Employment Prospects of Temporary and Permanent Workers: Associations with Well-being and Work Related Attitudes[1]

Thomas Rigotti*, Nele De Cuyper**, Hans De Witte**, Sabine Korek* and Gisela Mohr*

* University of Leipzig, Institute of Psychology II, Work and Organisational Psychology (Germany)
** Katholieke Universiteit Leuven, Research Group Stress, Health and Well-being (Belgium)

Abstract

This study investigates the relation between employment prospects and well-being (irritation, anxiety, and depressive moods) and job and organisational attitudes (job satisfaction, affective organisational commitment) in temporary versus permanent workers. The perception of employment prospects are considered to be part of the employer-employee-relationship and express the employees' feeling of employment security and career progress within the company. We argue that for temporary workers reduced employment prospects are anticipated and predictable. They adapt their expectations regarding ongoing employment accordingly, whereas permanent workers may still expect lifelong employment. Results based on a German sample of 643 employees show that temporary workers experience more job insecurity than permanent workers, and they perceive fewer employment prospects. However, job insecurity is more strongly related to poor well-being among permanent workers than among temporary workers as expected, but the relationship of job insecurity with work attitudes was not different for the two employment groups. For both groups no difference was found concerning the relationship of psychological contracts on health outcomes, but the relationship to employees' attitudes was stronger among permanent workers than among temporary workers. It has to be taken into account, that precarious short term arrangements are underrepresented in the sample.

Keywords

employment prospects – job insecurity – psychological contract – temporary employment – well-being – work attitudes

1 Introduction

Temporary employment has become one of the primary human resource instruments to promote organisational flexibility. For example, over 40% of new job offers in Germany are temporary in nature (Bellmann, Dahms, & Wahse, 2004). In March 2004, more than 2.4 million employees in Germany reported having a fixed term contract (Statistisches Bundesamt, 2004); i.e. the employee is hired directly by the employer for a short-term period (EU Directive 99/71/EC concerning the Framework Agreement on Fixed Term Work). This evolution towards increased temporary employment has contributed to a decline in employees' future employment prospects, especially in times of high unemployment rates.

The aim of this study is to investigate this development towards reduced employment prospects in relation to employees' well-being and attitudes. More specifically, we compare the reactions of those directly confronted with this development, as is the case for temporary workers, to those only observing the trend, as is the case for permanent workers. Future employment prospects in this study refer to job insecurity (i.e., the employees' concerns about the continuity of the job

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in the future; Klein Hesselink & Van Vuuren, 1999), or to employers' promises to provide future employment. These promises are part of the psychological contract, defined by Rousseau (1989, p. 121) as „an individual's perceptions about reciprocal promises between that individual and the organisation, and of what each party is entitled to receive as a function of those promises". While job insecurity has been used in earlier studies in the realm of temporary work research, the specific focus upon psychological contracts is innovative to this study. We consider multiple outcomes: employees' attitudes, such as job satisfaction and affective organisational commitment, are used to measure employees' short-term reactions. Work-related well-being (depression, anxiety and irritation) is used to reflect long term reactions (Sverke, Hellgren & Näswall, 2002). This fairly large set of outcome variables presents yet another contribution to the literature.

1.1 Job Insecurity Among Temporaries and Permanents

Research consistently shows higher job insecurity among temporary workers (for a review, see De Cuyper et al., 2008). This high correlation has resulted in a near to interchangeable use of temporary employment and job insecurity, as illustrated in suggestions to use temporary employment as an objective indicator of job insecurity (e.g., Büssing, 1999; De Witte & Näswall, 2003; Pearce, 1998). However, a broad set of variables may inflate the relationship between job insecurity and temporary employment. For example, slightly more women than men work on temporary arrangements, temporary workers are on average younger than permanent workers, they are somewhat less educated, they are less likely to be a union member, and they work less hours per week on average (De Cuyper, Isaksson & De Witte, 2005; OECD, 2002). At the same time, research has shown gender (Kinnunen, Mauno, Nätti & Happonen, 1999; Näswall & De Witte, 2003; Sverke et al., 2004), age (Burchell et al., 1999; Kinnunen et al., 1999; Mohr, 2000; Näswall & De Witte, 2003; Roskies & Louis-Guerin, 1990; Van Vuuren, Klanderman, Jacobson, & Hartely, 1991), education (Näswall & De Witte, 2003; Schaufeli, 1992) and union membership (De Witte, 2005; Sverke et al., 2004) to be correlates of job insecurity. Family status appears also to affect feelings of job insecurity (e.g., Mauno, Kinnunen, Makingangas & Nätti, 2005). Even though these demographic variables show inconsistent relationships with job insecurity, it may nevertheless be important to control for them when studying job insecurity in the context of temporary employment. Our first hypothesis consequently reads as follows:

H1: After controlling for relevant demographic variables, employees on temporary contracts report higher job insecurity than employees on permanent contracts.

The harmful effects of job insecurity on job and organisational attitudes and well-being are well-documented (see e.g., Cheng & Chan, 2007; De Witte, 1999; Sverke et al., 2002). As respects job attitudes, a negative relationship between job insecurity and job satisfaction has been demonstrated repeatedly. Similarly, job insecurity relates negatively to organisational attitudes, such as affective organisational commitment (Benz, 2002; Borg, 1992; De Witte & Näswall, 2003; Lord & Hartley, 1998). In addition, job insecurity has been found to be positively related to anxiety and depression (Roskies & Louis-Guerin, 1990; Roskies, Louis-Guerin & Fournier, 1993; Orpen, 1993; Van Vuuren et al., 1991), burnout (Dekker & Schaufeli, 1995; Landsbergis, 1988) and irritation (De Cuyper & De Witte, 2005).

A tempting conclusion could be that job insecurity might be a severe stressor for temporary workers: temporary workers report higher job insecurity, and job insecurity associates with overall unfavourable outcomes. For example, Beard and Edwards (1995) predict worse effects of job insecurity among temporary workers: temporary workers are confronted with the threat of total job loss; the probability that this threat will be realized is close to maximal; and, because temporaries may experience difficulties in finding a permanent job, the threat of job loss is perceived to be important.

Alternatively, Jacobson and Hartley (1991, see also Pearce, 1998) argue that job insecurity might be less harmful for temporary workers than for permanent workers: job insecurity is part of the expectations and everyday experience of temporary workers. Unlike permanent workers, temporary workers may not perceive job insecurity as unpredictable or uncontrollable (Cavanough & Noe, 1999). Unpredictability and uncontrollability are however at the core of job insecurity theories. For example, Mohr (1997; 2000) argues that job insecurity can be broken down into four phases. The main difference between these four phases is the level of predictability. If predictability is low, individuals do not have enough information to decide on how or when they should act in order to prevent unemployment. Only in the final fourth phase, where dismissals have already been arranged, are the options for action evident.

Recently, authors have started to investigate the hypothesis on potential interactions between job insecurity and contract type. Evidence suggests that job insecurity is less problematic for temporary than for permanent workers. For example, the bulk of studies (De Cuyper & De Witte, 2006; 2007; De Witte & Näswall,

2003; Guest & Conway, 2000; Mauno et al., 2005) show that job insecurity associates with a reduction of job satisfaction and affective organisational commitment among permanent workers, but not among temporary workers. These findings have been replicated for other work-related outcomes, such as involvement, positive work-home interference, trust and turnover intention (De Cuyper & De Witte, 2005), as well as for general well-being and health (Bernhard-Oettel, Sverke & De Witte, 2005; Virtanen, Vahtera, Kivimäki, Pentii & Ferrie, 2002; Sverke, Gallagher & Hellgren, 2000). In line with this evidence, we hypothesize the following:

H2: The negative relationships between job insecurity and job satisfaction (H2a) and affective organisational commitment (H2b), and the positive relationships between job insecurity and irritation (H2c), anxiety (H2d) and depression (H2e) are stronger in permanent as compared to temporary workers.

1.2 Psychological Contracts of Temporaries and Permanents

An interesting question is whether such interaction effects hold for other aspects of employment prospects; for example, employees' perceptions on what the employer has promised to provide as part of the psychological contract that exists between employer and employee. In this respect, various authors have speculated about the emergence of a new psychological contract (Guest & Conway, 2000; Herriot & Pemberton, 1995; Robinson, Kraatz & Rousseau, 1994). The new psychological contract aligns with current labour market evolutions: it highlights the importance of organisational flexibility to cope with increased worldwide competition, and it stresses employability to guarantee continuous employment for employees. This new psychological contract has often created, intentionally or not, a more transactional relationship for employees (Guest & Clinton, 2005), in which economic exchanges and short-term benefits prevail. In contrast, the old psychological contract aims at establishing a long-term employment relationship by broadening the range of promises to include socio-emotional aspects, most notably job security. The presence or absence of promises concerning employment prospects might be the most critical indicator for differentiating between the old and the new psychological contract. Leading authors have suggested that the new psychological contract will become increasingly important for all employees (Anderson & Schalk, 1998; Cooper, 1999; Coyle-Shapiro & Kessler, 2002; Hiltrop, 1995; Koh & Yer, 2000; Millward & Brewerton, 2000; Rousseau, 1995). Today, the new psychological contract might already be relevant for temporary as compared to permanent workers (Millward & Brewerton, 2000; Millward & Hopkins, 1998): This suggests that temporary compared with permanent workers may perceive fewer promises regarding reasonable job security or future career prospects in the organisation, which was demonstrated in the study by Claes et al. (2002). This study did not, however, control for demographics, and this may have influenced the results. Accordingly, our third hypothesis reads as follows:

H3: Controlling for demographics, temporaries perceive fewer employers' promises regarding future employment prospects than permanents.

Previous studies (e.g., McDonald & Makin, 2000; Millward & Hopkins, 1998; Van Dyne & Ang, 1998) have hypothesized that the effects of this new psychological contract are likely to be negative for employees. For example, Beard and Edwards (1995) suggest that it may prevent the development of a trust relationship with the employer, and this, in turn, would result in detrimental outcomes. We challenge this assumption of overall negative effects: We suggest differential effects for temporary and permanent workers based on two reasons: We argue that perceived psychological contract promises should be evaluated in light of employees' general expectations on what constitutes contemporary employment. If employees expect ongoing employment, as in the case of permanent employment, poor well-being and unfavourable attitudes may result when these expectations are not matched with employer's promises on employment prospects. In contrast, no such harmful effects are expected in cases where both expectations and promises are absent, as might be the case for temporary workers. Hence, we hypothesize the following:

H4: The positive relationships between psychological contract expectations regarding future employment prospects and job satisfaction (H4a) and affective organisational commitment (H4b), and the negative relationships between such psychological contract expectations and irritation (H4c), anxiety (H4d) and depression (H4e) are strong in permanent compared with temporary workers.

2 Method

2.1 Procedure

Data were gathered in 34 organisations across Germany in 2004. Fourteen organisations (N = 226) were selected from the educational sector (primarily organisations providing vocational education), 11 organisations (N = 202) were selected from the retail sector (shops, banks) and 9 organisations (N = 215) were selected from the food sector (production plants). All

organisations willing to participate were included. Response rates within organisations varied between 13% and 100%, but were, on average, above 60%. A special effort was made to sample temporary workers. Most questionnaires were distributed by HR-managers. Participation was voluntary and anonymity was guaranteed.

2. 2 Respondents

Overall, we gathered data from 643 employees, 45% of which (N = 290) had a temporary employment contract. Temporary workers were evenly represented in all three sectors, with 42% in the food sector, 41% in the retail sector, and 51% in the educational sector ($\chi 2$ (2, N = 643) = 5.52, p>.05). All temporary workers were directly hired by the organisation they worked for (excluding temporary agency workers). The contract duration of their current contract was on average M = 17.90 months (SD = 24.25) and they had been employed with their current employer for M = 27.87 months (SD = 40.27) on average. Thus for many it was not the first temporary assignment with the same employer.

Overall, the sample consisted of 51% females. The average age was 37 years (SD = 12 years), with a range from 16 to 72 years. The temporary and the permanent sample differed in line with population trends. Temporary workers (M = 32.77, SD = 12.35) were on average eight years younger than permanent workers (M = 40.78, 10.16), t(629) = -8.93, p<.001. 38% of the temporary employees, and only 16% of the permanent employees were employed as blue-collar workers, $\chi 2$(1, N = 643) = 40.48, p<.001. The temporary sample had a slightly lower educational background, t(619) = -2.68, p<.01, mainly because permanent workers in our sample were more likely to have a university degree (48% as compared to 38%). No differences regarding the distribution of gender across the two subsamples of temporary and permanent workers could be found, $\chi 2$(1, N = 638) = 1.82, p = .18. Permanent workers (27%) were twice as likely to belong to a union than temporary workers (13%, $\chi 2$ (1, N = 640) = 20.43, p<.01). Furthermore, permanent workers (M = 37.21, SD = 8.48) worked about 5 hours more a week than temporary workers (M = 32.23, SD = 11.85), t(630) = -6.14, p<.001. Permanent workers (79%) were more likely to live with a partner than temporary workers (65%, $\chi 2$ (1, N = 629) = 15.14, p<.01).

2.3 Measures

Type of contract
Respondents were asked to state whether they hold a permanent (1) or a temporary (0) employment contract.

Control Variables
Age (years) and weekly working hours (average hours per week) were continuous variables. Gender (0 = female; 1 = male), occupational position (1 = blue collar worker; 0 = others), family status (0 = single; 1 = living with partner), and union membership (0 = no; 1 = yes) were dichotomous variables. In line with the annual Microsensus analyses by the German federal statistics office (Statistisches Bundesamt Deutschland, 2005), educational level was assessed by using a combination of school and vocational education, which corresponds with the International Standard Classificaton of Education (ISCED, OECD, 1999). This measure is generally considered to be metric. Finally, type of sector was dummy-coded, with educational sector being the reference category.

Job insecurity
A four-item measure, developed by De Witte (2000), was used to assess perceived job insecurity (e.g., „I feel insecure about the future of my job“). Responses ranged from 1 (strongly disagree) to 5 (strongly agree). Confirmatory factor analysis ($\chi 2$ = 1.07, df = 2, p>.05 GFI = .99, $AGFI$ = .99, $RMSEA$ = .00) supported one dimensionality. The scale yielded an alpha of .74.

Psychological contract
To measure perceived employer's promises regarding future employment prospects as part of the psychological contract, we used a set of four items: „Has your organisation promised or committed itself: (1) to provide you with a reasonably secure job?, (2) to provide you with a career?, (3) to provide you with opportunities to advance and grow?, and (4) to improve your future employment prospects?“ Respondents could indicate whether they perceived the promise to be given (1) or not (0), resulting in a scale ranging from 0 to 4. A confirmatory factor analysis supported a one-dimensional construct ($\chi 2$ = 1.94 , df = 2, p>.05 GFI =. 99, $AGFI$ = .99, $RMSEA$ = .00). Cronbach's Alpha for the four items was .72.

Dependent variables
Job Satisfaction was measured using four items developed by Price (1997; e.g., „I find enjoyment in my job“.). Respondents could answer on a five-point response format (1 = strongly disagree; 5 = strongly agree). One-dimensionality was supported by a confirmatory factor

Table 1: Pearson correlations, means and standard deviations, and reliability for all variables

									Permanents (n=353)		Temporaries (n=290)		Overall sample (n=643)	
		1	2	3	4	5	6	7	M	SD	M	SD	M	SD
1	Job insecurity	*(.74)*							2.33	0.81	2.96	0.99	2.53	0.95
2	Job Satisfaction	-.25**	*(.75)*						4.14	0.63	4.08	0.72	4.11	0.68
3	Commitment	-.27**	.57**	*(.68)*					3.93	0.66	3.80	0.74	3.87	0.70
4	Cognitive Irritation	.04	.04	.12**	*(.87)*				3.61	1.67	3.18	1.59	3.42	1.65
5	Depressive mood	.28**	-.58**	-.41**	.22**	*(.80)*			2.36	0.70	2.21	0.67	2.29	0.69
6	anxiety	.23**	-.33**	-.20**	.48**	.65**	*(.84)*		2.69	0.78	2.53	0.77	2.62	0.78
7	Psychological Contract	-.22**	.05	.14*	.08*	-.07	.01	*(.72)*	2.07	1.38	1.43	1.39	1.78	1.42

**p<.01, *p<.05., Cronbach Alphas in Parentheses

analysis ($\chi 2$ = 1.18, *df* = 2, *p*>.05 *GFI* = .99, *AGFI* = .99, *RMSEA* = .00). The scale yielded an Alpha of .75.

Affective Organisational Commitment was measured with four items developed by Cook and Wall (1980; e.g., „To know that my own work has made a contribution to the good of the organisation would please me"), with responses varying from 1 (strongly disagree) to 5 (strongly agree). The items reflected one latent construct ($\chi 2$ = 7,93, *df* = 5, *p*>.05 *GFI* = .99, *AGFI* = .98, *RMSEA* = .03). Cronbach's Alpha of the scale in our sample was .68.

Cognitive Irritation (Rumination) was measured using a three-item subset of the Irritation scale (Mohr, Rigotti & Müller, 2005). Irritation is defined as an early state of psychological impairment caused by perceived goal discrepancy, and includes rumination about problems at work (cognitive irritation) and emotional irritation (Müller, Mohr & Rigotti, 2004, p. 223). Cognitive Irritation was assessed by items such as the following: „I often think of my problems at work even at home" (1 = strongly disagree; 7 = strongly agree). As CFA is not applicable to three items, we performed a principal component analysis that clearly indicated the presence of a single factor, explaining 79% of the variance. The scale yielded a Cronbach's Alpha of .87.

Finally, anxiety-versus-contentment (anxiety) and depression-versus-enthusiasm (depressive mood) were measured with six items each, using the scale developed by Warr (1990). Respondents had to indicate how often (1 = rarely or never; 5 = very often or always) they felt each of the 12 moods (e.g., tense, contended) with respect to their work during the past few weeks. A higher score reflected a more negative affect. The anxiety scale yielded an alpha of .80, and the depression scale an alpha of .84. Confirmatory factor analyses yielded satisfactory results for both anxiety ($\chi 2$ = 75.68, *df* = 9, p<.00; *GFI* = .96, *AGFI* = .91, *RMSEA* = .11), and depression ($\chi 2$ = 86.88, *df* = 9, *p*<.00; *GFI* = .94, *AGFI* = .85, *RMSEA* = .12). Even though the RMSEA points towards a redundancy in the item-pool, the alpha could not be altered by deletion of items. We therefore decided to include all items.

Table 1 gives an overview of correlations between variables, as well as means and standard deviations of the instruments for the sample of permanent and temporary workers separately.

2.4 Analyses

Differences between permanent and temporary empolyees on job insecurity (H1) and psychological contract content (H3) were tested using multiple regression analyses with the control variables in the first step (age, gender, weekly working hours, occupational position, educational level, family situation, union membership, and sectors) and type of contract in the second step.

Hypotheses 2 and 4 were tested using multiple regression analyses separately for all dependent variables, and applying list wise deletion. In the first step, we entered the set of control variables, and type of contract. In the second step, we added job insecurity, and psychological contract content (cf. Aiken & West, 1991; Baron & Kenny, 1986). In a last step, we included the interaction term (job insecurity * type of contract for hypothesis 2, and psychological contract * type of contract for hypothesis 4). In line with Aguinis (2004), interactions are to be taken seriously when explaining 1% of the variance. Because of the categorical nature of the moderator variable, we additionally calculated the odds ratio of error variance: these should be below 1.50 to support the assumption of homogeneity of error variances (Aguinis, Peterson & Pierce, 1999) across categories of the moderator variable. When interaction terms proved significant, we plotted the regressions below and above one standard deviation of the mean (Aiken & West, 1991), and performed simple slope regression analyses separately for the samples of temporary and permanent workers (including sociodemographics as controls).

3 Results

3.1 Job Insecurity and psychological contracts on employment prospects in temporary and permanent workers

Temporary workers experienced higher job insecurity than permanent workers (β = -.30, *p*<.001), even when controlling for background variables. This was in line with hypothesis 1. Control variables predicted 13% of the variance in job insecurity. Type of employment contract explained an additional 6% of the variance in job insecurity.

In the following, we only present information on significant predictors. Blue collar workers reported higher levels of job insecurity (β = .21, *p*<.001); working hours were positively related to job insecurity (β = .13, *p*<.001); and employees from different sectors differed in their perception of job insecurity. Compared to the educational sector, employees from the food industry and from retail and service gave lower ratings on job insecurity (β = -.27, *p*<.001, and β = -.10, *p*<.05, respectively).

Permanent workers perceived more promises on future employment prospects than temporary workers,

Table 2: Results of multiple regression analyses

	Job satisfaction			Commitment			Cognitive Irritation			Depressive Mood			Anxiety		
Step	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**
1. Age	.11*	.11*	.10*	.14**	.15**	.14**	.06	.07	.06	.01	.01	.01	.00	.00	.00
2. Male	-.11**	-.10*	-.10*	.00	-.01	-.01	-.07	-.09*	-.08	.03	.02	.03	-.03	-.04	-.03
3. weekly working hours	.02	.05	.05	.02	.03	.03	-.01	-.03	-.01	.07	.03	.04	.17**	.13**	.15**
4. Blue collar	-.20**	-.15**	-.14**	-.27**	-.21**	-.21**	-.12*	-.14**	-.11*	.08	-.01	.01	-.01	-.07	-.06
5. Educational Level	.04	.04	.02	.08	.09	.07	.01	.01	-.01	-.04	-.05	-.05	-.02	-.02	-.02
6. Living with partner	.03	.03	.02	-.03	-.03	-.03	.06	.06	.06	.00	.00	.00	.01	.01	.01
7. union member	-.03	-.03	-.01	.03	.02	.03	-.02	-.02	-.03	.02	.02	.01	.01	.01	.00
8. Food industry	.11	.04	.00	.28**	.25**	.23**	-.18**	-.14	-.18*	-.12*	-.04	-.05	-.23**	-.14*	-.16**
9. Retail	.07	.04	.03	.17**	.15**	.14**	-.04	-.02	-.05	.05	.08	.07	-.05	-.02	-.03
10. Permanent contract	-.07	-.15**	-.36**	-.06	-.15**	-.27*	.09	.11*	-.41**	.10*	.23**	-.01	.06	.16**	-.11
11. Job insecurity		-.27**	-.28**		-.22**	-.21**		.12**	-.04		.36**	.25**		.31**	.20
12. Psychological contract		.01	-.15*		.12**	-.01		.06	-.03		-.06	.00		-.01	.03
13. Job insecurity x Type of contract			.06			.00			.44**			.29*			.30**
14. Psychological contract x Type of contract			.28**			.22**			.17*			-.10			-.06
ΔR^2	**.07****	**.06****	**.02****	**.10****	**.06****	**.01***	**.10****	**.01***	**.03****	**.03***	**.11****	**.01***	**.06****	**.08****	**.01***
Heterogeneous error variance?		1:1.26			1:1.22			1:1.04			1:1.01			1:1.07	

*p < .05, ** p < .01. Figures shown in the table are standardised beta-weights.

even when controlling for background variables (β = .22, p<.001). This aligned with hypothesis 3. Control variables accounted for 9% of the variance. Contract type added 3% of the variance in the dependent variable. Regarding the control variables, men reported more promises than women (β = .12, p<.01), and working hours were positively related to promises (β = .12, p<.01). Employees from the food industry reported fewer promises than those from the educational sector (β = -.24, p<.001).

3.2 Interactions between Job Insecurity, Employment prospects and Contract Type

The results of multiple regression analyses are presented in table 2. Control variables (Including type of contract) accounted for between 3% (depressive mood) and 10% (affective organisational commitment, cognitive irritation) of the variance in the dependent variables.

Differences in dependent variables between temporary and permanent workers revealed to be non-significant (except for depressive mood – with higher values for permanent workers) until including job insecurity, and employment prospects within the psychological contract.

Main effects of job insecurity (Step 2, under control of sociodemographics and type of contract) could be found for all dependent variables, while for the employment prospects within the psychological contract only a significant relationship to affective commitment could be found.

The interaction term of job insecurity with type of employment contract added significantly in predicting variance in cognitive irritation, depression, and anxiety, as hypothesized (Table 2). No such interactions were found for job satisfaction and organisational commitment. In contrast the interaction term of employment prospects (psychological contract) significantly explained variance in job satisfaction, and affective commitment, as well as cognitive irritation (but with a lower effect size as compared to job insecurity), but not of depressive mood, and anxiety. The assumption of homogeneous error variance is met for all variables. Figures 1 to 5 show the regression-lines for the five significant interactions. As the interaction between psychological contract and type of employment contract had a very low effect size, and only marginally surpassed the significance level of 5% (β = .17, p = .046), we did not plot this interaction. As predicted the association between job insecurity and all indicators of well-being was stronger for permanent than for temporary workers. H2 was supported partly, that is only for the health outcomes, not concerning the work attitudes. Also H4 was partly supported, but with an opposite pattern.

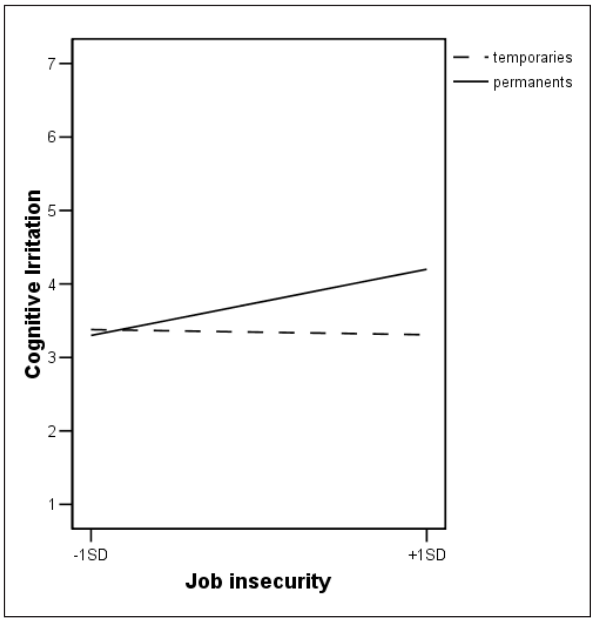


Figure 1:
Significant interaction effect between perceived job insecurity and type of employment contract on cognitive irritation

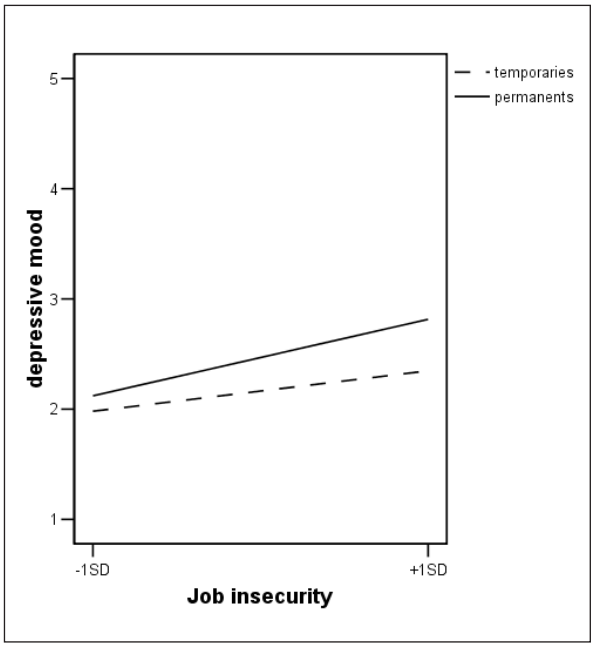


Figure 2:
Significant interaction effect between perceived job insecurity and type of employment contract on depressive mood

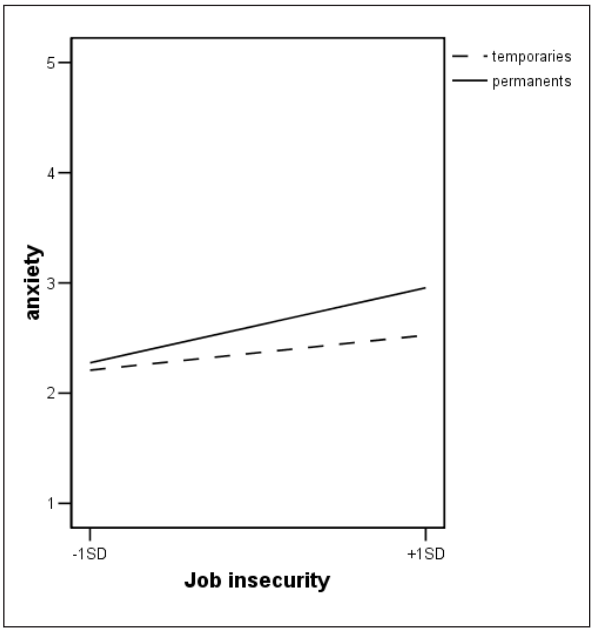


Figure 3:
Significant interaction effect between perceived job insecurity and type of employment contract on anxiety

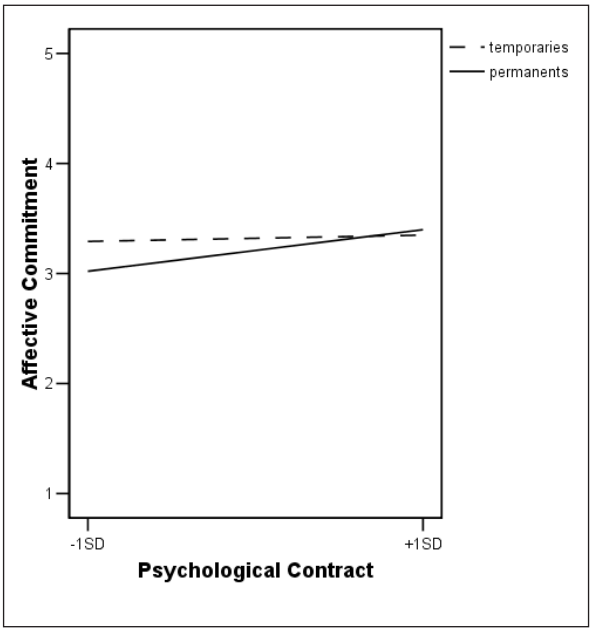


Figure 5:
Significant interaction effect between psychological contract and type of employment contract on commitment

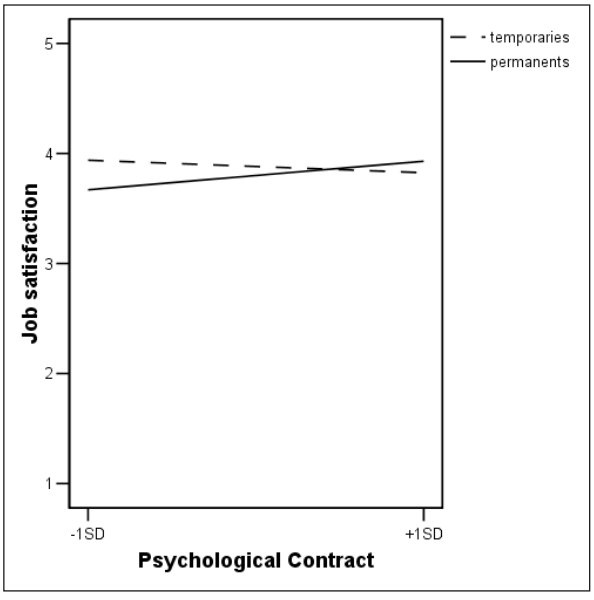


Figure 4:
Significant interaction effect between psychological contract and type of employment contract on job satisfaction

When testing the samples of temporary and permanent workers separately, the following results were found with respect to job insecurity: For permanent workers, job insecurity could explain variance in all dependent variables above the impact of controls (job satisfaction: $\beta = -.24$, $p<.001$, $\Delta R^2 = .06$; commitment: $\beta = -.23$, $p<.001$, $\Delta R^2 = .05$; cognitive irritation: $\beta = .22$, $p<.001$, $\Delta R^2 = .05$; depressive mood: $\beta = .41$, $p<.001$, $\Delta R^2 = .16$; anxiety: $\beta = .36$, $p<.001$, $\Delta R^2 = .13$). But this was also primarily the case for temporary workers, where job insecurity significantly added to the explanation of variance in the dependent variables, with the exception of cognitive irritation (job satisfaction: $\beta = -.21$, $p<.001$, $\Delta R^2 = .03$; commitment: $\beta = -.17$, $p<.01$, $\Delta R^2 = .02$; cognitive irritation: $\beta = .00$, $p>.05$, $\Delta R^2 = .00$; depressive mood: $\beta = .26$, $p<.001$, $\Delta R^2 = .05$; anxiety: $\beta = .22$, $p<.001$, $\Delta R^2 = .04$).

The psychological contract could significantly explain variance in dependent variables for permanent employees, except in the case of cognitive irritation (job satisfaction: $\beta = .18$, $p<.001$, $\Delta R^2 = .03$; commitment: $\beta = .26$, $p<.001$, $\Delta R^2 = .06$; cognitive irritation: $\beta = .06$, $p>.05$, $\Delta R^2 = .00$; depressive mood: $\beta = -.18$, $p<.01$, $\Delta R^2 = .03$; anxiety: $\beta = -.12$, $p<.05$, $\Delta R^2 = .01$). No significant relationship between psychological contract and outcomes could be found for temporary employees.

4 Discussion

This study aimed to address the overall growing concern about reduced employment prospects in the current labour market and the impact that such a reduction might have on employees' attitudes (job satisfaction, organisational commitment) and well-being (depressive mood, anxiety, irritation). We investigated this development from the perspective of temporary and permanent workers, for they may differ in the extent to which they experience this change. Indeed, as expected temporary workers in our study were more insecure about their jobs (H1) and they perceived fewer employers' promises with respect to securing long-term employment (H3).

Nevertheless we assumed, that these two circumstances – though being evidently more prone for temporary workers – have stronger negative effects on well-being and positive work attitudes like job satisfaction or affective organisational commitment for permanent workers than temporary workers (H2, H4). We argued that temporary workers may anticipate reduced employment prospects and adapt their expectations accordingly, i.e. in line with their everyday experience. For them the options on how to deal with reduced employment prospects are more clear. In contrast, the discrepancy between expectations and reality might be more distressing for permanent workers (also perceiving unfavourable employment prospects and job insecurity though to a lower degree), because they may feel betrayed when confronted with reduced employment prospects. Additionally the options what to do are less clear than for a temporary worker who knows anyhow that he or she will soon have to search for a new job. As long as no term of notice is given it remains unclear for permanents when and if he or she should take action and leave the company. Because of this aspect of less predictability we assumed, that job insecurity and perception of reduced employment prospects, though less distinct in permanent workers, may show a stronger relation to health outcomes and work attitudes than in the case of temporary workers.

Our results partly supported this argument: Job insecurity was more strongly related to poor well-being (irritation, depression and anxiety) among permanent workers than among temporary workers, but this was not the case for the two work attitudes. Similarly, a limited number of employers' promises concerning long-term employment related more strongly to unfavourable work attitudes (job satisfaction and organisational commitment) among permanent than among temporary workers, but this was not the case for the three health outcomes. The question then is why the interaction term between contract type and either job insecurity or psychological contract promises were differently related to the outcomes; i.e., to well-being and organisational outcomes, respectively.

A possible explanation could be that employment prospects is organisation-specific and tied up with the current job. Hence, employees' reactions may primarily reflect discontent with the current job (e.g., job satisfaction) and with the organisation (e.g., organisational commitment). It does not necessarily imply a threat, whilst job insecurity may additionally represent a fairly general threat to future employment prospects. A threat may be linked more to emotional responses like depressive mood and anxiety. Employees' reactions in terms of reduced well-being may mirror this generalized perception. By being specific about effects on health outcomes we do not claim, that feelings of job insecurity are unrelated to one's current job and organisation. Job insecurity had a main effect on all outcome variables in our study, pointing to its overall harmful effect.

Similarly, for job insecurity and psychological employment prospects different control variables proofed to be relevant. For example, employment in the sector of education as compared to employment in the food industry was associated with higher job insecurity, but also with more perceived employers' promises regarding future employment. This puzzling finding may, at least partly, be explained by the labour market situation: in the educational sector, we mainly sampled private organisations offering vocational training, and public grants for individuals following such trainings were cut shortly before the study. As a result, the educational sector was going through a severe crisis when data were gathered. This may have caused higher job insecurity levels, although employees' perceptions of promises may not yet have changed. This may provide additional evidence for different processes underlying the perception of promises, and perhaps also for the impact of job insecurity and the development of psychological contract content.

4.1 Limitations

This study shares the limitations of many studies: A cross-sectional design and reliance on self-reports. Considering the short-term nature of temporary employment contracts and hence, the high level of organisational turnover among temporary workers, it is however difficult especially for that topic to establish a longitudinal design. The reliance on self reports may lead to inflated relationships (cf. Percept-percept-inflation paradigm; Crampton & Wagner, 1994). This threat of common variance effects may be considerably reduced by the objective nature of the type of contract. Also, common method effects are likely to attenuate

rather than to strengthen interaction effects (Conway & Briner, 2002). As these interaction effects cover the core question of this study, we feel confident that this methodological limitation does not substantially limit the meaning and validity of our findings. Also it should be considered that employments prospects are defined as part of the psychological contract, which is – in contrast to the formal contract – subjective per definition.

Furthermore, the sample used in this study was not representative for the total working population, if only because of the overrepresentation of temporary workers. The subsample of temporary workers included a large majority of fixed term contract workers. Even though fixed term contracts are the most common temporary contract type both in Germany and in Europe (De Cuyper et al., 2005), it may hamper possibilities for generalizing findings to all types of temporary workers, for example temporary agency workers (c.f., Silla, Garcia & Péiro, 2005) or more precarious arrangements like on call workers and those with very short contracts. Similarly, due to the specific German labour market situation, and most notably its high unemployment rate, results may be different in other countries. Nevertheless, the varied organisational contexts represent a major advantage of this study. And, as mentioned earlier, our results do at least partially replicate findings of various earlier European studies: Bernhard-Oettel et al. (2005) with a Swedish sample of N = 954 nurses and De Cuyper and De Witte (2007) with a sample of N = 477 of temporary and permanent workers from different occupations in Belgium also found an interaction of type of employment contract and perception of job insecurity in line with our results (see also De Cuyper & De Witte, 2006). It has to be mentioned, that there are great differences concerning facts related to temporary employment in these countries. To name only a few: In Sweden participation in unions is much larger. In Belgium Human Resource Managers anticipate workforce expansion whereas in Germany they anticipate workforce reduction, based on a survey in 2004 (Claes, 2008).

4.2 Conclusion

The results of our study should not be misinterpreted as a plea for the use of temporary employment contracts. Many of desired employees' attitudes and behaviors can only be fostered through a long-term relationship, which include employment prospects and mutual trust. The reported results rather point towards negative side effects of increased numerical flexibility even for the core employees.

The study added to the line of research about job insecurity another moderating variable: perceived employers' promises concerning ongoing employment. These employment prospects are more predictive of the attitudes of permanent workers than of those from the temporary workers. Additionally, our study showed that job insecurity and employment prospects are complementary in their interaction with contract type. This highlights the importance of using various measurements of employee prospects to understand processes underlying the responses of employees; a finding that is innovative to this study.

We argued for an explanation of our findings in terms of employees' overall expectations of what constitutes work in today's labour market. More specifically, we proposed that, while permanent workers may expect ongoing employment based primarily on the open-ended nature of their employment contract, temporary workers may anticipate reduced employment prospects and align their expectations with this everyday experience. This process may neutralize the negative effects of limited employment prospects among temporaries and may even represent a functional coping mechanism. The long-term effects of such a decrease in expectations have yet to be evaluated. This may be one of the most acute challenges for further research in this field.

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Correspondence to:
Thomas Rigotti
University of Leipzig
Institute of Psychology II
Work- and Organisational Psychology
Seeburgstraße 14-20
D-04103 Leipzig
rigotti@uni-leipzig.de