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Conen, W.; de Beer, P.

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Comparing employees and solo self-employed workers

Wieteke Conen and Paul de Beer

Introduction

At the turn of the nineteenth century, self-employment was much more common than it is today and could especially be found among farmers, tradesmen, craftspeople and freelance professionals. Throughout the twentieth century, paid employment increased substantially and went hand-in-hand with technical change that favored capital-intensive, large-scale production; the rise of the 'Fordist model'; and the emergence of the 'standard' employment contract (Organisation for Economic Co-operation and Development [OECD], 2000; Supiot, 2001). Over recent decades, the nature, structure and organization of work transformed once again (as a result, among other things, of technological development and globalization), and many European labor markets have become more flexible. Various forms of 'non-standard' employment contracts appeared and since the 1970s the long-term historical decline in self-employment has slowed in many European economies and, in some countries, even reversed (Broughton et al., 2016; Eurofound, 2017a, 2017b; OECD, 2000).

For a long time, organizations have invested in employees in order to enhance individual and organizational performance, for instance, through various human resources (HR) policies such as training, health and work–family policies. Solo self-employed workers typically lack access to organizational policies – including formal training opportunities inside corporations – and must procure them themselves (Smith, 2010). This raises the question: what happens to human capital accumulation if there is no 'organization' that invests in the worker? Previous research in this area seems to indicate that the *amount* of training or the percentage of self-employed people who receive training is lower than that of employees (e.g., Broughton et al., 2016, p. 89, 93; Van Echtelt, Croezen, Vlasblom, De Voogd-Hamelink, & Mattijssen, 2016). On the one hand, this may indicate that self-employed people are lacking in a sufficient training investment (due to monetary constraints, time or access) to pursue sustainable careers. On the other hand, it may also mean that relatively highly skilled individuals opt into self-employment or that self-employed people are more effective or rational in choosing the training they really need. Against this background, we will first address the question whether solo self-employed workers differ from

employees in their self-assessed skills: do they think their skills correspond well with their own work duties, or would they require further training? Next, we examine how and to what extent solo self-employed workers – as compared to employees – invest in their employability or in their careers through training.

In addition, we will distinguish between employees on permanent and on temporary contracts. As found in previous research, a temporary employment relationship may adversely affect the willingness of both employers and workers to invest in training, due to the short payback period for the investment. Studies in this field indeed indicate that workers on temporary contracts undergo less formal training than permanent employees (Arulampalam, Booth, & Bryan, 2004; Forrier & Sels, 2003; Fouarge, De Grip, Smits, & De Vries, 2012; Sequeda, De Grip, & Van der Velden, 2015). From the literature it is unclear how the training of solo self-employed workers relates to both permanent and temporary employees.

Finally, in addition to our analysis of differences in human capital investments between various groups of workers, we study how investments are related to self-assessed work valuations. We hypothesize that workers with different types of contracts vary in how human capital investments are associated with work engagement and career prospects. Career theorists have argued that organizationally bounded linear careers (or unidimensional advancement on career ladders within organizational hierarchies) are increasingly being replaced by independent employment relationships and flexible career patterns. Not only did written contracts change when permanent contracts and lifetime employment were replaced by temporary and external contracts, but the psychological contract or implicit agreement between employers and employees also began to shift from an essentially relational agreement to a more transactional agreement (Cappelli, 1999; Clarke, 2008). We hypothesize that the human capital investments of permanent workers are positively related to both the current and future value of their work through this relational agreement, whereas for temporary and self-employed workers human capital investments are part of the transactional framework. The transactional nature thus refers to "specific, short-term and monetizable obligations entailing limited involvement of the parties" (Morrison & Robinson, 1997, p. 229).

Earlier research has typically focused on the value of work in terms of job satisfaction, finding that self-employed individuals are on average significantly more satisfied with their work than are organizational employees (e.g., Benz & Frey, 2008; Blanchflower, 2000; Hundley, 2001). However, it is increasingly acknowledged that such 'general' findings need further development through a more differentiated approach. That is, various authors have stressed the need for a more detailed examination of individual work facets (for example, distinguishing between the valuation of content, pay or job security) and among different types of workers (Brown, Forde, Spencer, & Charlwood, 2008; Clark, 2005; Millán, Hessels, Thurik, & Aguado, 2013; Rose, 2005; Warr & Inceoglu, 2018).

In this chapter we study workers' valuations by examining *work engagement* and self-assessed *prospects for career advancement*, two individual work facets

which are potentially affected by investments in employability.[1] Work engagement is defined as "… a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli, 2017, p. 3). Whereas work engagement captures the current value of work, prospects for career advancement provide insight into a worker's expected future valuation of work. In addition, we study workers' valuations by examining different types of workers, i.e., by making distinctions between workers in terms of skill level, occupational class and grade of job (Broughton et al., 2016; Warr & Inceoglu, 2018). Moreover, in the 'traditional' literature on self-employment, the self-employed are framed as a category of independent entrepreneurs who voluntarily seek to gain higher utility from income, autonomy, flexibility and other working conditions attributed to self-employment. However, the structure and the nature of occupations carried out by those who are self-employed have changed substantially over recent decades (Conen, Schippers, & Schulze Buschoff, 2016) and a new branch of literature has emerged, emphasizing the heterogeneity among the 'new' solo self-employed. This heterogeneous group also includes the 'involuntary' self-employed and those operating at the fuzzy boundary between being an employee and employee-like self-employment (or bogus self-employed), a distinction increasingly made in the literature (Conen, 2018; Kautonen et al., 2010; Schulze Buschoff & Schmidt, 2009; Stone, 2006; Westerveld, 2012). In our study, the (in)voluntariness of the transition into solo self-employment will also be included as a predictor of training investments as well as of a worker's valuation of work.

Theoretical background

The theoretical background for our study lies in human capital theory, as developed half a century ago by Becker (1962, 1964) and others. According to this theory, a worker can accumulate human capital either through (formal) education and training or through learning-by-doing or (informal) on-the-job training. The advantage of learning by doing and on-the-job training is that it is cheap and it generally does not interfere with working time, since it is part of the working process itself. However, not all knowledge and skills can be acquired while working and sometimes formal training is necessary. Becker (1964) distinguished further between two kinds of training, namely, general training and specific training. General training is also useful in other firms besides the current firm of the worker, whereas (wholly) specific training is only useful in the current firm. Since the productivity of a worker who has followed general training increases in all firms, their market wage will rise and the current employer will have to pay a higher wage in order to prevent the worker from quitting. Therefore, the firm will not be prepared to pay for training and the worker will have to pay for it themselves. Since specific training only raises the productivity in the current firm, the market wage of the worker does not rise and the current employer can reap the return on the training. Consequently, the firm has to pay for the training. However, if the worker who received the

specific training nevertheless quits, the firm incurs a loss. The firm may therefore try to shift part of the costs of specific training onto the worker in return for a slightly higher wage to discourage quitting.

This theoretical approach applies first of all to employees with a permanent contract, who are expected to stay in the firm for a considerable time. Since employees on a temporary contract are expected to stay in the firm only temporarily, firms will be less willing to invest in specific training as the period available to recoup the returns will in general be too short. Since temporary workers are generally more frequently active on the open labor market than permanent employees, they are expected to invest more in general training themselves to remain attractive to other employers.

Solo self-employed workers have no durable or exclusive relationship with any firm, so firms, in general, will not be willing to pay for training as competitors would also benefit from that investment. To maintain or increase productivity self-employed workers have to invest in (general) training themselves. Therefore, we expect them to follow training paid by themselves more frequently than permanent employees.

Based on this theoretical reasoning we hypothesize that:

1 Permanent employees receive more training paid by the employer than temporary employees and solo self-employed workers.
2 Solo self-employed workers undergo more training paid by themselves than temporary employees and temporary employees undertake more self-financed training than permanent employees.
3 There is no difference in the amount of (informal) on-the-job training received by permanent employees, temporary employees and solo self-employed workers.

As mentioned in the introduction, employees with a permanent contract, on the one hand, and temporary workers and solo self-employed workers, on the other, may differ in how they experience the relationship with the organization they work for. Permanent workers who have a long-term relationship with their employer may develop a relational perspective on their employment relationship. This a based on the (implicit) psychological contract between the worker and the firm, that is, "an individual's system of beliefs, based on commitments expressed or implied, regarding an exchange agreement with another" (Rousseau, 2011, p. 191). When the employer offers the employee the opportunity of training, paid by the employer, this reinforces mutual expectations. Hence, the psychological contract is confirmed, and this may enhance both the current work engagement and the future career prospects of the worker.

However, for a worker on a temporary contract the psychological contract is likely to be based on the idea of a transactional agreement. Since the employer does not commit to any future prospects for the worker (unless this is part of the labor contract), the worker will also not commit to the employer. Hence, any training, whether it is paid by the employer or not, will only have instrumental

value for the worker, in the sense that it may improve their future career prospects. We therefore do not expect that training paid by the employer will increase the current work engagement of a temporary worker, although it may improve their career prospects.

The relationship between a solo self-employed worker and a company is even more transactional and has a strong instrumental purpose. If self-employed people invest in training themselves, this is expected to be done to increase future career opportunities, while it has less of an impact on their current work engagement.

Hence, we hypothesize that:

4 On-the-job training increases (a) the work engagement and career prospects of permanent workers and (b) the career prospects of temporary workers and solo self-employed workers.
5 Training paid by the employer increases (a) the work engagement and career prospects of permanent workers and (b) the career prospects of temporary workers.
6 Training paid by workers themselves increases the career prospects of all types of workers but not their work engagement.

Methodology

Data

To address the research questions, we used data from the sixth European Working Conditions Survey (EWCS) (Eurofound, 2015a), a cross-sectional dataset providing unique and detailed information on work in Europe. The EWCS is a questionnaire-based survey, based on interviews with approximately 1000 individuals in each EU country. The sample is representative for those aged 15 years and older who are in employment. Further details about EWCS and its methods are available online (Eurofound, 2015b). For the sake of comparability with other chapters in this book, we selected the same countries covered in the European Sustainable Workforce Survey (ESWS), i.e., Bulgaria, Finland, Germany, Hungary, the Netherlands, Portugal, Spain, Sweden and the United Kingdom. The countries included are geographically dispersed across Europe and cover all types of European welfare state regimes (Arts & Gelissen, 2002; Esping-Andersen, 1990).

Measures

Dependent variables

Self-assessed skill adequacy was based on the question, "Which of the following statements would best describe your skills in your own work?" (answer categories: "I need further training to cope well with my duties," "My present skills

correspond well with my duties" and "I have the skills to cope with more demanding duties"). Type of training and training days were assessed by asking respondents:

- whether they had undergone any of the following types of training to improve their skills over the past 12 months: training paid for or provided by the employer, training paid by the worker himself/herself and informal on-the-job training (i.e., informal training at work, for instance, learning from co-workers or supervisors)
- how many days they spent in training over the past 12 months on a scale between 1 (1 day or less) and 6 (20 days or more).

Work engagement was assessed based on the three-item Utrecht Work Engagement Scale (UWES-3) (Schaufeli, 2017), containing the items "At my work I feel full of energy," "I am enthusiastic about my job" and "Time flies when I am working" ($\alpha = 0.74$). Measurement of prospects for career advancement was based on the statement, "My job offers good prospects for career advancement" (answer categories range between 1, strongly disagree and 5, strongly agree). Descriptive statistics of the variables used in the analyses are presented in Table 11.1.

Independent variables

For employed workers, employment form was measured by the questions: "Are you working as an employee or are you self-employed?" and "What kind of employment contract do you have in your main job?" Answer options for the latter were: "Contract of unlimited duration/permanent," "Contract of limited duration/fixed-term" and "A temporary employment agency contract." For solo self-employed workers, employment form was based on the questions: "Are you working as an employee or are you self-employed?" and "Regarding your business, do you have employees (working for you)." Heterogeneity among solo self-employed workers was assessed by the question: "When you became self-employed, was it mainly through your own personal preference or because you had no other alternatives for work?" Answer options were: "Mainly through own personal preference," "No other alternatives for work," "A combination of both (spontaneous)" and "Neither of these reasons (spontaneous)." In the analyses, the distinction between voluntary and involuntary self-employment was incorporated with an interaction term.

Control variables

In our analyses we controlled for the following work characteristics: working hours per week, occupational class (International Standard Classification of Occupations) and sector (NACE rev.2). We also included socio-demographic characteristics: gender, age, educational attainment level (International

Table 11.1 Descriptive statistics

	Mean	*Std.*	*Min*	*Max*
Dependent variables				
Self-assessed skill adequacy (ref. = correspond well)				
need further training	0.13		0	1
have skills to deal with more demanding duties	0.28		0	1
Training paid by worker (0/1)	0.07		0	1
Training paid by employer (0/1)	0.42		0	1
On-the-job training (0/1)	0.41		0	1
Training days paid by worker (ref. = no training)				
1–3 days	0.03		0	1
4–9 days	0.02		0	1
10–19 days	0.01		0	1
20+ days	0.01		0	1
Training days paid by employer (ref. = no training)				
1–3 days	0.18		0	1
4–9 days	0.17		0	1
10–19 days	0.06		0	1
20+ days	0.04		0	1
Work engagement (1 = never, 5 = always)	3.86	0.70	1	5
Prospects for career advancement (1 = strongly disagree, 5 = strongly agree)	2.95	1.34	1	5
Independent variables				
Employment form (ref. = permanent contract)				
solo self-employed	0.08		0	1
employee with fixed-term/temporary contract	0.12		0	1
Motives (ref. = through personal preference)				
no other alternatives for work	0.02		0	1
other	0.01		0	1
Control variables				
Working hours/week	35.83	11.40	1	100
Occupation (ref. = managers, professionals, technicians, associate professionals)				
clerical support workers, service and sales workers	0.30		0	1
skilled agricultural, forestry/fishery and craft workers	0.13		0	1
plant/machine operators and assemblers, elementary occupations	0.16		0	1
Sector of employment (ref. = public sector)				
private sector	0.70		0	1
other	0.09		0	1
Gender (ref. = male)	0.48		0	1
Age	42.47	12.17	15	87
Educational level	4.90	1.73	1	9
Country (ref. = Finland)				
Sweden	0.05		0	1
Germany	0.35		0	1
Netherlands	0.07		0	1
Spain	0.15		0	1
Portugal	0.03		0	1
United Kingdom	0.27		0	1
Bulgaria	0.03		0	1
Hungary	0.04		0	1

Source: Eurofound, 2015a.

Note
N = 10,682.

Standard Classification of Education) and country. Since the number of countries in our analyses is too small to perform multilevel analyses (Maas & Hox, 2005; Stegmueller, 2013), we controlled for country characteristics by including dichotomous country indicators.

Results

Self-assessed skill adequacy

We first address the question whether paid employed workers differ from solo self-employed workers in their self-assessed skills: do they think their skills correspond well to their work duties, or would they require further training? Table 11.2 presents results from the multinomial logistic regression model explaining self-assessed skill adequacy (the base outcome is "My present skills correspond well with my duties") by employment form and control variables.

The results show that compared to the reference group (paid employed workers with a permanent contract) paid employed workers on temporary contracts relatively often report that they are in need of further training. Solo self-employed workers, on the other hand, relatively often report that they have the skills to deal with more demanding duties; the interaction term with those who became self-employed because they had no other alternatives for work is not significant.

Post-school training

The next step is to examine how employability is taken care of by employed workers and solo self-employed workers. Table 11.3 shows the type of training workers underwent over the past 12 months in order to improve their skills. Table 11.3 shows that 6 percent of all employed workers (both those with permanent and those with temporary contracts) underwent training which was paid for by themselves. This percentage is significantly higher among solo self-employed people: 20 percent of all solo self-employed workers underwent training which was paid for by themselves. On the other hand, employed workers more often participated in training paid for or provided by their employer and on-the-job training (e.g., by co-workers or supervisors); almost half of the employed workers with a permanent contract had undergone these types of training over the past 12 months. Employees on temporary contract participated in training paid for or provided by their employer and on-the-job training less often than those with permanent contracts. These results partly confirm our hypotheses 1, 2 and 3. However, contrary to hypothesis 2, temporary workers do not invest more in training themselves than permanent workers and, contrary to hypothesis 3, self-employed workers significantly less often participate in (informal) on-the-job training than employees.

Although solo self-employed workers engage in training less often than employees, the intensity and efficiency of these trainings may also differ, which

Table 11.2 Multinomial logistic regression analysis of self-assessed skill adequacy

	Need further training (ref. = correspond well)	*Have skills to deal with more demanding duties (ref. = correspond well)*
Employment form (ref. = permanent contract)		
Solo self-employed	0.11	0.34**
Solo self-employed, no other alternatives for work	–0.40	–0.36
Employee with fixed-term/temporary contract	0.41**	0.07
Work characteristics		
Working hours/week	0.01**	0.00
Occupation (ref. = managers, professionals, technicians)		
Clerical support, service, sales workers	–0.52**	0.12
Skilled agricultural and craft workers	0.62**	–0.01
Operators, assemblers, elementary occupations	–0.97**	–0.07
Sector of employment (ref. = public sector)		
Private sector	–0.38**	–0.01
Other	–0.08	–0.04
Socio-demographic characteristics		
Gender (ref. = male)	0.12	–0.11
Age	–0.05	–0.02
Age squared/1000	0.38	0.12
Educational level	0.05	0.07**
Countries (ref. = Finland)		
Sweden	0.59**	0.53**
Germany	1.29**	0.49**
Netherlands	0.58**	0.33*
Spain	0.56**	0.59**
Portugal	–0.36	–0.24
United Kingdom	0.22	0.58**
Bulgaria	–0.53*	0.13
Hungary	0.057**	0.76**

Source: Eurofound, 2015a.

Notes
N = 10,682.
* $p < 0.05$; ** $p < 0.01$ (2-sided).

Table 11.3 Type of training received (percentage of respondents), by employment form

	Employees with permanent contract	*Employees with temporary contract*	*Solo self-employed*
Training paid by worker	6	6	20**
Training paid by employer	48	33**	–
On-the-job	45	37**	15**

Source: Eurofound, 2015a.

Note
** (*) = significant difference compared to employees with permanent contract at the 1 percent (5 percent) level.

may be partly reflected in the number of training days and in the effect of their investments in employability on work engagement and prospects. Table 11.4 presents results from the multinomial logistic regression model, explaining the number of training days by employment type, self-assessed skill adequacy and control variables (the base outcome is "no training").

The results show that compared to the reference group (employed workers with a permanent contract) solo self-employed workers more often report all durations of training periods paid for by the worker. Thus, the fact that self-employed workers undergo more self-financed training than employees is not restricted to short – and therefore likely relatively cheap – trainings, but to training of all durations. Temporary and permanent staff do not significantly differ in their distribution of the number of training days paid for by the worker himself/herself. When training days paid for by workers and by employers are taken together, the solo self-employed and employees with temporary contracts participate significantly less in almost all durations of training than permanent staff. This shows that self-employed workers do not fully bridge the gap with training paid for by employers by making higher investments in training themselves. Workers who indicated they would require further training to cope well with their duties more often engaged in training.

Work engagement and prospects

Table 11.5 presents results from the ordered logistic regression analyses, examining whether human capital investments and control variables affect individuals' work engagement and prospects for career advancement.

Columns 1 and 2 of Table 11.5 show that employees with permanent contracts who had participated in training paid for or provided by the employer and in on-the-job training have significantly higher work engagement levels and more often think their job offers good prospects for career advancement. For employees with temporary contracts (columns 3 and 4) none of the training types is related to engagement with work, but training paid for or provided by the employer and on-the-job training are positively associated with *prospects* for

Table 11.4 Multinomial regression analyses of training days paid by worker and employer

	Days paid by worker (base outcome = no training)				*Days paid by worker or employer (base outcome = no training)*			
	=<3 days	*4–9 days*	*10–19 days*	*20+ days*	*=<3 days*	*4–9 days*	*10–19 days*	*20+ days*
Employment form (ref. = permanent contract)								
Solo self-employed	1.15**	1.95**	1.68**	0.97*	–1.70**	–1.62**	–2.10**	–1.30**
Solo self-employed, no other alternatives for work	0.25	0.07	0.26	0.01	0.24	–0.38	0.71	0.22
Employee with fixed- term/temporary contract	–.046	0.15	0.24	0.16	–0.54**	–0.79**	–0.71**	–0.19
Self-assessed skill efficacy (ref. = need further training)								
Correspond to skills	–0.87**	–1.08**	–1.07**	–1.40**	–1.22**	–1.66**	–1.53**	–2.12**
Have skills to deal with more demanding duties	–0.84**	–1.13**	–0.40	–0.76**	–1.28**	–1.49**	–1.33**	–1.49**
Work characteristics								
Working hours/week	0.01	0.02*	0.01	–0.01	0.00	0.02**	0.03**	0.01
Occupation (ref. = managers, professionals, technicians)								
Clerical support, service, sales workers	–0.35	–0.36	–0.44	–0.40	–0.20	–0.53**	–0.70**	–0.49**
Skilled agricultural and craft workers	0.00	0.16	0.11	–0.67	–0.46**	–0.68**	–1.07**	–0.60*
Operators, assemblers, elementary occupations	–0.19	–0.51	–1.87**	–0.83*	–0.55**	–1.12**	–1.86**	–1.41**
Socio-demographic characteristics								
Gender (ref. = male)	0.49**	0.46*	0.31	0.31	0.08	0.15	–0.10	0.15
Age	–0.03	0.02	–0.03	0.00	0.03	0.03	0.02	–0.03
Age squared/1000	0.25	–0.11	0.18	–0.52	–0.38	–0.46	–0.30	–0.04
Educational level	0.28**	0.29**	0.33**	0.26**	0.10**	0.19**	0.14**	0.23**
Countries (ref. = Finland)								
Sweden	–0.48	–1.43**	–0.9	–0.19	–0.55**	–0.52**	–0.78**	–0.76**
Germany	–0.37	–0.31	–1.31*	–1.24*	–0.64**	–0.51**	–1.08**	–1.08**
Netherlands	–0.42	–0.26	–1.13*	–0.23	–0.16	0.02	–0.31	–0.11
Spain	–0.56*	–0.26	0.21	0.83**	–1.06**	–0.70**	–0.69**	0.19
Portugal	–1.01*	–0.15	0.54	–0.30	–1.01**	–1.04**	–1.04**	–0.70*
United Kingdom	–0.45	–0.65*	–1.41*	–0.56	–0.21	–0.15	–0.23	–0.35
Bulgaria	–2.47**	–2.27**	–1.00	–0.32	–2.06**	–2.18**	–2.11**	–1.27**
Hungary	0.37	0.02	–0.19	0.08	–0.99**	–1.85**	–1.72**	–0.84**

Source: Eurofound, 2015a.

Notes
1 N = 10,682.
2 * $p < 0.05$; ** $p < 0.01$ (2-sided).

Table 11.5 Ordinal logistic regression analyses of work engagement and employment prospects

	Employees, permanent		*Employees, temporary*		*Solo self-employed*	
	Engagement	*Prospects*	*Engagement*	*Prospects*	*Engagement*	*Prospects*
Training types						
Training paid by worker	–0.11	0.02	–0.17	–0.48	0.91	1.02**
Training paid by employer	0.60**	0.40**	0.22	0.51**	–	–
On-the-job	0.29**	0.29**	0.49	0.45**	1.39*	0.42
Motives (ref. = through personal preferences)						
No other alternatives for work	–	–	–	–	–0.85**	–0.90**
Other	–	–	–	–	–0.93**	–.083**
Work characteristics						
Working hours/week	0.01	0.02**	–0.01	0.01	–0.01	0.01*
Occupation (ref. = managers, professionals, technicians)						
Clerical support, service, sales workers	–0.36**	–0.34**	–0.51	–0.55**	–0.44	–0.53
Skilled agricultural and craft workers	–0.15	–0.55**	–0.15	–0.24	–0.13	–0.66*
Operators, assemblers, elementary occupations	–0.98**	–1.15**	–0.66*	–0.76**	–1.14*	–1.23**
Sector of employment (ref. = public sector)						
Private sector	0.02	0.13	–0.26	–0.03	–0.50	–0.73
Other	0.06	0.14	–0.27	0.13	0.25	–0.29
Socio-demographic characteristics						
Gender (ref. = male)	0.21	–0.14*	–0.11	–0.23	0.49	0.22
Age	0.04	–0.09**	–0.02	–0.04	–0.05	–0.05
Age squared/1000	–0.37	0.70**	0.34	0.15	0.58	0.25
Educational attainment	–0.37	0.06*	0.04	0.02	0.06	–0.06
Countries (ref. = Finland)						
Sweden	–0.15	–0.07	–0.41	–0.33	0.65	0.30
Germany	–0.31	–0.07	–0.47	–0.42	–0.88	–0.70*
Netherlands	1.01**	0.10	0.53	–0.25	1.53	–0.28
Spain	–0.26	0.21*	–0.17	–0.41	–0.52	–0.76**
Portugal	–0.24	0.52**	–0.61	–0.24	–1.77**	–0.81*
United Kingdom	–0.36*	0.36**	–0.24	0.34	–0.77	–0.25
Bulgaria	0.17	0.48**	0.26	0.68*	–0.80	–0.51
Hungary	–0.59**	0.51**	–0.40	0.15	–0.29	0.65
N	8107	8107	1583	1583	992	992

Source: Eurofound, 2015a.

Notes
N = 10,682.
* $p < 0.05$; ** $p < 0.01$ (2-sided).

career advancement. Solo self-employed workers (columns 5 and 6) who indicated they had participated in on-the-job training over the past 12 months are more likely to feel engaged with work. Training paid for by the worker has a positive and significant effect on prospects for career advancement for self-employed workers. Solo self-employed people who became self-employed by personal preference are more likely to experience higher levels of work engagement and to think their job offers good prospects for career advancement than those who became self-employed because they had no other alternatives for work.

These results largely confirm hypothesis 4, in the sense that on-the-job training seems to increase both the work engagement and the career prospects of permanent workers, and the career prospects of temporary workers. However, contrary to hypothesis 4, on-the-job training does not increase the career prospects of solo-self-employed workers, although it does increase their work engagement. The results also confirm hypotheses 5, i.e., training paid by the employer increases the work engagement and the career prospects of permanent workers, and the career prospects of temporary workers. However, contrary to hypothesis 6, training self-financed by the worker does not increase the career prospects of permanent or temporary employees. This is rather surprising, and it raises the question why employees invest in self-financed training at all.

Robustness check

Since we estimated the effects of variables based on nine countries, it is possible that the results were driven by one, very influential country. We therefore also performed a robustness check by deleting every country once from the various analyses (jackknife procedure). The results show that the findings as described in the previous section are quite stable. The effects of employment forms and self-assessed skill adequacy on training days remain significant and changes in the sizes of the effects are minor. Similarly, the effects of training types and motives on work engagement and career prospects remain significant and changes in the sizes of the effects are minor here as well. An exception is the effect of informal on-the-job training on career prospects, which becomes significant only at the 10 percent level when Spain is excluded. Moreover, taking Germany out has a relatively strong effect on the relationship between self-assessed skill adequacy and self-employment; in Germany, relatively speaking, many solo self-employed workers seemed to indicate that they had the skills to deal with more demanding duties.

Conclusion and discussion

Studies on the training of workers usually focus on employees and rarely on self-employed workers. However, as the number of solo self-employed workers has risen in a number of countries, the relevance of training for the self-employed increases. Moreover, the rise in other types of non-standard employment – in particular, temporary contracts – raises issues regarding the training opportunities

for workers with a short-term relationship with an organization. Put differently, if an increasing share of workers cannot count on the organization they work for to invest in their employability, will they be able and willing to invest in their own training? Moreover, will the effect of this training on workers' valuation of their current work – in terms of their work engagement – and on their future career prospects be different depending on whether the employer or the worker himself/herself paid for the training? These questions were examined in this chapter for different types of workers in the nine countries that are the focus of this volume.

First, we found that solo self-employed workers more often than permanent employees say that they have skills to deal with more demanding duties and, hence, are probably not in need of further training. Temporary employees, however, state more often than permanent employees that they need further training. This last finding is in line with findings from earlier studies (Arulampalam et al., 2004; Forrier & Sels, 2003; Fouarge et al., 2012; Sequeda et al., 2015) and has been noted by policy makers, highlighting the risk of underinvestment currently looming among this group (Broughton et al., 2016).

Second, solo self-employed workers do indeed participate less often in training than permanent employees and receive less on-the-job training, although they undergo more training that they pay for themselves. Temporary employees also receive less training paid by their employer and less on-the-job training, but this is not compensated for by more training paid by themselves. These differences are not explained by differences in the intensity of the training, since they still exist when we look at training of various durations.

Third, for permanent employees training paid by the employer and on-the-job training increase both their work engagement and their career prospects, but for temporary workers such training increases only their prospects. Surprisingly, training paid by the worker himself/herself increases neither work engagement nor career prospects for employees. This may be due to endogeneity, in the sense that those with lower career prospects more often have to pay for training themselves rather than getting it from the employer, cancelling out a positive effect. Training paid by the worker does increase the career prospects for solo self-employed people.

Although we find that solo self-employed workers invest less in training than permanent employees, we cannot conclude from this that the self-employed in general invest too little since they, more often than permanent employees, report that their skills are sufficient to tackle more demanding duties. Moreover, the solo self-employed who do invest in training believe this improves their career prospects.

Perhaps more worrisome is our finding that temporary employees undergo less training than permanent workers – even though they state more often that they need further training. Since temporary workers who receive training are more optimistic about their career prospects, a potentially important and fruitful role may be reserved for organizations in terms of training temporary workers.

We conclude that workers with non-standard employment relationships less often participate in both formal and informal forms of post-school training.

Various scholars have stated that the emphasis on individual responsibility needs re-examination and encourage a greater role for organizations in their support for all workers, in order to adequately manage their careers and sustain their employability; in this way workplace productivity would also increase (Clarke, 2008; Forrier & Sels, 2003). Others plead for a more 'universal' approach, for instance, in the form of universal funds for post-school education (The Netherlands Scientific Council for Government Policy [WRR], 2013). Our findings indicate that these suggestions deserve further discussion, although we would recommend distinguishing between employees with a temporary contract and solo self-employed people: underinvestment in terms of training seems to be more of a problem for the former group than for the latter, and both groups differ in the strategies open to them for enhancing employability (Smith, 2010). Finally, our general findings regarding the training investments of solo self-employed workers do not rule out the possibility that for specific groups of solo self-employed a danger of underinvestment may be looming as well. For future research, it may be worth examining skill adequacy and training investments among various classes of solo self-employed in more depth.

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Note

1 Although pay satisfaction may also be affected by investments in employability, this relationship is likely to be less immediate/have a longer time lag; it is not possible to study this effect with the survey data we used.