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The association between subjective job insecurity and job performance across different employment groups

Evidence from a representative sample from the Netherlands

Subjective job
insecurity
and job
performance

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Abstract

Purpose – The purpose of this paper is to test the relationship between subjective job insecurity and self-rated job performance, and to assess how this association is different across different employment groups.

Design/methodology/approach – The authors used a data set owned by TNO and Statistics Netherlands of more than 89,000 Dutch workers and self-employed that is a representative sample of the Dutch workforce. The authors included data from 2014 and 2016 assessing subjective job insecurity in terms of “a concern about the future of one’s job/business” and self-rated job performance.

Findings – The effect size of the association between subjective job insecurity and self-rated job performance is small. For temporary agency workers and on-call workers, the association between subjective job insecurity and job performance is weaker compared to permanent workers and fixed-term workers. However for self-employed workers with and without employees, however, the relation between subjective job insecurity and job performance is stronger compared to permanent workers.

Research limitations/implications – The biggest limitation is the cross-sectional design of the study, which limits conclusions about causality.

Practical implications – The finding that subjective job insecurity goes together with less work performance shows that job insecurity has no upside for the productivity of companies.

Originality/value – The study provides a deeper understanding of the relationship between subjective job insecurity and self-rated job performance on a national level.

Keywords Job insecurity, Self-employment, Job performance, Temporary employment

Paper type Research paper



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Introduction

Job security is considered as one of the most important parts of the quality of jobs. Subjective job insecurity is defined as a personal concern about the future of the job (Van Vuuren, 1990; Hartley *et al.*, 1991), and refers to the psychological dimension of job insecurity. Perceiving high levels of subjective job insecurity goes together with declining levels of various outcomes ranging from well-being to job attitudes and behaviour (Shoss, 2017). An outcome that is also frequently associated with job insecurity is job performance, which is a key determinant to firm performance (Huselid, 1995) as well as employee career success (Ng and Feldman, 2014). Most studies show a negative relationship between subjective job insecurity and job performance (for meta-analyses, see Cheng and Chan, 2008; Gilboa *et al.*, 2008; Jiang and Lavaysse, 2018; Sverke *et al.*, 2002), although some found no significant effect (e.g. Ashford *et al.*, 1989; Loi *et al.*, 2011), or even found a positive relationship (Probst, 2002; Probst *et al.*, 2007).

Research has identified many moderators and mediators of the job insecurity–employee outcomes relationship (see e.g. Lee *et al.*, 2018; Shoss, 2017). One of the moderators hypothesized to have an important impact on how subjective job insecurity associates with job performance, is the type of employment (Lee *et al.*, 2018). Due to the characteristics of their employment contract, workers with a permanent employment contract have a more secure position compared to workers with a temporary employment contract, including fixed-term workers, temporary agency workers (TAW), workers on-call, self-employed with employees and self-employed without employees. The psychological consequences of job insecurity, on the other hand, seem to differ across employment groups (e.g. Beard and Edwards, 1995). Research by De Cuyper, De Witte and their colleagues (De Cuyper and De Witte, 2005, 2006, 2007, 2008; De Witte and Näswall 2003) shows that job insecurity has a stronger effect on the life satisfaction, job satisfaction and organizational commitment among permanent workers when compared to temporary workers.

The majority of the studies examining the role of employment contract as a moderator, however, either focus on one temporary contract type, or do not distinguish between different temporary contract types. Acknowledging different contract types is important, as these types differ in terms of contract duration, peripheral position in the organization and voluntariness of being temporarily employed (De Cuyper, Bernhard-Oettel, Berntson, De Witte and Alarco, 2008). Indeed, studies taking the diversity in temporary employment contracts into account find that there are differences in how, for example, TAW and self-employed workers respond to job insecurity with respect to their health and well-being (Klandermans *et al.*, 2010; Klandermans and Van Vuuren, 1999; De Witte, 2005). Moreover, self-employed workers are usually left out of these studies due to different labour protection legislation (De Cuyper, Bernhard-Oettel, Berntson, De Witte and Alarco, 2008). Given the growth of self-employment over the past decades and its economic importance (Sevä *et al.*, 2016), including self-employed workers in the study of subjective job insecurity is critical. In this paper, we therefore investigate the moderating role of different groups (permanent workers, fixed-term workers, TAW, on-call workers, self-employed workers with employees and self-employed workers without employees) in the relationship between subjective job insecurity and self-rated job performance. Specifically, we expect that subjective job insecurity will associate with self-rated job performance differently within each employment group.

Our study contributes to the existing literature on job insecurity and job performance in a number of ways. Our main contribution is in revealing more insight into the relationship between subjective job insecurity and self-rated job performance on a national level. We used data from two merged large-scale data sets based on survey research carried out in 2014 and 2016 by TNO and Statistics Netherlands. First, the Netherlands Working Conditions Survey (NWCS; NEA) and second, the Netherlands Survey of the Self-Employed

(NSS-E; ZEA), which allowed us, unlike many other studies to test the role of job insecurity using a representative sample of the entire labor market in the Netherlands in 2014 and 2016, covering all different sectors of the Dutch labor market: white-collar and blue-collar workers, agriculture, industry, commerce, government, health, etc. This sample allows for the reliable generalizations of the association between subjective job insecurity and job performance in the Dutch labor market.

Second, this study compares the association between subjective job insecurity and job performance in a broad range of employment contracts, including contracts that have received little attention such as on-call workers and self-employed workers. In the Netherlands, the proportion of workers with a flexible employment relationship has increased rapidly and now stands at 35 percent (CBS, 2018). For example, about one-third of these non-permanent workers are self-employed without employees (independent contractors or freelancers). Despite this, self-employed workers have been largely ignored in job insecurity research up until now (for exceptions, see studies of Klandermans *et al.*, 2010; Schonfeld and Mazzola, 2015; Van Vuuren and Klein Hesselink, 2011). By using comparable arguments to explain the subjective job insecurity–job performance relationship that are grounded in both research on job insecurity (e.g. Shoss, 2017) and self-employment (e.g. Georgellis and Yusuf, 2016; Guerra and Patuelli, 2016), we aim to explore the strength of the association between subjective job insecurity and self-rated job performance in different employment groups.

Theoretical framework and hypotheses

Subjective job insecurity and different employment groups

Subjective job insecurity is defined as a personal concern about the future of the job (Van Vuuren, 1990). Following Van Vuuren (1990), subjective or perceived job insecurity reflects three aspects. First, perceived job insecurity is a subjective phenomenon, implying that subjective job insecurity is not necessarily associated with particular employment groups. Second, job insecurity concerns the future: workers are uncertain about the future of their job. Third, job insecurity concerns the continuity of the job itself and not the continuity of the content of the job.

The nature of the employment contract alludes to an important aspect in the objective circumstances that give rise to subjective job insecurity, and how subjective job insecurity associates with employee outcomes (Shoss, 2017; Lee *et al.*, 2018). Most research on job insecurity distinguishes between permanent and temporary employment when studying the impact of employment contract. A permanent worker is characterised by ongoing employment without a fixed termination date of the contract (De Cuyper, Bernhard-Oettel, Bertson, De Witte and Alarco, 2008). Following Silla *et al.* (2005), who argue that temporary workers should not be treated as a homogeneous group, we include and compare two different temporary employment groups in this study. Our first group is temporary workers, including fixed-term contracts and TAW (employment mediated by a temporary work agency), whose contracts are characterised by a limited duration which often includes a fixed termination date (De Cuyper, Bernhard-Oettel, Bertson, De Witte and Alarco, 2008). This group also includes on-call workers who are employed in contracts without fixed working hours. Their contract can be ongoing or of limited duration, but the number of hours is dependent on the hours of work the employer has to offer (De Graaf-Zijl, 2012). The second group of workers we included are self-employed workers. Self-employed workers with or without employees are not employed by a company but self-employed with contracts being provided by one or more customers for a specific assignment (Felfe *et al.*, 2008).

Job insecurity and perceived job performance

In this study, we assess the association between subjective job insecurity and self-rated in-role job performance. In-role job performance is defined as “job activities that, ‘contribute to the

organization's technical core' (Borman and Motowidlo, 1997) and appear in one's job description" (Kaplan *et al.*, 2009, p. 163). Although some have found no relationship (e.g. Ashford *et al.*, 1989; Loi *et al.*, 2011) or even a positive relationship between subjective job insecurity and (self-rated) job performance (Probst, 2002; Probst *et al.*, 2007; Loi *et al.*, 2011), most studies however, show a negative relationship between subjective job insecurity and (self-rated) job performance (Cheng and Chan, 2008; Gilboa *et al.*, 2008; Jiang and Lavaysse, 2018).

In her substantial review of the literature on job insecurity, Shoss (2017) distinguishes between two mechanisms through which subjective job insecurity can negatively impact outcomes including job performance. First, job insecurity can be considered a stressor, threatening key resources such as income and identity, as well as basic psychological needs such as autonomy and relatedness. As a stressor, subjective job insecurity negatively impacts employee outcomes including job performance. Second, subjective job insecurity can be considered a breach of the psychological contract, which is subsequently reflected by lower job performance. Employees may consider providing job security as an important obligation on the side of the employer. Feeling insecure about one's job can be considered a breach of this obligation (De Cuyper and De Witte, 2006, 2007). Following psychological contract theory (Rousseau, 1995), a breach of the psychological contract is considered an imbalance between what the employer is obligated to deliver, and what is actually delivered. To reciprocate perceptions of psychological contract breach, employees are likely to lower outcomes such as job performance in response to perceptions of psychological contract breach (see Zhao *et al.*, 2007, Lee *et al.*, 2018). Based on these arguments, we propose that:

- H1. There is a negative relationship between subjective job insecurity and self-rated job performance.

The moderating role of different employment groups: temporary workers

The heterogeneity of the workforce may provide an explanation for the mixed findings regarding the relationship between subjective job insecurity and job performance described above. Following De Cuyper, Bernhard-Oettel, Berntson, De Witte and Alarco (2008) and Guest (2004), we distinguish between temporary employment, including fixed-term work, temporary agency work and on-call work, and self-employed workers in developing our hypotheses because these two groups are regulated differently by law (De Cuyper, Bernhard-Oettel, Berntson, De Witte and Alarco, 2008) and have a different level of dependency with respect to their relationship with an employer (OECD, 2002). Permanent and temporary workers have an employment contract with one single employer, while self-employed workers do not have an employment contract but work based on assignment contracts for one or more customers.

Because of the limited duration of their contract, workers on temporary contracts show stronger feelings of job insecurity than workers in permanent jobs (Klandermans *et al.*, 2010; Klein Hesselink and van Vuuren, 1999; Kinnunen and Natti, 1994; Parker *et al.*, 2002; Pearce, 1998) and self-employed (Klandermans *et al.*, 2010; Klein Hesselink and van Vuuren, 1999; Van Vuuren and Klein Hesselink, 2011). However, job security may be less important for temporary workers than for permanent workers due to the difference in the nature of the psychological contract of permanent and temporary employees (De Jong *et al.*, 2009; Rigotti *et al.*, 2015). Permanent workers are likely to feel that the employer is obligated to provide job security, which is less the case for temporary workers (Schalk *et al.*, 2010), who know that their current contract is time bound and can be finite (Klandermans *et al.*, 2010). In contrast to temporary workers, when perceiving that their job is insecure, permanent workers will consider this a breach of their psychological contract and reciprocate with lower job performance. We therefore argue that employees with a permanent employment contract are more susceptible to subjective job insecurity compared to temporary workers.

They invest more into their positions (e.g. in terms of tenure, sacrifices made for the job) and expect more job security in return. As such, they will be more likely see job insecurity as unjust or as a breach of expectations (Shoss, 2017). In contrast, temporary workers are likely to expect certain levels of job insecurity due to the nature of their employment contract, making the association between subjective job insecurity and self-rated performance less pronounced. Therefore, we propose that:

- H2.* The negative relationship between subjective job insecurity and self-rated job performance is stronger for permanent workers compared to temporary workers.

The moderating role of different employment groups: self-employed workers

As mentioned above, self-employed workers are not employed by a company but are hired by customers for specific assignments (Felfe *et al.*, 2008). Self-employment is becoming an important source of employment for many workers; in 2017 about 16 percent of Dutch workers were self-employed with or without employees, in Europe this percentage was about 14 percent and in the USA about 7 percent are self-employed (data.oecd.org). Therefore, self-employment is considered a critical factor for the economy and an important creator of jobs (Sevä *et al.*, 2016).

Despite its importance, self-employment is associated with less legal protection, more risk and higher effort compared to dependent workers including permanent and temporary workers (Georgellis and Yusuf, 2016). Choosing self-employment over dependent employment is usually based on expectations about monetary and non-monetary benefits that self-employed workers expect to achieve in comparison to dependent work (Guerra and Patuelli, 2016). In addition, self-employed workers aim to find a better congruence between personal needs and working conditions (aims, values, task content and framework) when deciding to make the transition to self-employment (Felfe *et al.*, 2008). As such, the self-employed are inclined to have high expectations and they are very optimistic about the probability of success of their business (Cassar, 2010; Cooper *et al.*, 1988; Fraser and Greene, 2006).

Considering these expectations, being concerned about the future of their business is likely to be experienced as a mismatch between these expectations about being self-employed and the reality experienced (Millán *et al.*, 2013). Georgellis and Yusuf (2016) draw on expectations–reality gap theory (Cooper and Artz, 1995) to argue that employees form expectations about the benefits associated with a transition to self-employment. However, when these expectations are not fulfilled during self-employment, the expectations–reality gap widens, which has a detrimental effect on outcomes such as job satisfaction and job performance.

From a stressor perspective, research has found that job insecurity or the fear of losing their business is the main stressor for self-employed workers (Schonfeld and Mazzola, 2015; Grant and Ferris, 2015). Although job insecurity is also an impactful stressor for permanent workers, Schonfeld and Mazzola (2015) argue that the magnitude of the impact of potential loss of business is greater for the self-employed because they do not have access to, for example, stress-management practices offered by the employer, or support offered by colleagues. Moreover, self-employed are more likely to base a large part of their self-esteem on their performance which may lead to heightened stress reactions and more negative reactions when experiencing job insecurity (Blom *et al.*, 2018). As a consequence, the impact of subjective job insecurity is likely to be greater among self-employed workers compared to permanent workers (Mazzola *et al.*, 2011), resulting in more negative job attitudes and lower job performance compared to permanent workers. Finally, self-employed workers have a big hole in their social safety net because they are not eligible for employment benefits and face income insecurity when losing their business, which also enhances the magnitude of the impact of potential loss of business for the self-employed. It is plausible that the different kinds of social safety net for employed and self-employed are not only a country-level

moderator as König and colleagues (König *et al.*, 2011; Debus *et al.*, 2012) identify, but may also moderate the impact of job insecurity on job attitudes and performance at an individual level. Our third hypothesis therefore states that:

H3. The negative relationship between subjective job insecurity and self-rated job performance is weaker for permanent workers compared to self-employed workers.

Method

The data for the research came from a combination of the NSS-E (ZEA) 2014 and 2016 and the NWCS (NEA) 2014 and 2016. To collect information regarding the sustainable employability and working conditions of self-employed persons, TNO and Statistics Netherlands (CBS) developed the NSS-E. The NWCS is one of the largest periodical surveys on the labour situation of Dutch employees. The NWCS questionnaire is a collaborative project of TNO, Statistics Netherlands (CBS) and the Dutch Ministry of Social Affairs and Employment. For more details on the design of both surveys, the substantiation of the variables and the data collection, see Lautenbach *et al.* (2017) for the ZEA and Hooftman *et al.* (2017) for the NEA. The ZEA and NEA cover a wide range of topics including working conditions, working hours, accidents at work, illness, functioning, employability, pension and education and development. The samples are made representative of the Dutch workforce by means of weighing. This makes it possible to make valid and reliable statements about Dutch workers.

In total, 89,690 people participated in the surveys in 2014 or 2016 (41,732 respondents in 2014 and 47,958 respondents in 2016). In all, 67.2 percent of the respondents were permanent workers, 14.6 percent were employed on a fixed-term contract, 2.9 percent were TAW, 4.3 percent were employed on an on-call contract, 2.5 percent of the sample are self-employed workers with employees and 8.5 percent are self-employed without employees. Table I provides a detailed overview of the sample used in this study.

Measures

Employment group was determined on the basis of contract type. Six categories are distinguished: employed on a permanent contract, employed on a fixed-term contract, employed as a TAW, employed as an on-call worker, self-employed with employees and self-employed without employees. Respondents were asked to indicate what employment situation applied to them.

Subjective job insecurity was assessed as affective job insecurity in terms of “a concern about the future of one’s job/business” with two items about the concern about losing their present job/work and the satisfaction with their work security (Van Vuuren, 1990; Hartley *et al.*, 1991) (1 = very secure to 4 = very insecure). We focused on affective job insecurity because a meta-analysis (Jiang and Lavaysse, 2018) shows that affective job insecurity has stronger relations with the majority of employee outcomes compared to cognitive job insecurity. We chose this two-item scale because results from a meta-analysis on the consequences of job insecurity (Sverke *et al.*, 2002) found that job insecurity measures based on multiple-item scales may have a stronger relationship with the outcomes compared with single-item measures. The questions are sufficiently correlated (Pearson correlation = 0.381, $p < 0.001$).

Self-rated job performance was measured using three items, respectively, on performing well, reaching goals and executing tasks well (Hooftman *et al.*, 2017). An example of an item is “I perform well in my work” (1 = totally disagree to 5 = agree entirely). Cronbach’s α is 0.88.

The size of the sample allowed for the inclusion of a wide range of control variables. Control variables were included in the study when they are theoretically and empirically

	Educational level			Gender	
	Low	Middle	High	Male	Female
Permanent worker	19.1%	37.7%	37.2%	53.2%	46.8%
Fixed-term worker	32.5%	50.2%	29.8%	48.4%	51.6%
TAW	27.7%	46.6%	22.2%	61.3%	38.7%
On-call worker	37.7%	49.2%	15.7%	45.1%	54.9%
Self-employed with employees	18.7%	39.5%	32.2%	66.9%	33.1%
Self-employed without employees	15.0%	42.9%	45.4%	62.4%	37.6%
Total sample	21.8%	43.7%	35.3%	53.5%	46.5%
	Age				
	15–24 year	25–34 year	35–44 year	45–54 year	55–64 year
Permanent worker	5.8%	20.8%	24.4%	28.7%	20.3%
Fixed-term worker	41.9%	24.4%	13.2%	12.7%	7.8%
TAW	25.1%	32.1%	15.5%	16.9%	10.5%
On-call worker	67.7%	12.2%	6.4%	7.7%	6.1%
Self-employed with employees	0.8%	13.4%	28.6%	34.9%	22.3%
Self-employed without employees	2.1%	16.7%	24.7%	33.2%	23.3%
Total sample	13.9%	20.7%	21.9%	25.6%	17.9%
	Mean job autonomy (1–3)	Mean job variety (1–4)	Mean workload, (1–4)	Mean physical work (1–3)	Mean subjective job insecurity (1–4)
Permanent worker	2.57 (0.57)	2.75 (0.72)	2.42 (0.71)	1.44 (0.60)	2.14 (0.83)
Fixed-term worker	2.35 (0.61)	2.52 (0.83)	2.30 (0.72)	1.51 (0.59)	2.37 (0.89)
TAW	2.15 (0.66)	2.32 (0.78)	2.33 (0.75)	1.70 (0.69)	2.87 (0.94)
On-call worker	2.16 (0.59)	2.33 (0.80)	2.23 (0.70)	1.62 (0.57)	2.31 (0.87)
Self-employed with employees	2.83 (0.39)	2.92 (0.69)	2.54 (0.71)	1.57 (0.62)	2.54 (0.87)
Self-employed without employees	2.87 (0.36)	2.96 (0.69)	2.24 (0.66)	1.55 (0.67)	2.60 (0.92)
Total sample	2.54 (0.59)	2.71 (0.75)	2.38 (0.71)	1.48 (0.61)	2.25 (0.87)

Notes: $n = 89,690$; TNO/CBS, NEA/ZEA 2014 and 2016. Standard deviations are reported in parentheses

Table I.
Sample overview

related to job insecurity (Bernerth and Aguinis, 2016), or because performance of permanent and non-permanent workers are dependent on these variables (Hooftman *et al.*, 2017; Lautenbach *et al.*, 2017). We included three demographic control variables in our regressions: gender (1 = male and 2 = female), age (in years between 18 and 65) and level of education (1 = no education followed/completed, primary education, 2 = preparatory vocational education, secondary vocational education, 3 = higher vocational education and university education). We also included four job-related control variables. Job variety (Cronbach's $\alpha = 0.77$) is the average of three questions: "Is your work varied?" "Does your job require you to learn new things?" and "Does your job require creativity?" (1 = never, 2 = sometimes, 3 = often, 4 = always). Workload (0.87) is also the average of three questions: "Do you have to work very quickly?" "Do you have to do a lot of work?" and "Do you have to work extra hard?" (1 = never, 2 = sometimes, 3 = often, 4 = always). Job autonomy (0.79) was measured using five items including "Can you decide for yourself how to do your work?" and "Do you decide the order of your activities yourself?" (1 = not, 2 = sometimes, 3 = regularly). Finally, physical work (0.77) was assessed using five questions including "Do you work in an uncomfortable position?" and "Do you do work where you have to make repetitive movements?" (1 = not, 2 = sometimes, 3 = regularly).

Strategy of analysis

The analyses took place with the help of SPSS. Hierarchical regression analyses were used to test our hypotheses. We used the correlation coefficient (Pearson's r), and both the unstandardized (B) and standardized (β) coefficients to assess effect sizes (Ferguson, 2009). As a significance level, we retain at least a p -value of less than 1 percent because of the large size of our sample. For the regression analyses, we used dummies for five categories of workers, in order to establish the relationship with the type of employment status. In doing so, we used permanent employees as the reference category. Hardy (1993) recommends using a reference category that serves as a useful comparison to the other categories, and to use a large group as the reference category. In our hypotheses, we systematically compared the types of temporary workers to the large group of permanent workers, which is why we use the group of permanent workers as our reference category. The reference category is omitted from the regression analyses; the β coefficient of each other dummy shows the extent to which the other group deviates from the reference group. In the interaction terms of the dummies for employment group and subjective job security, the dummy for the interaction term employees with a permanent employment and subjective job insecurity is also omitted.

Results

Table II shows the correlations and descriptive statistics of our main variables and control variables. We find a negative correlation of -0.13 between subjective job insecurity and self-rated job performance. Moreover, permanent workers (mean = 2.14) have the lowest level of subjective job insecurity followed by on-call workers (mean = 2.31) and fixed-term workers (mean = 2.37). Together with self-employed with employees (mean = 2.54) and self-employed without employees (mean = 2.60), TAW show the highest levels of subjective job insecurity. An ANOVA shows that these differences are significant ($F = 785.48$, $p < 0.001$).

Table III shows the results of the OLS regressions used to test the hypotheses. $H1$ proposed that there is a negative relationship between subjective job insecurity and job performance. The results show that subjective job insecurity is negatively related with job performance (B (unstandardized) = 0.11(0.00), $p < 0.001$, β (standardized) = -0.13), which supports $H1$. $H2$ predicted that the negative relationship between subjective job insecurity and job performance is stronger for permanent workers compared to temporary workers. Table III shows that the interaction term used to test $H2$ is not significant for fixed-term workers ($B = 0.02(0.01)$, $p = 0.01$), suggesting that the negative relationship between subjective job insecurity and job performance is not stronger for permanent workers ($B = -0.11(0.01)$, $p < 0.001$, $\beta = -0.12$) compared to fixed-term workers ($B = -0.09(0.01)$, $p < 0.001$, $\beta = -0.10$). However, for TAW ($B = 0.07(0.02)$, $p < 0.001$) and on-call workers ($B = 0.06(0.01)$, $p < 0.001$), the interaction is significant. Figures 1(a) and (b) shows the interaction plots of these interaction effects. For permanent workers, the association between subjective job insecurity and job performance is stronger compared to TAW ($B = -0.04(0.02)$, $p = 0.02$, $\beta = -0.05$) and on-call workers ($B = -0.05(0.02)$, $p < 0.001$, $\beta = -0.06$), confirming partly $H2$.

$H3$ proposed that the negative relationship between subjective job insecurity and job performance is weaker for permanent workers compared to self-employed workers. For both self-employed workers with ($B = -0.07(0.02)$, $p < 0.001$) and without employees ($B = -0.07(0.01)$, $p < 0.001$), the interaction term is significant. The plots in Figures 1(c) and (d) show that the association between subjective job insecurity and job performance is weaker for permanent workers compared to self-employed workers with employees ($B = -0.18(0.02)$, $p < 0.001$, $\beta = -0.26$) and without employees ($B = -0.18(0.01)$, $p < 0.001$, $\beta = -0.26$), which confirms $H3$.

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Subjective job performance	4.23	0.72														
2. Subjective job insecurity	2.25	0.878	-0.13**													
3. Year	0.56	0.49	0.03**	-0.08**												
4. Fixed-term worker	0.14	0.35	-0.01	0.05**	0.01*											
5. Temporary agency worker	0.03	0.16	0.00	0.12**	0.02**	-0.07**										
6. On-call worker	0.04	0.20	0.01	0.01**	-0.01*	-0.09**	-0.04**									
7. Self-employed with employees	0.03	0.16	0.02**	0.05**	0.00	-0.07**	-0.03**	-0.03**								
8. Self-employed without employees	0.09	0.28	0.07**	0.13**	0.00	-0.13**	-0.05**	-0.07**	-0.05**							
9. Gender	1.46	0.49	-0.01	0.02**	0.00	0.05**	-0.03**	0.03**	-0.05**	-0.05**						
10. Age	40.8	13.14	-0.01	0.09**	-0.01	-0.31**	-0.07**	-0.24**	0.07**	0.11**	-0.05**					
11. Educational level	2.15	0.74	-0.04**	-0.01**	0.02**	-0.09**	-0.05**	-0.11**	0.00	0.07**	0.04**	0.06**				
12. Job autonomy	2.55	0.58	0.08**	-0.09**	-0.01	-0.13**	-0.11**	-0.14**	0.08**	0.17**	-0.13**	0.21**	0.21**			
13. Job variety	2.71	0.75	0.00	-0.08**	0.00	-0.11**	-0.09**	-0.11**	0.05**	0.11**	-0.04**	0.13**	0.26**	0.24**		
14. Workload	2.38	0.71	-0.07**	0.08**	-0.01	-0.05**	-0.01	-0.04**	0.04**	-0.06**	0.02**	0.02**	0.09**	-0.08**	0.15**	
15. Physical work	1.47	0.61	0.00	0.09**	0.01	0.02	0.07**	0.05**	0.03**	0.04	-0.13**	-0.08**	-0.34**	-0.21**	-0.10**	0.13**

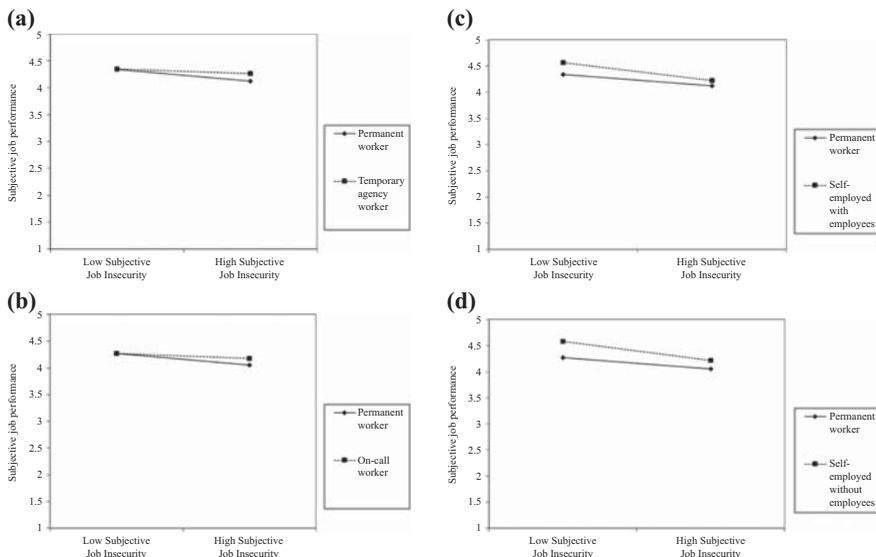
Notes: $n = 83,442$. Reference category is permanent worker. * $p < 0.01$; ** $p < 0.001$

Table II.
Correlations and
descriptive statistics

Variable	Model 1		Model 2	
	β	<i>B</i>	β	<i>B</i>
<i>Independent variable</i>				
Subjective job insecurity	-0.11 (0.00)**	-0.13	-0.11 (0.00)**	-0.13
<i>Moderators</i>				
Fixed-term worker ^a	0.04 (0.01)**	0.02	0.04 (0.01)**	0.02
Temporary agency worker ^a	0.12 (0.02)**	0.03	0.08 (0.02)**	0.02
On-call worker ^a	0.07 (0.01)**	0.02	0.07 (0.01)**	0.02
Self-employed with employees ^a	0.15 (0.02)**	0.03	0.17 (0.02)**	0.04
Self-employed without employees ^a	0.21 (0.01)**	0.08	0.24 (0.01)**	0.09
<i>2-way interactions</i>				
Fixed-term worker × Subjective job insecurity			0.02 (0.01)	0.01
Temporary agency worker × Subjective job insecurity			0.07 (0.02)**	0.02
On-call worker × Subjective job insecurity			0.06 (0.01)**	0.02
Self-employed with employees × Subjective job insecurity			-0.07 (0.02)**	-0.01
Self-employed without employees × Subjective job insecurity			-0.07 (0.01)**	-0.03
<i>F</i>	219.95**		163.79**	
Adjusted <i>R</i> ²	0.039		0.041	
<i>R</i> ² change			0.002**	

Table III. Results of OLS regressions for subjective job performance

Notes: Both unstandardized (*B*) and standardized (β) beta-coefficients are reported. Control variables used in the regressions are job autonomy, job variety, workload, physical work, gender, age, educational level and year of data collection. Full results of the OLS regressions are available upon request. ^aReference category is permanent worker. * $p < 0.01$; ** $p < 0.001$



Notes: (a) Association between subjective job insecurity and subjective job performance for permanent and temporary agency workers; (b) association between subjective job insecurity and subjective job performance for permanent and on-call workers; (c) association between subjective job insecurity and subjective job performance for permanent workers and self-employed workers with employees; (d) association between subjective job insecurity and subjective job performance for permanent workers and self-employed workers without employees

Figure 1. Plots of interaction effects

Discussion

The purpose of this study was to test the relationship between subjective job insecurity and self-rated job performance, and to assess how this association is different across several employment groups. Using a representative sample of the Dutch workforce, we found a negative relationship between subjective job insecurity and self-rated job performance, which is consistent with other studies (Cheng and Chan, 2008; Gilboa *et al.*, 2008). For all contract types except for TAW and on-call workers, subjective job insecurity was negatively associated with self-rated job performance. Moreover, the association between subjective job insecurity and job performance was stronger for both groups of self-employed workers. Additional tests of the relationship between subjective job insecurity and job performance in each employment group revealed that our results regarding the association between subjective job insecurity and job performance are robust[1].

Theoretical implications

These results have several implications for job insecurity theory (Shoss, 2017) and research on non-permanent employment (De Cuyper, Bernhard-Oettel, Berntson, De Witte and Alarco, 2008; Connelly and Gallagher, 2004). First, the representativeness of the data set allows for a closer look at the effect size of the relationship between subjective job insecurity and self-rated job performance. We find a correlation of -0.13 , an unstandardized B of -0.11 ($SE = 0.00$) and a standardized β of -0.13 for the relationship between subjective job insecurity and self-rated job performance[2]. This effect size is in line with those reported by meta-analyses on the association between subjective job insecurity and (self-rated) job performance. In a recent meta-analysis, Jiang and Lavaysse (2018) analyzed 25 samples ($n = 5,644$) and found a mean observed correlation of -0.11 and a mean corrected correlation of -0.14 with a 95% confidence interval of $[-0.19, -0.09]$. Moreover, Gilboa *et al.* (2008) specifically looked at the association between job insecurity and self-rated job performance in nine samples ($n = 2,282$) and found a mean observed correlation of -0.14 and a mean corrected correlation of -0.18 with a 95% confidence interval of $[-0.18, -0.10]$. In addition, subjective job insecurity has a larger effect size compared to other job resources and demands including job autonomy, workload, job variety and physical work (see Table I). This suggests that, on a national level, subjective job insecurity has a small but meaningful association with self-rated job performance.

Second, our results show that part of the small effect size between subjective job insecurity and self-rated job performance can be explained by how subjective job insecurity is associated with self-rated job performance in different employment groups. As such, our study replicates previous findings suggesting that the heterogeneity of the workforce seems to account at least part of the mixed findings regarding the relationship between subjective job insecurity and job performance. For permanent employees and fixed-term workers, job insecurity appears to have stronger associations with self-rated job performance compared to TAW and on-call workers. These findings are in line with those mentioned by De Cuyper, Bernhard-Oettel, Berntson, De Witte and Alarco (2008). They conclude that directly hired, fixed-term contract workers are assumed to be most similar to permanent workers in contrast to TAW and on-call workers who occupy the more peripheral positions of temporary employment. Although we did not specifically test different mechanisms underlying the association between subjective job insecurity and self-rated performance, these results seem to support the idea that job insecurity has more impact for permanent workers than for temporary workers due to the felt obligation on the side of their employer to provide job security (De Jong *et al.*, 2009; Rigotti *et al.*, 2015). Moreover, based on the job characteristics of the different groups (see Table I), the stronger association between subjective job insecurity and job performance could be

due to the fact that permanent workers and fixed-term workers have a lot to lose when their job is at risk. Permanent workers and fixed-term workers experience higher job autonomy, higher job variety and lower levels of physically demanding work compared to TAW and on-call workers. The possibility of losing this position is likely to cause stress and strain, negatively impacting job performance. These investments are likely to create expectations of job security, and breaching these expectations is likely to associate with lower self-rated performance.

Third, the addition of self-employed workers with and without employees provides additional insights into how non-permanent employees deal with subjective job insecurity, and may have the potential to expand the mechanisms underlying the association between subjective job insecurity and job performance. Research on self-employment shows that disappointment in expectations attached to the transition toward self-employment, including higher risks attached to self-employment, can lead to negative emotions and lower job satisfaction (Georgellis and Yusuf, 2016; Guerra and Patuelli, 2016). Expectations regarding job security and the reality of feeling that the job or business is at risk might therefore be considered a mechanism that also extends to expectations toward the job in addition to expectations toward the organization. Instead of the organization being responsible for a workers' job security, self-employed workers are responsible themselves. Future research should further explore this agency in responsibility for job security.

In addition, research on self-employment well-being found that the risk of losing their business is the biggest stressor for self-employed workers (Schonfeld and Mazzola, 2015; Grant and Ferris, 2015). In line with our expectations for self-employed persons with and without employees, we found that the negative relationship is even stronger between subjective job insecurity and job performance than for permanent workers. This could mean that self-employed workers are even more psychological and financial vulnerable than permanent workers. They made bigger sacrifices for their business, invested more money and effort into their positions and more of their future is at stake. They run a greater risk of losing income and base a large part of their self-esteem on their performance which leads to heightened stress reactions and more negative reactions to job insecurity (Blom *et al.*, 2018). Although Jiang and Lavaysse (2018) highlight the important moderating role of work centrality in the relationship between job insecurity and outcome, it is not likely that differences in work centrality between young self-employed and employed explain differences in reactions to job insecurity. In a study among young adults in 11 European countries, Lukeš *et al.* (2019) found that work centrality does not differ between the employed and the self-employed workers.

Limitations and directions for future research

The biggest limitation is the cross-sectional design of our study, which makes it impossible to draw conclusions about causality. In this study, we found in general a negative relationship between subjective job insecurity and self-rated job performance, which might indicate that workers who are very insecure about the future of their job or business lower their job performance. But it is also possible that low job performance will lead to more job insecurity. This does not only apply to self-employed where a lack of assignments or the delivery of lesser quality can lead to the risk of losing the business or company, but also to all other groups of workers. For all employed, poor performance is a reason for dismissal. Future longitudinal research is needed to disentangle the relationships between job performance as antecedent and as consequence of job insecurity.

A second limitation is the use of self-report questionnaires, which are prone to common method bias (CMB). However, the large scale of our research makes it impossible to use assessment of managers or colleagues. Fortunately, according to Spector (2006), CMB is

almost never strong enough to influence the results. Next, interaction effects can be severely deflated through CMB, making them hard to find (Evans, 1985). As we found many interaction effects, we think that CMB is not a big problem in our research. In order to minimize the risk of CMB, we have taken a few steps in accordance with the recommendations of Podsakoff *et al.* (2003). First, we have made a psychological separation between the measures in the questionnaires and, second, we guaranteed the anonymity of the respondents, which reduced the possibility of socially desirable answers.

A third limitation is the size of our data set. Our large data set has clear advantages, but also clear limitations. The sample is representative, but the size also means that we are very likely to find a lot of significant, but not so substantive results. In such a large data set, a wide range of variables cause variance in the independent variable. For example, there could be regional differences in job insecurity, sectoral differences, organization-level differences, etc. In spite of this, we found a small but robust negative association between subjective job insecurity and self-rated job performance for most employment groups.

A fourth limitation is that we used two slightly different measurements to operationalise job insecurity for employed and self-employed workers. We asked the self-employed if they were worried about the future of their company or business (instead of their job) and we asked both if they were satisfied with their work security (and specify this for the self-employed as can rely on the retention of assignments). Job insecurity concerns the future of the job, while employment insecurity concerns the future of employment. Wilthagen and Tros (2004) describe employment security as remaining in employment but not necessarily in the same job with the same employer, or in our case of the self-employed, as remaining in employment, but not necessarily from the same company or business. Employment security has more overlap with the concept of (perceived) employability, although it is not the same. Perceived employability concerns the individual's perceived chance of a job in the internal or the external labor market (Berntson *et al.*, 2006; Forrier and Sels, 2003; De Vries *et al.*, 2001). Job insecurity, employment security and employability are sometimes seen as similar, with the only difference being that the first has a negative value and the others a positive value. Future research is needed to study the conceptual similarities and differences between job insecurity, business insecurity, employment security and employability. What are the conceptual differences/similarities between the threat to losing one's job vs business, or the threat to losing employment in general and the perceived chance of finding and keeping employment? Do we need a separate measure for business insecurity? We expect differences in the consequences between job and business insecurity as shown in the present study and we imagine important differences between job/business insecurity and employment security and perceived employability also depending on the human capital and career competences of the worker (De Cuyper, De Jong, De Witte, Isaksson, Rigotti and Schalk, 2008; Van der Heijde and Van der Heijden, 2006).

A fifth limitation is that we did not include mediators to show that mediators as stress, imbalance, economic and psychological vulnerabilities explain the reactions of the workers. Further research is necessary to investigate how these mediators explain the variation within the job performance of workers from different employment groups in their reaction to subjective job insecurity.

Practical and social implications

The finding that subjective job insecurity in general goes together with less job performance shows that job insecurity has no upside for the productivity of companies. Only for TAW and on-call workers has subjective job insecurity had a weak association with self-rated job performance. Subjective job insecurity appears to coincide for all other workers with small productivity losses, not only for permanent and fixed-term workers, but also in a greater

extent for self-employed workers with and without employees. The magnitude of the impact of potential loss of business is greater for self-employed workers. Self-employed workers, especially those without employees cannot turn to colleagues or HR departments for support. They have to cope with this stressor on their own. It is important that local chambers of commerce and self-employed unions help self-employed workers to deal with insecurity about the future of their business. Due to the representative nature of our sample, we can conclude that subjective job insecurity may also have macro-economic implications. Research shows that individual job performance is an essential predictor to organizational performance (e.g., Becker *et al.*, 1997). The association between subjective job insecurity and (self-rated) job performance found in this study suggests that if employees feel more insecure about their job, they lower their job performance, which could then have implications for organizational performance. Labour productivity and organizational performance are important determinants to economic growth (Paci, 1997), which implies that subjective job insecurity, as an important individual-level antecedent to both labour productivity and organizational performance, may also have macro-economic implications.

Conclusion

Using a representative sample of the Dutch workforce, our study shows that subjective job insecurity has a small but meaningful direct association with self-rated performance. However, it is crucial for understanding the relationship between job insecurity and job performance to take into account both the objective situation of workers in terms of employment group and the subjective appraisal in terms of their concern about the future of their job or business. Self-employed workers with and without employees as well as permanent workers have greater expectations about the security of their job and success of their business and have more to lose, which is likely to strengthen their association between subjective job insecurity and job performance. For TAW and on-call workers, however, job insecurity is part of the deal, and has only a mild association with job performance.

Notes

1. Selenko *et al.* (2013) found a non-linear association between subjective job insecurity and self-rated job performance. We also tested for non-linear associations between subjective job insecurity and self-rated job performance by including a squared term of subjective job insecurity in regressions conducted in each subgroup. We did not find non-linear associations between subjective job insecurity and job performance within the different subgroups.
2. We tested the robustness of the effect sizes by replicating our analysis in smaller samples and found similar results.

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