Lange, 2010; Lu, While, & Barriball, 2005; Spector, 1997), studies on job satisfaction of older workers are relatively fewer (e.g., D'Angelo et al., 2016; Eichar, Norland, Brady, & Fortinsky, 1991; Groot & Maassen van den Brink, 1999) and those including the role of organizations are even more scarce. Yet, personnel policies are plausibly important in shaping older workers' job satisfaction, because—following the job demands-resources (JD-R) model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001)—they may reduce job demands and increase job resources of older workers. Some of these policies can also influence job satisfaction of younger workers (Kooij et al., 2010), and, where possible, we will take that into account.

Two strategies are generally distinguished as underlying organizations' HR policies towards older workers: accommodating and activating older workers (Bal, Kooij, & De Jong, 2013). Early retirement or exit of older workers is occasionally considered a separate HR strategy (Van Dalen, Henkens, & Wang, 2015). As the latter strategy strongly overlaps with accommodating policies and because early retirement options are limited nowadays, we regard accommodating and exit practices as one strategy: phasing out (Lössbroek, Lancee, Van Der Lippe, & Schippers, 2019). Here we examine three phasing out policies (i.e., lighter workload, additional leave, and semi-retirement), one activating policy (i.e., training), and one policy that is not readily classified (i.e., demotion). These policies are often considered in the public debate on longer working lives and are indicative of the HR strategies of employers regarding older workers. Although, except for partial retirement, these policies are not necessarily exclusively for older employees, we are particularly interested in older workers' use of these policies and how this is related to their job satisfaction. Learning more about the ways in which these specific HR measures contribute to job satisfaction is especially relevant in the context of longer working lives. Having said that, we study the relation between participation in training and job satisfaction across the full age range to assess the effectiveness of this HR policy across the working lifespan (Bohlmann, Rudolph, & Zacher, 2018). This allows us to learn at what specific ages providing training is most effective in boosting job satisfaction. Because of questionnaire limitations, we are not able to do so for the accommodating policies and demotion.

Furthermore, previous research on the usefulness of HR policies tended to measure only the benefits (or detriments) for the workers directly involved, but it is also important to gain knowledge on how departmental policy use influences coworkers. Employees are not isolated individuals; they are influenced by the actions and behavior of their colleagues. The question is what happens with job satisfaction when older workers are not involved in one of the HR policies themselves, but coworkers are. If—through crossover of job resources—coworkers' policy use is positively related to job satisfaction, this would make a manager's case for implementing HR policies even stronger. In contrast, relative deprivation theory predicts that unequal access to policies may generate feelings of unfair treatment (Bolino & Turnley, 2009). If—through relative deprivation—coworkers' policy

use is negatively related to job satisfaction, studies comparing job satisfaction between users and nonusers may have overestimated the influence of HR policies. These workplace dynamics could be crucial in determining job satisfaction among older workers, but have been overlooked thus far, not least because of data (un)availability. The current study overcomes this limitation by using unique, linked organization-department-employee data from the European Sustainable Workforce Survey (ESWS; Van der Lippe et al., 2016) to answer the following central research question: *To what extent is the use of HR policies related to older workers' job satisfaction?*

THEORY AND HYPOTHESES

Defining Job Satisfaction

It has long been established that job satisfaction has a cognitive (or evaluative) and affective (or emotional) component (Locke, 1976). Cognitive job satisfaction refers to the more objective evaluation of job facets, such as pay, supervision, and work conditions. Workers assess the degree to which specific job facets are satisfactory compared to their own standards or other jobs (Hulin & Judge, 2003). Affective job satisfaction reflects the more subjective extent to which workers are content or happy with their job (Kalleberg, 1977). The current study examines the extent to which people, all things considered, are satisfied with their job, which is more closely aligned to the affective component of job satisfaction as it measures whether employees like their job in general (Spector, 1997).

EXPLAINING JOB SATISFACTION

Commonly applied theoretical frameworks to explain job satisfaction that received empirical support include the dispositional approach (Judge & Bono, 2001), the job characteristics model (Fried & Ferris, 1987), and the JD-R model (Demerouti et al., 2001). Factors derived from these theories that contribute to job satisfaction can very broadly be categorized into individual characteristics of the worker, such as age, gender, and personality traits, and characteristics related to the work context, such as the type of contract, income, fringe benefits, job security, job autonomy, workload, working hours, superiors, coworkers, and HR policies (e.g., Behson, Eddy, & Lorenzet, 2000; Furnham, Eracleous, & Chamorro-Premuzic, 2009).

To understand the relation between HR practices and older workers' job satisfaction, we apply the JD-R model. Although it is not our aim to test the full model empirically, like many studies also did not (see, for instance, Balducci, Schaufeli, & Fraccaroli, 2011; Kinnunen, Feldt, Siltaloppi, & Sonnentag, 2011), this model provides plausible theoretical mechanisms that underly the relation between the usage of HR policies and job satisfaction. It was originally developed to explain burnout, but its logic can also be applied to job satisfaction because HR policies may in- or decrease job demands and resources, which are important determinants of affective job satisfaction. More in general, the JD-R model provides insight into the relation between work characteristics and well-being. It defines work characteristics either as demands that hamper employees or as resources that facilitate work. Job demands drain energy and might include a heavy workload, task complexity, and conflicts with colleagues. Job resources help employees to deal with job demands and achieve their goals and may include autonomy, supervisory support, and training opportunities. As such, the JD-R model works well in explaining affective job satisfaction, which

can be seen as a form of well-being, but not as well in explaining cognitive job satisfaction (i.e., satisfaction with job facets), as satisfaction with job demands and resources would essentially be the outcome in that case.

The JD-R model describes two mechanisms that predict the independent effects of job demands and resources. On the one hand, *the health impairment process* puts forward that excessive job demands lead to stress and chronic exhaustion, which could ultimately result in low organizational commitment and poor performance. On the other hand, *the motivational process* describes that abundant job resources increase work engagement and, in turn, organizational commitment and productivity (Schaufeli & Taris, 2014). Hence, the former mechanism predicts decreased job satisfaction, while the latter one predicts the opposite, that is, increased job satisfaction. Furthermore, the model proposes that job resources may influence job satisfaction when job demands are high. For example, job autonomy might help employees to deal with challenging tasks and a high workload (Bakker, Demerouti, & Euwema, 2005). Later versions of the JD-R model include personal resources, such as optimism and self-efficacy, which play a similar role as job resources in coping with job demands (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007).

Own Use of HR Policies
Generally, we argue that the usage of HR policies induces changes in the job demands that older employees face as well as the job and personal resources they possess. We derive hypotheses about the relation between phasing out policies, demotion, and activating policies, and job satisfaction of older workers, but first, we will briefly go into the nature of these different types of policies and employers' motives to implement them.

A primary reason for employers to implement policies that specifically target older employees, at least according to economic studies, is to solve the (perceived) mismatch between productivity and wage in the older workforce (Lazear, 1979). Older employees usually have a lot of experience and know-how, but they might also have obsolete (technical) skills, outdated knowledge, and decreased physical abilities. Although age does not seem to be negatively associated with performance (Ng & Feldman, 2008), many employers still hold the stereotypical view that older workers are less productive (Van Dalen, Henkens, & Schippers, 2010). As earnings generally tend to increase with seniority, employers might feel that seniority wages are not in accordance with the productivity of their older staff members. Population aging and policies to extend working lives are expected to pose a threat to the financial sustainability of organizations because a growing number of older workers has to be paid a relatively high wage for a longer period of time. To solve this issue, organizations can take measures that directly target the (perceived) imbalance between productivity and wage by increasing productivity, adjusting wages, or both.

Organizations can also choose not to directly address the (perceived) productivity-wage gap and to accommodate older workers by offering phasing out arrangements. They may, among other measures, lighten the workload of their older employees, grant them additional leave, and facilitate partial or semi-retirement. Such accommodation practices compensate for a potential drop in productivity as workers age (Van Dalen et al., 2015). If employers view older workers as less capable of keeping up with job demands, they may choose to decrease job demands by lightening the workload or providing extra leave. Since

early exit from the labor force seems almost impossible for most older workers, employers may also opt for gradual transitions to retirement. The JD-R model, and specifically the health impairment and motivational process, predicts that the use of phasing out policies is positively related to job satisfaction because decreased job demands reduce strain and may also increase motivation. This line of reasoning leads to our first hypothesis: (H1a) *older workers who used a phasing out arrangement are more satisfied with their job than older workers who did not use a phasing out arrangement.*

Demotion, which officially refers to a reduction in rank accompanied by lower pay, can influence the balance between rising wage costs and declining productivity of older workers in two ways. First, moving older workers to a lower paying position may adjust wage costs to match their reduced productivity. Second, if older workers are moved to a less demanding position, this could increase their productivity and enable them to stay in the workforce longer (Visser, Gesthuizen, Kraaykamp, & Wolbers, 2018). Thus, organizations that demote older employees may do so because they attempt to make longer working lives feasible. However, demotion is rarely used in practice as it conflicts with the idea of seniority wages. In addition, employers are reluctant to demote older workers because they expect negative consequences for their firm, such as decreasing loyalty and motivation of their employees (Van Dalen & Henkens, 2018). Although older workers who move to a less demanding position often feel less exhausted (Josten & Schalk, 2010), which would be positively associated with job satisfaction according to the JD-R model, demotees can also experience a loss of social status or think that the lower position is less challenging. Following from the motivational process, this may come at the price of reduced job motivation and, subsequently, reduced job satisfaction. Hence, our next hypothesis is: (H2a) *older workers who were demoted are less satisfied with their job than older workers who were not demoted.*

Activating measures aim to tackle the (perceived) productivity-wage gap by investing in human capital, stimulating productivity. Although employers more often provide training to younger employees, training for older workers has been found to increase their productivity (Göbel & Zwick, 2013). This strategy fits well with the policy shift towards longer working lives. Older workers maintain and update their knowledge and skills by participating in training, which should make it easier to continue working until older ages. Training increases their job and personal resources, which makes them more equipped to handle high job demands (Boon & Kalshoven, 2014; Crawford, LePine, & Rich, 2010). According to the JD-R model, this not only reduces the stress older employees experience because of a mismatch between job demands and their capabilities, but also increases work engagement and, hence, job satisfaction. An additional reason why, especially for older workers, participation in training is positively related to their job satisfaction is that employers send out the signal that they still invest in their older workforce, even if people are close to retirement. Thus, we derive the following hypothesis: (H3a) *older workers who received training are more satisfied with their job than older workers who did not receive training.*

Note that we will also test if participation in training is positively associated with job satisfaction for all ages. Basically, the same theoretical line of reasoning applies to all age groups, as training is expected to increase job and personal resources, which are positively related to job satisfaction based on the motivational process. We will also explore whether the relation between having received training and

job satisfaction is moderated by age (i.e., if the relation is stronger or weaker for certain age groups) to determine when in the life course offering training is most instrumental in promoting job satisfaction. Yet, we do not formulate a hypothesis on this.

An important aspect that has not yet been addressed in deriving our hypotheses is whether the use of HR policies is voluntary or not. It is clear that demotion is rarely voluntary, at least not with a reduction in salary. Being demoted is therefore expected to be negatively related to job satisfaction. However, for phasing out policies and training, this is somewhat more ambiguous. As we do not have information about the voluntariness of policy use, we make the assumption that phasing out and training are of a more voluntary nature than demotion. Indeed, training is obligatory in less than 20% of the cases, for instance, in some legal or medical professions (Dohmen & Timmermann, 2010). Although phasing out arrangements and training can be forced on employees, it is likely that it is actually a joint decision and an agreement between the employer and employee. If we find that the use of these policies is negatively related to job satisfaction, this would be a strong indication that it was involuntary. If we find a positive association as expected, it is plausible that it was largely voluntary. Even in the less likely case that older workers have no say at all with regard to phasing out arrangements and training, it could still be that the use of these policies ultimately increases job satisfaction for the aforementioned theoretical mechanisms.

Coworkers' Use of HR Policies

If personnel policies are indeed related to job satisfaction as hypothesized, it seems plausible that at the department level, higher participation in these policies translates into higher (for phasing out and training) or lower (for demotion) average levels of job satisfaction. However, a classic notion in sociology is that individual changes do not necessarily lead to comparable changes at the group level (Coleman, 1990). To understand how the usage of HR policies influences coworkers' job satisfaction, two theories are used. First, the JD-R model not only applies to individual employees but also to teams or departments (Schaufeli & Taris, 2014). We propose that participation in policies may indirectly influence the job demands and resources of coworkers who are not directly involved in these policies. Previous research has, for instance, shown that both burnout and work engagement may crossover between colleagues (Bakker, Van Emmerik, & Euwema, 2006; Bakker & Xanthopoulou, 2009). Second, based on relative deprivation theory, it can be argued that unequal access to desirable policies such as training can lead to perceptions of unfairness among employees who did not participate (Bolino & Turnley, 2009), leading to lower job satisfaction of non-involved workers. Based on these two theories, we again derive hypotheses about phasing out, demotion, and training.

Starting with phasing out policies, both the JD-R model and relative deprivation theory predict a negative association between coworkers' use of phasing out arrangements and job satisfaction. Older workers who do not use these arrangements possibly face a task increase if the workload of their colleagues is lightened or when their coworkers partially retire. In other words, they might have to take on extra work or work that is outside their territory. Job demands thus increase, which in turn reduces job satisfaction according to the health impairment process in the JD-R model. Not only that, based on relative deprivation theory (Bolino & Turnley, 2009), older workers might also feel

relatively deprived when their colleagues are benefiting from phasing out arrangements while they are not, making them less satisfied with their current job situation. This logic leads us to the prediction that: (H1b) *compared to older workers in departments in which nobody used a phasing out arrangement, older workers who did not use a phasing out arrangement while coworkers did, are less satisfied with their job.*

Given that we hypothesized that demoted older employees are less satisfied with their job compared to those who were not, it seems reasonable to expect that older employees who were not demoted while colleagues were, lie somewhere in between when it comes to their level of job satisfaction. One reason for this expectation lies in the process of emotional contagion (Bakker et al., 2006). Coworkers in a department share experiences and feelings with each other. Demoted older workers who are dissatisfied with their job may "contaminate" their colleagues. So, even if an older worker does not experience a downward move, a demotion of a colleague could still reduce job satisfaction through decreased team-level motivation. Another reason is that these older workers could be worried that they will be next. Older employees who suspect that they will be demoted at some point in the future, just like their colleague(s), might become less committed to the firm, less motivated, and less satisfied with their job. Therefore, our hypothesis is: (H2b) *compared to older workers in departments in which nobody was demoted, older workers who were not demoted while coworkers were, are less satisfied with their job.*

Last, we derive competing hypotheses on the relation between coworkers' participation in training and job satisfaction. According to relative deprivation theory, older workers who did not receive training might feel relatively deprived if (some of) their coworkers were trained. Older employees who are working hard for their company may feel underappreciated if they do not receive proper support. Those deprived of training may then become less satisfied with their job because their employer does not reciprocate their efforts by investing in them while colleagues in the same department were offered training. Hence, we expect the following: (H3b) *compared to older workers in departments in which nobody received training, older workers who did not receive training while coworkers did, are less satisfied with their job.*

The JD-R model yields an opposing expectation. Older workers who gained valuable knowledge and skills through training may transfer some of the acquired knowledge and skills to their colleagues, who then benefit from this training in a comparable way as the workers who participated in the training themselves, albeit likely to a smaller extent. Even if the new knowledge and skills are not transmitted to colleagues, workers who have participated in training are more likely to help out their coworkers (Van Gerwen, Buskens, & Van der Lippe, 2018), which can reduce the job demands of these colleagues. It has been demonstrated that receiving emotional and instrumental support from colleagues is an important contributor to job satisfaction (Judge & Klinger, 2008). We thus contrastingly expect that: (H3c) *compared to older workers in departments in which nobody received training, older workers who did not receive training while coworkers did, are more satisfied with their job.*

The hypotheses on coworkers' use of HR policies are, in part, contingent on the extent to which policies are selectively provided. The expectation regarding demotion is again unambiguous. Yet, it matters for the relative deprivation argument whether phasing out arrangements and training are selectively provided, as this argument is

only valid in situations where some have made use of these policies, whereas others did not. As the JD-R model still predicts a negative association between coworkers' use of phasing out arrangements and job satisfaction, this is not problematic for this policy. Furthermore, if we find a negative relation between coworkers' participation in training and job satisfaction, this would actually be a strong sign that training was selectively provided, supporting relative deprivation theory.

METHODS

Data

This study uses data from the European Sustainable Workforce Survey (ESWS), collected in 2015 and 2016 in 9 European Union (EU) countries: Bulgaria, Finland, Germany, Hungary, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom (Van der Lippe et al., 2016). In each country, stratified random sampling was used to select organizations based on their size (small: 20–99 workers, medium: 100–250 workers, large: 250+ workers) and the sector they are in (finance, health care, higher education, manufacturing, telecommunication, or transport). Establishments that did not participate were replaced by organizations outside of the sample in the same strata through a matched sampling strategy. The questionnaires were available in online and in paper-and-pencil mode. Respondents could opt for the English-language or their country's language version. A total of 259 establishments participated in the survey. The "Organization Questionnaire" was filled in by an HR manager (response rate: 98%), the "Manager Questionnaire" by 866 department heads (response rate: 80%), and the "Employee Questionnaire" by 11,011 workers (response rate: 61%). The use of data from multiple actors in the organization makes our findings less vulnerable to common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

For our hypotheses on older workers, we selected employees aged between 50 and 70 years, which narrowed down the sample to 3,012 workers in 653 departments in 240 organizations. Listwise deletion of missing values would have yielded a sample of 2,705 workers in 635 departments in 237 organizations.[1] Instead, we performed multiple imputation (20 imputed datasets) in SPSS 23, which applies the fully conditional specification (FCS) method using iterative Markov Chain Monte Carlo (MCMC) models. The imputation model included all predictor and control variables (Table 1). Although multiple imputation is widely accepted as superior to listwise deletion (Enders, 2010), the results of pooled analyses presented here are highly similar to the results based on the listwise deletion sample. To assess the relation between participation in training and job satisfaction, we also use the full sample, thus including the full age range. We applied the same multiple imputation procedure to the data on workers of all ages. This sample comprises 10,406 employees.

Measure of Outcome Variable

The outcome variable, job satisfaction, is measured by the question "All things considered, how satisfied are you with your current job?." Employees could answer on a scale ranging from (1) *Extremely*

dissatisfied to (10) *Extremely satisfied*. As mentioned, we regard this question as a measure of the affective component of job satisfaction, which is commonly found in large surveys. A meta-analysis of job satisfaction measures demonstrated that single-item measures are equally effective and acceptable because they are highly correlated to multi-item scales and when situational constraints, such as limited space on a questionnaire, prevent the use of multiple items (Wanous, Reichers, & Hudy, 1997), as is the case here. It has also been argued that workers know how satisfied they generally are with their job and that a single question can validly measure this (Nagy, 2002). While the validity of the measurement of job satisfaction is not compromised, we obviously cannot test the reliability of this measure.

Measures of Predictor Variables

The predictors in our study are own and coworkers' experiences with phasing out arrangements, demotion, and training. First, for several phasing out measures, workers were asked if this measure is available and, if so, whether they have participated in it in the past 12 months. Only workers aged 50 years or older were asked this question. Older employees participated in a phasing out arrangement if they made use of any of the following options: lighter workload, additional leave, and semi-retirement, which are among the most frequently implemented phasing out measures in the EU (Lössbroek, 2019). With regard to demotion, again only older employees were asked whether they experienced a reduction in salary since they turned 50, as demotions are often incidental rather than annually recurring. Older workers participated in training if they were trained by a professional instructor from outside their organization and/or if they were trained by a manager or coworker. In contrast to phasing out and demotion, information on training is known for workers of all ages.

To analyze the influence of coworkers' use of phasing out arrangements, older workers who did not make use of these arrangements were subdivided into two categories: either coworkers also did not make use of these arrangements or they did.[2] To assess the participation of colleagues in phasing out practices, the employee-level data was enriched with department-level data.[3] Department heads were asked whether phasing out measures were offered in their department and, if so, whether workers used it in the past 12 months.[4] This coding procedure was also applied to coworkers' (non-) participation in training. For demotion, department managers were asked how often older employees in their department were demoted in the past 12 months. Departments in which this did not happen were coded as "nobody was demoted"; departments in which it happened at least rarely were coded as "others were demoted."

Measures of Control Variables

We take into account several variables that have been previously found to be related to participation in HR policies and/or job satisfaction,

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[1] At the employee level, most missing values were recorded for occupational class (5%), health (4%), and job satisfaction (4%). At the organization level, no missing values were observed.

[2] Non-participation in phasing out refers to situations where a policy is unavailable and to situations where a policy is available, but not used in the particular department.

[3] For the 20% of departments in which the department head did not fill in the survey, equivalent questions on all HR policies were taken from the organization questionnaire.

[4] Phasing out and demotion only applies to coworkers who are 50 years and older, whereas participation in training also refers to younger coworkers. In case there would be departments where only younger workers receive training, this would, if anything, lead to an underestimation of the importance of coworkers' training participation.

Table 1. Descriptive Statistics

Variable	50+ sample (*n* = 3,012)				Full Sample (*n* = 10,406)			
	Min.	Max.	Mean	SD	Min.	Max.	Mean	SD
Outcome variable								
Job satisfaction	1	10	7.17	1.96	1	10	6.98	1.96
Predictor variables								
Policy use								
Phase out: used	0	1	.17	.37				
Phase out: others used	0	1	.35	.48				
Phase out: nobody used	0	1	.48	.50				
Demoted: yes	0	1	.11	.31				
Demoted: others were	0	1	.08	.25–.27				
Demoted: nobody demoted	0	1	.82	.38–.39				
Training: used	0	1	.51	.50	0	1	.58	.49
Training: others used	0	1	.42	.49	0	1	.37	.48
Training: nobody used	0	1	.07	.26	0	1	.06	.23
Control variables								
Age	50	69	55.77	4.29	14	69	42.24	10.98
Female	0	1	.55	.50	0	1	.56	.50
Years of education	3	21	13.09	3.49–3.50	3	21	13.61	3.17
Health	0	4	2.76	0.75	0	4	2.88	0.74
Working hours	2	80	36.58	8.31–8.37	0	80	37.02	7.90–7.92
Tenure	0.08	55	18.35	12.05–12.07	0.08	55	10.84	9.94–9.96
Supervisory support	0	4	2.76	0.86	0	4	2.82	0.85
Autonomy	0	4	2.80	0.87	0	4	2.76	0.83
Time pressure	0	4	2.36	0.67	0	4	2.38	0.68
Occupation								
Routine workers	0	1	.10	.29–.30	0	1	.08	.26–.27
Higher salariat	0	1	.24	.43	0	1	.27	.45
Lower salariat	0	1	.28	.45	0	1	.27	.44–.45
Intermediate occupations	0	1	.18	.38–.39	0	1	.20	.40
Higher grade blue collar	0	1	.06	.24	0	1	.05	.22–.23
Lower sales and service	0	1	.09	.28–.29	0	1	.09	.28
Skilled workers	0	1	.05	.21–.22	0	1	.04	.19
Establishment size								
Small organization	0	1	.22	.42	0	1	.24	.43
Medium organization	0	1	.39	.49	0	1	.42	.49
Large organization	0	1	.39	.49	0	1	.34	.47
Sector								
Manufacturing	0	1	.23	.42	0	1	.23	.42
Health care	0	1	.31	.46	0	1	.25	.43
Higher education	0	1	.21	.40	0	1	.17	.38
Transport	0	1	.13	.34	0	1	.14	.34
Finance	0	1	.07	.26	0	1	.13	.33
Telecommunication	0	1	.05	.22	0	1	.09	.29
Country								
Germany	0	1	.10	.30	0	1	.09	.29
Finland	0	1	.08	.26	0	1	.07	.27
Sweden	0	1	.12	.33	0	1	.10	.30
United Kingdom	0	1	.06	.24	0	1	.07	.25
Netherlands	0	1	.26	.44	0	1	.22	.41
Portugal	0	1	.09	.28	0	1	.11	.31
Spain	0	1	.08	.26	0	1	.08	.27
Hungary	0	1	.12	.33	0	1	.13	.33
Bulgaria	0	1	.10	.30	0	1	.13	.34

Note. As it is not possible to estimate *SD*s for the pooled dataset, we instead present the range of *SD*s across the 20 imputations.

so that they no longer confound the relation between the use of HR policies and job satisfaction (e.g., D'Angelo et al., 2016; Lössbroek, Schippers, Lancee, & Szücs, 2019; Verheyen, Deschacht, & Guerry, 2016). Controlling for these variables also mitigates the potential influence of selection effects. At the employee level, we include age, sex, educational attainment, health, working hours, tenure, and occupation. As part of the JD-R model, we include three four-item scales to control for two job resources—supervisory support (α = .91) and autonomy (α = .86)—and one job demand, namely time pressure (α = .75–.76).[5] The exact phrasing of all items can be found in the Appendix (Tables A1–A3). Scales are validated using the imputed data on the full sample; scale validation using the sample of older workers yields comparable results. At the organization level, we include dummy variables for establishment size and the sector and country in which the establishment is situated. Table 1 displays descriptive statistics for all included variables. Correlations between all variables are presented in Table A4 in the Appendix.

Analytical Strategy

In the first step, we perform bivariate analyses (i.e., t-tests) to provide a first indication of the empirical validity of our hypotheses. In the second step, we apply multivariate analyses (i.e., regression analysis) to test our hypotheses. Considering that employees (level 1) are nested in departments (level 2), which are nested in organizations (level 3), we use 3-level regression models with random intercepts at the department and organization level. Empty null models show that the intraclass correlation is .09 at both the department and organization level. Likelihood ratio chi-square tests indicate that accounting for the multilevel structure is desirable from an empirical point of view ($p <$ .001). Although establishments are nested in countries, the number of countries in our data is too small to include a fourth level. In these situations, it is recommended to include country dummy variables (Bryan & Jenkins, 2016). We thus estimate country-fixed effects.[6]

As the outcome of using a certain policy might be influenced by using another policy (Casper & Harris, 2008), we estimate the effects of phasing out, demotion, and training on job satisfaction simultaneously (i.e., adjusted for each other). Table 2 shows the results regarding the hypotheses of own policy use and Table 3 that of coworkers. In both analyses, all policies are included in Model 1 without the controls. Model 2 is used to test our hypotheses and contains all policies along with the control variables.

RESULTS

Descriptive Findings and Bivariate Analysis

First of all, older workers in our sample are, on average, quite satisfied with their job ($\overline{x}$ = 7.2, s = 2.0). About 1 out of 6 (17%) used a phasing out policy in the last year. 35% of older workers did not make use of a phasing out arrangement, but has coworkers who did, and 48% of older employees work in departments where phasing out is not practiced. Approximately 1 out of 10 older workers (11%) experienced a demotion, but in the vast majority of departments (82%) demotion

is not practiced. In only 8% of departments, older workers who were not demoted themselves have coworkers who were. About half of older workers participated in training (51%). Among those who did not participate, most had coworkers who received training (42%). Only a small number of older employees works in a department in which training was not offered or in which nobody received training in the past 12 months (7%).

Figure 1 shows how policy use changes with age. As can be seen, training is the most frequently used policy, although it declines for "older" older workers. Phasing out and demotion, as can be expected from these policies, become more prevalent as workers grow older. After age 64 and particularly after age 66, participation rates fluctuate strongly. This likely reflects that in our data as well as in European labor markets, a smaller and probably selective group of older people remain in the workforce while many have retired at these ages.

Figure 2 shows the average level of job satisfaction by own and colleagues' policy use. We performed t-tests to assess whether differences in these averages are statistically significant. Older workers who used phasing out arrangements are most satisfied with their job (7.48), and also more satisfied than workers in departments where phasing out is not practiced (7.05, $p <$ .001) and workers who did not use phasing out policies, but have coworkers who did (7.18, $p <$ .01). Demoted older workers are least satisfied with their job (6.42). Their job satisfaction is lower compared to older employees in a department without demotion (7.26, $p <$ .001) and older workers who were not demoted, but have colleagues who were (7.29, $p <$ .001). Finally, older employees who received training are more satisfied with their job (7.39) than their counterparts in a department without any training (6.55, $p <$ .001) and older workers who did not participate in training, but have coworkers who did (7.00, $p <$ .01). Unlike the results for phasing out and demotion, the difference between the two groups of nonusers is also significant ($p <$ .001).

Multivariate Analysis

Table 2 presents the multilevel regression analysis that tests the difference in job satisfaction between participants in HR arrangements and nonparticipants. Model 1 shows that the use of phasing out and training policies are positively related to job satisfaction, whereas being demoted is negatively associated with job satisfaction, all in the
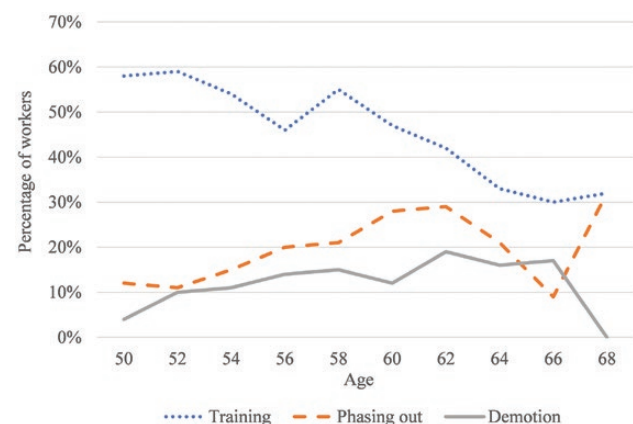

Figure 1. Percentage of workers who were phased out, demoted, and trained, by age (n = 3,012).

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[5] As it is not possible to produce pooled Cronbach's alphas, we instead present the (narrow) range between which the a varies in the 20 imputed datasets.

[6] We tried to estimate our models for each country separately to explore country differences in the main associations under examination, yet these models would not converge.
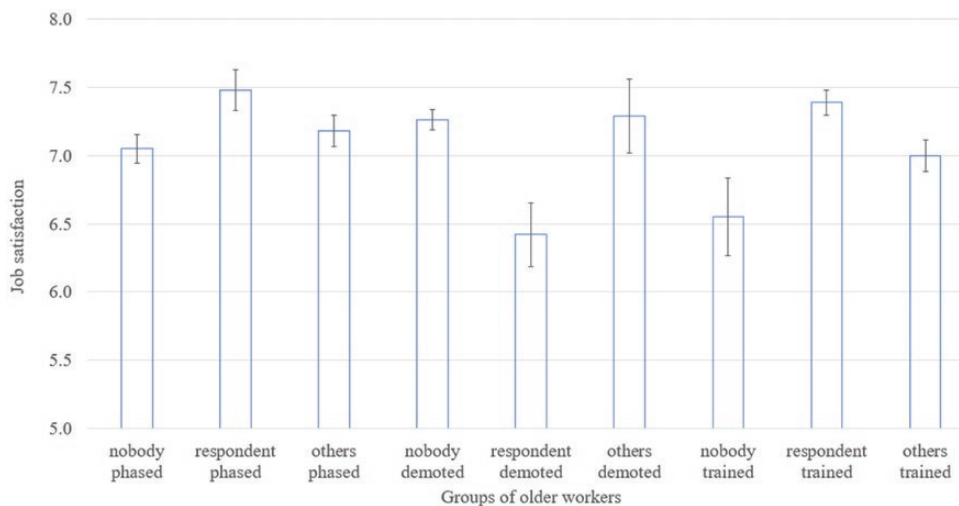
Figure 2. Older workers' job satisfaction (1–10) with 95% confidence intervals, by own and colleagues' use of HR policies ($n = 3{,}012$).

expected direction. Including the control variables in Model 2 substantially reduces these effects. Making use of a phasing out arrangement is no longer associated with job satisfaction in the second model. The coefficients of demotion and training are almost halved compared to Model 1. Still, older employees who were demoted are less satisfied with their job, while older workers who received training are more satisfied with their job, with being demoted having stronger consequences for job satisfaction than being trained. Based on these findings, H2a on demotion and H3a on training are supported, but H1a on phasing out is not. In general, the associations between the use of HR policies and job satisfaction are not overwhelming, but substantial enough (especially regarding demotion) to be relevant for organizations and their employees. Demotion lowers job satisfaction with 0.42 scale points on a scale from 1 to 10, which corresponds to about one-fifth of a standard deviation in job satisfaction.

Table 3 is comparable to Table 2, but it makes a distinction among older workers who did not use an HR policy to test to what extent job satisfaction of these older employees is related to the usage of HR practices by their coworkers. In Model 1, no such effects are found. Compared to older workers in departments in which nobody used a phasing out option, nobody was demoted, and nobody was trained, older workers with colleagues who were involved in these HR practices, but not themselves, are comparably satisfied with their job. Adding the control variables in Model 2 does not change the results for phasing out and demotion, yet the estimate for non-training in a department where coworkers were trained reaches statistical significance. If non-trained older employees work in a department in which their colleagues received training, they are more satisfied with their job than older workers in departments in which nobody was trained. It appears that there is a positive crossover effect of coworkers' participation in training. Although this effect is not negligible (an increase in job satisfaction of 0.31 scale points), it is smaller compared to the effect of receiving training yourself (0.45). All in all, H3c on training is supported, whereas H3b on training is rejected. H1b on phasing out and H2b on demotion are rejected as well. Note that the effects of demoted and trained in Table 3 mimic those in Table 2, which provides additional support for H2a and H3a.

Although we did not formulate hypotheses on whether age moderates the association between policy use and job satisfaction, we explore these relations in Table 4. In the 50+ sample, we interact age with all three policies. Among older workers, age could be important in the question who is targeted by which policy (as shown in Figure 1), but there seem to be no age differences in how policy use is related to job satisfaction. The interaction coefficients are small and not significant, regardless of whether all interactions are included in the same model (as presented) or estimated in separate models (available upon request).

In the full sample, we can only include an interaction between age and training. As people age, the relation between participation in training and job satisfaction is weaker. Put differently, younger workers benefit more from training in terms of job satisfaction than older employees. This moderating effect is just significant ($p = .047$). A model without the interaction term (also available upon request) shows a positive effect for both age ($b = 0.01$, $p < .000$) and training ($b = 0.20$, $p < .000$), which is in line with the estimates in Table 2.

We reran the full sample model with a quadratic function of age. Findings (not shown here) indicate that there is neither a curvilinear effect of age nor an interaction between the quadratic function of age and policy use. There are also no significant interactions between age and coworkers' participation in training, regardless of the way in which age is modeled.

We also briefly discuss the effects of the control variables based on Model 2 in Table 3. Older women are more satisfied with their job than older men. The effects of age and tenure are positive, but small, which is likely the result of selecting workers aged 50 years and over. As expected, job satisfaction is higher among healthy older workers and those who experience high support from their supervisor. Autonomy is positively related to job satisfaction, whereas time pressure is negatively. Interestingly, educational attainment, occupational class, and working hours do not predict job satisfaction of older workers. There are also no differences in job satisfaction between smaller and larger organizations and between sectors. Finally, compared to the Netherlands, job satisfaction is lower in Germany, Sweden, the United Kingdom, Hungary, and Bulgaria.

Table 2. Pooled (m = 20) Linear Three-Level Regression Analysis of Job Satisfaction (n = 3,012), Own Use of HR Policies, Unstandardized Coefficients

	Model 1	Model 2
Intercept	7.08*** (0.07)	3.35*** (0.52)
Predictor variables		
Ref. = Did not use phasing out		
Used phasing out	0.31** (0.10)	0.06 (0.09)
Ref. = Not demoted		
Demoted	−0.77*** (0.11)	−0.42*** (0.10)
Ref. = Did not use training		
Used training	0.35*** (0.07)	0.18** (0.07)
Control variables		
Age		0.01 (0.01)
Female		0.23** (0.07)
Years of education		0.00 (0.01)
Health		0.33*** (0.04)
Working hours		0.00 (0.00)
Tenure		0.01* (0.00)
Supervisory support		0.72*** (0.04)
Autonomy		0.38*** (0.04)
Time pressure		−0.39*** (0.05)
Ref. = Routine workers		
Higher salariat		0.04 (0.15)
Lower salariat		−0.05 (0.14)
Intermediate occupations		−0.03 (0.14)
Higher grade blue collar		−0.01 (0.17)
Lower sales and service		0.00 (0.16)
Skilled workers		0.00 (0.19)
Ref. = Small organization		
Medium organization		0.10 (0.11)
Large organization		−0.01 (0.12)
Ref. = Manufacturing		
Health care		0.03 (0.13)
Higher education		0.05 (0.15)
Transport		0.21 (0.15)
Finance		0.01 (0.17)
Telecommunication		−0.04 (0.20)
Ref. = the Netherlands		
Germany		−0.64*** (0.17)
Finland		0.29 (0.18)
Sweden		−0.41** (0.15)
United Kingdom		−0.56** (0.20)
Portugal		−0.25 (0.18)
Spain		−0.24 (0.20)
Hungary		−0.61*** (0.17)
Bulgaria		−0.82*** (0.17)
Variance organization (level 3)	0.27	0.15
Variance department (level 2)	0.05	0.02
Variance individual (level 1)	3.38	2.61
Variance explained (total)	.03	.27

Note. Standard errors between parentheses.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Robustness Checks

To assess the extent to which our results might be driven by methodological choices, we performed several sensitivity analyses. First, workers were asked about participation in a certain policy in the past 12 months or since they turned 50. Although the questions explicitly refer to "your organization" (as in the current one), it is possible that

Table 3. Pooled ($m = 20$) Linear Three-Level Regression Analysis of Job Satisfaction ($n = 3,012$), Own and Colleagues' Use of HR Policies, Unstandardized Coefficients

	Model 1	Model 2
Intercept	6.84*** (0.16)	3.13*** (0.53)
Predictor variables		
Ref. = Nobody phased out		
Phased out	0.35** (0.11)	0.05 (0.10)
Not phased out, others were	0.07 (0.09)	−0.00 (0.08)
Ref. = Nobody demoted		
Demoted	−0.77*** (0.12)	−0.41*** (0.10)
Not demoted, others were	−0.03 (0.15)	0.02 (0.13)
Ref. = Nobody trained		
Trained	0.56*** (0.16)	0.45** (0.14)
Not trained, others were	0.25 (0.16)	0.31* (0.14)
Control variables		
Age		0.01 (0.01)
Female		0.23** (0.07)
Years of education		0.00 (0.01)
Health		0.33*** (0.04)
Working hours		0.00 (0.00)
Tenure		0.01* (0.00)
Supervisory support		0.72*** (0.04)
Autonomy		0.38*** (0.04)
Time pressure		−0.39*** (0.05)
Ref. = Routine workers		
Higher salariat		0.04 (0.15)
Lower salariat		−0.06 (0.14)
Intermediate occupations		−0.04 (0.14)
Higher grade blue collar		−0.01 (0.17)
Lower sales and service		−0.00 (0.16)
Skilled workers		0.01 (0.19)
Ref. = Small organization		
Medium organization		0.10 (0.11)
Large organization		−0.01 (0.12)
Ref. = Manufacturing		
Health care		0.03 (0.13)
Higher education		0.05 (0.15)
Transport		0.23 (0.15)
Finance		0.01 (0.17)
Telecommunication		−0.06 (0.20)
Ref. = the Netherlands		
Germany		−0.64*** (0.17)
Finland		0.29 (0.18)
Sweden		−0.43** (0.15)
United Kingdom		−0.56** (0.20)
Portugal		−0.27 (0.27)
Spain		−0.26 (0.20)
Hungary		−0.60*** (0.17)
Bulgaria		−0.78*** (0.17)
Variance organization (level 3)	0.26	0.15
Variance department (level 2)	0.06	0.03
Variance individual (level 1)	3.38	2.62
Variance explained (total)	.03	.27

Note. Standard errors between parentheses.
*$p < .05$, ** $p < .01$, *** $p < .001$.

Table 4. Pooled (m = 20) Linear Three-Level Regression Analysis of Job Satisfaction, Own Use of HR Policies and Moderation by Age, Unstandardized Coefficients

	50+ Sample	Full Sample
Intercept	2.99*** (0.68)	3.21*** (0.22)
Age	0.02 (0.01)	0.02*** (0.00)
Ref. = Did not use phasing out		
Used phasing out	0.26 (1.10)	
Used phasing out * Age	−0.00 (0.02)	
Ref. = Not demoted		
Demoted	1.50 (1.36)	
Demoted * Age	−0.03 (0.02)	
Ref. = Did not use training		
Used training	0.49 (0.81)	0.45*** (0.13)
Used training * Age	−0.01 (0.01)	−0.01* (0.00)
Variance organization (level 3)	0.15	0.17
Variance department (level 2)	0.02	0.04
Variance individual (level 1)	2.62	2.56
Variance explained (total)	.27	.28
n	3,012	10,406

Note. Standard errors between parentheses. Models are controlled for sex, education, health, working hours, tenure, supervisory support, autonomy, time pressure, occupation, size of organization, sector, and country.
* $p < .05$, ** $p < .01$, *** $p < .001$.

some respondents still answered based on their participation in comparable policies at previous employers. Therefore, we replicated our analyses, including only respondents who worked at the current organization for more than a year or since they turned 50. The results for phasing out and demotion are identical. The effect of own training participation is comparable as well, yet the crossover effect of coworkers who received training has a comparable estimate, but a slightly inflated p-value (.03 increased to .06). This more likely reflects a smaller sample size than meaningful change.

Second, we analyzed whether the influence of coworkers' usage of policies is different in departments with low participation rates compared to departments with high participation rates (see Table A5 in the Appendix). For phasing out and demotion, all coefficients regarding the use of policies by coworkers are not significant, just as coworkers' usage of these policies was not significant in Table 3. Older workers who did not receive training in departments with low participation in training by coworkers (up to about a third) report higher job satisfaction than those in departments in which nobody was trained. Coefficients are smaller and nonsignificant for departments with medium or high training participation, although not significantly different from departments with low training participation (not shown in Table A5).

Third, given that only a selective group of people over the age of 65 is still active in the labor market, HR policies potentially have different implications for this group than for those aged 64 and younger (as shown in Figure 1, their policy use also differs). Therefore, we replicated our models restricting our sample to people aged 50 to 64 years. The results are virtually identical.

Fourth, we performed jackknife analyses, replicating the models nine times, each time omitting one of the countries. For eight countries, results were identical. However, for the Netherlands, the estimate

of training of coworkers became insignificant (p = .08). The omission of the country with the most respondents may have led to insufficient statistical power.

DISCUSSION

Summary and Interpretation of Findings

Against the background of population aging and policies to extend working lives, this study examined how the usage of HR policies is related to older workers' job satisfaction. Many countries have abolished early retirement schemes and have increased the state pension age, which means that older workers who are dissatisfied with their job are no longer able to leave the labor market prematurely and even have to work longer. Measures aimed at improving their job satisfaction and stimulating retention of older workers in the labor market, therefore, become increasingly relevant. Such measures are arguably most effective at the workplace, as this is where older employees are directly reached. Indeed, prior research suggests that HR practices have the potential to increase employability and job motivation of older workers (Bal, Kooij, & Rousseau, 2015). It is in this context that our study has not only contributed to the literature by assessing the relation between phasing out measures, demotion, and activating policies, and job satisfaction of older workers, but also by assessing whether coworkers' involvement in these practices is able to predict job satisfaction among older workers who were not involved. We derived hypotheses from the JD-R model (Bakker & Demerouti, 2007) and relative deprivation theory (Bolino & Turnley, 2009) and tested those hypotheses by performing multilevel regression analysis on linked organization-department-employee data from the ESWS (Van der Lippe et al., 2016).

Our first conclusion is that HR policies indeed matter for job satisfaction of older workers. First, being demoted was negatively associated with job satisfaction. Older workers who were demoted might feel ashamed of this downward move, be stigmatized by colleagues, or experience a loss of social status, lowering job motivation (Josten & Schalk, 2010). Second, and in line with the motivational process in the JD-R model, receiving training was positively related to job satisfaction. This measure activates older employees by investing in their human capital, which is helpful in prolonging working life because job and personal resources obtained through training can help older workers to cope with high job demands. An additional analysis revealed that participation in training is not only beneficial for older workers, but also for younger and middle-aged ones. In fact, training seems even more effective in boosting job satisfaction among younger employees. This might be because younger workers have more to gain from training, whereas older workers already have higher job satisfaction (i.e., ceiling effects). Third, it was surprising that making use of phasing out arrangements was positively related to job satisfaction in a model without control variables, but this relation disappeared when control variables were included. This possibly indicates that selection effects play a role. For example, older workers in poor health are less satisfied with their job and, at the same time, they are more often accommodated by employers. Alternatively, as we included multiple variables capturing job demands and resources, it could be the case that these variables mediated the influence of phasing out policies on job satisfaction. Our theoretical line of reasoning supports this alternative explanation: making use of a phasing out policy reduces job demands, which in turn increases job satisfaction.

Our second conclusion is that coworkers matter when it comes to participation in training, yet not for phasing out measures and demotion. Older employees who did not receive training in a department where their coworkers did participate in training, are more satisfied with their job compared to older employees in a department in which nobody was trained, but only if the proportion of trained coworkers is not too large (up to a third). Instead of feeling relatively deprived (Bolino & Turnley, 2009), these older workers apparently benefit from the training of coworkers in terms of job satisfaction. This might have several explanations. First, although these workers are not formally trained by a colleague, they may still learn from their trained colleague in an informal manner and on the job. Second, non-trained employees may benefit if team productivity goes up (Van Gerwen et al., 2018). Third, organizations that invest in their older personnel send out the signal that older employees are valuable assets who are stimulated to work longer.

THEORETICAL AND PRACTICAL IMPLICATIONS

Although we did not set out to test the full JD-R model, we conclude that our findings with regard to demotion and training are largely in line with the predictions that we derived from this model. It, therefore, seems warranted to use the JD-R model as theoretical framework to understand the relation between the use of HR policies and affective job satisfaction of older workers. It would be informative, however, to put the theoretical mechanisms of the model, that is the health impairment and motivational process, to a direct empirical test. Contrastingly, relative deprivation theory is not supported because coworkers' training was not negatively, but positively related to job satisfaction, providing a strong indication that participation in training is voluntary.

Taken together, the empirical evidence from this study suggests a prominent role for training workers in boosting their job satisfaction and in promoting longer working lives. From an intervention point of view, the JD-R model states that both low job resources and high job demands cause stress, which decreases job satisfaction, whereas only high job resources and not low job demands increase work engagement and job satisfaction (Schaufeli, 2017). Hence, employers offering training to their employees might kill two birds with one stone: workers who received training gain job and personal resources, preventing strain, and contributing to job motivation. This holds true for workers of all ages. What is more, older workers who did not participate in training seem to benefit from the training of coworkers in their department. This supports the importance of using linked organization-department-employee data to study the influence of personnel policies, as studying employees individually would not have captured this.

As being demoted is negatively related to job satisfaction of older workers, it is not recommended to implement this measure. Employers are already hesitant to demote older employees (Van Dalen & Henkens, 2018) and it seems for good reason. Also in our sample of organizations, demotion was the least frequently used HR measure, although we still found an effect for roughly 1 out of 10 older workers who experienced a demotion. If employers still feel that a demotion is the best way to go, they should openly communicate about it and support the employee who moves downward by looking closely at the new position and the possibilities for (further) development (Hall & Isabella, 1985). It, of course, also matters greatly whether the demotion was agreed on by the employer and employee or if it was forced upon the employee. One may expect the consequences of demotion for job satisfaction to be more positive when it was a voluntary downward move. As we found a negative relation between being demoted and job satisfaction, it seems reasonable, however, to assume that these demotions were of an involuntary nature.

LIMITATIONS AND FUTURE RESEARCH

Despite the rich three-level ESWS data, a drawback of our study is that we did not have information about the exact reasons why older workers used certain HR policies. There is perhaps selection into these practices. On the one hand, older workers who are dissatisfied with their job may not receive training and employers might offer them phasing out arrangements more often. On the other hand, older employees who are satisfied with their job may receive training more frequently and might participate in phasing out practices more rarely. Future studies should preferably use panel data on organizations, departments, and employees to examine these reversed causality dynamics, even though the findings on coworkers' usage of policies are unlikely to be vulnerable to this issue. It would then also be useful to have a multiple-item measure of job satisfaction to increase reliability and validity.

Knowing the extent to which the use of polices and, in particular, of phasing out arrangements, was voluntary would also have been helpful for at least two reasons. First, it might be the case that contrasting effects of voluntary (positive effect on job satisfaction) and involuntary use of phasing out measures (negative effect on job satisfaction) cancel each other out, leading to a false conclusion on the non-existing relation between phasing out and job satisfaction. Second, information about the voluntariness of policy use allows for a more direct test of the relative deprivation mechanism. Feelings of relative deprivation would arise among workers who were not offered phasing out arrangements while others in their department were provided this opportunity. Although the results on coworkers' participation in training indirectly speak against this theory, we recommend that future research and data collections ask about the reasons why employers provide and employees use HR policies. Relative deprivation theory could even be directly tested by including measures of relative deprivation caused by coworkers' policy use.

Another limitation of the current study is that the sample is likely not representative of the larger population of older workers, as we selected people aged 50 years and older from the full sample. This choice was motivated by the fact that partial retirement can only be used by older workers and because information on demotion of younger workers was not available. This restricts the generalizability of our findings. A first suggestion is therefore to ask about the use of HR policies, if applicable, among workers at all ages. Having said that, the analytical sample covered nine countries and six employment sectors. It also captured a wide variety of working conditions and older workers with diverse backgrounds. Furthermore, it went beyond the scope of this study to examine cross-national differences in the relation between policy use and job satisfaction. Future studies should assess whether the associations found in this study can be generalized across countries.

A final suggestion for further research is to delve deeper into the relation between own and coworkers' participation in training and job satisfaction. We were not able to do that here, but it would be relevant to know which types of training (e.g., on-the-job training, training to learn new skills or training to maintain skill levels, coaching or mentoring, e-learning, etc.) are instrumental in boosting job satisfaction of workers. Moreover, it might also be worth knowing how employees are trained.

CONCLUSION

This study has added to our understanding of the ways in which HR policies are related to older workers' job satisfaction. Governments and employers are increasingly looking to create healthy and productive environments for the older workforce to cope with the rising labor supply of older people. In this light, our study has shown that the provision of training to older workers is able to increase their job resources and decrease their job demands, which is conducive to job satisfaction, even for those who did not receive training. A key policy priority should therefore be to facilitate longer working lives by offering older workers opportunities for training.

ACKNOWLEDGMENTS

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APPENDIX

Table A1. Supervisory Support ($n = 10,406$)

Question phrasing	Mean	SD	α Without Item
To what extent do you agree or disagree with the following statements about you and your supervisor?			
My supervisor shows understanding if I have problems or wishes concerning my job	2.82	0.94	.88
I feel appreciated by my supervisor	2.74	0.98	.88
My supervisor uses his/her influence to help me solve work-related problems	2.66	0.97–0.98	.89
My supervisor is friendly and approachable	2.96	0.92	.89
Cronbach's *a*	.91		

Note. 0 = strongly disagree, 1 = disagree, 2 = neither agree nor disagree, 3 = agree, 4 = strongly agree.

Table A2. Autonomy ($n = 10,406$)

Question Phrasing	Mean	SD	α Without Item
The questions below concern the amount of freedom you have when carrying out your work in this organization. How often are you free to decide …			
The tasks you do in your job	2.53	1.01	.83
How you do your work	2.95	0.89	.81–.82
The order in which you carry out tasks	2.94	0.92	.81
When you do your work	2.54	1.12	.83
Cronbach's *a*	.86		

Note. 0 = never, 1 = mostly not, 2 = sometimes, 3 = most of the time, 4 = all the time.

Table A3. Time Pressure ($n = 10,406$)

Question Phrasing	Mean	SD	α Without Item
How often does it happen that …			
Your job requires you to work fast	2.86	0.75-0.76	.70–.71
Your job requires you to work very hard	2.75	0.83	.68
Your job requires too much input from you	2.16	0.98	.66–.67
Your job makes conflicting demands on you	1.74	0.96	.73–.74
Cronbach's *a*	.75–.76		

Note. 0 = never, 1 = mostly not, 2 = sometimes, 3 = most of the time, 4 = all the time.

Table A4. Pearson Correlations Between all Variables ($n = 3,012$)

	1	2	3	4	5	6	7	8	9	10
1 Job satisfaction										
2 Phased: self	.071***									
3 Phased: others	.005	−.328***								
4 Phased: none	−.058**	−.429***	−.713***							
5 Demoted: self	−.134***	.020	.017	−.031						
6 Demoted: others	.017	−.016	−.072**	−.072**	−.100***					
7 Demoted: none	.096***	−.005	.073***	.073***	−.737***	−.599***				
8 Trained: self	.117***	.004	−.019	−.019	−.070***	.039*	.030			
9 Trained: others	−.073***	.010	.004	.004	.055**	−.009	−.038*	−.865***		
10 Trained: none	−.088***	−.026	.030	.030	.031	−.059**	.015	−.284***	−.235***	
11 Age	.034	.140***	−.083***	−.083***	.101***	−.036	−.057**	−.123***	.103***	.042*
12 Female	.021	−.038*	.014	.014	−.095***	−.016	.087***	.012	−.002	−.019
13 Education	.078	−.029	−.056**	−.056**	−.003	−.032	.024	.019	.011	−.058**
14 Health	.245***	.020	−.024	−.024	−.079***	.016	.053**	.071***	−.065***	−.014
15 Working hours	−.030	−.102***	.173***	.173***	.032	−.010	−.019	−.056**	.035	.041*
16 Tenure	.042*	.099***	.019	−.092***	−.018	.027	−.004	−.016	.042*	−.049**
17 Super. support	.405***	.029	−.042*	.019	−.114***	−.028	.111***	.114***	−.112***	.011
18 Autonomy	.264***	−.016	−.010	.022	−.065**	−.019	.065**	−.024	.003	.039*
19 Time pressure	−.215***	−.070***	−.026	.076**	.039*	−.010	−.025	−.028	.010	.034
20 Routine work	−.084***	−.055**	−.016	.056**	.009	.049*	−.040	−.090***	.062***	.057**
21 High salariat	.055**	−.043*	.012	.020	−.009	−.023	.022	.033	−.025	−.016
22 Low salariat	−.007	−.046*	.080***	.043*	.010	.005	−.011	.010	−.001	−.018
23 Intermediate	027	.049**	−.035	−.003	−.021	−.028	.036	.038*	−.011	−.052**
24 High blue col.	.006	.063**	−.021	−.026	.025	.011	−.028	−.025	.015	.019
25 Low service	.006	.082**	−.040*	−.023	−.035	.010	.021	.010	−.009	−.001
26 skilled work	−.041*	−.009	−.030	.036	.041*	−.009	−.027	−.016	−.016	.062**

	11	12	13	14	15	16	17	18	19	20
12 Female	−.036*									
13 Education	.041	.016								
14 Health	.011	−.021	.141***							
15 Working hours	−.038*	−.188***	−.001	−.023						
16 Tenure	.191***	−.031	−.005	−.028	−.025					
17 Super. support	−.001	.011	.025	.171***	.014	−.071***				
18 Autonomy	.065***	.007	.161***	.137***	.074***	.055**	.307***			
19 Time pressure	−.032	.106***	−.011	−.103***	.112***	.002	−.131***	−.015		
20 Routine work	.035	−.183***	−.274***	−.072***	.042*	−.066***	−.064***	−.223***	.013	
21 High salariat	.058**	−.112***	.439***	.084***	.075***	−.034	.065***	.153***	.013	−.184***
22 Low salariat	−.023	.146***	.081***	−.002	−.042*	.084***	.003	.014	.046*	−.206***
23 Intermediate	−.067***	.168***	−.113***	.010	−.055**	−.034	−.026	.032	−.062***	−.154***
24 High blue col.	.017	−.109***	−.063***	−.004	.042*	−.009	.000	.048**	−.024	−.083***
25 Low service	−.013	.129***	−.154***	−.005	−.093***	−.017	.016	−.061**	.033	−.102***
26 Skilled work	.002	−.184***	−.189***	−.072***	.057**	.077***	−.022	−.057**	−.046*	−.074***

	21	22	23	24	25
22 Low salariat	−.354***				
23 Intermediate	−.265***	−.297***			
24 High blue col.	−.142***	−.159***	−.119***		
25 Low service	−.175***	−.197***	−.147***	−.079***	
26 Skilled work	−.127***	−.143***	−.107***	−.057**	−.071

Table A5. Pooled ($m = 20$) Linear Three-Level Regression Analysis of Job Satisfaction ($n = 3,012$), Own and Level of Colleagues' Use of HR Policies, Unstandardized Coefficients

	Model 1	Model 2
Intercept	6.84*** (.16)	3.20*** (.54)
Predictor variables		
Ref. = Nobody phased out		
Phased out	0.33** (.11)	0.05 (.10)
Not phased out, < 35% coworkers phased out	0.18 (.10)	0.04 (.09)
Not phased out, 35–70% coworkers phased out	−0.14 (.21)	−0.12 (.19)
Not phased out, 70%+ coworkers phased out	−0.16 (.18)	−0.07 (.16)
Ref. = Nobody demoted		
Demoted	−0.78*** (.12)	−0.42*** (.10)
Not demoted, rarely demotions in department	0.17 (.18)	0.12 (.16)
Not demoted, sometimes demotions in department	−0.01 (.52)	0.08 (.44)
Not demoted, (fairly) often demotions in department	−0.57 (.35)	−0.29 (.31)
Ref. = Nobody trained		
Trained	0.56*** (.16)	0.43** (.14)
Not trained, < 35% coworkers trained	0.35* (.17)	0.40** (.15)
Not trained, 35–70% coworkers trained	0.27 (.20)	0.26 (.18)
Not trained, 70%+ coworkers trained	0.11 (.18)	0.17 (.16)
Control variables		
Age		0.01 (.01)
Female		0.23** (.07)
Years of education		0.00 (.01)
Health		0.33*** (.04)
Working hours		0.00 (.00)
Tenure		0.01* (.00)
Supervisory support		0.72*** (.04)
Autonomy		0.37*** (.04)
Time pressure		−0.39*** (.05)
Ref. = Routine workers		
Higher salariat		0.04 (.15)
Lower salariat		−0.07 (.14)
Intermediate occupations		−0.04 (.15)
Higher grade blue collar		−0.02 (.17)
Lower sales and service		−0.00 (.16)
Skilled workers		0.02 (.19)
Ref. = Small organization		
Medium organization		0.09 (.11)
Large organization		−0.03 (.12)
Ref. = Manufacturing		
Health care		0.03 (.14)
Higher education		0.04 (.15)
Transport		0.22 (.15)
Finance		0.03 (.18)
Telecommunication		−0.05 (.20)
Ref. = the Netherlands		
Germany		−0.66*** (.17)
Finland		0.25 (.19)
Sweden		−0.42** (.16)
United Kingdom		−0.56** (.20)
Portugal		−0.29 (.18)
Spain		−0.22 (.21)
Hungary		−0.59*** (.17)
Bulgaria		−0.82*** (.18)

Table A5. Continued

	Model 1	Model 2
Variance organization (level 3)	0.26	0.15
Variance department (level 2)	0.04	0.02
Variance individual (level 1)	3.37	2.62
Variance explained (total)	.04	.27

Note. Standard errors between parentheses.
$^*p < .05, ^{**}p < .01, ^{***}p < .001.$