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Explaining Employer-Provided Training

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Abstract: The present study aims at investigating employer’s investments in the employability of employees. To do so, human capital theory and the employee-organization relationships approach (which rests on social exchange theory) is used to build three testable hypotheses, namely to argue that the kind of training employees need, the type of contract they have, and their behavior in the organization each matter for understanding employer behavior regarding training investments. These hypotheses are tested using a vignette study – which is a semi-experimental approach – to test decisions regarding training investments among 519 representatives of organizations in the Netherlands. Since each respondent scores three vignettes, the total number of responses is 1,557. The results show that, instead of exclusionary hypotheses, the hypotheses examined complement each other in such a way that a layered model consisting of the individual, the contractual, and the employment relationship can explain employer’s training decisions.

Keywords: Employer-provided training, human capital theory, social exchange theory, vignette study

1 Introduction

One of the marked developments that welfare states have witnessed is a move away from a purely collective means of handling social risks related to the labor market towards systems with a stronger emphasis on individual responsibility (Mascini et al. 2013). While this process of decollectivization is not shaped similarly across countries, the common thread weaving these differences (related to privatization, flexibilization, and decentralization) together is that of a process of responsabilization (Thelen, 2004; Raitakari et al. 2019), “whereby actors are made responsible for a task (tackling a societal problem or upholding a public value) which previously was an obligation of the state (or was not recognized as a responsibility at all)” (Hysing, 2019: 2). Instead, more of the responsibilities are left to the individual. In the case of the labor market, this involves a shift towards employees and employers with regard to the mitigation of social risks

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through active labor market policies (ALMPs). An important part of these policies consists of training programs (to ensure that workers have skills that employers prefer) (Van Vliet et al. 2013; Benda 2019), aimed at sustaining the employability of workers.

The importance of employability is further strengthened through a number of labor market changes affecting both the workplace and the career of workers. For example, technological changes affect the demand for labor, both qualitatively and quantitatively (Frey/Osborne 2013; Brynjolfsson/McAfee 2014; Nedelkoska/Quintini 2018). Besides that, increased international competition through the globalization of labor markets is generally regarded a driver of job insecurity faced by workers, in particular the less educated (Scheve/Slaughter 2004). In addition to that, modern labor markets tend to move into the direction of knowledge economies (Powell/Snellman 2004) to which the creation and sharing of knowledge are vital (Adler 2001), but in which this knowledge also loses its applicability at a faster rate than before. To ensure that workers find their place in an economy in which technological change affects the structure of jobs, to counter the risks of globalization, and to keep the skills of workers up to date with changes in demand for knowledge which are inherent to the knowledge economy, investments in the human capital of workers is needed. As a result, both policy makers and academics argue that investments in skills through training are core elements of modern labor markets.

Whereas the need to be safeguarded against the social risks generated by technology, globalization, and the knowledge economy may be viewed as a matter of the individual actions of workers to increase their employability, employers may also have an interest in strengthening the labor market position of workers through training. While it may be argued that they would mostly benefit if these levels of human capital are sustained by the government and individual workers, they also have a stake in investing in the human capital of their employees. At the same time, it is known that employers may be hesitant with regard to offering training to employees, in particular in institutional settings characterized by high individual responsibility (Bryson 2020). Hence, it is likely that they will invest in training only under specific circumstances. In this study, we investigate three of these circumstances, which are derived from different theoretical explanations.

In the following, we will focus on three of these conditions that are expected to affect employer's training decisions, namely whether the training is firm-specific or not (based on human capital theory (Becker 1964)), the level of job security related to the contractual relationships between employers and employees (Hall/Soskice 2001), and the social exchange relationship between

employers and employees (reflecting Employee-Organizations Relationship (EOR) approaches (Tsui et al. 1997)). While the theoretical roots are different, a point that these approaches share is that employers try to weigh the costs and benefits of their training investment. This rationality assumption underlies the theoretical frameworks explained below (Gazier 2001; Kalleberg et al. 1996; Grund/Martin 2012). However, this is not to say that employers are fully rational, as they will face uncertainty about the actual benefits of these training investments (for example, it is not entirely sure whether it leads to a higher performance of the employee). What is more, other than in typical neo-classical analyses, in which employers make independent decisions, the present analysis assumes that the costs and benefits are also affected by the type of contracts being offered as well as the interaction between employers and employees. In that sense, the present analysis relies on an extended human capital model. While the human capital argument mainly addresses the kind of training in which employers invest, job security research adds that these investments are more likely if there is a long-term relationship between employers and employees. What the EOR approaches add is that training investments can be viewed in terms of reciprocity: employers may decide to offer them depending on how much effort employees show.

This study aims at providing a number of contributions to the present literature. Whereas earlier studies based on employer surveys either look at a very general level, for example the national level, or relates company characteristics to training (Benda 2019), the current approach allows looking at the training decision more closely by employing a vignette study investigating multiple conditions as suggested by earlier research (Cockx et al. 1998; Bussi 2014; Fleming 2017). As such, it allows investigating whether the conditions cancel each other out or not. Besides that, the procedure allows interpreting these conditions in terms of explanations and mechanisms. The vignette approach has been applied before to explain employer's decisions regarding the provision of training (e.g. Lazazzara et al. 2013; Fleischmann/Koster 2018). However, a large share of these vignette studies focused on explaining the employability of older workers, whereas the present analysis investigates how firm specificity, job security, and employee behavior affects the decision to provide training.

These three theoretical frameworks lead to distinct hypotheses about employer's decisions with regard to training investments. The hypotheses are tested on a sample of 519 respondents representing a cross-section of the Dutch economy. In total, they provided answers to 1,557 vignettes (3 for each respondent).

2 Explaining employer-provided training

2.1 General versus specific human capital

Human capital theory is by far the most influential theoretical perspective aimed at understanding why employers provide training to employees (Booth/Bryan 2005). Human capital theory (Becker 1964) argues that decisions concerning skill investments are primarily influenced by future wage increases of workers and future productivity gains of employers compared to the costs associated with the specific forms of training. These costs consist of the time and effort that a trainee has to invest in training as well as the time the trainee is absent from work when the training program takes place outside the workplace, which results in productivity loss for the employer. According to human capital theory, training is only an economically valid option if the future earnings outweigh the costs. This implies that employers should hire already trained workers to minimize the costs. However, not all learned skills have equal value for all employers. Within human capital theory, a distinction is made between specific and general human capital. Specific human capital has value for the employer paying for or providing the training but has little to no value to other employers, while general human capital has value for all employers. Although these theoretical concepts imply a strict dichotomy, training activities provide neither exclusively one nor exclusively the other but provide more of one compared to the other. Training that increases productivity more for the employer compared to other employers is considered specific training and training that provides at least the same productivity increases for other employers is considered general training.

However, it is also argued that workers who possess mostly general skills have a higher probability of being dismissed than workers who possess more specific skills. This line of argumentation revolves around the replaceability of the worker. Workers who possess general skills are easier to replace because other workers outside the organization also possess these skills. As specific skills are obtained within the organization, the number of workers that possess these skills are fewer, which implies that the bargaining position of the current employer is much stronger. Productive value is lost when workers with specific skills leave the organization (Goldthorpe 2000). Furthermore, these workers are harder to replace, as their skills are rarer, and it takes up more training costs to train new employees to get them up to the prior level of productivity output. Hence, investing in specific skills could also be a logical decision as it reduces the risk of dismissal. To summarize, investing in specific skills increases the

level of job security, whereas investing in general skills increases the level of employment security. In this context, job security refers to the ability to keep the same job or stay employed by the same employer for long periods of time, and employment security refers to the ability to procure employment over long periods of time but not necessarily by the same employers (Muffels et al. 2014).

There is scant empirical evidence showing that employers are more prone to invest in firm-specific skills than in general skills of workers (Lynch/Black 1998; Fleischhauer 2007; Brunello/Wruuck 2020). While the initial argument of human capital theory was very strict with regard to the distinction between firm specific and general skills, empirical research also led to a more nuanced picture of employer-provided training. First, distinguishing between firm specific and general training is not always possible; in many cases the training is a combination of both. And, secondly, additional factors, such as labor market imperfections, may make employers more willing to invest in training aimed at general skills (see for example Brunello/Wruuck 2020). What these nuances imply is that the distinction is less clear cut than sometimes assumed. However, in relative terms, the difference remains: if employers have the choice between investing in firm-specific skills or in general skills, they will prefer the first over the latter. These considerations lead to the firm specificity hypothesis: *The willingness to provide training to employees is higher if the training aims at developing firm specific skills rather than general skills (hypothesis 1)*. Here the main mechanism is that employers are believed to have an interest in providing training if it benefits their own organization by increasing the level of human capital within the organization.

2.2 Contracts and job security

Another condition that is expected to increase the likelihood of employer-provided training relates to the institutional setting of the labor market, in particular the level of job security that employees have. Theoretically, this link matters because job security involves that the employer and employee share a longer future. From the perspective of the employer, job security matters because it increases the likelihood that the investment pays off. At the same time, if workers have higher job security, they are more likely to be willing to spend time and energy on them. The argument can also be phrased the other way around: in a situation with low levels of job security – and high levels of job turnover – employers may be hesitant to invest in training because other employers may reap the benefits while they bear the costs (Moen/Rosén 2004). Literature investigating employment systems (Estevez-Abe et al. 2001; Goergen

et al. 2012) shows that employment protection legislation also incentivizes employers to invest more in workers due to the increased duration of the labor relation, as employers benefit from the investment in human capital to combat skill deterioration and improve the productive output from the current workforce. Because it is easier and cheaper to hire and fire employees in labor markets with weak employment protection legislation, employers can acquire the needed human capital from the labor market more cheaply than employers facing strict employment protection legislation (Bryson 2020).

At the same time, however, the empirical evidence regarding the link between employment protection and training investments is far from straight forward. At the micro level, though, studies do show that employment protection and training are linked (Brunello/Wruuck 2020): several studies show that workers on flexible contracts receive less training than those on permanent contracts (e.g. Fouarge et al. 2012; Grund/Martin 2012). Nevertheless, at the same time Brunello and Wruuck (2020) discuss results in which the overall impact of social protection systems are investigated, showing that one of the outcomes can be that higher levels of protection can create a dual labor market in which some groups enjoy high levels of protection (for example in terms of permanent contract) while others remain in flexible jobs (for example Bratti et al. 2018). Nevertheless, whereas this latter insight is mainly important for understanding how many workers get a permanent position that gives them access to employer-provided training, the important point for the present analysis is that those having a permanent contract are more likely to receive employer-provided training. This expectation is summarized in the job security hypothesis: *The willingness to provide training to employees is higher, the higher the level of employment protection is (hypothesis 2)*. In this hypothesis the main mechanisms relate to the structure of the labor market, which consists of insiders with a relatively stable position and outsiders with a relatively insecure position. These positions translate into the chances of receiving a training.

2.3 Social exchange and employee behavior

A final condition that is taken into consideration is derived from theories concerning the relationship that employees have with their organization and focuses on the exchanges taking place between employees and their organization. A model that is frequently used to understand these exchange relationships is the one developed by Tsui and colleagues (Tsui et al. 1997). The model originates from the inducement-contribution model which was developed by March and Simon (1958) using insights from Barnard (1938). Other sources that the model

integrates come from social exchange theory (Blau 1964) and research on psychological contracts (Rousseau 1995). The contributions span the expectations that the organization has about the employee, and the inducement part consists of the investments of the organization in the employee. Combining the inducements and the contributions leads to a 2-by-2 table and 4 types of employee-organization relationships (presented in Table 1).

Table 1: Employee-Organization Relationships

		Contributions	
		Low/narrow	High/broad
Inducements	Low/narrow	Quasi-spot contracts	Under investment
	High/broad	Overinvestment	Mutual investment

Source: Tsui et al. (1997).

Two of these relationships are balanced and two are unbalanced. The balanced relationships are the quasi-contract, in which the organization expects little extra contributions of the worker and provides little extra in return. This for example applies to workers who are hired for a specific task against a predefined wage. The other balanced relationship is termed the mutual investment relationship and is based on extensive extra effort from the side of the worker, for which he or she can expect extensive rewards from the organization. This relationship applies to the situation in which organizations expect workers to be committed to the organization in return for security, investments in their career, and training. Whereas the balanced relationships are understood from a social exchange perspective, the unbalanced relationships occur under specific circumstances. For example, if the labor market is tight, employers may choose to provide more to the workers and expect less. On the other hand, if employees have little possibilities to improve their situation, for example due to an economic recession, they may find themselves in an organization that expects much from them in return for minimal rewards.

From the perspective of EOR, it can be argued that training investments will be absent in the quasi-spot and the underinvestment relationship. The main driver of training investments will be the mutual investment relationship, in which both the employer and the employee have a high stake in maintaining high level of commitments and keeping the knowledge of the worker up to date to ensure a durable and sustainable relation between the worker and the organization. In contrast to the previous two hypotheses, there is little empirical evi-

dence connecting the different employee-organization relationships to the incidence of employer-provided training. In most of the empirical studies, the relation runs from training investments to employee behavior. The more general literature about high performance work systems, for example, shows that employee effort is higher in organizations investing more in people (by among other things training) (for example Messersmith et al. 2011). However, the reciprocal nature of social exchange does not exclude, nor even assume, that this link also works the other way around: training may be regarded as a reward for those showing extra effort towards the organization. This argument provides the basis for the Employee-Organization Relationship hypothesis, which focuses on the exchange relation between employees and their organization. As explained in the theoretical framework, there are two balanced and two unbalanced relationships. The balanced relationships (the quasi-spot relationship and the mutual investment relationship) occur under the circumstances of reciprocity, which reflects a strong societal norm (Gouldner 1960). To test the EOR, the focus is on the two balanced relationships. Hence, the EOR hypothesis states: *The willingness to provide training to employees is higher if the employee shows extra effort (hypothesis 3).*

3 Method and data

To test the three hypotheses, a vignette study (a factorial design) was developed. Using this method allows investigating choice situations (Alexander/Becker 1978; Ganong/Coleman 2006; Wallander 2009). And has been applied in prior research to study training decisions (Lazazzara et al. 2013; Fleischmann/Koster 2018).

The general set-up of a vignette study is that respondents read a short description of a hypothetical situation. By randomly assigning conditions (e.g. characteristics of that situation or a person involved in that situation), it is possible to investigate whether these conditions affect the choices that individuals make. In the present study, the respondents are managers and owners of organizations that are asked to indicate whether they would provide training to a hypothetical worker. It is known from earlier research that applying a vignette study has several advantages compared to other methods, such as surveys. For instance, the answers turn out to be less vulnerable to social desirability. In this particular case, this may play a role, since employers may think that it is socially not allowed to discriminate based on the background of employees, which will show in a questionnaire. However, in practice they will discriminate, and

this is much more clearly shown if they are confronted with a choice situation. Since this choice situation is based on a combination of characteristics, instead of isolating them in a survey, respondents are less attentive to the treatment and their answers are less prone to social desirability (Alexander/Becker 1978; Auspurg/Hinz 2015; Wallander 2009). A second advantage of using a vignette study is that it allows isolating the decision itself, without interference of other factors. Therefore, in principle, the described hypothetical scenario guides respondents' decisions (Alexander/Becker 1978). Hence, it aims at approaching an experimental design and interpreting the outcomes in terms of cause and effect. The aim is to give an accurate account of employers' willingness to provide training. Whereas the issue of causality is not problematic with regard to hypothesis 1 (whether employers spend more on firm-specific or general training), research has been less decisive with regard to hypothesis 2 and 3; there is research showing that investments in training increase job security (e.g. Kohlrausch/Rasner 2014) and spark employee cooperation (e.g. Dysvik/Kuvaas 2008). Nevertheless, in this research, cause and effect are explicitly distinguished and cannot be interpreted the other way around. This results from the research setting: employers read the conditions concerning the contract of the employee and the level of cooperation of the employee and base their training decision on that. Therefore, it is impossible that the training decision has an impact on the level of job security or the level of cooperation. This is not to say that such reciprocal effects do not occur in practice, but they are excluded in the present study.

Since it is possible that these conditions are not the only drivers of these decisions, they are complemented with characteristics of the organization, which is another desirable attribute of a vignette study: the hypothetical data are combined with the actual data to control the outcomes of the vignettes (Auspurg/Hinz 2015).

3.1 Respondents

To gather data, an online survey was conducted among representative of Dutch organizations. The survey ("The Sustaining Employability Employer Survey") contained several questions about the background of the organizations, HRM innovation, and HRM-related ties with other organizations. Respondents were approached via Kantar Public, a data collection organization that houses the NIPObase Business panel consisting of 15,000 representatives (owners and human resource managers) from Dutch organizations (both in the private and the public sector). From this panel, a random selection of 1,000 organizations

was drawn. The representatives (owners, managers, or personnel directors) were approached to participate in this study. The questionnaire was sent to them through a link that they could fill in online. The fieldwork took place in the summer of 2019. In total 549 organizations participated in the study (a base response rate of 55 percent). Of these organizations, 519 could be included in the analyses; 30 respondents had missing values, either on the dependent variable (the response to the vignette) or the control variables at the organizational level. Hence, the factual response rate is 52 percent. The participating organizations represent a cross section of the Dutch economy as they vary in size and operate across different sectors.

3.2 Vignette design

Table 2 shows the conditions (and their operationalization) that were included in the vignettes. Figure 1 provides insight into how these conditions are presented to the respondents. To complete this illustration, an example of the vignette is shown in Figure 2. The vignette includes both control conditions and conditions intended to test the hypotheses. The control conditions involve the *costs of the training* (training costs, which can be higher and lower), the *duration of the training* (which can be longer and shorter), the amount of *production loss* (which is higher if the employees follow the training during working time), the *educational level* and *age* of the employee. All these factors have been found to affect the choices of employers with regard to their willingness to provide training to employees (Fleischmann/Koster 2018). Theoretically, these conditions are explained with cost/benefit arguments (the higher the costs of the training, the less likely the employees invests in them) as well as an argument derived from human capital theory, namely with regard to the impact of age on training investments (since the return on the investment is lower if the employee is older, employers are believed to be less willing to invest in the training).

The first condition aimed at testing the hypotheses is the *type of skill* that is developed by following the training. Here a distinction is made between general skills and firm-specific skills. The second condition concerns the type *employment contract* the hypothetical workers has, which can be temporary without the possibility of extension, temporary with the possibility of extension, and permanent. Employees that have a temporary contract without the possibility of extension are regarded as the outsiders on the labor market and the ones with a permanent contract as the insiders. The temporary workers that have the possibility of extension are somewhere in the middle. By including them in the study, it can be tested how respondents see this group of workers (whether they are

mostly outsiders or more like insiders). Finally, the condition *Organizational Citizenship Behavior (OCB)* is included in the vignette. The condition represents the behavior that the hypothetical workers shows in the workplace. Since OCB can be aimed at different subjects, a distinction is made between OCB towards the organization (operationalized as frequently making suggestions to improve the organization) and OCB towards co-workers (the tendency to help co-workers if they need assistance) (LePine et al. 2002; Koster/Sanders 2007). This variable can also have a third value, namely no-OCB, which meant that no information was provided about the behavior of the hypothetical worker.

After reading the vignette with the description of the fictitious worker, respondents were asked to indicate to what extent they would be *willing to provide a training* to this particular employee. See figure 1 and 2 for an illustration of that. Respondents could rate their willingness to provide a training on a scale from 1 (not very likely) to 11 (very likely). The average likelihood to do so is around the mean of this scale ($m = 5.90$; standard deviation is 2.96).

The conditions were randomly assigned to the respondents, meaning that these conditions were equally spread over the sample. Descriptive statistics show that this is indeed the case: approximately 50 percent of the conditions with 2 options is included, and if the condition has 3 options, about one-third is included (see table 3 for the distribution of the vignette conditions). Each respondent read three descriptions of hypothetical workers and indicated how likely it was that this worker would be provided a training. This means that the total dataset is larger than the 519 individual respondents, namely 1,557 vignettes.

Table 2: Operationalization of the vignette conditions

Variable	Categories
Training costs	400 euros
	1,600 euros
Training duration	3 days
	2 weeks
Production loss	Own time
	Working time
Educational level	Lower secondary education
	Secondary vocational education
	Higher professional education
Age	24
	38
	57
Employment contract	Temporary contract without possibility of extension
	Temporary contract with possibility of extension
	Permanent contract
Skill type	General skills
	Firm-specific skills
Organizational citizenship behavior	No OCB (not mentioned)
	Suggestions to improve the organization (OCB – organization)
	Helps co-workers (OCB – co-workers)

Source: Authors

The employee is [age] years old and has a [educational level] education. This person works on the basis of a [employment relationship] and [organizational citizenship behavior]. The training that this person wants to receive costs [training costs] and takes [training duration]. The training focuses on the development of [skill types] and will be taken [production loss].

Please rate on a scale from 0 to 11 how likely it is that you will provide the training to this employee?

Figure 1: Structure of the vignette

The employee is 57 years old and has a higher vocational education. This person works on the basis of a permanent contract and approaches you regularly with suggestions to improve the organization. The training that this person wants to receive costs 1,600 euros and takes 2 weeks. The training focuses on the development of general skills and will be taken the employee’s own time.

Please rate on a scale from 0 to 11 how likely it is that you will provide the training to this employee?

Very unlikely										Very likely	
1	2	3	4	5	6	7	8	9	10	11	

Figure 2: Example vignette

Table 3: Descriptive statistics of the characteristics of the vignette and the organization

	Min/Max	Mean	Standard deviation	Percentage
Vignette characteristics (n = 1557)				
Willingness to provide training	1/11	5.90	2.96	
Training costs (1,600 euros)	0/1			49
Training duration (2 weeks)	0/1			50
Production loss (working time)	0/1			50
Educational level				
Lower secondary education	0/1			35
Secondary vocational education	0/1			33
Higher professional education	0/1			32
Age				
24	0/1			33
38	0/1			32
57	0/1			35
Employment contract				
Temporary contract without possibility of extension	0/1			32
Temporary contract with possibility of extension	0/1			35
Permanent contract	0/1			33
Skill type (firm specific)	0/1			50
Organizational citizenship behavior				

	Min/Max	Mean	Standard deviation	Percentage
No OCB (not mentioned)	0/1			33
OCB towards the organization	0/1			33
OCB towards co-workers	0/1			35
Organizational characteristics (n = 519)				
Organization size	1/1,500	38.10	141.19	
% Permanent employees	0/100	80.19	25.89	
% Higher educated	0/100	48.92	35.44	
% > 50 years old	0/100	36.43	30.90	
Organizational learning practices	1/5	3.56	0.61	
Innovative HRM	1/5	2.80	0.93	

Source: Sustaining Employability Employer Survey; N = 519 respondents

3.3 Control variables

Besides the control variables at the vignette level, several control variables at the organizational level are included in the analyses that may affect the willingness to provide training to employees. The control variables capture the general tendency that respondents working in these organizations provide training to workers, for example due to norms pertaining to the development of skills in organizations. The next control variables are included.

Organizational size is measured by asking respondents to indicate the number of employees that the organization has. Prior research shows that the provision of training is more likely in larger organizations (Bassanini et al. 2005; Bishop 1996; Knoke/Kalleberg 1994; Sutherland 2016; Taylor/Urwin 2001).

Furthermore, it is known that the willingness to provide training depends on the composition of the workforce (Sutherland 2016). To capture this aspect of organization, several variables are included. The variable *permanent employees* is measured by asking respondents to indicate the percentage of employees in the organizations with a permanent contract. The variable *highly educated* is measured in a similar way by asking what percentage of the workforce is highly educated. And the variable *ageing workforce* is asked by indicating what percentage of the workforce is 55 years and older.

Finally, two variables are included that capture the organization's focus on learning and innovation, which may have a direct link to the development of human resources within the organization. The presence of *organizational learn-*

ing practices was measured by asking whether “the organization has a yearly budget for development of personnel”; “the organization uses training”; “employees are trained on the job”; “whether a training period is required for new workers”; and “skill needs are regularly assessed”. The items are also measured on a 5-point scale. The scale is constructed by adding the scores on these items and dividing them by 5. The Cronbach’s alpha of this scale is 0.71. The measure of *Innovative HRM* developed by Koster and Benda (Koster/Benda 2020). To assess the extent to which the organizations engage in innovative HRM, a scale was developed based on research on innovative HRM. Innovative HRM is measured with a scale consisting of four questions about whether the organization renewed their human resource function. The exact wording is: “Has your organization renewed....” followed by four statements about the human resource functions, namely “hiring personnel”, “outplacement of personnel”, “internal mobility of personnel”, and “workforce composition”. Respondents were asked to indicate how much this applied to their organization on a 5-point scale (running from 1 = does not apply at all to 5 = applies completely). The Cronbach’s alpha of this scale is 0.88.

Table 3 provides an overview of the descriptive statistics of the variables included in the analyses. In the analyses, the vignette conditions are coded such that a higher score indicates a higher cost. The conditions that have three levels (educational level, age, employment contract and organizational citizenship behavior) are recoded into dummy variables and are analyzed by leaving one of the conditions out (namely lower secondary education, age 57, temporary contract, and no OCB).

3.4 Method

The extent to which respondents are willing to provide training to workers is measured on a scale from 1 to 11 and can be analyzed using linear regression. Since respondents rated three hypothetical workers, the data at the employer level are not completely independent (each respondent has three similar values on the organizational control variables). To account for this, multilevel regression analysis is applied, as it allows to distinguish between the respondent level (level 2) and the vignette level (level 1). Two models with independent variables are calculated. Model 1 only contains the control variables at the organizational and the vignette level (Model 1). In the second model (Model 2) the variables are added to test the three hypotheses.

4 Results

To get a first impression about how the vignette conditions relate to the willingness to provide training, the mean levels of the dependent variables are calculated for each condition. Figure 3 presents this description of the data. Overall, the likelihood of providing a training varies over these conditions. The most notable results are visible regarding the costs of the training (in terms of financial costs, but also regarding the time spend on the training and whether they are followed in the time of employer). Furthermore, there is a clear difference between firm specific and general skills with regard to the willingness to provide training. And, finally, figure 3 shows a strong difference between workers having a temporary contract without a possibility of extension and the other kinds of contract.

Figure 3: Willingness to provide training (mean) per vignette condition

Source: Sustaining Employability Employer Survey; N = 1,557

To test whether these differences matter, also if they are controlled for other factors as well as against each other, the multilevel regression analyses are performed. Table 4 summarizes the outcomes. The results are as follows. First, it is important to note that the factual characteristics of the organization matter for the willingness to provide training. Respondents working in organization with more permanent workers, with more highly educated workers, and in which organizational learning practices are present, have on average a higher tendency to provide training to workers. The innovativeness of their human resource management slightly affects this tendency. Secondly, the control vari-

ables at the vignette level show that the training costs and production loss associated with the training matter the most for the willingness to provide the training. Training duration had a small impact on the decision of the respondents. Notably, educational level and age of the worker is not related to the willingness to provide training. This latter finding deviates from other vignette studies of employer-provided training (e.g. Fleischmann/Koster 2018). A possible explanation is that this outcome shows that age is less important than sometimes believed in explaining the willingness to train workers. In other words, the present study seems to show that other conditions matter more than the age of the worker.

In model 2 the hypotheses are tested. The hypothesis based on human capital theory (hypothesis 1) is supported: if the training is aimed at developing firm-specific skills, the willingness to provide training is significantly higher. The hypothesis based on the Varieties of Capitalism approach is also supported (hypothesis 2): if the workers have a temporary contract without the possibility of extension, they have the lowest chance of receiving a training. This holds both for a comparison with workers with a permanent contract and those having a temporary contract with the possibility of extension. Finally, the hypothesis based on the Employee-Organizational Relationship theory (hypothesis 3) finds support in the analyses, in particular for OCB towards the organization: workers showing extra effort towards the organization and those helping colleagues, have a higher chance of receiving a training. Adding these variables further improves the model (Deviance = 390.13; $p < 0.001$). Together, the organizational level and vignette level variables explain almost 28 percent of the total variance in the willingness to provide training. Compared with the control model (explaining a bit more than 10 percent of this variance), adding these variables contributes strongly to statistically explaining the willingness to provide training.

Table 4: Multilevel regression analyses of the willingness to provide training

	(1)			(2)		
	Est.		s.e.	Est.		s.e.
Constant	5.96	***	0.11	5.35	***	0.20
Level 2 (Respondent)						
Organizational size (log)	0.16		0.08	0.20	*	0.08
% permanent	0.01	**	0.00	0.01	**	0.00
% highly educated	0.01	***	0.00	0.01	***	0.00
% > 55	0.00		0.00	0.00		0.00
Organizational learning practices	0.97	***	0.18	1.00	***	0.17
Innovative HRM	0.31	*	0.12	0.26	*	0.12
Level 1 (Vignette)						
Training costs				-1.10	***	0.10
Training duration				-0.22	*	0.10
In working time				-0.50	***	0.10
Educational level (lower secondary is ref.)						
Secondary vocational education				0.13		0.12
Higher professional education				0.05		0.12
Age (Age 57 is reference)						
Age 24				0.04		0.12
Age 38				-0.12		0.12
Employment contract (temporary is reference)						
Permanent contract				1.75	***	0.12
Temporary (possibility of extension)				1.47	***	0.11
Firm specificity				0.41	***	0.10
OCB (no OCB is reference)						
OCB organization				0.41	**	0.12
OCB co-workers				0.24	*	0.12
-2 log likelihood	7,275.15			6,885.02		
Deviance	76.36	***		390.13	***	
Variance level 2	4.20	***	0.34	4.12	***	0.32
Variance level 1	3.62	***	0.16	2.62	***	0.11
Explained variance vignette	0.28			27.62		

Source: Sustaining Employability Employer Survey; N = 1557 vignettes; 519 respondents;
 Empty model: -2 log likelihood = 7,351.51; Variance level 1 = 3.63; Variance level 2 = 5.07;
 * p < 0.05; ** p < 0.01; *** p < 0.001

5 Discussion and conclusion

By opening the black box of the possible link between institutional arrangements and the training decisions of employers, this study revealed a number of mechanisms explaining this link. Based on three core theories – Varieties of Capitalism, human capital theory, and Employee-Organization Relationships – hypotheses were formulated and tested. Based on the outcomes of the vignette study, the conclusion can be drawn that each of these hypotheses finds support. Hence, each of the mechanisms – relating to an insider/outsider structure of the labor market, the firm specificity of the training, and reciprocity between employees and their organizations – explains a part of the decision to provide training.

As such, this article has several theoretical and practical implications. Starting with the theoretical implications, the results show that several mechanisms are at work at the same time and next to each other. This means that these theories are not mutually exclusive. If that were the case, other mechanisms would be ruled out as soon as one of them was included in the analysis. Instead, they can be seen as complementary. First, this has implications for the place of human capital theory in understanding training decisions in particular and active labor market policies more generally. On the one hand, it should lead to the conclusion that this counters the view held by those criticizing human capital theory too strongly and dismiss its usefulness completely (e.g. Fleming 2017). Human capital, instead, clearly has considerable explanatory power. Nevertheless, it is also clear that human capital is not the only explanator. As the results show, job security and employee behavior also matter in understanding the training decisions of employers. Secondly, this has another implication. While starting from the premise that employers aim to weigh costs and benefits in making their decisions, these costs and benefits are also affected by the institutional setting in which they are weighed. Hence, what emerges from this is that these decisions can be represented as a layered model in which training characteristics, contracts, and exchanges between employers and employees are taken into account. What this actually seems to show is that there may be a gravitation towards a particular model of employment, namely one with high levels of security, in which firm-specific knowledge is needed, requiring as well as allowing for mutual investments. In that sense, the three mechanisms may actually build up in that they enable the workings of each other: without the presence of permanent contracts, if firm specificity is the only characteristic of training in which mutual investments can develop, the problem underlying the human capital theory is not completely solved. Having these additional institutions

may safeguard human capital investments in organizations and make them possible.

With regard to the practical and societal implications of this study, the results provide further insights into how the structure of the labor market contributes to the generation of social risks. Following up on the theoretical discussion, which emphasized that the three mechanisms investigated here add up, the implication would be that both advantages and disadvantages on the labor market strengthen each other and are path dependent. Based on the previous conclusion that labor markets may generate a specific type of employment relationship based on firm-specificity, job security, and reciprocity, this means that the division between insiders and outsiders may be even more strongly than sometimes suggested, as it is more than simply a matter of moving from a temporary contract to a permanent contract: it also involves the type of skills needed to perform the job and the exchange relationship between employees and the organization. The main reason for this being that the advantages add up. Employees that are able to get access to these resources will reap the benefits in terms of training and other investments. Those who cannot get the full package are less likely to get these benefits. Over the longer term, this has consequences for their employability, which is an issue that becomes ever more pressing as the careers of individuals are postponed to deal with the aging of the workforce. As such, the employment contract and the level of security provides the basis for these advantages as well as the disadvantages. Those who have less employment security, possess general skills, and that work on the basis of a quasi-spot relationship will face more social risks. What also follows from this is that the underinvestment model may actually become the standard for these workers, as they are expected to contribute to the success of the organizations without getting investments in return. Besides that, a certain paradoxical situation may occur: the workers facing fewer social risks may actually be in a better position to deal with them as they are more employable, and those who are less employable are also the ones facing high levels of social risks. Hence, from a societal and a social policy perspective, the question arises whether this is seen as a preferable situation.

While this article emphasized that using a vignette study has several advantages compared to other methods – such as employer questionnaires and labor market data at the national level – because it allows testing specific mechanisms at the individual level, it should be acknowledged that the outcomes need to be read with the following points of criticism in mind. First, the vignette study remains a hypothetical setting. Even though research evidence suggests that respondents may actually behave in the way predicted by the

vignette study, there is not a one-to-one relationship between them. Hence, in reality, employers may respond slightly differently. Second, the vignette method isolates a particular decision – in this case the decision regarding the provision of training to a hypothetical worker – while in practice other considerations that are left out of this decision do play a role. What follows from both of these issues is that the other research methods are needed to further understand, complement, and contextualize the outcomes of this study. Employer surveys are relevant to investigating how firm specificity, security, and reciprocity are distributed across organizations. In-depth case studies provide additional insights into the considerations that employers make if they assign training to employees. And, national level data are necessary to reveal the overall patterns connecting institutions and training decisions. In that sense, the insights provided in this study are a piece of the puzzle concerning the employability of workers in labor markets that change due to technological developments, globalizations, and knowledge intensification.

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