

Literature review of theory and research on the psychological impact of temporary employment: Towards a conceptual model

Nele De Cuyper,¹ Jeroen de Jong, Hans De Witte, Kerstin Isaksson, Thomas Rigotti and René Schalk

The increased use of temporary contracts has instigated debates on possible implications for employees' attitudes, well-being and behaviour. The complex issues related to this debate are reviewed from a theoretical, empirical and conceptual point of view. First, the definitions of temporary employment that are currently used in OECD countries are reviewed. Second, theoretical views concerning possible determinants are elaborated. The theoretical frameworks discussed include Work Stress Theory, Social Comparison Theory and Social Exchange Theory. The determinants proposed in these theories have served to form the basis of hypotheses on differences between temporary and permanent workers on various psychological outcomes. Third, research on associations between temporary employment and the variables job satisfaction, organizational commitment, well-being and behaviour are reviewed. These variables are most frequently used in the realm of temporary work research. This review concludes that research results have been inconsistent and inconclusive, unlike the predictions that follow from the theoretical frameworks. This leads to a fourth section in which potential explanations for these inconsistent findings are advanced. In conclusion, a conceptual model is developed to inspire future research.

Introduction

Researchers have identified the growth in temporary employment, beginning in the 1980s and spanning into the mid-1990s, as one of

the most spectacular and important evolutions in Western working life. Forecasts indicate that this trend will continue, although at a more moderate pace (Campbell and Burgess 2001a; Guest 2004; Organization for Economic

Literature review of temporary employment

Co-operation and Development (OECD) 2002). The growth in temporary employment is driven mostly by employers' demand for more flexibility and innovation, and by their wish to reduce labour costs and administrative complexity (Brewster *et al.* 1997; Burgess and Connell 2006; Kalleberg *et al.* 2003; Matusik and Hill 1998; Von Hippel *et al.* 1997; Vosko 1998). In spite of speculative debates on the growing group of boundaryless workers who seek financially lucrative temporary jobs (Sullivan 1999), labour force supply factors are unlikely to play a significant role in explaining the growth in temporary employment arrangements (Brewster *et al.* 1997; De Grip *et al.* 1997; Kalleberg *et al.* 2000).

The observation that the evolution towards increased use of temporary employment was not initiated or desired by employees has raised concerns about the impact of temporary employment on the individual. This has fuelled psychological research aimed at comparing temporary and permanent workers on employees' attitudes, well-being and behaviour. In the following, we review this body of literature. The review is based on an extensive literature search of published studies, including studies not published in English, and unpublished studies reported from 1995 on. Even though the search was aimed at all OECD countries, the majority of studies come from the US, Australia, Canada and, in particular, Europe. As Campbell and Burgess (2001a,b; see also Wooden 2004) note, European studies dominate research in the realm of temporary employment, possibly because they are facilitated by data such as the European Labour Force Survey, which are readily available and accessible.

The paper is organized as follows: we begin by reviewing the definitions of temporary employment that are currently used in OECD countries. Secondly, we describe theoretical views concerning possible determinants. The proposed determinants are the basis of hypotheses on potential differences between temporary and permanent workers on various psychological outcomes. Thirdly, we review

research on associations between temporary employment and workers' attitudes (job satisfaction, organizational commitment), well-being (mental and physical health) and behaviour (performance). We conclude from this review that results are inconsistent and inconclusive. As highlighted in the fourth section, this signals the need for explanation, as well as for advanced empirical research. We conclude by formulating a conceptual model that may inspire future research in the realm of temporary employment.

Defining Temporary Employment

International studies on the growth of temporary employment and its possible impact for the individual have been hampered by the absence of a universally accepted vocabulary and definition (Gallagher and McLean Parks 2001; Kalleberg 2000). With respect to vocabulary, contingent employment is used most prevalently in US and Canadian literature, while temporary, fixed-term or non-permanent employment are used interchangeably in European research (Connelly and Gallagher 2004; De Cuyper *et al.* 2005a). In Australia and New Zealand, the term casual employment is perhaps the best available equivalent to temporary employment, even though it is also distinct in important respects that will be outlined below (Burgess *et al.* 2005; Burgess and Strachan 1999; Campbell 2004; Campbell and Burgess 2001a,b; Junor 2004). For reasons of consistency, we use temporary employment,² except in specific cases where it is important to highlight the distinct nature of casual employment in Australia.

With respect to definitions, authors agree that temporary employment departs from the standard employment relationship (SER) on three or, in the US, four dimensions (e.g. Burgess and Strachan 1999; Campbell 2004; Cranford *et al.* 2003; Gallagher and McLean Parks 2001; Gallagher and Sverke 2005; Kalleberg 2000; McLean Parks *et al.* 1998; Olsen and Kalleberg 2004; Polivka and Nardone 1989; Wiens-Tuers and Hill 2002).

First, the SER is characterized by permanency and continuity of employment, whereas the notion of ongoing employment is absent in temporary employment arrangements. Instead, temporary employment is of limited duration and often includes a fixed termination date. Second, under the SER, employees work at the employer's workplace and on the employer's premise, under his or her supervision. In contrast, some temporary employment arrangements are market mediated, as in the case of temporary agency workers. Third, unlike temporary employment in most countries, the SER is associated with extensive statutory benefits and entitlements such as minimum wage, unemployment insurance, protection against unfair dismissal and paid leave. A fourth element is specific for the US, namely, the association between the SER and waged work. This means that, in the US, self-employment, as in the case of independent contracting, for example (Connelly and Gallagher 2006), falls into the category of temporary employment. However, researchers of temporary employment, particularly those in Australia and Europe, have argued for the exclusion of the self-employed (Bernesak and Kinnear 1999; Campbell 2004; Guest 2004), because self-employment is regulated differently by law. Given the vast number of studies specifically focused upon self-employed persons, this is the approach followed in this review. This choice is in line with the OECD (2002, 170) definition that temporary employment is 'dependent employment of limited duration'. Following this definition, the share of temporary employment is estimated at 15% in Canada and at 4% in the US. The incidence of temporary employment in Europe varies from 4% in Luxembourg up to 35% in Spain, with the average being about 15%.³ The estimations for Australia vary from 4% when limited to temporary employment as understood in Europe and the US (Wooden 2001) to well over 25% when relying on national statistics (Campbell and Burgess 2001b; Wooden 2004).

Defining temporary employment as dependent employment of limited duration may serve

as a first step towards useful international comparisons. However, considerable caution is warranted, owing to the particularities of national regulations, institutional settings and legislation (Olsen and Kalleberg 2004), as well as to the large heterogeneity of the temporary workforce (De Cuyper *et al.* 2005a). With respect to national regulations and legislation, two issues stand out. First, compared with Australian, Canadian and US regulations, European employment regulations for temporary work are quite protective (Vosko 1998; Zeytinoglu and Muteshi 2000). Most European countries have established a minimum level of rights that are typically associated with permanent employment but have also been made applicable for temporary workers. The Australian casual workers are perhaps at the other extreme, as they are not entitled to paid annual leave, paid sick leave, paid public holidays, notice of dismissal or redundancy pay (Campbell 1998, 2004). The US countries have opted for non-regulation, with employees' protection, benefits and entitlements being conditional upon the employer's choice. In Canada, there are some directives aimed at improving the situation of temporary workers. There are considerable difficulties with their implementation, however, particularly with respect to workers in tripartite employment relationships (Zeytinoglu and Muteshi 2000).

Secondly, specifically in Australia, casual employment is defined with reference to the absence of entitlements and benefits and lack of protection (Burgess and Strachan 1999; Campbell 2004; Campbell and Burgess 2001a; Wooden 2001). Not being entitled to sick leave and paid holiday leave implies the status of casual worker and this, in turn, defines one's permanency status.⁴ In contrast, reduced access to benefits and entitlements and limited protection is the consequence of being temporarily employed in other OECD countries. Even though this difference has led Wooden (2001) to suggest that casual and temporary employment are not comparable in any respect, it could be argued that comparisons may be

Literature review of temporary employment

useful (Campbell 2004; Campbell and Burgess 2001a,b). First, from a theoretical point of view, both temporary and casual employment highlight a labour market divide, which is particularly large in Australia. Secondly, casual employment is the most widespread form of non-standard employment in Australia, and the growth in casual employment is similar to the increase in temporary employment in many European and US countries. Thirdly, even though casual work is forbidden in most countries, it still exists in some forms that are typically classified as temporary, for example, day labourers and on-call workers. Accordingly, and in line with the international OECD survey, we view casual employment as a particular form of temporary employment, but with its own distinct character.

With respect to the large heterogeneity of the temporary workforce, most authors distinguish between workers who are directly hired by the company and those who are involved in a tripartite employment relationship (Cranford *et al.* 2003; De Cuyper *et al.* 2005a; Feldman 2005; Kalleberg 2000). The latter are hired by a third party (the *de jure* employer) to perform work at the user's firm (the *de facto* employer) in times of high demand (e.g. temporary agency workers) or to provide specific and predominantly specialized services that are outside the core business of the user organization (e.g. outsourcing) or are not needed on a long-term basis (e.g. subcontracting). Furthermore, temporary employment arrangements may differ on various indicators of employment stability (OECD 2002). Daily or on-call contracts are described as extremely precarious, owing to their very short contract duration. In contrast, replacement, training and seasonal contracts in many countries are used to screen potential permanent employees, and thus they may offer the prospect of ongoing or long-term employment (Aronsson *et al.* 2002; Connelly and Gallagher 2004). This heterogeneity in type of temporary arrangement and its implications for employment stability and future employment prospects may further complicate theoretical and empirical

research on the psychological impact of temporary employment.

Determinants of Temporary Workers' Attitudes, Well-being and Behaviour

The majority of studies on the impact of temporary employment for the individual are either largely atheoretical in nature, or are uncritically grounded in theoretical designs that have proved valuable in explaining the attitudes, well-being and behaviour of permanent workers (Connelly and Gallagher 2004), as in the case of studies related to work stress, for example. In addition, some attempts have been made to understand temporary workers' responses in terms of psychological processes involving the perception of fairness. These attempts can be organized under the headings of Social Comparison Theory and Social Exchange Theory.

Work Stress

Many studies focused on permanent workers have identified a number of possible determinants of work strain. In general, these work stressors are exacerbated in temporary employment arrangements, and hence, they have been used to predict unfavourable attitudes, poor well-being and undesirable behaviours among temporary workers. In particular, three groups of possible stressors have been identified. To begin with, theories of labour market use, such as the Flexible Firm (Atkinson 1984), Internal Labour Market Theory (Doeringer and Piore 1971), Human Capital Theory (Becker 1993) and Segmentation Theory (Amuedo-Dorantes 2000), suggest that temporary workers are considered peripheral workers in whom employers are unlikely to invest in the way typically done to foster long-term organizational commitment and loyalty towards the organization (Zeytinoglu and Cooke 2005; Zeytinoglu and Mutheshi 2001). Lack of these investments may contribute to job strain, which, in turn, may relate to poor well-being (De Witte and Näswall 2003;

Zeytinoglu *et al.* 2004). The association between temporary employment and low employer's investment in terms of wages (e.g. Bhandari and Hesmati 2006; OECD 2002; Wooden 2004), fringe benefits (e.g. Kalleberg *et al.* 2000; Mangan and Williams 1999; Nollen 1996; OECD 2002), promotion (Zeytinoglu *et al.* 2004) and training opportunities (Aronsson *et al.* 2002; Connelly and Gallagher 2004; Forrier and Sels 2003; Hoque and Kirkpatrick 2003; OECD 2002; Wiens-Tuers and Hill 2002) finds overwhelming support.

Secondly, temporary workers are thought to be vulnerable to job strain owing to poor job characteristics, most notably reduced control, role stress and limited support. In particular, the Second European Survey on Working Conditions (Benach *et al.* 2002; Goudswaard and Andries 2002; Letourneux 1998) shows that temporary workers experience less autonomy than permanent workers. Furthermore, their work is often highly monotonous, thus implying few possibilities for skill utilization (Hall 2006). Temporary workers also appear to have little influence on workplace decisions (Aronsson *et al.* 2002; Parker *et al.* 2002). Other likely stressors are role-related: temporary workers may experience role stress because they are newcomers in the organization and not yet acquainted with organizational procedures, or because they are assigned little time and support to understand their role responsibilities (McLean Parks *et al.* 1998; Sverke *et al.* 2000). Finally, temporary workers may receive little support from their permanent co-workers (Byoung-Hoo and Frenkel 2004) or the union. Temporary workers are less likely to join the union, and their rights have typically not been the main concern of unions (Gallagher and Sverke 2005; Wooden 2004; Zeytinoglu and Muteshi 2000). This, in turn, may hamper temporary workers' attempts to raise voice (Aronescu *et al.* 2004), especially as they may have insufficient expertise as well as little information on organizational practices and procedures to initiate a constructive dialogue (Aronsson 1999). The large volume of studies on the unfavourable effects

of low control, role stress and lack of support, as well as the difficulties in adjusting to this situation, suggest overall negative psychological outcomes for temporary workers compared with permanent workers.

The third stressor for temporary workers has been termed employment strain and was developed by Lewchuk *et al.* (2005), following suggestions by Cooper (2002) and Quinlan *et al.* (2001). Employment strain combines high demands and low control but, unlike the Karasek's Job Demand Control Model (Karasek and Theorell 1990), is shaped by the employment relationship rather than by the job. High demands in this case are associated with the constant search for new employment, the effort to keep employment, the need to ensure a positive employer assessment of work performance and, for some workers, the effort to balance demands from multiple job holdings and multiple employers. These demands contribute in predicting poor self-rated health in a study by Lewchuk *et al.* (2005). Low control reflects increased uncertainty with respect to the terms and conditions of employment and one's job in the future. Specifically, as highlighted by other authors, temporary workers have little control over the design, implementation and nature of their work (Beard and Edwards 1995; Krausz 2000; Wheeler and Buckley 2001). For example, compared with permanent workers, temporary workers are more likely to hold physically uncomfortable jobs (Paoli and Merllié 2002; Quinlan *et al.* 2001; Saloniemi *et al.* 2004) or jobs which other organizational members consider least satisfying in terms of job content or work schedules (OECD 2002; Sverke *et al.* 2000). Furthermore, temporary employment is likely to generate job insecurity (Beard and Edwards 1995; Bernhard-Oettel *et al.* 2005; De Witte and Näswall 2003; Felstead and Gallie 2004; Mauno and Kinnunen 2002; Parker *et al.* 2002; Sverke *et al.* 2000; Van Breukelen and Allegro 2000). In a study by Lewchuk *et al.* (2005), uncertainty was related to poor self-rated health and tension at work. In the case of job insecurity, unfavourable results can be

Literature review of temporary employment

generalized to attitudes, well-being and behaviour (for a review of studies, see De Witte 1999, 2005; Sverke *et al.* 2002).

To summarize, various work stressors among permanent workers have been related to unfavourable psychological outcomes. Researchers have drawn on this body of research to predict unfavourable attitudes, poor well-being and undesirable behaviour among temporary workers, owing to their increased vulnerability to stressors related to the job, as well as to their specific form of employment.

Social Comparison and Social Exchange Theories

Social Comparison and Social Exchange Theories hypothesize that employees' reactions are monitored by perceptions of fairness. Using social comparison processes, employees evaluate how the outcomes they receive compare with the outcomes received by referent others (Feldman and Turnley 2004; Thorsteinson 2003). In cases where this evaluation leads temporary workers to feel they are not receiving the outcomes they deserve, and where they can see that permanent workers do, in fact, receive these outcomes, temporary workers may come to feel a sense of deprivation. This may generate more unfavourable psychological outcomes among temporary workers than among permanent workers.

Secondly, Social Exchange Theories highlight the norm of reciprocity along which outcomes are compared with input. This has often been formulated in psychological contract terms. Rousseau and Schalk (2000) and others (Chambel and Castanheira *in press*; Claes *et al.* 2002; Coyle-Shapiro and Kessler 2002; De Cuyper and De Witte 2006, 2007a, *in press*; De Cuyper *et al.* *in press*; Guest 2004; Millward and Brewerton 1999, 2000; Millward and Hopkins 1998; Rousseau 1995; Van Dyne and Ang 1998) argue that the psychological contract of temporary workers compared with permanent workers is narrower in terms of number and quality of content items. Furthermore, the psychological contract of temporary

workers, unlike that of permanent workers, may be asymmetrical, i.e. monitored by the employer (Beard and Edwards 1995; De Cuyper *et al.* *in press*). The psychological contract that is dominant among temporary workers (i.e. narrow and asymmetrical) may prevent the development of a trust relationship with the employer and, hence, may lead to undesirable employees' attitudes and behaviours: temporary workers' responses may be contingent upon their perception of underinvestment, calculated investment (Coyle-Shapiro and Kessler 2002; Koh and Yee 2000) or poor treatment by employers (Davis-Blake and Uzzi 1993). Related frameworks such as Siegrist's Effort-Reward Model have formulated similar predictions: temporary workers are likely to perceive an imbalance between their efforts and rewards (Isaksson and Bellaagh 2002), which is, moreover, monitored by the employer (Saloniemi *et al.* 2004). Temporary workers may react to this inequity by developing unfavourable attitudes and by performing poorly.

Temporary vs Permanent Workers' Attitudes, Well-being and Behaviour

In the previous section, we summarized theoretical views on possible determinants that can explain temporary workers' attitudes, well-being and behaviour. Specifically, we highlighted that temporary workers are more vulnerable than permanent workers when it comes to work and employment strain, and perceptions of unfairness. These variables are well known to cause unfavourable psychological experiences. In the following, we assess the extent to which the theoretical views are supported by empirical results on comparisons between temporary and permanent workers on various psychological outcomes. European studies dominate these comparisons, possibly because of the lack of appropriate datasets in other countries (Campbell and Burgess 2001a,b), but also because unfavourable outcomes among temporary and especially casual workers have often been taken for granted (Veenstra *et al.* 2004; Wooden 2004).

We grouped psychological outcome variables along a two by two dichotomy to guarantee a comprehensive coverage of themes that dominate psychological literature on the implications of a changing work life (for further discussion, see Sverke *et al.* 2002). The first dichotomy distinguishes between outcomes that are affected directly (proximal), such as attitudes, and those that are affected indirectly (distal), either because they develop over time or because they are conditional upon other processes (e.g. mediation by proximal variables; Chirumbolo and Hellgren 2003; De Cuyper and De Witte 2007a). Effects on distal outcomes are likely to be somewhat weaker than those on proximal factors. The second dichotomy distinguishes between variables that have direct consequences for the individual and possibly indirect consequences for the organization, and those variables that are primarily relevant for the organization. The latter may show that temporary employment is not entirely cost-free for the organization. For each combination, we selected a variable that was used in a substantial number of studies in the realm of temporary work research: job satisfaction for the combination 'proximal-individual', organizational commitment for the combination 'proximal-organization', well-being⁵ for the combination 'distal-individual', and productive behaviour for the combination 'distal-organization'.

Proximal and Individual: Job Satisfaction

Much research has concerned the relationship between temporary employment and job satisfaction. However, results until now have been inconclusive. Some studies establish higher job satisfaction among permanent workers than among temporary workers (Benavides *et al.* 2000; Forde and Slater 2006; García-Montalvo *et al.* 2003, in Caballer *et al.* 2005; Hall 2006; Letourneux 1998; Merllié and Pascal 2002; Paoli and Merllié 2002; Rödiger *et al.* 2003; Zant *et al.* 2000), while others find the opposite pattern (De Cuyper and De Witte 2005, 2006a, 2007a;

Galup *et al.* 1997; Mauno *et al.* 2005; McDonald and Makin 2000; Werthebach *et al.* 2000; Wooden 2004). Still others do not find significant differences (Bernhard 2001; Claes *et al.* 2002; Krausz and Bar-Yosef 1999, in Krausz and Stainvartz 2005; Van Breukelen and Allegro 2000). In this respect, it should be noted that Australian studies do not find lower job satisfaction among casual workers than among permanent workers, except perhaps in the case of part-time male casual workers (Hall and Harley 2000; Hall *et al.* 1998; Wooden 2004).

The inconsistencies are exacerbated in studies using multi-country samples or sampling different types of temporary workers. For example, data from the European Household Panel point to higher job satisfaction among permanent workers, but not in Belgium and Finland (Kaiser 2002; OECD 2002). Similarly, in their four-country sample, De Witte and Näswall (2003) find non-significant differences between temporary and permanent workers in Belgium, the Netherlands and Sweden, and poorer results for permanent workers in Italy. Furthermore, temporary agency workers are least satisfied and fixed-term contract workers are most satisfied with their job in the study by Guest *et al.* (2003). Permanent workers are situated in-between. The British Household Data do not establish a significant effect of contract type, except for lower job satisfaction among casual or seasonal workers (Bardasi and Francesconi 2000; Booth *et al.* 2000).

Proximal and Organization: Organizational Commitment

The relationship between temporary employment and organizational commitment has also been frequently investigated. It is generally assumed that short contract duration is negatively related to organizational commitment (De Jong and Schalk 2005; Pearce 1993; Rigotti and Mohr 2005; Torka and Van Riemsdijk 2001). While this hypothesis finds considerable support (Coyle-Shapiro and Kessler 2002;

Literature review of temporary employment

De Gilder 2003; Eberhardt and Moser 1995; Forde and Slater 2006; Guest *et al.* 2003; Krausz and Bar-Yosef 1999, in Krausz and Stainvart 2005; Sverke *et al.* 2000; Van Dyne and Ang 1998), other studies do not find significant differences between temporary and permanent workers (De Witte and Näswall 2003, for the Belgian, Italian and Swedish sample; Rödiger *et al.* 2003; Tansky *et al.* 1995; Van Breukelen and Allegro 2000; Vander Steene *et al.* 2001), or they find lower commitment among permanent workers than among temporary workers (De Cuyper and De Witte 2005, 2006a, 2007a; De Witte and Näswall 2003, for the Dutch sample; McDonald and Makin 2000). Furthermore, a Dutch study by Klein Hesselink *et al.* (1998) shows lower commitment among temporary agency workers than among both permanent and fixed-term contract workers.

Some researchers have addressed the issue of dual commitment among temporary agency workers; i.e. their commitment towards the agency and towards the user firm. Results seem to point to higher levels of commitment towards the user firm than towards the agency (Barringer and Sturman 1998; Benson 1998; Van Breugel *et al.* 2005). Commitment to the agency is, however, conditional upon the number of assignments, as well as upon the tenure length with the agency (Gallagher and Futagami 1998; Gallagher and McLean Parks 2001).

Distal and Individual: Well-being

Until recently, few studies have extensively addressed the long-term consequences of temporary employment for the individual (Bardasi and Francesconi 2004; Connelly and Gallagher 2004). Most evidence originates from Scandinavian research. For example, Finnish research has investigated various aspects of health and well-being in relation to contract type. The findings until now are inconclusive: with respect to issues of general health, temporary workers report better (Liukkonen *et al.* 2004) or comparable health

compared with permanent workers (Virtanen *et al.* 2003b). With respect to mental health, temporary workers indicate better (Liukkonen *et al.* 2004) or poorer (Virtanen *et al.* 2002) mental health than permanent workers. In their meta-analysis on 27 studies, Virtanen *et al.* (2005) conclude that the association between temporary employment and various indicators of well-being is likely to be negative. However, the association varies from weak to moderate or strong with increased employment instability. Quinlan *et al.* (2001), in their review on the association between temporary employment and occupational health and safety, have reached similar conclusions.

The mixed findings are further illustrated in other studies: some studies do not find significant differences between permanent and temporary workers (Artazcoz *et al.* 2005; Bardasi and Francesconi 2000; Bernhard-Oettel *et al.* 2005; Claes *et al.* 2002; De Cuyper and De Witte 2005, 2006a, 2007a; Goudswaard *et al.* 2000; Houtman *et al.* 2000; Sverke *et al.* 2000), while others find poorer health among permanent workers (Martens *et al.* 1999; Solano *et al.* 2002, in Caballer *et al.* 2005) or among temporary workers (Benavides *et al.* 2000; Isaksson *et al.* 2001; Lasfargues *et al.* 1999; Parker *et al.* 2002). The inconsistent results are clearly illustrated when using samples from different countries: for example, Rodriguez (2002) finds no contract-related differences on general health in a UK sample, and poorer health for fixed-term contract workers in a comparable German sample.

Distal and Organization: Productive Behaviours

A final set of outcomes concerns productive behaviours. Again, the pattern of results does not allow firm conclusions. For example, permanent workers engage in more organizational citizenship behaviours than temporary workers in the studies by Coyle-Shapiro and Kessler (2002), De Gilder (2003), Guest *et al.*

(2003) and Van Dyne and Ang (1998). Engellandt and Riphahn (2005), however, find the opposite pattern. Furthermore, the type of temporary arrangement is found to be an important factor in the study by Chambel and Castanheira (2006) among Portuguese workers: permanent and fixed-term contract workers engage in more organizational citizenship behaviour than temporary agency workers do. With respect to performance, Kalleberg (2000) suggests that productivity may be lower for temporary workers, possibly because they are new to the job and thus need to learn work processes (Nollen and Axel 1996). This is supported in the study by Van Dyne and Ang (1998). However, other studies find no significant differences between temporary and permanent workers with respect to performance (De Cuyper and De Witte 2005; Ellingson *et al.* 1998). Finally, managers are more satisfied with the performance of temporary workers than with permanent workers in the study by Van Breukelen and Allegro (2000).

In sum, our review underlines the conclusion put forward by Connelly and Gallagher (2004) and others (De Cuyper *et al.* 2005b; Guest 2004; Virtanen *et al.* 2005) that results on the psychological impact of temporary employment are inconclusive and often contradictory. Even though we selected only four outcome variables for illustration, we are confident that this conclusion will apply to other psychological variables, as well. The inconsistencies are likely to go beyond differences in national legislation and labour market conditions (e.g. Australian studies on job satisfaction among casual workers; Finnish studies on health and well-being), although these factors definitely contribute towards an understanding of the impact of temporary employment. Furthermore, it could be argued that the mixed findings reflect the heterogeneity of the temporary workforce, as a considerable number of studies have highlighted differences between various forms of temporary employment. This explanation, among others, will be discussed in detail below.

Explaining the Inconsistent Findings

Speculative attempts to explain the discrepancy between theory and research and, in particular, to explain the inconsistent findings with respect to the impact of temporary employment, have greatly multiplied in recent years. Some researchers have criticized assumptions underlying the aforementioned theories on possible determinants of temporary workers' attitudes, well-being and behaviour, while others have focused upon shortcomings in research designs. As regards the latter, four avenues have been taken. First, most researchers seek to explain the mixed findings by pointing to the methodological limitations and drawbacks of earlier studies. Others have highlighted the huge heterogeneity of the temporary workforce. Still others have moved one step away from discussing method problems: they have initiated more complex research designs by considering possible positive aspects of working temporarily or by introducing potential moderators. Finally, a fourth group of authors have speculated upon the potential hidden costs associated with permanent employment, with likely unfavourable outcomes for permanent workers. In the following, we first discuss the shortcomings in theoretical frameworks. Then, we address each of the four avenues related to shortcomings in research designs.

Shortcomings in Theoretical Frameworks

Even though the ideas advocated in widely applied frameworks such as Work Stress Theory, Social Comparison Theory or Social Exchange Theory align with conventional thinking and are popular still today, they may be criticized for reasons other than not explaining the mixed findings. To begin with, one aspect of Work Stress Theory assumes that strain develops from a clear division between organizational insiders and outsiders, as formulated in theories on labour market use. However, these boundaries may, in fact, have faded (Saloniemi *et al.* 2004) or may not

Literature review of temporary employment

be perceived by employees. In fact, contract type is not a crucial predictor of perceived insider status in the study by Stamper and Masterson (2002). Furthermore, theories on labour market use fail to notice that a series of temporary jobs may provide opportunities for the development of general skills which are transferable to other organizations, and that it may, moreover, advance access to professional networks which may lead to stable employment (Gagliarducci 2005). Other studies in the realm of Work Stress Theory have focused upon job characteristics, mostly in the tradition of Karasek's Job Demand Control Model (Karasek and Theorell 1990). These studies reveal lower levels of control among temporary workers than among permanent workers. However, Parker *et al.* (2002), Saloniemi *et al.* (2004), as well as De Cuyper and De Witte (2006b), establish that temporary employment is associated with reduced role overload, which may, in turn, reduce possible negative effects of low control or autonomy.

Secondly, a critical issue in Social Comparison Theory concerns the assumption that temporary workers choose permanent workers performing similar jobs as referent others based on proximity considerations. It could be argued that temporary workers are likely to compare themselves with temporary workers in other organizations or departments based on perceived similarity (De Gilder 2003; Thorsteinson 2003).

Finally, Social Exchange Theory has attracted criticism for two reasons. First, temporary employment may provide inadequate opportunity for exchange or reciprocity owing to its short duration (Connelly and Gallagher 2004). Temporary workers may instead focus upon inducements that could unfold in the future (Chambel and Castanheira 2006). Second, various studies have shown that the psychological contract of temporary workers is less prone to breach or violation by the employer, possibly because their psychological contract is narrower and, hence, easier to monitor, or because temporary workers may have greater tolerance for organizational

practices and procedures (Connelly and Gallagher 2004; Coyle-Shapiro and Kessler 2002; McDonald and Makin 2000; Millward and Brewerton 2000). It might be that many temporary workers derive satisfaction from the tangible nature of their psychological contract and its limited potential for breach.

Shortcomings in Research Designs

Explanation 1: Limitations of earlier studies.

In most explanations, researchers have criticized earlier studies on their methodological and conceptual soundness. In this vein, Connelly and Gallagher (2004) and Kalleberg *et al.* (2003) suggest that part of the inconsistencies across studies may relate to differences in sampling procedures, most notably with regard to the specific type of temporary arrangement that was included. Indeed, this issue reflects concerns about the importance of considering the heterogeneity of the temporary workforce, which will be detailed in the second explanation below. Others have argued that a significant share of temporary workers perform the exact same job as permanent workers do, especially so when sampling temporary workers who are hired to replace permanent workers (Beard and Edwards 1995; Sverke *et al.* 2000). This may explain the non-significant differences between temporary and permanent workers in many studies. Furthermore, Holtom *et al.* (2002) see differences in the psychometric properties of the outcome variables as problematic when comparing research results. Others have highlighted the failure to control for important background or work-related variables that may mask or inflate differences between temporary and permanent workers (Bernhard-Oettel *et al.* 2005; Holtom *et al.* 2002; Rigotti and Mohr 2005; Van Breukelen and Allegro 2000). Finally, most studies could not control for possible selection effects, which may bias the results. Virtanen *et al.* (2005) suggest that there could be a positive health selection into temporary employment: healthy members of the labour market reserve are more likely to

seek employment than are unhealthy members. Similarly, employers are likely to systematically choose the healthiest among the available workforce. Furthermore, the 'healthy worker effect' may fade out over time or with exposure to work-related stressors. This may eventually lead to poorer health, especially among permanent workers. In contrast, Galais (2003) provides evidence in her longitudinal study for negative health selection into temporary employment: agency workers who report somatic complaints are less likely to gain permanent employment. Similarly, Virtanen *et al.* (2002, 2003a) finds that good rather than poor health and job satisfaction predict transition to permanent employment. Similarly, it is plausible that employers will tend to select workers who report favourable attitudes towards the organization when hiring for permanent employment.

Taking a conceptual stance, Gallagher and colleagues (Connelly and Gallagher 2004; Gallagher and McLean Parks 2001; Gallagher and Sverke 2005) have formulated concerns about the relevance of well-established constructs and theories for research on temporary employment. For example, conventional definitions of organizational commitment are grounded in the traditional permanent employee–employer relationship, i.e. an employment relationship in which satisfactory performance is rewarded by ongoing employment (De Gilder 2003). Many of the traditional antecedents of organizational commitment may not apply in the case of temporary workers, particularly not in the case of temporary agency workers: their commitment may concern the user organization, the intermediary organization or both, and the various foci of commitment may be nested within each other (Barringer and Sturman 1998; Gallagher and Sverke 2005; Feldman *et al.* 1994). Other authors have highlighted still other foci of commitment, such as commitment to the job or the profession, which might be particularly important for non-standard workers and, more specifically, for temporary workers (Felfe *et al.* 2005). In much the same way, job dissatisfaction and

job insecurity may be less predictive for turnover among temporary workers, although it is considered central to all turnover theories. In the case of temporary workers, turnover is expected and agreed upon (Aronescu *et al.* 2004; Guest and Clinton 2005; Isaksson and Bellaagh 2002). Furthermore, temporary and permanent workers may differ in their interpretation of what constitutes organizational citizenship behaviour. Specifically, permanent workers may consider some organizational citizenship behaviours as part of their job, and they may perform these behaviours out of professionalism. In contrast, temporary workers may have a fairly liberal interpretation of out-role behaviours (Connelly and Gallagher 2004), and they might be more likely to engage in organizational citizenship behaviour to reciprocate fair treatment by employers (Coyle-Shapiro and Kessler 2002; Coyle-Shapiro *et al.* 2004; Van Dyne and Ang 1998).

Explanation 2: The heterogeneity of temporary workers. Many authors argue that the heterogeneity of the temporary workforce may account for the mixed findings discussed earlier. Various authors have highlighted huge differences between specific types of temporary arrangements, most notably with regard to employment stability (Virtanen *et al.* 2003b), and with regard to background variables such as age, gender, education and tenure between workers occupying similar positions (Cohany 1998; DiNatale 2001; Wooden 2004). Specifically, directly hired, fixed-term contract workers are assumed to be most similar to permanent workers, while temporary agency workers and, in particular, casual and on-call workers may occupy the most peripheral positions (Aronsson *et al.* 2002; Bernhard-Oettel *et al.* 2005; Chambel and Castanheira 2006). This coincides with the findings reported earlier on the lower levels of job satisfaction among agency workers (Guest *et al.* 2003) and on-call workers (Bardasi and Francesconi 2000; Booth *et al.* 2000).

A critical issue, however, concerns the definition and measurement of employment

Literature review of temporary employment

stability in these studies: the same label used for a specific category of temporary employment (e.g. agency work) may have different meanings in different countries. This may hamper cross-national comparisons. For example, agency workers have temporary contracts with the agency in some countries, and they have permanent contracts with the agency in others. Instead, characteristics such as contract duration or time left before the contract expires may more objectively define employment stability. In this respect, Feldman (2005) suggests that longer contract duration may relate to increased responsibility, interesting work, social support from colleagues and lower job insecurity. Contract duration may furthermore monitor access to HR practices such as training, and to benefits and privileges (OECD 2002), and it may reduce risks of becoming trapped in a cycle of unstable, low paid jobs and spells of unemployment (Hancock 1999; Scherer 2004; Wooden 2004). These factors, in turn, may predict various psychological outcomes. For example, Engellandt and Riphahn (2005) find that long-term temporary workers are more likely to put in extra effort as compared with those on short-term contracts. Surprisingly few studies have investigated the impact of time left before the contract expires, even though this may well relate to issues of job insecurity.

Other authors have explored the heterogeneity of temporary workers in factors related to choice and preferences. In particular, volition or contract preference has been suggested to be the most important dimension in describing the heterogeneity of temporary workers (Connelly and Gallagher 2004; Isaksson and Bellaagh 2002). This idea dates back to the early 1970s with the work of Gannon (1971, 1974, 1984), and it has regained interest in the realm of part-time work research (Krausz *et al.* 2000; Morrow *et al.* 1994). Favourable outcomes are expected among those preferring temporary to permanent employment – voluntary temporary workers – compared with those who do not prefer it – involuntary

temporary workers. First, volition may express perceived control, for which favourable effects are well documented, both theoretically in Self Determination Theory (Deci and Ryan 1987) and empirically (Beard and Edwards 1995). Second, the person–job fit is much better for voluntary temporary workers (Holtom *et al.* 2002), and these workers may be more sensitive to positive aspects of working temporarily (Feldman *et al.* 1994). In contrast, involuntary temporary workers may have little incentive for performing beyond the minimum job requirements (Moorman and Harland 2002). Empirical findings have provided moderate support. Voluntary compared with involuntary temporary workers are more satisfied with their job (Barringer and Sturman 1998; Ellingson *et al.* 1998; Krausz *et al.* 1995) and more committed to the organization (Von Hippel *et al.* 1997). Furthermore, volition is associated with fewer somatic complaints (Isaksson and Bellaagh 2002).

More recently, researchers have raised concerns about the relevance of this explanation in labour markets where choice is limited (De Cuyper and De Witte 2007b; Guest 2004; Parker *et al.* 2002; Saloniemi *et al.* 2004; Van Dyne and Ang 1998). Various studies signal that most temporary workers are forced into temporary employment: European (Amuedo-Dorantes 2000; Isaksson and Bellaagh 2002; Tremlett and Collins 1999) and US (Barringer and Sturman 1998; Morris and Vekker 2001; Polivka 1996; Von Hippel *et al.* 1997) reports estimate the share of voluntary temporary workers at 30% at best. These numbers may be somewhat higher among Australian casual workers (Wooden 2004), possibly because casual workers are sometimes granted higher pay in exchange for a lack of benefits ('cashing out'; Campbell 2004). Furthermore, a critical issue in volition research is the lack of control groups, namely a comparison of voluntary and involuntary temporary workers to permanent workers (De Cuyper and De Witte 2007b; for an exception, see Krausz *et al.* 1995). This is, however, crucial in establishing firm evidence on the importance of volition in explaining

potential differences between temporary and permanent workers.

Others have argued that motives for accepting temporary employment may more accurately capture issues concerning choice: involuntary status does not imply that the decision to accept temporary employment is outside the employees' control and vice versa for voluntary status (De Jong *et al.* 2005; Ellingson *et al.* 1998; Marler *et al.* 2002; Polivka 1996; Tan and Tan 2002). For example, it might be that employees' non-work responsibilities cause them to accept temporary employment. Neither does voluntary status relate to overall favourable outcomes, and involuntary status to overall unfavourable outcomes. For example, voluntary temporary workers may want to distance themselves from the control of the employer (Aronescu *et al.* 2004). Similarly, it has been argued that involuntary workers are highly motivated to gain permanent employment, and that this motivation monitors high levels of performance and cooperation (De Cuyper and De Witte 2006c; Moorman and Harland 2002; Van Dyne and Ang 1998; Von Hippel *et al.* 1997). Aronsson and Göransson (1999) also add issues related to occupation of choice and workplace of choice as reasons for accepting a temporary assignment: working in a desired occupation or in a workplace with good career opportunities may be more important than degree of contract security. Research including motives is, however, limited, and until now, exploratory.

Explanation 3: More complex research designs. A third avenue in explaining the inconsistent findings on the psychological impact of temporary employment has been to initiate more complex research designs. Specifically, researchers have reflected upon possible positive aspects of temporary employment or they have introduced possible moderators.

To begin with, possible favourable features of temporary employment are not considered in most studies, although they may balance or buffer negative aspects (De Cuyper and De Witte 2006a; Hoque and Kirkpatrick 2003);

temporary workers may have a better work-life balance (Polivka 1996); they may benefit from scheduling flexibility, skill training and maintenance; and they may enjoy the variety of experiences (Hardy and Walker 2003; Kalleberg 2000; Krausz *et al.* 1995). Some authors moreover question whether so-called unfavourable aspects of temporary employment are perceived as such by employees. They argue that risks may be formulated as opportunities and vice versa (Garsten 1999; Kunda *et al.* 2002). For example, the feeling of being at the organization's periphery could be framed as the freedom of not engaging too intensively or as a way of not getting involved in organizational problems and politics. This line of research is promising in terms of explaining the inconsistent results, but it has not been sufficiently explored to date.

Secondly, it could be argued that the responses of temporary workers are contingent upon aspects that are less predictive for permanent workers' responses and vice versa. This may hold for issues concerning motivation or for specific work stressors. For example, the stepping stone or foot-in-the-door hypothesis suggests that many temporary workers are strongly motivated to secure permanent employment, and that they may want to signal their potential value as permanent workers to the organization by providing high levels of effort and by showing constructive behaviour (Connelly and Gallagher 2004; De Cuyper and De Witte 2006c; Feather and Rauter 2004; Mauno *et al.* 2005). Furthermore, temporary workers may be reluctant to report poor health, as this may lower their chances of permanent employment (Liukkonen *et al.* 2004; Virtanen *et al.* 2002), especially in times of high competition for jobs (Virtanen *et al.* 2005). Alternatively, temporary workers' responses may anticipate the desired outcome of permanent employment. In this respect, research on anticipatory socialization has established that observance and commitment to the norms is often higher among those outside the high prestige group but wishing to join in than among core members (McDonald

Literature review of temporary employment

and Makin 2000; Von Hippel 2006). Even though research on the stepping stone hypothesis is scarce, results reported by Goudswaard *et al.* (2000) provide supporting evidence: temporary workers perceiving their chance of a permanent contract or renewed contract as high compared with low report higher levels of job satisfaction, and are less often absent because of sickness.

Recent studies have also demonstrated that job insecurity may have different effects for permanent and temporary workers. More specifically, job insecurity reduces job satisfaction and organizational commitment among permanent workers, whereas it does little in explaining the responses of temporary workers (De Cuyper and De Witte 2005, 2006a, 2007a; De Witte and Näswall 2003; Mauno *et al.* 2005). Similarly, the interaction term between contract type and job insecurity adds in explaining psychological distress, health (Bernhard-Oettel *et al.* 2005; Sverke *et al.* 2000; Virtanen *et al.* 2002) and turnover intention (De Cuyper and De Witte 2005): permanent workers experience higher distress and poorer health, and are more inclined to quit the company when feeling insecure than are temporary workers, for whom job insecurity is not predictive of these outcomes. This pattern of results is explained mostly by referring to differences in expectations: Klein Hesselink and Van Vuuren (1999), for example, argue that the discrepancy between the level of expected and perceived job insecurity is more dramatic for permanent than for temporary workers, and this, in turn, may account for the results. This suggests that job insecurity is problematic only if it represents an unwelcome organizational change (Pearce 1998) or a betrayal of the psychological contract (De Witte and Näswall 2003; Mauno *et al.* 2005), both of which reflect a violation of employees' expectations. Evidence for this hypothesis was reported by De Cuyper and De Witte (2006a, 2007a). Others have argued that permanent workers have more to lose and, hence, their reactions may be stronger (Klein Hesselink and Van Vuuren 1999). Pearce

(1998), however, questions this explanation: she argues that loss of work may be costly, and that it may imply financial difficulties, especially for temporary workers, who often find it difficult to find alternative employment. Finally, it is possible that employability represents an alternative to job security for temporary workers, implying that low employability rather than job insecurity might be problematic for temporary workers (De Cuyper and De Witte in press; Forrier and Sels 2003).

Explanation 4: Hidden costs for permanent workers. Some researchers have sought explanations for the mixed findings reported earlier by considering potential stressors or hidden costs for permanent workers. Aronsson and Göransson (1999), for example, argue that issues related to continuance commitment, such as seniority principles and the attraction of permanent employment, may compel permanent workers to stay in a position that does not match their preferences or aspirations. This, in turn, may negatively affect their attitudes, health and behaviours.

US researchers in particular have argued that extensive use of temporary workers may, in fact, unintentionally affect the working conditions of permanent workers (Broschak and Davis-Blake 2006; Davis-Blake *et al.* 2003; Liukkonen *et al.* 2004; Wright and Lund 1996). More specifically, using temporary workers may increase the level of responsibility and the supervision demands for permanent workers, without simultaneously increasing their rewards. This may then increase perceptions of workload among permanent workers (Pearce 1993). It is also possible that temporary workers are hired when permanent workers are already overworked. Hiring temporary workers may also change the nature of tasks that are assigned to permanent workers (Ang and Slaughter 2001; Pearce 1993). Supervisors typically delegate less complex tasks and tasks low in interdependence to temporary workers, implying that tasks high in both cognitive and social demands are shifted to permanent workers (Connelly and Gallagher

2004; Davis-Blake and Uzzi 1993). Permanent workers may be worrying about implications for developmental and internal mobility opportunities (Geary 1992; Kalleberg 2000). They may feel that the pool of potential rivals has increased, especially for those at the lower end of the organizational hierarchy (Broschak and Davis-Blake 2006). Finally, in organizations with many temporary workers, permanent workers may feel they are easily replaceable, which may increase their perceptions of job insecurity (Campbell 1998; Davis Blake *et al.* 2003). In turn, permanent workers may feel that they cannot trust their organization, or that their psychological contract has been violated. They may then respond with lower commitment towards the organization and with unproductive performance (Ang and Slaughter 2001; George 2003; Pearce 1993).

These effects are likely to be conditional upon the proportion of temporary workers and upon permanent workers' assumptions concerning the reasons for hiring temporary workers. For example, Chattopadhyay and George (2001) observe negative effects only for permanent workers working in groups dominated by temporary workers. Broschak and Davis-Blake (2006) have also demonstrated a relationship between the degree of heterogeneity in employment arrangements in a work group and turnover intention, as well as a relationship between heterogeneity in employment relationships and poor relations with supervisors and colleagues. The authors argue that permanent workers may feel that their high prestige status and positive social identity is threatened by the dominance of temporary workers. In contrast, the number of temporary vs permanent workers does not affect temporary workers under any condition, possibly because they are used to coping with situations in which they are the minority or because they already anticipate this situation. Alternatively, they may derive prestige and, hence, favourable attitudes, by working alongside permanent workers (Chattopadhyay and George 2001; Von Hippel 2006). Kraimer *et al.* (2005) go on to suggest that the costs of hiring

temporary workers are moderated by the organization's motives for doing so: when permanent workers trust that the organization does not threaten their interests but, instead, that the organization relies on temporary workers to meet business demands, negative effects are unlikely. In contrast, when permanent workers interpret the presence of temporary workers as management's intentions to change internal structures or to identify qualified job candidates, they may respond unfavourably. In their study, Kraimer *et al.* (2005) reveal that permanent workers with low levels of job security are less likely to trust the organization's motives for hiring temporary workers and feel less obligated to perform well. Those with high levels of job security, in contrast, are likely to evaluate the organization's intention positively and are motivated to reciprocate by performing well. The Kraimer *et al.* (2005) interpretation may also explain the research findings reported by Davis-Blake *et al.* (2003), where the negative effects of hiring temporary workers are found to be weaker among permanent workers with high wages or among those workers who have supervision demands.

Conclusion: A Conceptual Model for Future Research

This review has highlighted the complexity of research on the psychological impact of temporary employment. More specifically, it has emphasized the lack of theoretical founding in many studies, or has questioned the validity of widely applied theoretical considerations. For example, the prediction of more unfavourable outcomes among temporary workers than among permanent workers is based on a presumed increase in vulnerability for job and employment strain, which may then have harmful implications in terms of social exchange and social comparison. However, our review of empirical research on the relationship between temporary employment and job satisfaction, organizational commitment, well-being and productive behaviours highlights

Literature review of temporary employment

the fact that findings are inconsistent and inconclusive. This fact has inspired researchers to implement more sophisticated research designs, which have been integrated into our conceptual model as shown in Figure 1.⁶ The sections below highlight each of these issues.

Control Variables

Researchers have identified various variables that should be controlled for in all analyses aimed at comparing temporary and permanent workers. There may be many potential control variables, including work-related variables (e.g. occupational status, weekly working hours) and individual background variables (e.g. age, gender, education). In addition, there may be context-related factors (e.g. employment sector, country) that should be controlled for, or, when informative for the specific research question, that should be introduced in a multi-level research design. A systematic account of control variables may also at least partially counter effects of sampling strategies.

The Independent Variable: Heterogeneity of Temporary Workers

Temporary workers are not a homogeneous group and, hence, should not be treated as such in empirical designs. A possible, objective indicator of the heterogeneity of temporary workers is the specific type of temporary arrangement. Research studies, especially those aimed at making international comparisons, may, however, benefit from a detailed specification of contract types along dimensions reflecting employment stability, such as the number of parties involved, contract duration, time left before the contract expires, unemployment experiences or future employment prospects. This may be a good response to the difficulties concerning inconsistent vocabulary and definitions across countries. The heterogeneity of temporary workers has also been addressed along subjective dimensions, most notably volition: temporary workers preferring their arrangement are expected to

report more favourable attitudes than those who do not. Possibly, motives for accepting temporary employment, including motives related to preferences for a specific occupation or workplace, may also play an important role. They may give a more detailed account of how voluntary status is interpreted, as well. For example, some temporary workers may interpret voluntary status as an ideal: they may be involuntarily employed when accepting temporary employment for non-work related reasons. Others may reflect on a realistic situation: they may perceive temporary employment as the best option at that very moment, even when they are forced into temporary employment because of non-work related reasons. A detailed specification of how the heterogeneity of the temporary workforce may affect research results should be part of all analyses on temporary employment. These analyses may include specifications on how the heterogeneity is related to employees' demographics, and how heterogeneity indicators and demographics may interact in predicting employees' responses. For example, it could be that females are more likely than males to highlight voluntary motives related to other than work obligations (Casey and Alach 2004), which may affect responses on psychological outcomes.

Outcome Variables: Validity and Interpretation

Researchers have formulated both methodological and conceptual concerns with regard to various traditional psychological outcomes. The psychometric properties of the constructs may be different for temporary and permanent workers. This urges researchers to carefully document the measurements used, for both temporary and permanent workers. A related issue concerns potential differences in interpretation of well-established constructs and their theoretical foundation. This has been documented for theories on organizational commitment, and to a lesser extent for constructs such as turnover intention, organizational

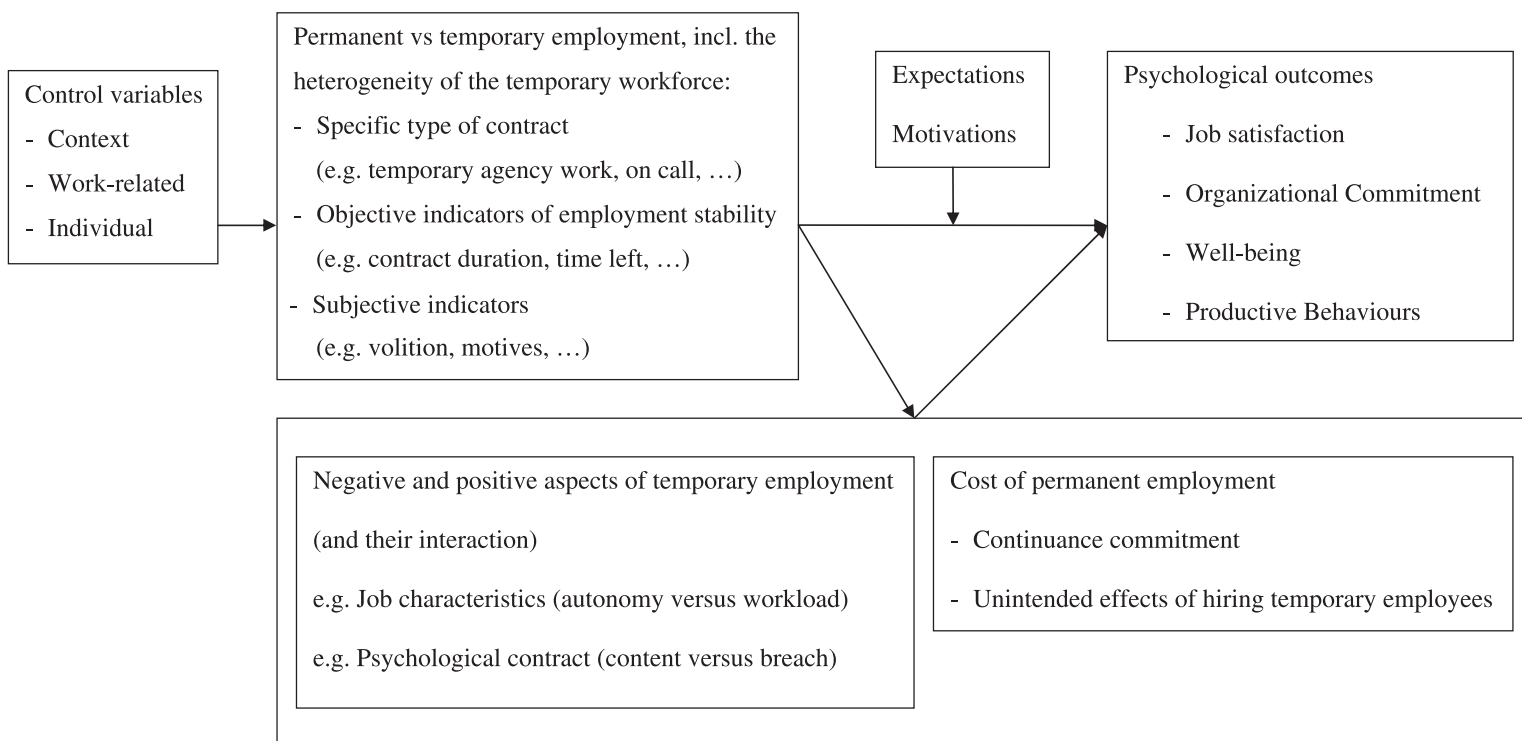


Figure 1. A conceptual model.

Literature review of temporary employment

citizenship behaviour and other similar constructs.

Positive Aspects of Working Temporarily and Negative Aspects of Working Permanently

Recently, researchers have introduced intervening variables that may balance or buffer negative aspects that are associated with temporary employment. More specifically, they have reflected upon the possible benefits of temporary employment. For example, reduced workload among temporary workers may buffer the potential negative effects of low autonomy. Similarly, the psychological contract of temporary workers is less prone to breach, which may balance possible negative effects of its narrower content. Other positive aspects are work-life balance and variety of experiences, among others. These should be considered in addition to, and possibly in interaction with, negative aspects of temporary employment.

In much the same way, there may be hidden costs for permanent workers: permanent workers may feel locked into their jobs more than temporary workers do, because they may fear the costs associated with leaving. Furthermore, permanent workers may perceive increased supervision demands and reduced promotion opportunities and job security when temporary workers are hired. The effects are conditional upon factors such as the proportion of temporary workers, the reasons for hiring temporary workers, and their position in the organization. Future research may want to develop this line of research by completing the list of potential benefits and drawbacks for both temporary and permanent workers.

Moderators: Motivation and Expectation

Few researchers have investigated possible moderators of the relationship between temporary employment and outcomes. Some have emphasized that temporary workers' motivation to gain permanent employment may be highly

predictive for psychological outcomes, probably even more predictive than permanent workers' work motivation. Temporary workers may perceive 'foot-in-the-door' opportunities, which they exploit by signalling excellent citizenship attitudes and behaviour even under non-optimal working conditions. This issue is related though clearly distinct from motives for accepting temporary employment: while motives for accepting temporary employment underline the huge heterogeneity of temporary workers, motivation issues are relevant for both temporary workers and permanent workers.

Temporary workers may also have learned to adjust their expectations downward or may compare their situation to previous unemployment experiences, which may lead to a favourable evaluation of temporary employment. This was illustrated by research on job insecurity: while job insecurity was harmful for permanent workers, it did not affect temporary workers' responses. It is possible that job security is simply not part of the expectations held by temporary workers, although it is crucial to permanent workers. To the extent that temporary workers value employability as the new security mechanism on the labour market, it might be that temporary workers' reactions are monitored by employability considerations.

Methodological Issues

An important methodological drawback of contemporary research on the psychological impact of temporary employment concerns the lack of longitudinal designs (for an exception, see Galais 2003; Parker *et al.* 2002; Virtanen 2003; Virtanen *et al.* 2005). These may, however, provide a long-term perspective on the impact of temporary employment. It may be particularly interesting to investigate mobility patterns of temporary workers, the role of motives for accepting temporary employment, and the stepping stone function of temporary employment. It may also provide a better check for possible selection effects: until now, the extent to which and the way 'the healthy

worker effect' adds to the mixed findings on the psychological impact of temporary employment is unclear. It could be that temporary workers get trapped into a cycle of unstable jobs owing to, for example, poor health (Chambel and Castanheira 2006). Alternatively, there could be positive health selection into permanent employment (Virtanen *et al.* 2005). We realize, however, that the high turnover among temporary workers and their huge variation in contract duration may hamper a follow-up design. In this respect, the design advanced by Gash *et al.* (2006) may be particularly useful. These authors investigate health changes when transitioning from unemployment to employment. Follow-up in such designs may be somewhat easier. The authors find health improvements for both temporary and permanent workers. However, the gains were considerably greater among permanent workers.

Concluding Remarks

We have reviewed theory and research on the psychological impact of temporary employment. An important observation was that European studies dominate research in the realm of temporary employment. This is somewhat surprising, given the high numbers of temporary or casual workers in other OECD and non-OECD countries. Furthermore, it appears that the research results on the effects of temporary employment for the individual are inconclusive, and that widely applied theoretical frameworks on possible determinants of employees' attitudes, well-being and behaviour cannot account for this. Many researchers have pointed to problems related to the definition of temporary employment and the huge heterogeneity of temporary employment in many aspects. They have also identified a range of variables that should be controlled for. While these issues are of crucial importance, we feel that more elaborated theoretical considerations are necessary to advance this line of research.

In particular, both favourable and unfavourable aspects of temporary employment, as

well as the motivations and the expectations of temporary workers, should be taken into account. Furthermore, potential hidden stressors related to permanent employment may be equally important for understanding the complex pattern of results. Finally, researchers may consider adding mediators and/or moderators to their design. Overall, this review invites researchers to explore our conceptual model further, and to provide empirical evidence for explanations that have remained largely speculative.

Notes

- 1 Address for correspondence: Nele De Cuyper, Research Group for Work, Organization and Personnel Psychology, K.U Leuven, Tiensestraat 102, 3000 Leuven, Belgium; Tel: +32 16 32 60 14; e-mail: nele.decuyper@psy.kuleuven.be
- 2 Contingent employment is often understood as referring to all non-standard employment relationships, including part-time employment or telecommuting. To avoid confusion, we decided to use temporary employment.
- 3 www.oecd.org
- 4 Some Australian authors distinguish between regular, long-term, permanent or ongoing casual workers and short-term or true casuals based on the duration of employment (e.g. Campbell 2004). However, casual employees in both cases are not entitled to a period of notice before dismissal and do not have an implicit or explicit contract for long-term employment, both of which are aspects commonly associated with temporary employment (e.g. McLean Parks *et al.* 1998).
- 5 We did not distinguish between psychological or mental and physical well-being, as this distinction was blurred in some studies.
- 6 This model builds on the model formulated by De Cuyper *et al.* (2005b).

References

- Amuedo-Dorantes, C. (2000). Work transitions into and out of involuntary temporary employment in a segmented market: evidence from Spain. *Industrial and Labor Relations Review*, **53**(2), 309–325.
- Ang, S. and Slaughter, S.A. (2001). Work outcomes and job design for contract versus permanent information systems professionals on software

Literature review of temporary employment

- development teams. *MIS Quarterly*, **25**(3), 321–350.
- Aronescu, D., Larsson, P., Bergström, O. and Strannegard, L. (2004). The voice of temporary doctors: contingent employment as an act of resistance. Paper presented at EGOS 20th Colloquium: the Organization as a Set of Dynamic Relationships, Ljubljana, Slovenia, 1–3 July.
- Aronsson, G. (1999). Contingent workers and health and safety. *Work, Employment and Society*, **13**, 439–459.
- Aronsson, G. and Göransson, S. (1999). Permanent employment but not in a preferred occupation: psychological and medical aspects, research implications. *Journal of Occupational Health Psychology*, **4**(2), 152–163.
- Aronsson, G., Gustafsson, K. and Dallner, M. (2002). Work environment and health in different types of temporary jobs. *European Journal of Work and Organizational Psychology*, **11**(2), 151–175.
- Artazcoz, L., Benach, J., Borrell, C. and Cortez, I. (2005). Social inequalities in the impact of flexible employment on different domains of psychosocial health. *Journal of Epidemiological Community Health*, **59**, 761–767.
- Atkinson, J. (1984). Manpower strategies for flexible organizations. *Personnel Management*, August, 28–31.
- Bardasi, E. and Francesconi, M. (2000). The effect of non-standard employment on mental health in Britain. IZA Discussion paper 232, Bonn, Germany.
- Bardasi, E. and Francesconi, M. (2004). The impact of atypical employment on individual well-being: evidence from a panel of British workers. *Social Science and Medicine*, **58**, 1671–1688.
- Barringer, M.W. and Sturman, M.C. (1998). The effects of variable work arrangements on the organizational commitment of contingent workers. Working paper, Cornell University, USA.
- Beard, K.M. and Edwards, J.R. (1995). Employees at risk: contingent work and the psychological experience of contingent workers. In Cooper, C.I. and Rousseau, D.M. (eds), *Trends in Organizational Behavior*, Vol. 2. Chichester: John Wiley, pp. 109–126.
- Becker, G.S. (1993). *Human Capital: A Theoretical and Empirical Analysis With Special Reference to Education*. Chicago: National Bureau of Economic Research, University of Chicago Press.
- Benach, J., Gimeno, D. and Benavides, F.G. (2002). *Types of Employment and Health in the European Union*. European Foundation for the Improvement of Living and Working Conditions. Office for Official Publications in the European Community. Luxembourg.
- Benavides, F.G., Benach, J., Diez-Roux, A.V. and Roman, C. (2000). How do types of employment relate to health indicators? Findings from the Second European Survey on Working Conditions. *Journal of Epidemiological Community Health*, **54**, 494–501.
- Benson, J. (1998). Dual commitment: contract workers in Australian manufacturing enterprises. *Journal of Management Studies*, **35**, 355–375.
- Bernesak, A. and Kinnear, D. (1999). Workers' willingness to accept contingent employment. *Journal of Economic Issues*, **33**, 461–469.
- Bernhard, C. (2001). Employment conditions, job characteristics and psychological contracts of temporary workers: the development of a comprehensive frame to study temporary employment forms and their consequences. Unpublished diploma thesis, TU Dresden, Germany.
- Bernhard-Oettel, C., Sverke, M. and De Witte, H. (2005). Comparing three alternative types of employment with permanent full-time work: how do employment contract and perceived job conditions relate to health complaints? *Work and Stress*, **19**, 301–318.
- Bhandari, A.K. and Heshmati, A. (2006). Wage inequality and job insecurity among permanent and contract workers in India: evidence from organized manufacturing industries. Discussion paper 2097.
- Booth, A., Francesconi, M. and Frank, J. (2000). Temporary workers: new evidence on their pay, conditions and prospects. *Future of Work Bulletin*, **1**, 2–4.
- Brewster, C., Mayne, L. and Tregaskis, O. (1997). Flexible working in Europe. *Journal of World Business*, **32**(2), 133–151.
- Broschak, J.P. and Davis-Blake, A. (2006). Mixing standard work and nonstandard deals: the consequences of heterogeneity in employment arrangements. *Academy of Management Journal*, **49**, 371–393.
- Burgess, J. and Connell, J. (2006). Temporary work and human resource management: issues, challenges and responses. *Personnel Review*, **35**(2), 129–140.
- Burgess, J. and Strachan, G. (1999). The expansion of non-standard employment in Australia and the extension of employers' control. In Felstead, A. and Jewson, N. (eds), *Trends in Flexible Labour*. London: Macmillan Business, pp. 121–140.

- Burgess, J., Connell, J. and Rasmussen, E. (2005). Temporary agency work and precarious employment: a review of the current situation in Australia and New Zealand. *Management Review*, **16**, 351–369.
- Byoung-Hoo, L. and Frenkel, S.J. (2004). Divided workers: social relations between contract and regular workers in a Korean auto company. *Work, Employment and Society*, **18**, 507–530.
- Caballer, A., Silla, I., Gracia, F. and Ramos, J. (2005). Current evidence concerning employment contracts and employee/organizational well-being among workers in Spain. In De Cuyper, N., Isaksson, K. and De Witte, H. (eds), *Employment Contracts and Well-Being Among European Workers*. Aldershot: Ashgate, pp. 155–175.
- Campbell, I. (1998). The nature and dimensions of precarious employment in Australia. *Labour and Industry*, January.
- Campbell, I. (2004). Casual work and casualisation: how does Australia compare? *Labour and Industry*, December.
- Campbell, I. and Burgess, J. (2001a). Casual employment in Australia and temporary employment in Europe: developing a cross-national comparison. *Work, Employment and Society*, **15**, 171–184.
- Campbell, I. and Burgess, J. (2001b). Temporary and casual: a rejoinder to Wooden. *Work, Employment and Society*, **15**, 885–887.
- Casey, C. and Alach, P. (2004). Just a temp? Women, temporary employment and lifestyle. *Work, Employment and Society*, **18**, 459–480.
- Chambel, M.J. and Castanheira, F. (in press). They don't want to be temporary workers: similarities between temps and core workers. *Journal of Organizational Behavior*.
- Chambel, M.J. and Castanheira, F. (2006). Different temporary work status, different behaviors in organization. *Journal of Business and Psychology*, **20**, 351–367.
- Chattopadhyay, P. and George, E. (2001). Examining the effects of work externalization through the lens of social identity theory. *Journal of Applied Psychology*, **86**, 781–788.
- Chirumbolo, A. and Hellgren, J. (2003). Individual and organizational consequences of job insecurity: a European study. *Economic and Industrial Democracy*, **24**, 217–240.
- Claes, R., De Witte, H., Schalk, R., Guest, D., Isaksson, K., Krausz, M., Mohr, G. and Peiró, J.M. (2002). Het psychologisch contract van vaste en tijdelijke werknemers [The psychological contract of permanent and temporary workers]. *Gedrag en Organisatie*, **15**(6), 436–455.
- Cohany, S.R. (1998). Workers in alternative employment arrangements. A second look. *Monthly Labor Review*, **121**, 3–21.
- Connolly, C.E. and Gallagher, D.G. (2004). Emerging trends in contingent work research. *Journal of Management*, **30**, 959–983.
- Connolly, C.E. and Gallagher, D.G. (2006). Independent and dependent contracting: meaning and implications. *Human Resource Management Review*, **16**, 95–106.
- Cooper, C.L. (2002). The changing psychological contract at work. *Occupational and Environmental Medicine*, **59**, 355.
- Coyle-Shapiro, J.A.M. and Kessler, I. (2002). Contingent and non-contingent working in local government: contrasting psychological contracts. *Public Administration*, **80**(1), 77–101.
- Coyle-Shapiro, J.A.M., Kessler, I. and Purcell, J. (2004). Exploring organizationally directed citizenship behaviour: reciprocity or 'it's my job?' *Journal of Management Studies*, **41**, 85–106.
- Cranford, C.J., Vosko, L.F. and Zukewich, N. (2003). The gender of precarious employment in Canada. *Industrial Relations*, **58**, 454–482.
- Davis-Blake, A. and Uzzi, B. (1993). Determinants of employment externalization: a study of temporary workers and independent contractors. *Administrative Science Quarterly*, **38**(2), 195–223.
- Davis-Blake, A., Broschak, J.P. and George, E. (2003). Happy together? How using non-standard workers affects exit, voice, and loyalty among standard employees. *Academy of Management Journal*, **46**, 475–485.
- Deci, E. and Ryan, R. (1987). The support of autonomy and the control of behavior. *Journal of Personality and Social Psychology*, **53**, 1024–1037.
- De Cuyper, N. and De Witte, H. (2005). Job insecurity: mediator or moderator of the relationship between contract type and well-being. *SA Journal of Industrial Psychology*, **31**(4), 79–86.
- De Cuyper, N. and De Witte, H. (2006a). The impact of job insecurity and contract type on attitudes, well-being and behavioural reports: a psychological contract perspective. *Journal of Occupational and Organizational Psychology*, **79**, 395–409.
- De Cuyper, N. and De Witte, H. (2006b). Autonomy and workload among temporary workers: their effects on job satisfaction, organizational commitment, life satisfaction and self-rated performance. *International Journal of Stress Management*, **13**, 441–459.

Literature review of temporary employment

- De Cuyper, N. and De Witte, H. (2006c). Temporary employment: volition or stepping stone. Paper presented at the Sixth Conference on Psychology and Health, Kerkrade, The Netherlands), 8–10 May.
- De Cuyper, N. and De Witte, H. (2007a). Job insecurity among temporary versus permanent workers: effects on job satisfaction, organizational commitment, life satisfaction and self-rated performance. *Work and Stress*, **21**, 65–84.
- De Cuyper, N. and De Witte, H. (2007b). Associations between contract preference and attitudes, well-being and behavioural intentions of temporary workers. *Economic and Industrial Democracy*, **28**(2), 292–312.
- De Cuyper, N. and De Witte, H. (in press). Job insecurity and employability among temporary workers: a theoretical approach based on the psychological contract. In Näswal, K., Hellgren, J. and Sverik, M. (eds), *The Individual in the Changing Working Life*. Cambridge: Cambridge University Press.
- De Cuyper, N., De Witte, H. and Isaksson, K. (2005a). Employment contracts – How to deal with diversity? In De Cuyper, N., Isaksson, K. and De Witte, H. (eds), *Employment Contracts and Well-Being Among European Workers*. Aldershot: Ashgate, pp. 15–34.
- De Cuyper, N., De Witte, H. and Isaksson, K. (2005b). Temporary employment in Europe: conclusions. In De Cuyper, N., Isaksson, K. and De Witte, H. (eds), *Employment Contracts and Well-Being Among European Workers*. Aldershot: Ashgate, pp. 225–244.
- De Cuyper, N., Rigotti, T., De Witte, H. and Mohr, G. (in press). Balancing psychological contracts. Validation of a typology. *International Journal of Human Resource Management*.
- De Gilder, D. (2003). Commitment, trust and work behavior. The case of contingent workers. *Personnel Review*, **32**(2), 588–604.
- De Grip, A., Hoevenberg, J. and Willems, E. (1997). Atypical employment in the European Union. *International Labour Review*, **163**(1), 49–71.
- De Jong, J. and Schalk, R. (2005). Temporary employment in The Netherlands: between flexibility and Security. In De Cuyper, N., Isaksson, K. and De Witte, H. (eds), *Employment Contracts and Well-Being Among European Workers*. Aldershot: Ashgate, pp. 119–152.
- De Jong, J., De Cuyper, N., De Witte, H., Silla, I. and Bernhard-Oettel, C. (2005). Motives and preferences of temporary workers: a European perspective. Paper presented at the 12th European congress on Work and Organizational Psychology, Istanbul, May.
- De Witte, H. (1999). Job insecurity and psychological well-being: review of the literature and exploration of some unresolved issues. *European Journal of Work and Organizational Psychology*, **8**(2), 155–177.
- De Witte, H. (2005). Job insecurity: review of the international literature on definitions, prevalence, antecedents and consequences. *SA Journal of Industrial Psychology*, **31**(4), 1–6.
- De Witte, H. and Näswall, K. (2003). Objective versus subjective job insecurity: consequences of temporary work for job satisfaction and organizational commitment in four European countries. *Economic and Industrial Democracy*, **24**(2), 149–188.
- DiNatale, M. (2001). Characteristics of and preference for alternative work arrangements. *Monthly Labor Review*, **124**(3), 28–49.
- Doeringer, P. and Piore, M. (1971). *Internal Labor Markets and Manpower Analysis*. Lexington, MA: Lexington Books.
- Eberhardt, B. and Moser, S. (1995). The nature and consequences of part-time work: a test of hypotheses. *Journal of Applied Business Research*, **11**, 101–108.
- Ellingson, J.E., Gruys, M.L., and Sackett, P.R. (1998). Factors related to the satisfaction and performance of temporary employees. *Journal of Applied Psychology*, **83**, 913–921.
- Engelland, A. and Riphahn, R.T. (2005). Temporary contracts and employee efforts. *Labour Economics*, **12**, 281–299.
- Feather, N.T. and Rauter, K.A. (2004). Organizational citizenship behaviours in relation to job status, job insecurity, organizational commitment and identification, job satisfaction and work values. *Journal of Occupational and Organizational Psychology*, **77**, 81–94.
- Feldman, D.C. (2005). Toward a new taxonomy for understanding the nature and consequences of contingent employment. *Career Development International*, **11**(1), 28–47.
- Feldman, D.C. and Turnley, W.H. (2004). Contingent employment in academic careers: relative deprivation among adjunct faculty. *Journal of Vocational Behavior*, **64**, 284–307.
- Feldman, D.C., Doeringhaus, H.I. and Turnley, W.H. (1994). Managing temporary workers: a permanent HRM challenge. *Organizational Dynamics*, **23**, 49–63.

- Felfe, J., Schmook, R., Six, B. and Wieland, R. (2005). Commitment bei Zeitarbeitern [Commitment of temporary agency workers]. *Zeitschrift für Personalpsychologie*, **4**, 101–115.
- Felstead, A. and Gallie, D. (2004). For better or worse? Non-standard jobs and high involvement work systems. *International Journal of Human Resource Management*, **15**, 1293–1316.
- Forde, C. and Slater, G. (2006). The nature and experience of agency working in Britain: what are the challenges for human resource management. *Personnel Review*, **35**(2), 141–157.
- Forrier, A. and Sels, L. (2003). Temporary employment and employability: training opportunities and efforts of temporary and permanent employees in Belgium. *Work, Employment and Society*, **17**, 641–666.
- Gagliarducci, S. (2005). The dynamics of repeated temporary jobs. *Labour Economics*, **12**, 429–448.
- Galais, N. (2003). Anpassung bei Zeitarbeitnehmern – Eine Längsschnittstudie zu individuellen Determinanten der Übernahme und des Wohlbefindens [Accommodation in temporary workers – a longitudinal study concerning determinants of adaptation and well-being]. Unpublished dissertation, Friedrich-Alexander-Universität Erlangen-Nürnberg.
- Gallagher, D. and Futagami, S. (1998). Commitment to the agency, client and work: a study of temporary help workers in Japan. Paper presented at the Academy of Management Annual Meeting, San Diego, August.
- Gallagher, D.G. and McLean Parks, J. (2001). I pledge thee my troth ... contingently: commitment and the contingent work relationship. *Human Resource Management Review*, **11**, 181–208.
- Gallagher, D.G. and Sverke, M. (2005). Contingent employment contracts: are existing employment theories still relevant? *Economic and Industrial Democracy*, **26**(2), 181–203.
- Galup, S., Saunders, C., Nelson, R.E. and Cervery, R. (1997). The use of temporary staff and managers in a local government environment. *Communication Research*, **24**, 698–730.
- Gannon, M.J. (1971). Factors related to acceptance and refusal of employment among temporary help applicants. *Journal of Applied Psychology*, **55**, 493–494.
- Gannon, M.J. (1974). A profile of the temporary help industry and its workers. *Monthly Labor Review*, **97**, 44–49.
- Gannon, M.J. (1984). Preferences of temporary workers: time, variety and flexibility. *Monthly Labor Review*, **107**, 26–28.
- García-Montalvo, J., Peiró, J.M. and Soro Bonmatí, A. (2003). *Observatorio de la Insercion Laboral, 1996–2002* [Labour Insertion Observatory, 1996–2002]. Valencia: Fundación Bancaja-Ivie.
- Garsten, C. (1999). Betwixt and between: temporary employees as liminal subjects in flexible organizations. *Organization Studies*, **20**(4), 601–617.
- Gash, V., Mertens, A. and Gordo, L.R. (2006). Are fixed-term jobs bad for your health? A comparison of West-Germany and Spain. IAB Discussion paper No. 8.
- Geary, J.F. (1992). Employment flexibility and human resource management: the case of three American electronics plants. *Work, Employment and Society*, **6**, 251–270.
- George, E. (2003). External solutions and internal problems: the effects of employment externalization on internal workers' attitudes. *Organization Science*, **14**(4), 386–402.
- Goudswaard, A. and Andries, F. (2002). *Employment Status and Working Conditions*. Luxembourg: European Foundation for the Improvement of Working and Living Conditions, Office for Official Publications of The European Community.
- Goudswaard, A., Kraan, K.O. and Dhondt, S. (2000). *Flexibiliteit in balans. Flexibilisering en de gevolgen voor werkgever én werknemer* [Flexibility in Balance. Flexibility of Labour and the Consequences For Employer and Employee]. Hoofddorp: TNO Arbeid.
- Guest, D. (2004). Flexible employment contracts, the psychological contract and employee outcomes: an analysis and review of the evidence. *International Journal of Management Reviews*, **5**(6), 1–19.
- Guest, D. and Clinton, M. (2005). Contracting in the UK: current research evidence on the impact of flexible employment and the nature of psychological contracts. In De Cuyper, N., Isaksson, K. and De Witte, H. (eds), *Employment Contracts and Well-Being Among European Workers*. Aldershot: Ashgate, pp. 201–224.
- Guest, D., Mackenzie Davey, K. and Patch, A. (2003). The psychological contracts, attitudes and behaviour of workers on temporary and permanent contracts. Management Centre Working Paper, King's College, London.
- Hall, R. (2006). Temporary agency work and HRM in Australia: cooperation, specialisation and satisfaction for the good of all. *Personnel Review*, **35**(2), 158–174.
- Hall, R. and Harley, B. (2000). The location and characteristics of fixed term and casual female

Literature review of temporary employment

- workers in Australia: analysis of AWIRS95. *Australian Bulletin of Labour*, **26**(March), 18–37.
- Hall, R., Harley, B. and Whitehouse, G. (1998). Contingent work and gender in Australia: evidence from the 1995 Australian Workplace Industrial Relations Survey. *Economic and Labour Relations Review*, **9**(June), 55–81.
- Hancock, K. (1999). Economics, industrial relations and the challenge of unemployment. *Australian Bulletin of Labour*, **25**(June), 117–140.
- Hardy, D.J. and Walker, R.J. (2003). Temporary but not seeking permanence: a study of New Zealand temps. *Leadership and Organization Development Journal*, **24**(3), 141–152.
- Holtom, B.C., Lee, T.W. and Tidd, S.T. (2002). The relationship between work status congruence and work-related attitudes and behaviors. *Journal of Applied Psychology*, **87**, 903–915.
- Hoque, K. and Kirkpatrick, I. (2003). Non-standard employment in the management and the professional workforce: training, consultation, and gender implications. *Work, Employment and Society*, **17**, 667–689.
- Houtman, I., Schaufeli, W. and Taris, T. (2000). *Psychische vermoeidheid en werk: Cijfers, trends en analyses* [Psychological Fatigue At Work: Numbers, Trends and Analyses]. Alphen aan de Rijn: NWO/Samson.
- Isaksson, K. and Bellaagh, K. (2002). Health problems and quitting among female ‘temps’. *European Journal of Work and Organizational Psychology*, **11**(1), 27–45.
- Isaksson, K., Aronsson, G., Bellaagh, K. and Göransson, S. (2001). Att ofta byta arbetsplats: en jämförelse mellan uthyrda och korttidsanställda [Workplace mobility: comparing two groups of atypical workers]. *Arbete och hälsa*, **15**. Arbetslivsinstitutet.
- Junor, A. (2004). Casual university work: choice, risk, inequity and the case for regulation. *Economic and Labour Relations Review*, **14**(2), 276–304.
- Kaiser, L.C. (2002). A comparison of standard, non-standard and self-employment patterns across Europe with a special note to the gender/job satisfaction paradox. EPAG Working Paper 27, University of Essex, Colchester.
- Kalleberg, A. (2000). Nonstandard employment relations: part-time, temporary and contract work. *Annual Review of Sociology*, **26**, 341–365.
- Kalleberg, A.L., Reskin, B.F. and Hudson, K. (2000). Bad jobs in America: standard and nonstandard employment relations and job quality in the United States. *American Sociological Review*, **65**, 256–278.
- Kalleberg, A.L., Reynolds, J. and Marsden, P.V. (2003). Externalizing employment: flexible staffing arrangements in US organizations. *Social Science Research*, **32**, 525–552.
- Karasek, R.A. and Theorell, T. (1990). *Healthy Work: Stress, Productivity and the Reconstruction of Working Life*. New York: Basic Books.
- Klein Hesselink, D.J. and Van Vuuren, T. (1999). Job flexibility and job insecurity: the Dutch case. *European Journal of Work and Organizational Psychology*, **8**(2), 273–293.
- Klein Hesselink, D.J., Koppens, J.L.G. and Van Vuuren, C.V. (1998). *Flexibiliteit van de arbeid: Achtergronden en effecten* [Labour Flexibility: Background and Effects]. Hoofddorp: TNO Arbeid.
- Koh, W.L. and Yer, L.K. (2000). The impact of the employee–organization relationship on temporary employees’ performance and attitude: testing a Singaporean sample. *International Journal of Human Resource Management*, **11**, 366–387.
- Kraimer, M.L., Wayne, S.J., Liden, R.C. and Sparrowe, R.T. (2005). The role of job security in understanding the relationship between employees’ perceptions of temporary workers and employees’ performance. *Journal of Applied Psychology*, **90**, 389–398.
- Krausz, M. (2000). Effects of short- and long-term preference for temporary work upon psychological outcomes. *International Journal of Manpower*, **21**, 635–647.
- Krausz, M. and Bar-Yosef, M. (1999). Differences between core and contingent employees in work satisfaction, organizational commitment and attitudes towards the organization. Unpublished manuscript.
- Krausz, M. and Stainvartz, N. (2005). Employment contracts and psychological contracts in Israel. In De Cuyper, N., Isaksson, K. and De Witte, H. (eds), *Employment Contracts and Well-Being among European Workers*. Aldershot: Ashgate, pp. 103–117.
- Krausz, M., Brandwein, T. and Fox, S. (1995). Work attitudes and emotional responses of permanent, voluntary, and involuntary temporary-help employees: an exploratory study. *Applied Psychology: An International Review*, **44**(3), 217–232.
- Krausz, M., Sagie, A. and Bidermann, Y. (2000). Actual and preferred work schedules and scheduling control as determinants of job-related attitudes. *Journal of Vocational Behavior*, **56**, 1–11.
- Kunda, G., Barley, S.R. and Evans, J. (2002). Why do contractors contract? The experience of highly

- skilled technical professionals in a contingent labour market. *Industrial and Labor Relations Review*, **55**(2), 234–257.
- Lasfargues, G., Doniol-Shaw, G., Deriennic, E., Bardot, F., Huez, D. and Noyer, C.R.D. (1999). Precarité de l'emploi et santé: différences hommes–femmes [Precarious employment and health: differences between males and females]. *Archives des Maladies Professionnelles et de Médecine du Travail*, **8**, 273–293.
- Létourneux, V. (1998). *Precarious Employment and Working Conditions in Europe*. Luxembourg: European Foundation for the Improvement of Working and Living Conditions, Office for Official Publications of The European Community.
- Lewchuk, W., de Wolff, A., King, A. and Polanyi, M. (2005). Beyond job strain: employment strain and the health effects of precarious employment. Work in a global society. Working paper series, 2005-1, Labour Studies Programme, McMaster University.
- Liukkonen, V., Virtanen, P., Kivimäki, M., Pentti, J. and Vahtera, J. (2004). Social capital in working life and the health of employees. *Social Science and Medicine*, **59**, 2447–2458.
- Mangan, J. and Williams, C. (1999). Casual employment in Australia: a further analysis. *Australian Economic Papers*, **38**(1), 40–50.
- Marler, J.H., Barringer, M.W. and Milkovich, G.T. (2002). Boundaryless and traditional contingent employees: worlds apart. *Journal of Organizational Behaviour*, **23**, 425–453.
- Martens, M.F.J., Nijhuis, F.J.N., van Boxtel, M.P.J. and Knottnerus, J.A. (1999). Flexible work schedules and mental and physical health. A study of a working population with non-traditional working hours. *Journal of Organizational Behavior*, **20**, 35–46.
- Matusik, S.F. and Hill, C.W. (1998). The utilization of contingent work, knowledge creation, and competitive advantage. *Academy of Management Review*, **23**, 680–697.
- Mauno, S. and Kinnunen, U. (2002). Perceived job insecurity among dual earner couples: do its antecedents vary according to gender, economic sector and the measure used. *Journal of Occupational and Organizational Psychology*, **75**, 295–314.
- Mauno, S., Kinnunen, U., Mäkilangas, A. and Nätti, J. (2005). Psychological consequences of fixed-term employment and perceived job insecurity among health care staff. *European Journal of Work and Organizational Psychology*, **14**(3), 209–238.
- McDonald, D.J. and Makin, P.J. (2000). The psychological contract, organizational commitment and jobsatisfaction of temporary staff. *Leadership and Organizational Development Journal*, **21**, 84–91.
- McLean Parks, J., Kidder, D.L. and Gallagher, D.G. (1998). Fitting square pegs into round holes: mapping the domain of contingent work arrangements onto the psychological contract. *Journal of Organizational Behavior*, **19**(Special issue), 697–730.
- Merllié, D. and Pascal, P. (2002). *Third European Survey on Working Conditions 2000*. Dublin: European Foundation for the Improvement of Living and Working Conditions.
- Millward, L.J. and Brewerton, P.M. (1999). Contractors and their psychological contract. *British Journal of Management*, **10**, 253–274.
- Millward, L.J. and Brewerton, P.M. (2000). Psychological contracts: employee relations for the twenty-first century? In Cooper, C.L. and Robertson, I.T. (eds), *International Review of Industrial and Organizational Psychology*, Vol. 15. Chichester: John Wiley, pp. 1–61.
- Millward, L.J. and Hopkins, L. (1998). Psychological contracts, organizational and job commitment. *Journal of Applied Social Psychology*, **28**, 1530–1556.
- Moorman, R.H. and Harland, L. (2002). Temporary employees as good citizens: factors influencing their OCB performance. *Journal of Business and Psychology*, **17**, 171–187.
- Morris, M.D.S. and Vekker, A. (2001). An alternative look at temporary workers, their choices, and the growth in temporary employment. *Journal of Labor Research*, **22**, 373–390.
- Morrow, P.C., McElroy, J.C. and Elliot, S.M. (1994). The effect of preference for work status, schedule and shift on work-related attitudes. *Journal of Vocational Behavior*, **45**, 202–222.
- Nollen, S.D. (1996). Negative aspects of temporary employment. *Journal of Labor Research*, **17**, 567–582.
- Nollen, S.D. and Axel, H. (1996). *Managing Contingent Workers: How to Reap the Benefits and Reduce the Risks*. New York: AMACOM.
- OECD. (2002). *Employment Outlook*. Paris: Organization for Economic Co-operation and Development.
- Olsen, K. and Kalleberg, A.L. (2004). Non-standard work in two different employment regimes: Norway and the United States. *Work, Employment and Society*, **18**, 321–348.
- Paoli, P. and Merllié, D. (2002). *Third European Survey on Working Conditions*. Luxembourg: European Foundation for the Improvement of Living and

Literature review of temporary employment

- Work Conditions, Office for Official Publications in the European Communities.
- Parker, S.K., Griffin, M.A., Sprigg, C.A. and Wall, T.A. (2002). Effect of temporary contracts on perceived work characteristics and job strain: a longitudinal study. *Personnel Psychology*, **55**, 689–717.
- Pearce, J.L. (1993). Toward an organizational behavior of contract laborers: their psychological involvement and effects on employee co-workers. *Academy of Management Journal*, **36**, 1082–1096.
- Pearce, J.L. (1998). Job Insecurity is important, but not for the reasons you might think: the example of contingent workers. In Cooper, C.L. and Rousseau, D.M. (eds), *Trends in Organization Behavior*, Vol. 5. Chichester: John Wiley, pp. 31–46.
- Polivka, A.E. (1996). Into contingent and alternative employment: by choice? *Monthly Labor Review*, October, 55–74.
- Polivka, A.E. and Nardone, T. (1989). On the definition of contingent work. *Monthly Labor Review*, **112**(12), 9–16.
- Quinlan, M., Mayhew, C. and Bohle, P. (2001). The global expansion of precarious employment, work disorganization and consequences for occupational health: placing the debate in a comparative historical context. *International Journal of Health Services*, **31**, 507–536.
- Rigotti, T. and Mohr, G. (2005). German flexibility: loosening the reins without losing control. In De Cuyper, N., Isaksson, K. and De Witte, H. (eds), *Employment Contracts and Well-Being Among European Workers*. Aldershot: Ashgate, pp. 75–102.
- Rödiger, A., Rigotti, T. and Mohr, G. (2003). Flexibilisierung der Arbeitswelt und ihre Auswirkungen auf Zufriedenheit, Gesundheit und Leistungsbereitschaft [Flexibilisation of labour and its effects on satisfaction, health and motivation]. Paper presented at the 9th Dresdner Symposium für Psychologie der Arbeit – Flexibilisierung der Arbeit, Dresden.
- Rodriguez, E. (2002). Marginal employment and health in Britain and Germany: does unstable employment predict health? *Social Science and Medicine*, **55**, 963–979.
- Rousseau, D.M. (1995). *Psychological Contracts in Organizations. Understanding Written and Unwritten Agreements*. Thousand Oaks, CA: Sage.
- Rousseau, D.M. and Schalk, R. (2000). *Psychological Contracts in Employment. Cross-Cultural Perspectives*. Thousand Oaks, CA: Sage.
- Saloniemi, A., Virtanen, P. and Vahtera, J. (2004). The work environment in fixed-term jobs: are poor psychosocial conditions inevitable? *Work, Employment and Society*, **18**, 193–208.
- Scherer, S. (2004). Stepping stones or traps? The consequences of labour market entry positions on future careers in West-Germany, Great-Britain and Italy. *Work, Employment and Society*, **18**, 369–394.
- Solano, M.C., Hernández, P., Vizcaya, M.F. and Reig, A. (2002). Síndrome de burnout en profesionales de enfermería en cuidados críticos [Burnout in nurses working in critical-care areas]. *Enfermería Intensiva*, **13**(1), 9–16.
- Stamper, C.L. and Masterson, S.S. (2002). Insider or outsider? How employee perceptions of insider status affect their work behaviour. *Journal of Organizational Behaviour*, **23**, 875–894.
- Sullivan, S.E. (1999). The changing nature of careers: a review and research agenda. *Journal of Management*, **25**, 457–484.
- Sverke, M., Gallagher, D.G. and Hellgren, J. (2000). Alternative work arrangements: job stress, well-being, and work attitudes among employees with different employment contracts. In Isaksson, K., Hogsted, L., Eriksson, C. and Theorell, T. (eds), *Health Effects of the New Labour Market*. New York: Plenum.
- Sverke, M., Hellgren, J. and Näswall, K. (2002). No security: a meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, **7**(3), 242–264.
- Tan, H. and Tan, C. (2002). Temporary employees in Singapore: what drives them? *Journal of Psychology*, **136**(1), 83–102.
- Tansky, J., Gallagher, D. and Wetzel, K. (1995). The changing nature of the employment contract: the impact of part-time workers on health care industry. Paper presented to the Annual Academy of Management Conference, Vancouver.
- Thorsteinson, T.J. (2003). Job attitudes of part-time vs. full-time workers: a meta-analytic review. *Journal of Occupational and Organizational Psychology*, **76**, 151–177.
- Torka, N. and van Riemsdijk, M. (2001). Atypische contractrelatie en binding: Een paradox? [Atypical employment relationships and commitment: a paradox?] *Tijdschrift voor HRM*, **1**, 59–76.
- Tremlett, N. and Collins, D. (1999). *Temporary Employment in Britain*. DfEE Research Report No. 100. London: DfEE.
- Van Breugel, G., Van Olffen, W. and Olie, R. (2005). Temporary liaisons: the commitment of temps towards their agencies. *Journal of Management Studies*, **42**, 539–566.

- Van Breukelen, W. and Allegro, J. (2000). Effecten van een nieuwe vorm van flexibilisering van de arbeid. Een onderzoek in de logistieke sector. [Effects of flexibility. A study in the logistic sector]. *Gedrag en Organisatie*, **13**(2), 107–125.
- Vander Steene, T., De Witte, H., Forrier, A., Sels, L. and Van Hootegem, G. (2001). *Cahier 7: Op zoek naar effecten van contractuele flexibiliteit bij werknemers* [The Impact of Temporary Employment For the Individual]. Een onderzoek in opdracht van Vlaams Minister bevoegd voor wetenschap en technologie, in het kader van het VIONA-onderzoeksprogramma.
- Van Dyne, L. and Ang, S. (1998). Organizational citizenship behavior of contingent workers in Singapore. *Academy of Management Journal*, **41**, 692–703.
- Veenstra, K., Haslam, S.A. and Reynolds, K.J. (2004). The psychology of casualization: evidence for the mediating roles of security, status and social identification. *British Journal of Social Psychology*, **43**, 499–514.
- Virtanen, M. (2003). Temporary employment and health. Unpublished dissertation, University of Helsinki, Finland.
- Virtanen, M., Kivimäki, M., Joensuu, M., Virtanen, P., Elovainio, M. and Vahtera, J. (2005). Temporary employment and health: a review. *International Journal of Epidemiology*, **34**, 610–622.
- Virtanen, M., Kivimäki, M., Virtanen, P., Elovainio, M. and Vahtera, J. (2003a). Disparity in occupational training and career planning between contingent and permanent employees. *European Journal of Work and Organizational Psychology*, **12**(1), 19–36.
- Virtanen, P., Liukkonen, V., Vahtera, J., Kivimäki, M. and Koskenvuo, M. (2003b). Health inequalities in the workforce: the labour market core–periphery structure. *International Journal of Epidemiology*, **32**, 1015–1021.
- Virtanen, P., Vahtera, J., Kivimäki, M., Pentti, J. and Ferrie, J. (2002). Employment security and health. *Journal of Epidemiology and Community Health*, **56**, 569–574.
- Von Hippel, C.D. (2006). When people would rather switch than fight: out group favoritism among temporary employees. *Group Processes and Intergroup Relations*, **9**(4), 533–546.
- Von Hippel, C., Mangum, S.L., Greenberger, D.B., Heneman, R.L. and Skoglund, J.D. (1997). Temporary employment: can organizations and employees both win? *Academy of Management Executive*, **11**(1), 93–104.
- Vosko, L.F. (1998). Regulating precariousness? The temporary employment relationship under the NAFTA and the EC treaty. *Industrial Relations*, **53**(1).
- Werthebach, M., Sodenkamp, D. and Schmidt, K.H. (2000). Rollenklarheit bei Leiharbeit [Role clarity of temporary agency workers]. *Arbeit*, **9**(4), 280–292.
- Wheeler, A.R. and Buckley, M.R. (2001). Examining the motivation process of temporary employees: a holistic model and research framework. *Journal of Managerial Psychology*, **16**, 339–354.
- Wiens-Tuers, B. and Hill, E.T. (2002). Do they bother? Employer training of temporary workers. *Review of Social Economy*, **60**, 543–566.
- Wooden, M. (2001). How temporary are Australia's casual Jobs? *Work, Employment and Society*, **15**, 875–883.
- Wooden, M. (2004). Non-standard employment and job satisfaction. Evidence from the HILDA survey. *Journal of Industrial Relations*, **46**(3), 275–297.
- Zant, W.R., Alessie, R., Oostendorp, R. and Pradhan, M. (2000). *Flexibiliteit op de Nederlandse arbeidsmarkt: Een empirisch onderzoek op basis van OSA vraag- en aanbodpanels* [Flexibility on the Dutch Labour Market: an Empirical Study Using OSA Demand and Supply Panel]. Den Haag: SDU.
- Zeytinoglu, I.U. and Cooke, G.B. (2005). Non-standard work and benefits. Has anything changed since the Wallace report? *Industrial Relations*, **60**, 29–63.
- Zeytinoglu, I.U. and Muteshi, J.K. (2000). Gender, race and class dimensions of nonstandard work. *Industrial Relations*, **55**, 133–166.
- Zeytinoglu, I.U., Lillevik, W., Seaton, M.B. and Moruz, J. (2004). Parttime and casual work in retail trade. Stress and other factors affecting the workplace. *Industrial Relations*, **59**, 516–544.

Nele De Cuyper and Hans De Witte are from the Research Group for Work, Organization and Personnel Psychology, K.U. Leuven, Belgium. Jeroen de Jong and René Schalk are from the Department of Organization Studies, Tilburg University, The Netherlands. Kerstin Isaksson is from Malardalens University, Sweden. Thomas Rigotti is from the University of Leipzig, Germany.