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TEMPORARY EMPLOYMENT: ASSOCIATIONS WITH EMPLOYEES' ATTITUDES, WELL-BEING AND BEHAVIOUR. A REVIEW OF BELGIAN RESEARCH

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Results concerning the relationship between temporary employment and employees' attitudes, well-being and behaviour at work are inconsistent. We summarise Belgian research attempts to account for this inconsistency. These explanations concern (1) the heterogeneity of the temporary workforce; (2) the idea that contract type could moderate the stressor-strain relationship; (3) the possibility of hidden costs of temporary employment for permanent workers; and (4) transitions between temporary and permanent employment. Explanations in terms of heterogeneity added little in explaining temporary workers' responses. The other routes were promising. We discuss these studies in terms of possible implications for theory, methodology and practice.

Introduction

Scholarly interest in temporary employment was at its height in the mid 1980s, following the spectacular increase in temporary employment arrangements in most advanced societies (OECD, 2002). It rose to a new high in recent years; this time inspired by debates on the emergence of an era of employment flexibility (Guest, 2004; Kalleberg, 2000). A common feature in most of these writings is that temporary employment is portrayed as a cause for concern when it comes to employees' attitudes, well-being or behaviour at work (Kunda, Barley, & Evans, 2002): Temporary employment is seen as indicator of excessive labour market divide, hence as overly precarious (Amuedo-Dorantes, 2000).

Support comes from studies that have demonstrated poorer attitudes (Forde & Slater, 2006) and well-being (Virtanen, M., Kivimäki, Joenssu, Virtanen, Elovainio, & Vahtera, 2005; Virtanen, Liukkonen, Vahtera, Kivimäki, & Koskenvuo, 2003), and less productive behaviour (Coyle-Sha-

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piro & Kessler, 2002) among temporary compared with permanent workers. However, roughly an equal number of studies have reported null findings (Bardasi & Francesconi, 2004; De Witte & Näswall, 2003; Virtanen et al., 2003) or instead favourable outcomes for temporary workers (Liukkonen, Virtanen, Kivimäki, Pentii, & Vahtera, 2004; Mauno, Kinnunen, Mäkikangas, & Nätti, 2005; McDonald & Makin, 2000). This had led to the conclusion that temporary employment can be positive or negative for the worker; a conclusion that is underlined in the reviews by Connelly and Gallagher (2004) and De Cuyper, De Jong, De Witte, Isaksson, Rigotti, and Schalk (2008). An obvious question then is which factors contribute to the responses of temporary workers. To date, relatively little analysis has addressed this question; one exception being the series of studies conducted in the context of the PSYCONES project (PSYchological CONtracting across Employment Situations; www.uv.es/~psycon), a EU-funded project in which the authors to this paper had a partnership. In the following, we will discuss ten studies from the PSYCONES project. These studies were selected because (1) they sought to explain the inconsistent pattern of outcomes (namely, job attitudes, well-being and behaviour at work) associated with temporary employment, and (2) they were based on samples of Belgian workers, which therefore is of interest to the readership of Psychologica Belgica. In particular, it is our aim (1) to integrate these ten studies so that they lead to a consistent reasoning, and (2) to evaluate these studies' contribution to the literature, (3) in view of formulating implications for theory, research and practice.

The structure of this paper is as follows: We commence with a definition of temporary employment that prevails in the Belgian context. Next, we present our studies. We first introduce the samples and methodology used, and then we describe the studies' contributions to the literature. We conclude with implications for theory and practice. The paper's contribution is the emergence of new insights beyond what has been published elsewhere by putting together the results of a research program in the Belgian context.

Defining temporary employment in Belgium

Temporary employment is perhaps most parsimoniously defined as 'dependent employment of limited duration' (OECD, 2002, p. 170). A first element concerns the reference to waged (i.e., dependent) work. This implies that all forms of self-employment are excluded from the definition. Such is the case for independent contracting, even though this falls into the category of temporary employment in the US (Connelly & Gallagher, 2006). A second element is the reference to expiration of the contract (i.e., limited duration) whereas permanent employment builds on the notion of ongoing employment.

Due caution is warranted with this definition owing to the particularities of national legislation and employment regulations, and owing to the specific types of temporary work arrangements that exist in Belgium (OECD, 2002). In respect to national legislation, temporary employment is bound to specific conditions for hiring, renewal and total length of the assignment. Temporary workers can be hired to meet permanent staff absence, to match staff to peaks in demands or to assist with an exceptional work. Up to 3 renewals are allowed, and total length of temporary assignments may not exceed three years.

In respect to employment regulations, there is a minimum floor of rights to protect temporary workers, such as minimum wage, paid sick leave or holidays. Such protective regulations generally associate with a relatively low percentage of temporary workers in the labour market (Booth, Dolado, & Frank, 2002); about 10% in Belgium compared with the European average of 15% (Eurostat, 2004). Nevertheless, differences between temporary and permanent workers in statutory benefits remain. For example, access to fringe benefits is defined in relation to tenure, and many employers provide tenure-related incentives to foster employees' loyalty (OECD, 2002).

In respect to types of temporary work arrangements, most temporary workers in Belgium are employed on fixed term contracts, and, to a lesser extent, on temporary agency contracts (De Cuyper & De Witte, 2005). Fixed term contracts include an ending date that is set in advance. Fixed-term contract workers are directly hired by the employer. In contrast, temporary agency contracts are market-mediated (Kalleberg, 2000): Workers are hired by a third party – the agency – to perform work at the user's firm. Agency workers in Belgium have a temporary contract with the agency.

The studies: samples and measures

Our interest in temporary employment was driven by the observation that studies on the relationship between temporary employment and psychological outcomes have produced inconsistent and often contradictory results (for reviews, see Connelly & Gallagher, 2004; De Cuyper, De Jong et al., 2008). We saw the explanation of this mixed pattern of findings as the core aim in our earlier studies; namely, ten studies based upon four samples of Belgian workers and using internationally validated instruments.

The samples

We used four samples of Belgian workers, all with satisfactory response. Different samples were used because our research questions were plenty:

Table 1 The studies' samples

	Sample	Sample A Sample B		Sample C	C								
	(2002; s	(2002; studies 1, 6) (2003-'04; studies 2, 5, 7, 9)	(2003-,0)	4; studies ?	2, 5, 7, 9)	(2005; st	(2005; studies 3, 4, 8)	8)					
	Total	Temp	Perm	p^2	Total	Temp	Perm	p^2	Total	Fixed term	Agency	Perm	p^2
N organisations	4				7				23				
N employees (%)	544	148	392		260	189	371		623	167	104	352	
		(28)	(72)			(34)	(99)			(27)	(17)	(57)	
Age M (SD)	37	29	39	*	35	59	37	* *	33	27	30	37	* *
	(10)	8)	(10)		(10)	(10)	6)		(10)	(7)	(10)	(10)	
Female (vs. males)	325	83	239	.33	357	136	222	*	315	66	54	161	*
N (%)	(09)	(29)	(19)		(65)	(74)	(19)		(51)	(09)	(53)	(47)	
Academic (vs non-academic)	296	89	224	*	12	12	==	50.	215	73	23	120	* * *
$N (\%)^{1}$	(55)	(47)	(58)		4	(4)	(4)		(33)	(42)	(17)	(33)	
Single (vs married)	158	69	81	* * *	29	31	36	*	241	66	50	91	* * *
N (%)	(53)	(47)	(21)		(12)	(16)	(10)		(33)	(09)	(20)	(56)	
White collar (vs blue collar)	393	83	307	* * *	187	29	120	.57	303	111	22	159	* * *
N (%)	(73)	(99)	(6 <i>L</i>)		(35)	(37)	(34)		(51)	(69)	(22)	(48)	
Tenure M (SD)	12	3	4	* * *	10	3	14	* * *	9	2	_	10	* * *
	(10)	(5)	(10)		(6)	(5)	6)		6)	(2)	\equiv	(10)	
¹ Except in Sample B where education is measured as total years spent in education, M (SD)	tion is measu	red as total	years sp	ent in edu	cation, M	(SD)							

 2 Differences between subsamples: t-test for continuous variables; χ^2 test for dichotomous variables

 $^{^*}p < .05; ^{**}p < .01; ^{***}p < .001$ Note: Temp = Temporary, Perm = permanent

they required specific measurement instruments that, taken together, far exceeded the margins of an acceptable questionnaire length. Furthermore, the different samples increased possibilities for generalising findings. A summary of Samples A, B and C is presented in Table 1. Sample D is discussed separately in Study 10 because of the specific two-wave design that was used.

Sample A was gathered in 2002 among 544 respondents from departments of four organisations in three sectors: Industry, service, and healthcare. This sample figured in Studies 1 and 6. Twenty-eight percent were temporary workers, mostly on fixed-term contracts, and 72% were permanent workers. The data for Sample B were collected during winter 2003-2004. The sample included 560 respondents from seven organisations in two sectors: industry and retail. This sample was used in Studies 2, 5, 7 and 9. About one respondent in three was employed on a fixed-term contract. In 2005, a third sample was recruited among 623 respondents from 23 organisations from industry, the service sector and the public sector. This sample was used in Studies 3, 4 and 8. With this sample, we aimed at recruiting a significant share of temporary agency workers, who were underrepresented in Samples A and B: Twenty-seven percent of the respondents were fixed-term contract workers, 17% were temporary agency workers, and 57% were permanent workers.

There were significant demographic differences between temporary and permanent workers in Samples A, B and C: in all samples temporary workers were on average younger and less tenured than permanent workers, and they were more likely to be single. In samples B and C, the share of females was larger in the temporary sample than in the permanent sample. Temporary workers were less likely to have an academic degree than permanent workers in Sample A, and temporary agency workers were least likely to have an academic degree in Sample C. This largely aligned with population differences (OECD, 2002).

The measures

In all studies, we used measures that were validated in different settings. This yielded satisfactory reliabilities (Cronbach's alpha) for the outcome variables: job satisfaction, affective organisational commitment, life satisfaction, self-rated performance, turnover intention, and work engagement (Table 2 A). Also the measures for other variables that were critical to the studies were reliable: Voluntary, involuntary and stepping stone reasons for accepting temporary employment, autonomy, workload and job insecurity (Table 2 B).

Measures: The dependent variables

Dependent variable	Studies	Reference	N items	N items Response format	Sample item	α	
Job satisfaction	1-8	Price (1997)	4	1 = strongly disagree	'I am happy with my job'	.8284	
Affective organisational	1-8	Cook & Wall (1980)	9	5 = strongly agree 1 = strongly disagree	'I am proud to tell people	.7580	
communent	10	Allen & Meyer	4	5 = strongly agree 1 = strongly disagree	'My organisation means a	06 68.	
Life satisfaction	1 -7	(1990) Isaksson et al. (2003)	9	5 = strongly agree 1 = very dissatisfied	How satisfied are you with	.8388	
Self-rated performance	1, 5 -7	Abramis (1994)	9	7 = very satisfied 1 = very badly	your family life?' 'How well did you fulfil	.7478	
Turnover intention	2-4, 10	Price (1997)	4	5 = very wen1 = strongly disagree	each of the following tasks: (e.g., achieving one's objectives)' 'If I could, I would quit	.8695	
Work engagement	10	Schaufeli & Bakker	10	5 = strongly agree 0 = never	today, 'I am enthusiastic about my job' .9596	96 56.	
)		(2004)		6 = always			

Table 2 B

Measures: Mediators and moderators

Moderator/Mediators	Studies	Studies Reference	N items	N items Response format Sample item	Sample item	α
Voluntary reasons	4	Adapted from Tan & 5 Tan (2002)	5	1 = strongly disagree 5 = strongly agree	'To do a wide variety of jobs'	.91
Involuntary reasons	4	Adapted from Tan & Tan (2002)	3	1 = strongly disagree 5 = strongly agree	It is difficult for me to find permanent employment,	89.
Stepping-stone reasons	4	Adapted from Tan & Tan (2002)	4	1 = strongly disagree 5 = strongly agree	This way, I hope to gain permanent employment	88.
Autonomy	'n	Rosenthal, Guest, & Peccei (1996)	4	1 = strongly disagree 5 = strongly agree	'I can plan my own work'	77:
Workload	ν.	Semmer, Zapf, & Dunckel (1999)	4	1 = rarely/never 5 = very often/always	'How often are you pressed for work?'	69:

.84-.86

I feel insecure about the

1 = strongly disagree

De Witte (2000)

Job insecurity

The studies: core results and interpretation

We sought explanations for the inconsistent results along three core routes (see Table 3 for an overview). To begin with, we elaborated upon ideas that have a long tradition in the realm of temporary work research. The common strand is that the large heterogeneity of the temporary workforce may lead some temporary workers to respond more favourably and others less favourably than permanent workers. Second, we advanced a moderation approach. Third, we developed two new paradigms: Hidden costs for permanent workers and transitions between temporary and permanent employment. It is not our aim to discuss the results of the studies in great detail (see publications in Table 3). Instead our aim is to interpret the pattern of results beyond the ten studies and in the light of other (non-Belgian) studies, and to arrive at a consistent reasoning and research line for temporary employment research.

Route 1: heterogeneity

To date, research on temporary employment has focussed upon the seemingly large heterogeneity in temporary workers. Some authors have sought this heterogeneity in objective contract characteristics (e.g., specific contract type, contract duration). The assumed importance of objective contract characteristics is grounded in the observation that some temporary contracts are similar to permanent contracts with respect to employment stability and benefits (Aronsson, Gustafsson, & Dallner, 2002; Bernhard-Oettel, Sverke, & De Witte, 2005). Under the most optimistic scenario – when many temporary workers are employed under the best possible conditions – this would yield non-significant differences between temporary and permanent workers: Indeed, it is unlikely that temporary contracts are *more* stable or offer more benefits than permanent contracts. The implication is that objective contract characteristics may not explain the fairly favourable results reported in Studies 1 to 3. Therefore, we advanced explanations based on other indicators of heterogeneity; in particular variables that are traditionally used as controls (explanation 1), workers' motives for accepting temporary employment (explanation 2), and job characteristics (explanation 3).

Explanation 1. Control variables (Studies 1 to 3)

Some earlier studies failed to control for variables that mask or inflate differences between temporary and permanent workers; for example, sociodemographics, work-related or contextual factors. This criticism is voiced by other authors, as well (Bernhard-Oettel et al., 2005; Holtom, Lee, & Tidd, 2002). Accordingly, our first research question concerned the potential importance of control variables, as follows:

Table 3
The studies' aims

	Research aim	Study	Sample	Outcomes ¹	Source article
ξĵ	1. Account for control variables	1	A	JS, AOC, LS, SRP	De Cuyper & De Witte (2006a)
:I iən		2	В	JS, AOC, LS, TI	De Cuyper & De Witte (2006b)
oge oge		3	C	JS, AOC, LS, TI	De Cuyper & De Witte (2008a)
Ro	2. Account for motives	4	C	JS, AOC, LS, TI	De Cuyper & De Witte (2008a)
ЭΗ	3. Account for job characteristics	5	В	JS, AOC, LS, SRP	De Cuyper & De Witte (2006b)
17: 15:	4. Test interactions between contract	9	A	JS, AOC, LS, SRP	De Cuyper & De Witte (2006a)
ote ode ion	type and job insecurity	7	В	JS, AOC, LS, SRP	De Cuyper & De Witte (2007)
Pou Mo		∞	C	JS, AOC	De Cuyper, Notelaers, & De Witte (2009a)
:ş	5. Investigate the effects of temporary	6	В	JI	De Cuyper, Sora, De Witte, Caballer, &
nne SM te S	employment for permanent workers				Peirò (2009)
no;	6. Investigate transitions between	10	О	WE, AOC, LS, TI	De Cuyper, Notelaers, & De Witte (2009b)
s K	temporary and permanent employment				

1 JS = job satisfaction; AOC = affective organisational commitment; LS = life satisfaction; SRP = self-rated performance; TI = turnover intention; JI = job insecurity; WE = work engagement

Do control variables provide a meaningful insight in differences between temporary and permanent workers' attitudes, well-being and behaviour?

In Studies 1-3, we controlled for socio-demographics (gender and family status), work-related variables (weekly working hours), and context (organisation or sector). In addition, education was included in Study 1 and night shifts in Study 2, based upon their relevance in the respective samples. The most striking conclusion was the absence of significant differences between temporary and permanent workers in Study 1 (Sample A) for job satisfaction, affective organisational commitment, life satisfaction and self-rated performance, and in Studies 2 (Sample B) and 3 (Sample C) for affective organisational commitment and life satisfaction. Moreover, in Studies 2 and 3, temporary workers were more satisfied with their job and they were less inclined to quit the organisation than permanent workers. These studies signalled that a rigorous selection of controls may lead to a reasonably consistent and positive picture of temporary employment. Accordingly, this selection was adopted in all later studies. The pattern of results furthermore presented a challenge for the upcoming studies; namely, how to explain the fairly favourable results for temporary workers?

Explanation 2. Workers' motives for accepting temporary employment (Study 4)

A major hypothesis in earlier studies is that the inconsistent results reflect issues related to the worker's motives for accepting temporary employment. This leads to the following research question:

Do motives for accepting temporary employment provide a meaningful insight in differences between temporary and permanent workers' attitudes, well-being and behaviour?

A commonly accepted idea in the realm of temporary work research is that aspects related to volition should be accounted for in all studies. Volition refers to the workers' preference for temporary jobs, and it is assumed to prompt favourable responses (Ellingson, Gruys, & Sackett, 1998; Feldman, Doerpinghaus, & Turnley, 1994; Krausz, Brandwein, & Fox, 1995). Thus, favourable results for temporary workers may reflect a sample with many voluntary temporary workers.

Volition is generally considered along one dimension. Hence, the problem is that it may mask a variety of reasons underlying the acceptance of temporary contracts. Therefore, some authors have copied the example set by Tan and Tan (2002) who argued that workers can have both voluntary and involuntary reasons (Bendapudi, Mangum, & Tansky, 2003; DiNatale, 2001; Polivka, 1996); that is, they see benefits *and* costs. Another problem is that volition does not account for the instrumentality of many temporary

arrangements: many workers see temporary contracts as a stepping stone to permanent employment (Hardy & Walker, 2003; Segal & Sullivan, 1997).

In response, we used more specific reasons for accepting temporary assignments in Study 4 (Sample C); namely voluntary (e.g., 'To do a wide variety of jobs'), involuntary (e.g., 'It is difficult for me to find permanent employment') and stepping-stone reasons (e.g., 'This way, I hope to gain permanent employment'). The results showed that voluntary and involuntary reasons did not contribute in explaining temporary workers' job satisfaction, affective organisational commitment, life satisfaction and turnover intention, while stepping stone reasons related to overall favourable results. The most obvious explanation is that some temporary workers want to impress their employer by showing favourable responses, and in view of increasing their chances to become permanently employed (Feather & Rauter, 2004). However, we realise that this explanation is tentative owing to the cross-sectional design of the study. A serious concern in this respect is that reasons for accepting temporary employment were evaluated in retrospect, which may have influenced the results. Thus, even though promising, some doubts remain.

Explanation 3. Job characteristics (Study 5)

Some authors have drawn upon the observation that many stressors are exacerbated in temporary work arrangements. Such is the case for poor job content (Aronsson et al., 2002; Benach, Gimeno, & Benavides, 2002), unattractive job conditions (De Witte & Näswall, 2003), role difficulties (McLean Parks, Kidder, & Gallagher, 1998; Sverke, Gallagher, & Hellgren, 2000) and weak relationships at work (Byoung-Hou & Frenkel, 2004). Following the path stressor strain, these authors have predicted overall unfavourable outcomes in temporary compared with permanent workers. However, such predictions are not well supported in the literature, which has inspired other researchers to move one step further by identifying also positive aspects of temporary employment; for example, low workload (Goudswaard & Andries, 2002; Parker, Griffin, Sprigg, & Wall, 2002). Accordingly, our third research question concerned potential favourable and unfavourable job characteristics associated with temporary employment and in relation to the outcome variables, as follows:

Do job characteristics provide a meaningful insight in differences between temporary and permanent workers' attitudes, well-being and behaviour?

We selected autonomy and workload because these job characteristics are core aspects in the influential Job Demand-Control Model (Karasek & Theorell, 1990). Surprisingly, they have received scant attention in temporary work studies. We advanced the idea that temporary employment associ-

ates with unfavourable outcomes through low autonomy, and with favourable outcomes through low workload. This presented a classical example of mediation by job characteristics. However, the results from Study 5 (Sample B) showed no support for this mediation approach. In respect to mediation by autonomy, we established no differences in autonomy between temporary and permanent workers; hence violating a first condition for mediation. In respect to mediation by workload, temporary workers reported lower workload than permanent workers, but workload did not reduce the relationship between temporary employment and favourable outcomes; yet another condition for mediation. What we found instead was that lower autonomy associated negatively with job satisfaction and affective organisational commitment in permanent workers but not in temporary workers. Similarly, workload associated negatively with life satisfaction in permanent but not temporary workers. Thus, the balance of evidence suggested that mediation by job characteristics did not account for the mixed pattern of results in the literature or for the favourable results in Studies 1 to 3.

However, this study made two other contributions. First, the findings cast doubt about assumptions regarding poor quality of temporary jobs: There were no contract-based differences in autonomy and workload was lower in temporary workers. Many temporary workers in Belgium are hired to replace permanent workers; thus, their jobs may be quite similar with respect to autonomy. Nevertheless, permanent workers may experience more demands owing to additional supervision responsibilities when temporary worker enter the organisation. This highlights hidden costs for permanent workers; an issue that will be addressed in explanation 6. Second, when mediation frameworks are not supported, but instead, when the evidence hints at moderation, this urges researchers to further elaborate upon the moderation approach, as in explanation 4 below.

Route 2: moderation

Few authors have included contract type as a moderator in stressor-strain relationships. In reply, we developed a framework based upon differences in temporary and permanent workers' expectations (De Cuyper & De Witte, 2008b). In short, we argued that workers evaluate their employment relationship positively when their expectations are fulfilled, and negatively when their expectations are breached. Applied to temporary work research, we assumed that temporary and permanent workers evaluate their employment relationship against different standards; i.e., against different expectations. One implication is that different aspects in the work situation, for example job insecurity, are predictive for the responses of temporary and permanent workers.

Explanation 4. Job insecurity (Studies 6-8)

Permanent contracts aim to establish long-term employment relationships, including a notion of job security on the part of the employer. A plausible assumption then is that permanent workers expect their employer to offer job security. If so, job *insecurity* leads permanent workers to evaluate their employment relationship negatively, which is known to associate with unfavourable responses (Conway & Briner, 2005). This is not the case for temporary workers. Quite the contrary, job *insecurity* is expected and agreed upon in the case of temporary workers; thus, job insecurity does not signal a weakened employment relationship. Assuming, for the sake of argument, that job insecurity is problematic when related to an unwelcome change or even breach of expectations (King, 2000; Pearce, 1998), the association between job insecurity and unfavourable outcomes is stronger in permanent compared with temporary workers. This then leads to the following research question:

Does the interaction between contract type and job insecurity provide a meaningful insight in differences between temporary and permanent workers' attitudes, well-being and behaviour?

Studies 6 (Sample A) and 7 (Sample B) suggest it does: job insecurity related negatively to job satisfaction and affective organisational commitment in permanent workers, while it did little in explaining the responses of temporary workers. Additional support comes from studies by other authors (Bernhard-Oettel et al., 2005; De Witte & Näswall, 2003; Mauno et al., 2005; Virtanen, Vahtera, Kivimäki, Pentii, & Ferrie, 2002).

However, no such interactions between contract type and job insecurity were found for life satisfaction and self-rated performance; i.e., variables that are less malleable than attitudes and therefore called distal (versus proximal) variables, either because they develop over time or because they are conditional upon other processes (Chirumobolo & Hellgren, 2003). This aligned with earlier studies, too (De Witte & Näswall, 2003; Mauno et al., 2005). To date, there is no satisfactory explanation for this difference between proximal and distal variables

In Study 8 (Sample C), we took this evidence one step further: We accounted for the heterogeneity in contract types; in particular the distinction between fixed term and temporary agency contracts. The results showed that job insecurity was not significantly related to job satisfaction and affective organisational commitment in fixed term contract workers, and it was negatively related to job satisfaction and affective organisational commitment in permanent workers and temporary agency workers.

While this pattern of results supports earlier evidence acquired in samples with permanent workers and fixed term contract workers, the results for temporary agency workers call for some explanation and comment: temporary agency workers' responses were similar to those of permanent workers and not, as was expected, to those of fixed term contract workers. This may relate to the particular triangular employment relationship of temporary agency work (Gallagher & McLean Parks, 2001). Temporary agency workers may expect the agency to assist with job search and to provide a sense of job security; an expectation that is breached in the presence of job insecurity with unfavourable outcomes as a consequence. This may affect the relationship with the agency, but also the present job and the user firm: the reason is that relationships with the agency and the user firm are nested within each other, as was advanced by Gallagher and McLean Parks (2001) and demonstrated in the studies by Benson (1998), Coyle-Shapiro and Morrow (2006), Coyle-Shapiro, Morrow, and Kessler (2006), and Van Breugel, Van Olffen, and Olie (2005).

In all, the moderation approach appears promising: it suggests that one cannot reliably compare the situation of temporary and permanent workers using a single standard; in earlier studies mostly the standard associated with permanent contracts. The favourable responses of temporary workers as established in Studies 1 to 3 possibly reflect the observation by Guest (2004) that the expectations held by temporary workers are less prone to breach than the expectations held by permanent workers. These results not-withstanding, we acknowledge that unresolved issues remain; for example, the absence of interactions for distal variables and the specific situation of temporary agency workers.

Route 3: new avenues in temporary work research

Until now, our explanations targeted upon temporary versus permanent workers. Another interesting question concerns the effects of temporary employment for permanent workers, or for workers who transition between temporary and permanent employment.

Explanation 5. Hidden costs for permanent workers (Study 9)

Few European studies have concerned potential effects of temporary employment for permanent workers, be they positive or negative. However, US studies have shown that, when a substantial number of temporary workers enter the organisation, this may cause perceptions of increased supervision demands, reduced promotion opportunities and job insecurity among the permanent workers of that organisation (Ang & Slaughter, 2001; Broschak & Davis-Blake, 2006; Davis-Blake, Broschak, & George, 2003; Davis-Blake & Uzzi, 1993; Geary, 1992; Pearce, 1993). Particularly this last possibility of increased job insecurity among all the workers owing to the use of temporary arrangements has been the subject of intense, though

mostly speculative debate among scholars and practitioners alike. This inspired our fifth research question:

Do hidden costs for permanent workers provide a meaningful insight in differences between temporary and permanent workers' attitudes, wellbeing and behaviour?

Study 9 (Sample B) concerned the association between the percentage of temporary workers in an organisation and job insecurity perceptions among permanent workers in that organisation. The results showed a positive association. One explanation relates to the group dynamics that play between minority and majority groups and between low status and high status groups (Broschak & Davis-Blake, 2006; Chattopadhyay & George, 2001; George, 2003; Von Hippel, 2006). Low status groups (here: temporary workers) may threaten the position of high status groups (here: permanent workers), particularly when low status members become increasingly dominant or when the boundaries between low and high status groups become blurred. Such may be the case when temporary workers easily transition to permanent employment. Another explanation concerns permanent workers' interpretation of the organisation's strategy: Many temporary workers in the organisation may lead permanent workers to suspect that the organisation intends to replace permanent positions in view of introducing flexibility.

The results of this study highlight a potential risk that is common to temporary work studies: most studies attempt to sample many temporary workers. Such attempts result in the recruitment of organisations that are heavy users of temporary employment. This may imply that, in most temporary employment studies, including our studies, temporary workers are compared to permanent workers who feel threatened by the number of temporary workers in their organisation. The responses of these permanent workers may be less favourable than those made by permanent workers from organisations that only sporadically employ temporary workers. Thus, the favourable responses of temporary compared with permanent workers in *Studies 1* to 3 may reflect sampling strategies.

Explanation 6. Transition patterns of temporary and permanent workers (Study 10)

A drawback in temporary employment research concerns the lack of follow-up designs. However, it could be that the effects of temporary employment are conditional upon time spent in temporary employment and upon possibilities to gain permanent employment: Indeed, temporary employment can be a trap with likely unfavourable outcomes for some workers, and it can be a bridge to permanent employment with likely favourable outcomes for other workers. Furthermore, follow-up studies may provide a check for potential selection effects; i.e., when poor health leads to temporary employment or when there is a positive health selection into permanent employment (Galais, 2003; Virtanen, Kivimäki, Elovainio, & Vahtera, 2002). Until now, the extent to which and the way the healthy worker or the healthy hire effect add to the mixed findings in temporary work research is unclear; hence, urging the following research question:

Do transitions between temporary and permanent employment provide a meaningful insight in differences between temporary and permanent workers' attitudes, well-being and behaviour?

This research question was addressed in Study 10, based on Sample D. Sample D was based on two web-based surveys conducted 18 months apart (Time 1: November 2003; Time 2: May 2005). Total sample size equalled 1475 respondents. We defined four groups: (1) workers who were temporarily employed at both Time 1 and Time 2 (N = 90); (2) workers who were temporarily employed at Time 1 but permanently employed at Time 2 (N = 88); (3) workers who were permanently employed at Time 1 but temporarily employed at Time 2 (N = 43); and (4) workers who were permanently employed at Time 1 and Time 2 (N = 1253). Mean age across the four groups was 36 years, and mean tenure was 7 years. About half of the respondents were female (54%), and a majority obtained an academic degree (71%). Workers who were permanently employed differed from the other groups: they were older and more tenured, and they were less likely to be female or to have an academic degree.

We established little evidence that the responses of temporary workers (work engagement, affective organisational commitment, life satisfaction and turnover intention) are conditional upon transitions to permanent employment. There were no significant changes over time for workers who were temporarily employed at Time 1 and Time 2 or for those who gained permanent employment at Time 2. These results question the assumption that temporary employment becomes problematic with prolonged duration (Gagliarducci, 2005), or that the favourable results in Studies 1 to 3 relate to transition patterns, in general. Another possibility is that workers with poor attitudes or well-being have an increased chance on temporary employment. This selection hypothesis was not supported in this study either: we did not establish significant between-group differences.

However, this study was important for another reason: it included a group of permanent workers who transitioned to temporary employment at Time 2. Rather unexpectedly, we found that these workers were more engaged and committed at Time 2 when they were temporary compared with at Time 1 when they were permanent. What these results show is that some permanent jobs may be rather precarious. However, we doubt whether these findings contributed in explaining differences between temporary and permanent workers or, in particular, the rather favourable results for temporary workers.

Probably, the number of precarious permanent jobs, particularly in comparison to temporary jobs, is limited.

Implications for theory, research and practice

Most challenging was our observation that temporary employment was not associated with unfavourable outcomes in the form of poorer well-being, unfavourable attitudes and undesirable behaviour, rather to the contrary (Studies 1 to 3). Moreover, the relatively favourable responses among temporary workers were not related to issues of heterogeneity, for example in the form of the workers' motives for accepting temporary employment (Study 4), or possible positive features such as lower workload associated with temporary employment (Study 5).

This pattern of finding has implications at three levels: theory, methodology, and practice. First, it calls for a new theoretical approach vis-à-vis temporary employment along Studies 6-8, namely an approach that is not build on the implicit assumption of poorer outcomes among temporary workers. The need to formulate alternative theoretical frameworks for temporary workers has been identified by other authors as well, sometimes explicitly as in the article by Gallagher and Sverke (2005): "Contingent employment contracts: are existing theories still relevant?". Second, it highlights the need to invest in more complex research designs, along suggestions made in Studies 9 and 10. And third, a provocative implication could be that, when temporary employment is not such a bad thing after all, employers may rightfully choose to employ temporary instead of permanent workers. In the following, we evaluate each of these implications.

Theory

The favourable results for temporary workers and the failure of the more traditional explanation in terms of heterogeneity of the temporary workforce have encouraged us to advance new theoretical avenues; the most innovative perhaps being the account of permanent and temporary workers' expectations (Studies 6-8). On the most aggregated level, we argued that stressors lead to strain when workers view these stressors in terms of unfulfilled or breached expectations. Temporary workers generally expect less than permanent workers, and thus, temporary workers' expectations are less easily breached than permanent workers' expectations. The conclusion then is that the favourable results for temporary workers relate to the lower expectations of the temporary workforce. This was illustrated with job insecurity as an example. We demonstrated that job insecurity associated with job dissatis-

faction and reduced organisational commitment among permanent workers, most of whom expect a secure job, but not among fixed-term contract workers for whom job insecurity is part of their everyday experiences and expectations. The extent to which this theory applies also to other stressors or to other than the stressor-strain relationship, for example the relationship between job resources and work motivation, needs to be demonstrated.

Our approach introduces contract type as a moderator in the stressorstrain relationship. In contrast, most previous attempts have advanced a mediation approach in which contract type is modelled as an independent variable so that temporary employment stressor strain. This has mostly taken the hypothesis of higher strain among temporary workers owing to the presence of stressors in temporary jobs. We showed that such hypotheses can be criticised for two reasons. First, they are based on the assumption that stressors are exacerbated in temporary work arrangements (i.e., temporary employment stressors); an assumption that is based upon fairly general or stereotyped ideas about temporary employment, but for which, in fact, little evidence exists. For example, temporary and permanent workers' perceptions of autonomy did not differ, and workload was lower in temporary compared with permanent workers (Study 5). These findings contradict the idea of poor job characteristics in temporary workers that is advanced in many studies (Beard & Edwards, 1995). Second, the traditional idea of poor outcomes associated with temporary employment is grounded in the assumption that the stressor strain relationship is invariant across groups, which obviously is debatable.

A general suggestion for future research then could be to provide a systematic test of the assumptions underlying traditions views on temporary employment: Such a test, too, would challenge the idée fixe of poor temporary jobs or higher strain among temporary workers. It could also include a broader perspective vis-à-vis temporary employment, for example by studying also non-work related phenomena. Examples are marital quality or parental stress, but also health-related behaviour such as smoking or drinking (see e.g., De Cuyper, Kiran, De Witte, & Aygoglu, 2008). That is to say, we plea for new theory development in combination with a rigorous test and a broader account of more widely used theoretical frameworks.

Methodology

Taking a methodological stance, Studies 9 and 10 underlined the need to invest in stronger designs; in particular samples from a diverse set of organisations and not only from heavy users of temporary employment, and in follow-up designs. First, we established that the percentage of temporary workers in an organisation related to job insecurity perceptions and

plausibly also strain among permanent workers (Study 9). That is to say, permanent workers in organisations with many temporary workers probably respond less favourably than permanent workers in organisations with few temporary workers: hence, unfavourable responses of permanent workers or comparatively favourable responses of temporary workers may be the result of a sampling bias in temporary work research, namely the tendency to recruit organisations with many temporary workers in view of increasing statistical power. The implication then is that temporary work research should – ideally – be based on a random selection of organisations or on representative samples. This would provide a more accurate account of the responses of permanent workers and, hence, also of permanent-temporary workers comparisons.

Second, we highlighted the importance of follow-up studies for two reasons: the potential importance of transitions from temporary-to-permanent employment and the possibility of selection from temporary into permanent employment (see e.g., Artzacoz, Benach, Borrell, & Cortèz, 2005). Followup studies are, however, important also in another respect: what is lacking in the temporary work literature to date is an account of positive selection from unemployment to temporary employment. This is known as the healthy hire effect that occurs when employers systematically choose the healthiest workers from the labour market reserve (Virtanen et al., 2003). The idea is that, particularly in countries like Belgium that have a substantial labour market reserve, temporary workers at the start of their careers may report favourable outcomes compared with unemployed workers, and possibly also compared with permanent workers for whom the healthy-hire effect may have worn off over time. The implication is that the unemployed may present yet another relevant comparison group, and that temporary workers should be compared with permanent workers at different career stages. This remains an important route for future research.

Practice

Researchers have warned against excessive use of temporary employment based upon the assumed negative impact of temporary employment for the workers and the assumed difficulty of establishing commitment from temporary workers; a commitment which thrives productivity, and thus, many Human Resource strategies. The results in this review may seem to remove these remaining doubts. In fact, they may seem to promote temporary employment as the new management mantra when the aim is to increase flexibility as part of the organisation's strategy to survive in an era of globalised competition.

This implication is particularly tempting given the replication studies;

Studies 4 and 5, in particular. One of the cons that have been voiced frequently in the literature is that many temporary workers are forced into temporary employment, which seems detrimental for workers' well-being, and hence, unethical. However, Study 4's results suggested that, even when temporary employment is a second choice for many workers, it may not be a bad choice. Another reoccurring argument is that the employer tends to delegate easy and unchallenging tasks to temporary workers, while core business tasks are delegated to permanent workers. Hence, temporary jobs are said to be prone to poor job characteristics. However, in Study 5, we did not find evidence for this perspective.

Still, even when attempts to underline the precarious situation of many temporary workers fail, this does not imply that temporary employment is without disadvantages, or that temporary employment can be used as an uncontested Human Resource strategy. It is our view that it is important to know why temporary workers report fairly favourable results; otherwise, conclusions for practice may have little grounds. The studies in this review highlighted some plausible explanations. To begin with, one could reformulate the favourable responses of temporary workers as unfavourable responses for permanent workers: permanent work may have hidden costs which are related to the presence of temporary workers in the organisation (Study 9) or to employment in precarious jobs (Study 10). Second, we advanced the idea that the favourable responses of temporary workers are shaped by their relatively lower level of expectations. However, temporary workers' expectations may change over time: for example, temporary workers may expect to future rewards, for example in terms of substantial economic benefits, or job security in the form of a permanent contract. If such expectations are frustrated, this may ultimately lead to unfavourable outcomes. In short, these explanations suggest that the responses of temporary workers may be artificially favourable, either because there are hidden costs for permanent workers that are not accounted for, or because they do not account for changes in the pattern of temporary workers' expectations.

Concluding remarks

The general aim in this review was to advance understanding on differences between temporary and permanent workers on a number of psychological outcomes; in particular, on the inconsistent pattern of findings, as reported in the literature, and on the fairly favourable outcomes for temporary workers in Studies 1 to 3. From this review, it follows that some studies, particularly those in the tradition of earlier temporary work research, did not meet this aim; namely, the studies that advanced explanations in terms

of reasons for accepting temporary employment and job characteristics. By way of contrast, other studies were promising: We showed that contract type can be a moderator in many research designs. Furthermore, we demonstrated that temporary employment may have implications for permanent workers as well. Finally, the results concerning transitions between temporary and permanent employment lent further support to our conclusion that the focus upon permanent workers may offer alternative routes to explain the inconsistent findings. Admittedly, the picture presented here is incomplete and more research is warranted, particularly since temporary employment is a particularly attractive flexibility instrument for organisations, and thus, is likely here to stay.

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