



No. 2015-025

**WHY DEMOTION OF OLDER WORKERS IS A
NO-GO AREA FOR MANAGERS**

By

Hendrik P. van Dalen, Kène Henkens

7 April 2015

ISSN 0924-7815
ISSN 2213-9532

Why Demotion of Older Workers is a No-Go Area for Managers*

Hendrik P. van Dalen^{a,c} and Kène Henkens^{a,b,d}

(a) Netherlands Interdisciplinary Demographic Institute (NIDI)
P.O. Box 11650
NL-2502 AR The Hague
The Netherlands
Email: dalen@nidi.nl

(b) University of Groningen
University Medical Center Groningen
P.O. Box 72
NL-9700 AB Groningen
The Netherlands

(c) Tilburg University
Tilburg School of Economics and Management (TISEM), and CentER
P.O. Box 90153
NL-5000 LE Tilburg
The Netherlands

(d) University of Amsterdam
Department of Sociology and Anthropology
Oudezijds Achterburgwal 185
1012 DK Amsterdam
The Netherlands
Email: henkens@nidi.nl

April 5, 2015

Keywords: older workers, demotion, productivity, wages

JEL codes: M51, M54, J62

* Comments by Douglas Hershey, Tinka van Vuuren, Mo Wang, Arjen van Witteloostuijn and participants of seminars of the Catholic University of Leuven and at the European Population Conference in Budapest are gratefully acknowledged. In this paper use is made of data of the LISS panel administered by CentERdata.

Abstract:

Demotion – a reduction of an employee’s rank and salary - is often mentioned by managers and policy makers as a measure to increase the employability of older workers, but in practice demotion is rarely applied. This paper takes a fresh look at the question of demotion by first employing a survey among European employers and second the use of a survey and a vignette study among managers in the Netherlands (N = 355). The European survey shows that although demotion is not often applied a considerable percentage contemplates the application in the near future, especially those employers who encounter work staff aging. The vignette study offers insight in their stated preferences with respect to demotion for a particular employee, described by a number of possible causes of underperformance. The key question is whether these causes refer to internal or external causes and causes which the employee can or cannot control. By using background characteristics on the manager, obtained through survey questions, we can assess whether the decision to demote is also affected the expectations of managers on the wider consequences of making demotion standard practice. Internal causes such as not willing to participate in training, and not being motivated to work increase the likelihood of demotion, whereas external causes (financial situation of the firm) are of little importance. However, even when an employee scores low points on all possible causes, demotion still is hesitantly considered. Much of this hesitation is connected to the perceived negative externalities which managers expect to materialize once demotion becomes standard practice.

1. Introduction

Demotion – a reduction of an employee’s rank and salary - is a topic which receives cursory attention in the economics and management literature. Firms are grappling with the aftermath of the Great Recession as well as the consequences of an aging labor market and demotion is expected to be one of the instruments which might make adaption possible. Well-known management and economic textbooks (Milgrom and Roberts, 1992, Lazear, 1998) primarily focus on promotion as an incentive mechanism to employees, but the term ‘demotion’ is either missing, relegated to footnotes or is left by the author as a suggestion for future research (Lazear, 1995). Perhaps because of this lack of attention some wonder whether demotion is a four-letter word (Kohl and Stephens, 1990). Others (Carson and Carson, 2007) remark that “Demotion might well be considered management’s ‘dirty little secret’”, the secret being that for decades pleas have been made to systematically examine the topic, but up until this day the empirical insights into questions when demotion will be applied or how it affects organizations or the employees affected by demotion remain unanswered. This paper presents the first empirical investigation on the question to what extent demotion of workers is considered by managers as a measure of personnel policy. We examine this question by a combination of a survey and a vignette study among managers to discover the main driving forces behind their preferences to use demotion for specific employees who perform poorly.

The case for flexibility in rank and salary is likely to become an issue as many countries are experiencing the pressures of work force aging. Especially the gap between wage and productivity may put extra pressure on employers and be a serious impediment for firms to hire or retain older workers (OECD, 2006, Van Dalen, Henkens and Schippers, 2009, Conen, van Dalen and Henkens, 2012). One of the driving forces behind the wage-productivity gap is the seniority based payment system and this is quite visible in a number of European countries (Deelen, 2012). In case the misbalance between wage and productivity is caused by employees not functioning up to the terms of their contract, employers can consider the option of demotion. And when employers do make use of demotion it will become an integral part of the incentive structure of a firm. Insights gained from rank-order tournament theory suggest that an increase in the prize spread induces higher performance. And in line with this insight, demotion could in principle trigger higher performance by de facto offering negative prizes.

Although demotion may seem an obvious element to be included in the menu of personnel policies, when it comes down to personnel policies directed at older workers the term

'demotion' is conspicuously absent (Taylor, 2002, Munnell and Sass, 2009). And when it comes down to applying demotion, this option is also rarely exercised (Baker, Gibbs and Holmstrom, 1994, Gibbons and Waldman, 1999, Bowlus and Robin, 2004, Gibbs and Hendricks, 2004, Josten and Schalk, 2010, Bowlus and Robin, 2012). The term demotion is often evaded in communications and substituted by terms like reassignment, reclassification, downward shifting, downward mobility, downsizing and delayering. The only manner by which demotion of older workers seems to take place is through the indirect route of dismissal and reentry (cf. Deelen, de Graaf-Zijl and van den Berge (2014)). In other words, employers shy away from using demotion in a direct manner.

There can be a number of reasons why demotion is such a rare phenomenon. First of all, the role of reputations and self-selection mechanisms can be so strong and pervasive that employees will not let things come so far that his or her career is tarnished by demotion. For instance, MacLeod and Malcomson (1988) claim that the promotion structure based on performance which is a dominant feature of the incentive structure of large organizations is maintained "by ensuring that it is optimal for employees to quit rather than accept demotion with their present employer" (p.834). The reputation of employees plays a large role in this model as a demotion signals to outsiders that the candidate did not perform well, and recognizing this possible fall in reputation the employee will opt for quitting the firm. Still, this literature demands a lot of rationality on both sides of the labor market. In case of young workers one may suspect that this is a relevant aspect, but it is more or less stylized fact that older workers are better protected, and they experience far more difficulties in finding a new job on the labor market than younger workers and will therefore be less likely to voluntarily leave a firm (Gielen and van Ours, 2006).

A second reason why demotion is not frequently observed is that demotion in those cases may very well involve high transaction costs. Van Dalen, Henkens and Schippers (2010) show that within most organizations it is common practice to let poorly performing older employees stay in place, whereas younger workers who perform badly are fired. A possible explanation for understanding the resistance to demotion is the tension which managers suspect to arise not only among the demotees, who primarily experience the stigma of failure (Carson and Carson, 2007), but also among the colleagues who receive the signal that implicit contracts - promises of upward wage growth either by the principle of seniority and/or by a series of promotions - are not honored. And if the organization uses demotion regularly as an instrument of correcting the divergence between pay and performance, it may backfire on the

organization. Tournament theory with reference groups suggests that an incentive structure which makes not only the winners but also the losers in a tournament explicit can lead to less effort, certainly when a loss of status is involved (Ederer and Pataconi, 2010). Managers therefore have to take account of the possible (dis)incentive effects of demotion in case they want to change the incentive structure. These externalities refer to the effects of a breach of contract on the actions of co-workers not involved in the individual decision of demotion of a specific employee. Demotion may therefore remain a case of ‘blackboard economics’: in theory demotion is an obvious solution when employees do not live up to the terms of their contract, in practice it is complex decision with possibly unforeseen repercussions.

This paper contributes to the existing empirical literature of economics, organization studies and human resource management in three ways. First, it breaks new ground by offering the first empirical investigation of how managers assess demotion as an instrument of personnel policy. This study not only provides insights in the general support for demotion among managers. It also examines the support for demotion of specific workers who for one reason or another do not perform according to organizational standards.

Second, by integrating insights from economics, psychology, and management this paper provides a comprehensive study on demotion by combining two sets of factors in our explanatory model of demotion. The first group of factors relates to the individual worker to which the manager attributes poor performance. The other group of factors relates to the manager actually contemplating demotion. The most prominent factors are the (expected) externalities which might arise from introducing demotion as a personnel policy in an organization. Managers are bound to have different assessments of the wider organizational consequences of introducing demotion as personnel policy as firm contexts differ. The expected externalities may make them reluctant or more likely to apply demotion in individual cases.

Third, this paper makes a novel contribution by showing how the internalization of perceived externalities by a decision maker matter and how this can be modelled for an individual decision or evaluation. Externalities are generally assumed to be present where market participants fail to take account of the wider spillover effects which their individual actions may bring about. This paper tries to see whether individual decision makers do have an idea what the spillover effects are and how this affects their decisions or evaluations. By incorporating employee *and* employer characteristics in our explanatory framework offers not

only the possibility to elicit an evaluation about the desirability of demotion of a specific employee, it also uncovers the extent to which the manager internalizes the expected externalities of demotion. The present contribution may be seen as offering complimentary insight as to what goes on inside in the head of the decision maker who contemplates changing the rules of the game inside an organization. As such the findings of this paper fit in with the strand of applying insights from behavioral economics to understanding the behavior of organizations (Camerer and Malmendier, 2007), but it may also shed light on questions asked in management on how attribution theory sheds light on human resource strategies (Harvey, Madison, Martinko, Crook and Crook, 2014) and on how contracts within firms are perceived and sustained (Dabos and Rousseau, 2004).

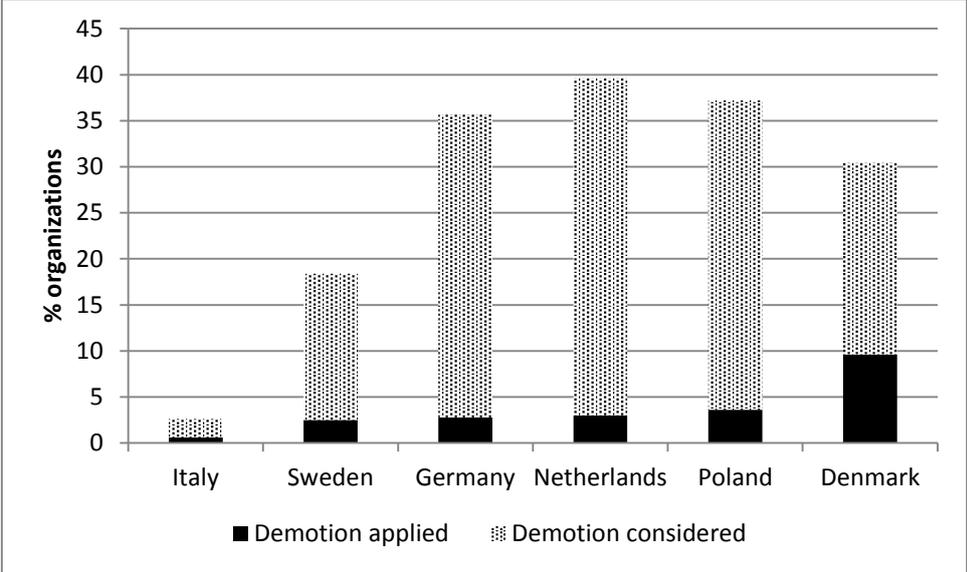
By combining survey data and a vignette study one may be able to obtain a broader perspective on demotion. Vignette studies generally help to elicit preferences or evaluations for situations which are hard to capture by direct observation. And although vignettes mimic the context of decision making in an artificial manner, in practice vignette studies capture actual real world behaviour as recent validation research by Hainmueller, Hangartner and Yamamoto (2014) shows. The vignette study and the survey were carried out among managers (N = 355) in the Netherlands, in April 2013. The Netherlands is a relevant country to see the emerging issue of demotion in organizations for a number of reasons. The Dutch labor market is characterized by a relatively high level of employment protection, which makes it difficult to lay off workers with a permanent contract. Furthermore recent retirement reforms have made an end to the Dutch early exit culture (OECD, 2014), which is reflected in a steep increase in the participation of older workers in organizations.

The setup of this paper is as follows. First, we will present some background evidence on the option of using demotion among European employers as a response to an aging work force. Second we will offer a review of the literature to see how demotion is viewed within various disciplines and focus on attribution theory as the core explanatory model of demotion. However, to test for different incentive and motivational effects of demotion we will also focus on how individual managers view the consequences of demotion for the organization at large. Third, we focus in on the case of the Netherlands and present the views of managers and see how these elements play out.

2. The increasing need for demotion

Demotion is often shrouded in issues of age discrimination and unfair dismissal issues. The use and registration of demotion in official statistics is therefore hampered by these issues. To offer some light on the issue we employ a European wide survey among employers which contains information on the issue of demotion (Henkens and Schippers, 2012). Employers were asked to what extent they apply a certain instrument in their human resource policy and whether they consider including it in their policy. Demotion (lowering of rank and wage) was one of the instruments described and Figure 1 depicts the outcomes for the various countries in the survey.

Figure 1: Percentage of organizations applying and considering demotion in Europe, 2009



Source: ASPA

Demotion is not often encountered in human resource policies. However, the consideration of demotion is much stronger, and if one adds the two categories one can say that demotion is certainly on the mind of a considerable number of employers in Germany, Poland and the Netherlands. The only outlier in this picture is Italy, which is not that surprising as Italian employers are over a broad range of measures not very concerned about work force aging (Conen et al., 2012). To offer some more insight into the determinants of the use and

consideration of demotion Table 1 shows the outcome of a multi-nominal logit analysis, where the benchmark case is the employer who does not consider or apply demotion at all.

Table 1: Explaining the probability that demotion will be applied or considered in organizations (benchmark is ‘no consideration or application of demotion’)

	Considering demotion		Applying demotion	
	Coefficient	t-value	Coefficient	t-value
Attention to aging personnel (none = 0)				
Fairly low extent	0.41**	3.54	0.57*	2.07
Some extent	0.44**	3.91	0.94**	3.62
High extent	0.51**	3.66	0.85**	2.80
Size (small = 0)				
Medium	0.28**	3.27	0.83**	3.83
Large	0.44**	4.45	1.63**	7.82
Sector (profit =0)				
Non-profit	-0.37**	4.42	-0.50**	2.94
High knowledge intensity	0.03	0.72	0.28**	3.28
Age employer (in years)	-0.02**	4.12	-0.01	1.29
Gender employer (male = 0)	-0.42**	5.03	-0.28	1.26
Country (Netherlands = 0)				
Italy	-3.44**	13.44	-2.53**	5.61
Denmark	-0.65**	4.60	0.60**	3.10
Sweden	-0.97**	7.21	-1.25**	4.36
Poland	-0.21	1.93	-0.84**	3.48
Germany	-0.45**	4.27	-1.01**	4.68
Constant	0.89**	3.00	-3.01**	4.77
Log likelihood	-2947.9			
Pseudo R ²	0.13			

N = 4313 * p < 0.05; ** p < 0.01, estimated by means of multinomial logit regression.

A number of results stand out in this analysis. First of all, employers who are concerned about work staff aging are more considerably more apt to consider demotion and even more so to apply it. Second, the size of the organization matters, where large organizations are also more apt to apply or consider demotion. Again this seems like a logical outcome because larger organizations have more opportunities to offer a downward move during the career of an employee compared to small businesses. Third, as one could have deduced from Figure 1, country differences are especially large. When it comes down to *considering* demotion, the Netherlands is the country where employers are most prone to including this option. With respect to *application* Danish employers are most likely to carry out demotions. Both cases

can be understood by country-specific contexts. The Dutch case because employers are particularly concerned about sustaining the employment of older workers combined with wage systems that are primarily based on seniority have made organizations. Current labor contract are perceived as being unsustainable. This was illustrated most vividly by steps taken by the software company Cap Gemini in January 2013. Management reviewed the wage contracts of its employees and proposed to cut the wages by 20 to 30 percent of its older workers because of a mismatch within the firm: the credit crisis has led to the steeply lower hourly rates – 40 to 50 percent - for software services and management of CapGemini proposed to correct this imbalance by cutting wages and reconsidering the functions of older workers. “The salaries of older workers are no longer in line with their market value,” according to the CEO of the company.¹ Several polls among firms and employers suggest that this sentiment is shared widely and that they want to apply or consider demotion as a viable instrument of their personnel policy. Of course, the question remains whether those who have to deal with the actual decision are willing to consider it and put theory into practice.

The fact that Danish employers are more apt to apply demotion can also be understood once one knows that in Denmark the main focus is on security in employment and income combined with labor market flexibility. The idea behind this so-called ‘flexicurity’ is that by combining flexibility and social security, both employers and workers become more willing to take a risk on the labor market. By increasing the security in connection with, for instance, job change, workers are encouraged to become more mobile in the labor market (Andersen, 2012). Functional flexibility and pay level flexibility are a logical outcome of this model of employment protection.

The gap which exists between applying and considering demotion is intriguing and the Netherlands are in that respect a model case to examine in more depth.

3. Theoretical background

There are two intertwined strands of literature which help to understand the evaluations and decisions of employers with respect to demotion. The first strand of literature can be traced in organizational psychology (Harvey et al., 2014) where attribution theory is of considerable importance in understanding behavior and organizational outcomes and in this particular

¹ Later on the management of CapGemini had to withdraw this suggestion by pressure from unions and even from pressures of an employer organization in the IT sector claiming that “young talent could be discouraged by discussions of this type of employment conditions”.

context it is applied in describing how managers and employees make attributions when they infer causes about the performance of employees. In the present case we hypothesize that the use of demotion depends on managers' attributions about the causes of poor performance.

The second strand is to be found partly in the domain of economics where it has become common to be aware of the possibility that individual actions can have external effects, either positive or negative. We take this simple and intricate insight inside the firm by examining whether managers take externalities into account in considering an individual action: demotion of a poorly performing employee. We hypothesize that the effects of demotion on the behavior of third parties – coworkers, potential employees - which are not immediately tied to the decision of the demotion of a specific employee come into play in making individual decisions or evaluations. Demotion may be seen as a reasonable and fair solution when a manager expects this to generate positive effects for the firm at large, but a manager may also tend to be hesitant in applying demotion when he or she expects negative consequences. We will term these effects the expected externalities of the demotion.

Perceived causes of poor performance

In the case of demotion managers are faced with an employee displaying poor performance (low productivity, sloppy work) and it is in their interest to trace the cause of this poor performance. By a set of informational indicators or outcomes they try to attribute the cause of the poor performance. In the burgeoning social psychological literature several attributional dimensions are identified (Weiner, 1995) which are of importance in understanding organizational behavior: locus of causality, stability and controllability. The locus of causality is the most often studied dimension. When an internal attribution is made, the cause of behavior or in our case decline of performance is within the person, i.e. the variables which make a person responsible like low effort or motivation. And when an external attribution is made the cause of decline is assigned to the situation in which the behavior was observed, like bad luck or the financial situation of the firm. Stability refers to the perceived variability of a causal factor. And controllability is the extent to which a supervisor perceives the cause of an outcome to be under the control of an employee. Although the locus of causality and controllability have much in common, some causes are internal to the employee but by definition uncontrollable, like age. Other factors are in reality less clear-cut with respect to the level of controllability. For instance, the health status or the presence of problems at home are only weakly controllable. But these are nonetheless of interest and on account of their mixed

character we expect that they do not carry much weight in considering demotion compared to clear internal and controllable causes.

The importance of the attribution process in making decisions was shown by Mitchell and Wood (1980) and Wood and Mitchell (1981) who carried out experiments in a number of hospitals to see how supervisors attribute poor performance to internal and external causes and how their responses differed according to their attribution. In general, punishments are more likely when poor performance is attributed to internal and controllable causes: employee characteristics or behavior such as lack of effort, motivation or ability. These dimensions are deemed relevant when supervisors have to decide whether or not an employee should be demoted. When the cause is perceived to be external and beyond control of the employee, demotion is hypothesized to be less likely than in the case poor performance is attributed internal and controllable causes such as the lack of work motivation. One external factor which is often mentioned is the economic setting in which a firm operates. For instance, when structural developments make reorganizations necessary the employer may use the instrument of demotion, which is usually framed in terms of ‘delaying’ of functions (Littler, Wiesner and Dunford, 2003). Indeed, re-organizations are often mentioned in labor contracts as grounds for considering demotion as a policy instrument. One of the few contributions in this field by Dohmen, Kriechel and Pfann (2004) shows that for the case of large Dutch aircraft manufacturer Fokker that promotion rates fell and demotion rates rose when the firm entered the stage of demise.² Taking these factors together we formulate the following hypothesis:

Attribution hypothesis: Managers will tend to be more in favor of demotion if an employee displays poor performance which can be attributed to internal and individually controllable causes than in cases where poor performance is attributed to external causes and causes beyond the employee’s control.

Externalities of demotion

The perceived externalities of demotion involve the perceived costs and benefits of making demotion an integral part of personnel policy. The decision to demote a specific employee is probably seen by the employer as a breach of contract on the side of the poorly performing worker. However, when demotion becomes part of the jurisprudence of the organization it can be perceived as a breach of contract by the incumbent personnel staff may view this as a

² In collective wage contracts in the Netherlands the issue of demotion is often linked to situations where reorganization takes place: reorganization is a valid reason for employers to consider demotion.

breach of contract on the side of the employer because demotion was never part of the incentive structure when they entered into a contract. Employees may perceive their labor contract as a psychological contract which refer to “employees’ perceptions of what they owe to their employers and what their employers owe to them” (Robinson, 1996). When their trust is breached this may trigger reciprocal actions from the side of employees. This is more or less the dilemma which employers face in changing the rules of the game. We assume that employers will have expectations on the behavioral response of their staff when demotion becomes part of personnel policy. Depending on the perceived fairness or unfairness of changing the incentive structure they will reciprocate such a decision by management (Bosse, Phillips and Harrison, 2009). However, one cannot rule out that managers expect benign effects from demotion as employees could also respond in principle in a positive way. Ederer and Pataconi (2010) are one of the few who have analyzed this issue in a theoretical model. The dilemma for an employer is a choice between promotion-based and demotion-based tournaments. Demotion could trigger higher effort, but once you pay attention to status issues and assume that employees also care about their relative standing in an organization, things become different. Demotion penalizes underperformance and thereby not only makes the spread in wages larger but also makes the ‘losers’ visible. When status is a driving force behind work effort, a demotion-based tournament has negative consequences as it generates lower effort compared to a promotion-based tournament. The basic insights of their model resounds in the work of Fehr and Schmidt (2007) who show in a model of enforceable contracts with fines and bonuses that principals rarely select fines. In other words, the proverbial ‘carrots’ are generally preferred and found to be more effective than using ‘sticks’.

In gauging the effects of demotion these incentive and disincentive effects are key to understanding the behavior of employers who will consider how demotion will perceived by other employees and more in particular how it affects the behavior of these employees. Certainly in an environment in which demotion is rare or even considered a taboo, one can expect that demotion can possibly induce non-productive behavior, such as showing less loyalty to management, becoming less motivated to work, sabotaging organizational procedures (Ambrose, Seabright and Schminke, 2002). But on the other hand it may also generate productive behavior such as an increased willingness to participate in training. We assume that managers take these expected responses into account in deciding on demotion of individual employees. Our hypothesis is that when managers perceive that employees will reciprocate or react to making demotion standard practice by showing less commitment

towards management or less work effort than the manager is less willing to consider demotion a reasonable step to take, or rephrasing this more formally:

Externalities hypothesis: Employers will be less likely to favor demotion in an individual case, the more negative the perceived externalities of demotion for the organization as a whole.

Other considerations

Finally, in making the vignettes more realistic we venture that the wage level of the employees under review enters the minds of managers. In particular in a country where egalitarian principles rank high when it comes to remuneration one can imagine that the manager wants keep the divergence in wage levels across job levels small. Someone who performs poorly for a considerable time is in that view a reasonable candidate for demotion. Not only because the employee is apparently not worth his pay, but also to keep other workers within the firm satisfied that employees with similar jobs receive more or less similar pay. Employers have to act in a fair manner and indeed in the field of management and economics it has become common to include fairness of equity considerations in understanding organizational behavior (Fehr and Schmidt, 1999, Cropanzana, Bowen and Gilliland, 2007, Fehr and Schmidt, 2007, Bosse et al., 2009).

4. Data and methods

To answer the research questions, a combination of survey research with a vignette study was designed. Vignette studies or conjoint analyses are widely used in the social sciences (Green and Srinivasan, 1978, Cattin and Wittink, 1982, Finch, 1987, Kapteyn, Smith and Van Soest, 2007) as they shed light on the preference structure of people who evaluate a situation or make decisions. A vignette study is a survey experiment which can offer substantial insight as one does not ask for attitudes or expectations which refer to evaluations or decisions in general but actual situations which are evaluated by respondents. Vignette dimensions are orthogonal, which offers the opportunity to separate effects of variables that are often correlated in practice, avoiding multicollinearity (Di Stasio, 2013). The survey was carried out to gather information on the expectations of the managers contemplating the decision to demote. The vignettes were designed to see how managers evaluate a certain case of an older employee who performs poorly. We collected the data by accessing the sample of the

Longitudinal Internet Studies for the Social Sciences (LISS) of Tilburg University (<http://www.lissdata.nl/lissdata/>). LISS is an Internet panel that consists of approximately 6,500 individuals. All individuals are selected based on a true probability sample of households drawn from the population register by Statistics Netherlands.

Participants

In this paper we use a small subsample referring to managers ($N = 355$). These data were collected in April 2013 and the response rate was 84 percent. Managers in the LISS panel were identified based on the question whether they supervise others in their current occupation and whether they had experience in hiring personnel in the past 10 years. We examined the preferences of a total of 355 managers of which 35 per cent were female, and the mean age of respondents was 47.7 (range 24-67 years, $SD=10.3$). Every manager examined five possible vignettes of profiles of older workers in the range of 45 to 60 years of age who were said to show a marked deterioration in performance.

Vignettes

In a vignette design the unit of analysis is the vignette. Various hypothetical workers were described by several characteristics. In the introduction to each vignette managers are provided with information that the employee under review is not performing well. For each vignette managers were asked “How fair would it be to consider demotion for the specific employee? (answer categories on a 10-point scale, ranging from 0 (very unfair) to 10 (very fair)).

To test the attribution hypothesis we have designed vignettes to cover elements of productivity which are internal and lie within control of the individual – willingness to participate in training, work motivation, - and some which are external beyond his or her control – age and health. To see whether the employer also takes into account elements which inhibit performance but which lie outside the bounds of the firm, we have added the stress which some employees experience from problems at home. To reveal how the manager deals with issues of distributive justice within the firm (Cropanzana et al., 2007) we included an item which reveals whether the employee’s pay is either higher or lower than that of colleagues of the same job level. Finally, to control for the firm context we have designed a vignette item which captures the financial situation of the firm. To summarize, the seven vignette characteristics are: (1) organizational context: financial situation of the firm; (2) age

of the employee, (3) motivation to work; (4) health status; (5) willingness to participate in training; (6) problems at home; and (7) the wage/productivity gap.

Table 2: Organizational contexts and employee’s attributes in the vignette

Item	Categories
<i>Organization</i>	
Financial position of the organization	<ul style="list-style-type: none"> • Financially sound • Financially vulnerable • In financial problems
<i>Employee</i>	
Age	<ul style="list-style-type: none"> • 45 years • 50 years • 55 years • 60 years
Motivation to work	<ul style="list-style-type: none"> • High • Low
Willingness to participate in training	<ul style="list-style-type: none"> • High • Low
Health status	<ul style="list-style-type: none"> • In good health • Not so healthy
Problems at home	<ul style="list-style-type: none"> • Yes • No
Wage level in comparison to colleagues with the same function	<ul style="list-style-type: none"> • Higher than comparable colleagues • Lower than comparable colleagues

In Table 2 we give an overview of the various values for each vignette item. Given all possible combinations of the variables and their respective categories, the universe of 384 unique vignettes was created (i.e. $3 \times 4 \times 2 \times 2 \times 2 \times 2 \times 2$). None of the vignettes contained impossible combination of the factors. For an example of a vignette used in the study, see Figure A1 in the appendix.

Expected Externalities

All managers participating in the survey were asked how they perceived the possible consequences of demotion being introduced in personnel policy within the organization. The exact question on which the scale is based is: “What do you expect will be the consequences of making demotion an integral part of the personnel policy in your organization?” They were asked to evaluate these consequences for the following five issues:

- Loyalty of the staff towards the management of the firm
- Work motivation of the staff
- Power to attract new work staff
- Willingness to train of the staff
- Solidarity between young and old work staff

Table 3: Descriptive statistics of vignette characteristics and background variables

Vignette items		
<i>Dependent variable</i>	Mean	s.d.
Fairness of demotion ^a	4.81	2.17
<i>Independent variables</i>		
Financial position firm (sound = 0)		
Vulnerable	0.36	0.48
In financial problems	0.31	0.46
Characteristics of employee		
Motivation (high=0)		
Low	0.52	0.50
Willingness to train (high = 0)		
Low	0.53	0.50
Age (45 =0)		
50	0.25	0.43
55	0.25	0.43
60	0.25	0.43
Health (good =0)		
Not so healthy	0.52	0.50
Problems at home (no=0)		
Yes	0.54	0.50
Wage level compared to colleagues (higher = 0)		
Lower	0.50	0.50
N vignettes =	1775	
Characteristics of manager		
Age (in years)	47.70	10.32
Sex (male = 0)	0.35	0.48
Owner-manager (employee = 0)	0.11	0.31
Expected consequences demotion (5-point scale) ^b	3.25	0.70
N managers =	355	

(a) Fairness is assessed is the answer given to the question: “To what extent would you find a demotion in this particular case fair?” (0) very unfair to (10) very fair.

(b) Scale variable based on expected consequences on a five-point scale with respect to (1) loyalty personnel to management; (2) motivation to work; (3) power to attract new personnel; (4) willingness to schooling; (5) solidarity between young and old staff members. The scale reliability coefficient (Cronbach alpha) is 0.80. Scale 1 = strong increase to 5 = strong decrease.

The answering categories were 1 = will increase strongly; 2 = will increase somewhat; 3 = no change; 4 = will decrease somewhat; and 5 = will decrease strongly. We have constructed a 5-point scale variable 'Expected externalities' and the internal consistency reliability was assessed using Cronbach's alpha. The Cronbach's alpha statistic is 0.80 which suggests that the scale is a reliable summary of underlying information in the separate items. Table 3 offers an overview of all the relevant variables used in the statistical analysis, distinguished by the different levels: vignettes and the managers who evaluated the vignettes.

Analyses

As each manager judged five vignettes, our factorial survey data have a hierarchical structure by design, therefore observations are not independent (Wallander, 2009). Multilevel analysis is used to deal with the hierarchical structure of the data (Hox, 2010). Multilevel models were estimated with two levels: (1) variables included in each model comprised variables at the level of managers (managers' expectations of demotion and some background characteristics); and (2) variables related the individual attributes included in the vignettes.

4. Explaining demotion

The central hypotheses in explaining demotions consist of the attributed causes of poor performance and the expected externalities resulting from demotion. Because the externalities are considered to be important we will first present the general expectations of managers toward demotion as an instrument of personnel policy. Subsequently we present the results of the multilevel models to explain managers' attitudes toward demotion of individual cases of workers.

Figure 2 shows to what extent managers expect an increase or decrease in a number of domains of the organization as a result of demotion. The figure shows, for instance, that a majority of managers expect a decrease of loyalty towards management and of work motivation as a result of introducing demotion. At the same time managers expect that employees' willingness to train will increase when demotion is introduced. With respect to the solidarity between young and old workers, the attractiveness of the firm in attracting new employees, expectations are more balanced.

Figure 2: Average expected consequences of demotion by Dutch managers, ranked by potentially negative effects of demotion becoming standard practice within the firm



N = 355

Source: LISS data, April 2013

To explain how managers evaluate a certain case of an older worker who performs poorly three models are estimated. Model I focuses on the vignette items which mostly refer to the worker. Model II incorporates the characteristics of the manager (of which the expected externalities are the focus of attention). Finally model III is an alternative version of model II in which we check for the non-linear externality effects. The dependent variable – the fairness of demotion for a specific older worker - is based on a scale from 0 to 10 hence all the coefficients can be interpreted as adding or subtracting points to the base evaluation (the constant in the various models). The intra-class correlation across the models varies from 0.42 (model III) to 0.47 (model I). If we focus on model III, then one say that 42 percent of the variance in evaluations is due to differences across managers and 58 percent is attributable to individual differences.

Table 4: Multilevel analysis of vignette experiments with respect to whether demotion is a fair decision

Vignette items	Preference for demotion ^a					
	Model I		Model II		Model III	
Characteristics of employee	Coeff.	s.e.	Coeff.	s.e.	Coeff.	s.e.
Motivation to work (high=0)						
Low	1.03**	0.08	1.04**	0.08	1.04**	0.08
Willingness to train (high = 0)						
Low	0.61**	0.08	0.60**	0.08	0.60**	0.08
Age (45 =0)						
50	-0.05	0.11	-0.06	0.11	-0.05	0.11
55	-0.11	0.11	-0.12	0.11	-0.11	0.11
60	-0.08	0.11	-0.08	0.11	-0.08	0.11
Health (healthy =0)						
Not so healthy	0.17*	0.08	0.16*	0.08	0.16*	0.08
Problems at home (no=0)						
Yes	-0.06	0.08	-0.06	0.08	-0.06	0.08
Wage level compared to colleagues with same function (lower = 0)						
Higher	1.08**	0.08	1.08**	0.08	1.07**	0.08
Firm characteristic						
Financial position firm (sound = 0)						
Vulnerable	0.23**	0.09	0.23**	0.09	0.24**	0.09
In financial problems	0.25**	0.10	0.25**	0.10	0.25**	0.10
Background variables: characteristics of manager						
Age	-	-	0.00	0.01	0.00	0.01
Sex (male = 0)	-	-	0.20	0.16	0.19	0.16
Owner-manager	-	-	0.57*	0.25	0.56*	0.24
Expected externalities	-	-	-0.70**	0.11	0.87	0.76
Expected externalities squared	-	-	-	-	-0.23*	0.11
Constant	3.26**	0.15	5.10**	0.57	2.56**	1.34
S.d. (manager)	1.39**	0.06	1.28**	0.06	1.27**	0.06
S.d. (residual)	1.48**	0.03	1.48**	0.03	1.48**	0.03
Intra-class correlation	0.47		0.43		0.42	
Log Likelihood	-3510.5		-3487.1		-3484.9	
Wald Chi2 (df)	439.9 (df=10)		491.3 (df=14)		496.5 (df=15)	
N =			1775			

(a) The preference for demotion is the answer given to the question: "To what extent would you find a demotion in this particular case fair?" (0) very unreasonable to (10) very reasonable.

The estimation results of model I give a good impression of the employee characteristics that matter in considering demotion. We find strong support for the attribution hypothesis that poor performance attributed to external factors and factors which lie primarily beyond the control of the individual employee (such as health problems or problems at home), have a much lower impact on preferences for demotion than internal and controllable factors such as lack of work motivation or resistance to training. The motivation to work and the willingness to participate in training are the most important attributed causes in explaining demotion, with coefficients 1.0 and 0.6 respectively. An employee with a weak health status is more likely to be considered for demotion than someone who is in good health but the effect is quite limited: 0.2 point higher. Problems at home proved not to be significant. Another external factor which does not affect the manager's evaluation is the age of the specific older worker. A priori, one would not expect age to be of influence on the decision to demote as it is a character trait which is by definition not under the volitional control of an employee. But it might, of course, be the case that managers hold stereotypical views about the role age plays in causing a deterioration of performance. The regression results suggest that managers do not weigh the age of an employee in assessing fairness of demotion.

The vignette items which were introduced to offer context to the decision making process warrant also some comments as they are noteworthy. First, the context of the financial position of the firm is an issue which many managers generally take into consideration. Although it offers a link to reality, the financial position is of limited importance to assessing the fairness of demotion. Compared to a situation where the manager is working for an organization in a sound financial position, the managers who works in a financially vulnerable organization are only slightly more in support for demotion. Second, the results show that the relative pay of a worker turns out to be quite significant. For a worker who has a relatively high wage compared to his or her colleagues in a similar job the likelihood of demotion is substantially higher: 1.08 points.

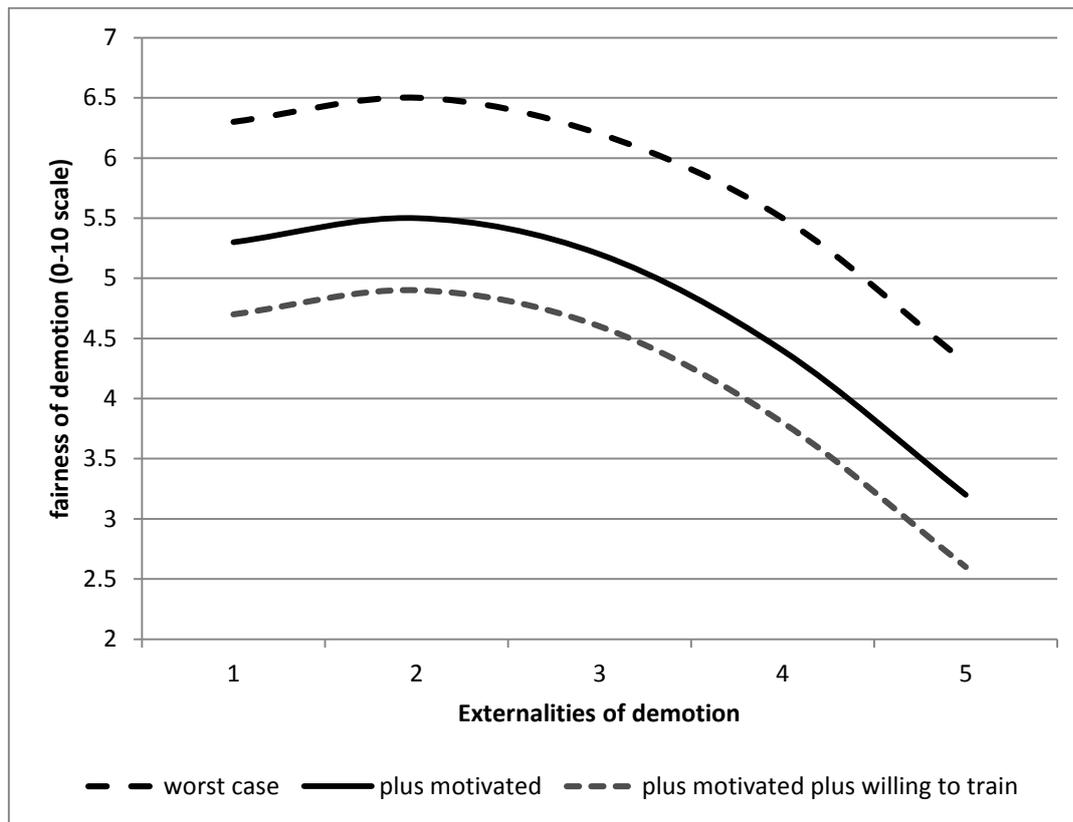
In Model II we test the externalities hypothesis which predicts that manager's perceived externalities of demotion policies are important to understand demotion. The results provide clear evidence that if managers expect the consequences of demotion to be negative: they are much *less likely* to prefer demotion of an individual worker compared to the case the externalities of demotion are perceived to be modest. The estimation results reveal that both sets of factors – employee characteristics and manager characteristics - are highly complementary. All the coefficients on the vignette characteristics remain virtually unchanged

when managers perceived externalities are incorporated in our model. In other words, both sets of factors prove to be highly important *and* independent forces in explaining the assessed fairness of demotion. As such our estimation results provide strong support for both hypotheses guiding this investigation. Other insights generated by model II is that being an owner-manager makes one more willing to consider demotion, perhaps because those managers are more aware of the risks of having an underperforming employee on board. We also checked for the presence of interaction effects between the perceived externalities and attributed causes, but none appeared to be of significant influence on assessing particular candidates.

In model III we test for possible non-linear effect of externalities on the demotion decision by adding a squared term to model II. The results reveal that including a squared term improves the model fit significantly ($\text{Chi}^2 = 4.5; \text{df} = 1$) and it shows that the impact of the perceived externalities on demotion is asymmetrically assessed as negative externalities are more heavily weighed compared to positive externalities. To graphically illustrate the impact of the hypothesized effects of attributions and externalities on demotion scores we present Figure 3. In this figure the predicted preferences for demotion are depicted by the expected externalities for three individual cases of poorly performing employees. These calculations are based on the estimation presented in model III of Table 4. In Figure 3 three lines are shown where preferences for demotion are presented for three different hypothetical employees aged 45 years, with an income higher than colleagues in a similar job and in a financially sound organization.

The upper dotted line (worst case) gives the estimated preferences for demotion for a poorly performing employee whose work motivation and willingness to participate in training is low. Also the other attributes support the likelihood of poor performance, being in poor health, having problems at home. The second (thick) line gives the estimated scores for a poorly performing employee with similar characteristics, but who has however a high work motivation. The lower line depicts the scores for an employee who is motivated and also highly willing to be trained, On the horizontal axis the perceived externalities are presented. In judging whether a candidate is up for demotion we would expect the total evaluation to generate an evaluation grade which substantially exceeds the value 5.

Figure 3: Effects of externalities in assessing the fairness of demotion



Externality scale of demotion is a 5-point scale where 1 denotes expected positive effects of demotion for the organization at large; 3 denotes a neutral position, and 5 denotes expected negative effects.

Source: LISS data, April 2013

Around the value 5 the manager is indifferent and substantially below 5 suggests that managers do not prefer demotion as a reasonable step to take. The figure shows clearly that demotion is only a real option in worst case scenario's where an employee performs poorly and this is attributed to internal and controllable causes. But even in worst case scenario's demotion is only likely if the manager expects no adverse consequences for the wider organization. If a manager expects negative externalities of the introduction of demotion policies the support for demotion drops rapidly.

5. Conclusions and discussion

In internal labor markets where promotions are a widespread used incentive measure, one might expect that the reverse measure – demotion – be more common as promotions are based on expectations of future performance which could be misguided (Lazear, 2004). It therefore remains key to understand organizational behavior and why an obvious 'blackboard' route,

i.c. demotion, is not so obvious. Managers know that fairness and a violation of principals of justice incites reciprocal and adverse behavior (Cropanzana et al., 2007, Bosse et al., 2009) and this may be indeed one the of the possible routes which come into play. In this paper we have taken a fresh look at the question how employers assess employees who might be candidates for demotion. The novelty of this study is to not only to discern perceived causes of poor performance which make demotion more likely, but also to use the mind's eye of a manager in answering the question: what happens to the organization at large once the manager makes demotion an integral part of the incentive structure? Managers are particularly vigilant in assessing the possibility of demotion by looking at the motivation to work and the willingness of an employee to train in addition to the approximated divergence between pay and productivity: employees who receive a wage which is higher than the wage of colleagues who have a comparable job within the firm. In short, they attribute the cause of poor performance to elements which are internal and under control of the employee under review. Elements which lie outside the direct control of the individual, like age, health or the financial situation of the firm are of little influence on the preference for demotion. However, this assessment of employees by the manager is generally attenuated by the expected consequences of carrying out a demotion on the firm as a whole. Managers generally fear the adverse consequences of demotion for their own organization: dwindling work motivation and loyalty towards management. Only a minority of the managers expects demotion to generate benefits once it becomes standard practice, viz. they expect that the willingness to participate in training courses will improve.

The fact that the perceived negative consequences of demotion are a major force in holding back the manager in using demotion is - as far as we can see - a novel contribution which has far-reaching consequences for understanding organizational behavior. An alternative interpretation of this finding is that this effect points out that demotion is not an isolated decision of an employer, but instead a socially and economically embedded organizational decision. As the sociologist William Goode (1967) once pointed out in trying to understand demotion: "The protection of the inept is a group phenomenon." This article shows that Goode's intuition was right and that the feasibility of demotion of an employee is not only evaluated against the background of the characteristics of this employee, but also in view of the broader consequences that might spread out through the organization. An organization can be seen as a myriad of implicit contracts and because of the tacit nature of these promises the implied incentives as well as the social forces are extremely important in understanding

organizations and the behavior of employers such as their aversion to demotion. But this finding may also touch upon broader problems. To reiterate the problem stated by Goode (1967): the dilemma which firms have to face is whether protection *of* the inept is perceived to be more valuable than protecting the group *from* the inept. Apparently most managers choose to protect the inept instead of protecting the group from the inept. An open question is, of course, how these preferences evolve once population aging becomes more visible to employers or when (global) competition intensifies. There may come a time when protecting the inept becomes less valuable than protecting the group from the inept. And when these times come the perceived externalities may no longer be perceived to be negative but positive. The post-world war experience of Japan shows that demotion may become a standard part of the working career by incorporating it in labor contracts and splitting a career in two parts (Clark and Ogawa, 1996). Over time employers in Japan realized that lifetime employment with a firm was a suitable instrument to attract the young and skilled workers, but also a very expensive human resource strategy. The same may very well be happening in Europe, where the gap between pay and productivity is expected to increase as the work force ages (Van Dalen et al., 2009). E.g., in the Netherlands, Belgium, France and Germany the presence of seniority wages together with high levels of employment protection plays a dominant role in the labor market and firms are reconsidering how to reconcile an aging work force with the current incentive structure. Although a considerable percentage of labor contracts in the Netherlands allow firms to consider demotion in times of large-scale reorganization, the results in this study suggest that managers working for organizations running into financial stress are not going to consider demotion seriously. And an earlier study of Van Dalen and Henkens (2013) among European employers shows that cutting wages is not a popular option when firms have to reorganize or downsize. It goes to show how difficult the road to reform will be if countries want to tackle long standing institutions and social norms.

Appendix:

Figure 1A: Example of a vignette

In the Netherlands more and more people are trying to get demotion – the lowering of rank and wages when employees show decreased performance – on the agenda. Below you will find the description of a number of older workers who for one reason or another show a strong decrease in performance.

Please indicate, for each profile, how fair it would be to consider demotion of the specific employee?

Context	
Financial position organization	Financially sound
Applicant	
Age (years)	50
Motivation to work	High
Willingness to participate in training	Low
Health	In good health
Problems at home	Yes
Wage level in comparison to colleagues with the same function	Higher than comparable colleagues

To what extent to you consider demotion in this specific case fair?

0	1	2	3	4	5	6	7	8	9	10
Very unfair			Neutral				Very fair			

References

- Ambrose, M.L., Seabright, M.A. and Schminke, M. (2002), "Sabotage in the workplace: The role of organizational injustice," *Organizational Behavior and Human Decision Processes*, 89, 947-965.
- Andersen, T.M. (2012), "A flexicurity labour market in the great recession: the case of Denmark," *De Economist*, 160, 117-140.
- Baker, G., Gibbs, M. and Holmstrom, B. (1994), "The internal economics of the firm: evidence from personnel data," *The Quarterly Journal of Economics*, 109, 881-919.
- Bosse, D.A., Phillips, R.A. and Harrison, J.S. (2009), "Stakeholders, reciprocity, and firm performance," *Strategic Management Journal*, 30, 447-456.
- Bowlus, A.J. and Robin, J.-M. (2004), "Twenty years of rising inequality in US lifetime labour income values," *The Review of Economic Studies*, 71, 709-742.
- Bowlus, A.J. and Robin, J.M. (2012), "An International Comparison of Lifetime Inequality: How Continental Europe Resembles North America," *Journal of the European Economic Association*, 10, 1236-1262.
- Camerer, C. and Malmendier, U. (2007), "Behavioral economics of organizations," *Behavioral economics and its applications*, 235-290.
- Carson, P.P. and Carson, K.D. (2007), "Demystifying demotion: A look at the psychological and economic consequences on the demotee," *Business Horizons*, 50, 455-466.
- Cattin, P. and Wittink, D.R. (1982), "Commercial use of conjoint analysis: A survey," *Journal of Marketing*, 46.
- Clark, R.L. and Ogawa, N. (1996), "Human resource policies and older workers in Japan," *The Gerontologist*, 36, 627-636.
- Conen, W.S., van Dalen, H.P. and Henkens, K. (2012), "Ageing and employers' perceptions of labour costs and productivity: A survey among European employers," *International Journal of Manpower*, 33, 629-647.
- Cropanzana, R., Bowen, D.E. and Gilliland, S.W. (2007), "The management of organizational justice," *The Academy of Management Perspectives*, 34-48.
- Dabos, G.E. and Rousseau, D.M. (2004), "Mutuality and reciprocity in the psychological contracts of employees and employers," *Journal of Applied Psychology*, 89, 52.
- Deelen, A., de Graaf-Zijl, M. and van den Berge, W. (2014), "Labour market effects of job displacement for prime-age and older workers," CPB Netherlands Bureau for Economic Policy Analysis.
- Deelen, A.P. (2012), "Wage-tenure profiles and mobility," *De Economist*, 160, 141-155.
- Di Stasio, V. (2013), *Why education matters to employers: a vignette study in Italy, England and the Netherlands*, Amsterdam: University of Amsterdam.
- Dohmen, T.J., Kriechel, B. and Pfann, G.A. (2004), "Monkey bars and ladders: The importance of lateral and vertical job mobility in internal labor market careers," *Journal of Population Economics*, 17, 193-228.
- Ederer, F. and Pataconi, A. (2010), "Interpersonal comparison, status and ambition in organizations," *Journal of Economic Behavior & Organization*, 75, 348-363.
- Fehr, E. and Schmidt, K.M. (1999), "A theory of fairness, competition, and cooperation," *Quarterly journal of Economics*, 817-868.
- Fehr, E. and Schmidt, K.M. (2007), "Adding a stick to the carrot? The interaction of bonuses and fines," *The American Economic Review*, 177-181.
- Finch, J. (1987), "The vignette technique in survey research," *Sociology*, 21, 105-114.
- Gibbons, R. and Waldman, M. (1999), "A theory of wage and promotion dynamics inside firms," *The Quarterly Journal of Economics*, 114, 1321-1358.
- Gibbs, M. and Hendricks, W. (2004), "Do formal salary systems really matter?," *Industrial and Labor Relations Review*, 71-93.

Gielen, A.C. and van Ours, J.C. (2006), "Age-specific cyclical effects in job reallocation and labor mobility," *Labour Economics*, 13, 493-504.

Goode, W.J. (1967), "The protection of the inept," *American Sociological Review*, 5-19.

Green, P.E. and Srinivasan, V. (1978), "Conjoint analysis in consumer research: issues and outlook," *Journal of consumer research*, 103-123.

Hainmueller, J., Hangartner, D. and Yamamoto, T. (2014), "Do Survey Experiments Capture Real-World Behavior? External Validation of Conjoint and Vignette Analyses with a Natural Experiment."

Harvey, N., Madison, K., Martinko, M., Crook, T. and Crook, T. (2014), "Attribution Theory in the Organizational Sciences: The Road Traveled and the Path Ahead," *The Academy of Management Perspectives*, amp. 2012.0175.

Henkens, K. and Schippers, J. (2012), "Active ageing in Europe: the role of organisations," *International Journal of Manpower*, 33, 604-611.

Hox, J. (2010), *Multilevel analysis: Techniques and applications*: Routledge.

Josten, E. and Schalk, R. (2010), "The effects of demotion on older and younger employees," *Personnel Review*, 39, 195-209.

Kapteyn, A., Smith, J.P. and Van Soest, A. (2007), "Vignettes and self-reports of work disability in the United States and the Netherlands," *The American economic review*, 461-473.

Kohl, J.P. and Stephens, D.B. (1990), "Is demotion a four-letter word?," *Business Horizons*, 33, 74-76.

Lazear, E.P. (1995), *Personnel economics (series)*: the MIT Press.

Lazear, E.P. (1998), *Personnel economics for managers*: Wiley New York.

Lazear, E.P. (2004), "The Peter principle: a theory of decline," *Journal of Political Economy*, 112, S141-S163.

Littler, C.R., Wiesner, R. and Dunford, R. (2003), "The Dynamics of Delaying: Changing Management Structures in Three Countries*," *Journal of Management Studies*, 40, 225-256.

MacLeod, W.B. and Malcomson, J.M. (1988), "Reputation and hierarchy in dynamic models of employment," *Journal of Political Economy*, 96, 832-854.

Milgrom, P.R. and Roberts, J. (1992), *Economics, organization and management*: Prentice-Hall Englewood Cliffs, NJ.

Mitchell, T.R. and Wood, R.E. (1980), "Supervisor's responses to subordinate poor performance: A test of an attributional model," *Organizational Behavior and Human Performance*, 25, 123-138.

Munnell, A.H. and Sass, S.A. (2009), *Working longer: The solution to the retirement income challenge*: Brookings Institution Press.

OECD (2006), *Live longer, work longer. A synthesis report*, Paris: Organization for Economic Development.

OECD (2014), *Ageing and Employment Policies: Netherlands 2014*: OECD Publishing.

Robinson, S.L. (1996), "Trust and breach of the psychological contract," *Administrative science quarterly*, 574-599.

Taylor, P.E. (2002), *New policies for older workers*: The Policy Press.

Van Dalen, H.P. and Henkens, K. (2013), "Dilemmas of Downsizing During the Great Recession: Crisis Strategies of European Employers," *De Economist*, 161, 307-329.

Van Dalen, H.P., Henkens, K. and Schippers, J. (2009), "Dealing with older workers in Europe: a comparative survey of employers' attitudes and actions," *Journal of european social policy*, 19, 47-60.

Van Dalen, H.P., Henkens, K. and Schippers, J. (2010), "How do employers cope with an ageing workforce? Views from employers and employees," *Demographic Research*, 22, 1015-1036.

Wallander, L. (2009), "25 years of factorial surveys in sociology: A review," *Social Science Research*, 38, 505-520.

Weiner, B. (1995), *Judgments of responsibility: A foundation for a theory of social conduct*: Guilford Press.

Wood, R.E. and Mitchell, T.R. (1981), "Manager behavior in a social context: The impact of impression management on attributions and disciplinary actions," *Organizational Behavior and Human Performance*, 28, 356-378.