

**When the nature of employment matters in the employment relationship:
A cluster analysis of psychological contracts and organizational
commitment in the non-profit sector**

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ABSTRACT

This paper investigates the relationship between psychological contracts, organizational commitment and employment characteristics among paid employees in a non-profit organization. This is an empirically neglected workforce group. Using fuzzy *c*-means clustering, our analysis establishes three clusters of employees based on their psychological contract perceptions. Subsequent validation shows that the clusters display different levels of organizational commitment, based on an aggregated commitment measure and three single-item measures pertaining to Loyalty, Values and Effort. In addition, the clusters are differentiated by their demographic profiles, particularly regarding the work role and type of employment contract held.

Although prior psychological contract research has considered the impact of employment status (full-time, part-time and temporary), little attention has been afforded to the nature of the work role undertaken, and its implications for the psychological contract. Our exploratory cluster analysis explicates the need for further role-related research in the non-profit sector and beyond. Potential role-related factors underpinning the differential management of employees in the non-profit sector and other work contexts are discussed. The importance of further research into the impact of the nature of the work role on psychological contract expectations is identified.

Key words: • Psychological contract • Organizational commitment • Non-profit sector • Work role • Employment • Cluster analysis •

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The nature of employment can impact the employment relationship, as both the context and characteristics of work roles can affect employee expectations, as well as personal and work outcomes (c.f. Kulik *et al.*, 1987). For example, prior research has considered the impact of sectoral context (Cunningham, 2010) and contingent employment status on the content and outcomes of the psychological contract (e.g. Coyle-Shapiro and Kessler, 2002; Guest, 2004; De Cuyper *et al.*, 2007). However, although psychological contract investigations have been undertaken in a variety of contexts (e.g. Restubog *et al.*, 2006 in I.T.; Coyle-Shapiro and Kessler, 2002 in local government; Turnley and Feldman, 1999 in downsizing and international firms), with the notable exception of Janssens *et al.* (2003), little prior attention has been afforded to how the employee's work role affects their psychological contract. This is a significant deficit, as research to date suggests that profession (Bunderson, 2001; Guzzo *et al.*, 1994), hierarchical level (Buelens and Van den Broeck, 2007; Janssens *et al.*, 2003), and occupational category (blue-collar, white-collar, executive or civil servant, see Janssens *et al.*, 2003), can affect expectations, treatment and outcomes in the employment relationship. As a result, this paper considers segmentation in the psychological contracts of work role groups, and those with full-time, part-time and other contract status. We consider contract status due to inconclusive findings to date (c.f. Guest, 2004). Our analysis is focused on paid employees in the non-profit sector, an empirically neglected group from a clearly differentiated employment context.

Although, to date, the non-profit sector has been 'almost entirely ignored in relation to academic research regarding paid employment' (Cunningham, 2001: p. 223), it merits particular attention given its characteristics. The non-profit sector is a major actor in social, economic and political life (Almond and Kendall, 2000). Non-profit organizations are workplaces of significant scale, accounting for 9.8% of the US and 10.4% of the Irish economically active population (Anheier and Salamon, 2006). Many countries have outsourced their social service delivery to non-profit organizations (Cunningham, 2010), which are differentiated by their underlying value orientation (Hudson, 1999; Paton, 1996). As a result, the non-profit employment relationship has been shown to differ from that in the for-profit context. In particular, for-profit employees have been acknowledged as having a

significant wage advantage over their non-profit counterparts (Almond and Kendall, 2000). To explain this, it has been argued that non-profit employees donate part of their wages in support of their organization's mission, ideology and values (Nickson *et al.*, 2008; Preston, 1989). This means that non-profit employees often enter organizations with a heightened sense of values, whether implied or explicit, in their own jobs and in their employing organization (Hoffman, 2006). As a consequence, non-profit organizations are often characterized by mutual employer and employee expectations (Paton and Cornforth, 1992; Zimmeck, 1998), underpinned by shared values and a strong sense of altruistic mission (Alatrasta and Arrowsmith, 2004). This mutuality makes the non-profit sector a particularly appropriate context for psychological contract analysis, which is based on social exchange theory (Blau, 1964). It is also a particularly appropriate context in which to consider organizational commitment, as employees are presumed to be highly committed to their organization's cause or mission (Cunningham, 2001).

In light of the neglect of paid employees in previous non-profit sector research - and the centrality of values to their employment relationship - we examine their expectations and behavior in a non-profit organization using psychological contract theory (Rousseau, 1989). To begin, we establish three psychological contract components (relational, transactional and training) through factor analysis of our data. We then utilize fuzzy *c*-means clustering to identify three clusters of paid employees in the organization. The clusters are differentiated by the employees' perceptions of (1) the obligations promised to them by their employer and (2) whether these have been fulfilled. Following Montes and Zweig (2009), we describe these established clusters as: high-delivered (high fulfilled perceived obligations), high-breach (high unfulfilled perceived obligations), and low-delivered (low fulfilled perceived obligations).

We validate the established clusters by considering the levels of organizational commitment evident for each. We consider levels of commitment based on a six-item scale, purposively selected from Mowday *et al.*'s (1982) Organizational Commitment Questionnaire (OCQ). We also consider levels of three underpinning dimensions, namely Loyalty, Values and Effort, using single-item measures from the OCQ. To conclude, we explore the demographic profiles of each cluster. These draw attention to variation in the work role and employment contract status of the employees associated with each cluster and prompts the development of an agenda for future research. Although our profile-related findings are exploratory, they hold strong generative value and underpin the development of an agenda for future research regarding the neglected influence of the work-role on the employment relationship.

The Psychological Contract

The psychological contract is an exchange concept that provides a broad explanatory framework for understanding employee-organization linkages (Conway and Briner, 2002a). It refers to an individual employee's 'belief in mutual obligations between that person and another party such as an employer' (Rousseau and Tijoriwala, 1998: p. 679).

Early psychological contract work distinguished between two forms of obligations, relational and transactional (Rousseau, 1989; Zhao *et al.*, 2007). The transactional component of the psychological contract includes short-term and narrowly focused economic or monetary exchanges that take place between an organization and its employees (Morrison and Robinson, 1997; Rousseau and McLean Parks, 1993). Relational components, on the other hand, refer to open-ended socio-emotional obligations such as trust and good faith (Rousseau, 1990). In addition, subsequent research has suggested training as a third discrete form of obligation, associated with employee development and future opportunities (e.g. Coyle-Shapiro and Kessler, 2000; Kickul and Lester, 2001). Such training obligations are of increasing importance to employees (Martin *et al.*, 1998).

The content of psychological contracts, in conjunction with the degree to which they are fulfilled, impacts many employment outcomes, including organizational citizenship behaviour (Hui *et al.*, 2004) and organizational commitment (Zhao *et al.*, 2007). The nature of the contract is significant as:

'... when employees believe their employer is highly obligated to provide a broad range of obligations (e.g., as in the relational and balanced contract forms) they may be more inclined to engage in a wider range of citizenship behaviors that benefit the employer. However, when employees believe their employer is only obligated to them to a short-term economic exchange (e.g. a transactional contract), they may be less likely to believe that extra-role contributions will bring them special rewards or recognition.' (Hui *et al.*, 2004: p. 313)

Reflecting Hui *et al.*'s (2004) assertion, failure to uphold relational contracts has been found to have greater impact on employee outcomes than failure to uphold transactional ones (Restubog *et al.*, 2008). Montes and Irving (2008) attribute this difference to the greater centrality of trust as a mechanism for relational, rather than transactional, psychological contracts. Relational contracts have favourable impacts on a number of employment outcomes, including job satisfaction, intention to quit and affective commitment (Raja *et al.*, 2004). However, there appears to be less consensus regarding the impact of transactional contracts.

To date, some studies have shown negative effects (Raja *et al.*, 2004; Robinson and Rousseau, 1994), while others have shown some positive effects (Rousseau, 2000; Hui *et al.*, 2004). Interestingly, Raja *et al.* (2004) found an association between personality characteristics and preferred contract type, which may account for some of the inconsistency in prior research. Specifically, those with equity sensitivities and neuroticism reported stronger transactional contracts, while those with high conscientiousness and self-esteem reported stronger relational contracts. Regardless of content – and as will be discussed in the ensuing section – fulfilled psychological contracts consistently lead to more positive employee outcomes than unfulfilled (Cullinane and Dundon, 2006).

Crucially, the strength and generalizability of relational, transactional and training obligations may vary across workforce groups (Rousseau, 1990). For example, non-monetary factors are particularly important in examining non-profit employment (Leete, 2006), as non-profit organizations are ‘grounded in their members’ values and passion’ (Rothschild and Milofsky, 2006: p. 137). As a result, there have been calls for the psychological contract to become ideologically infused (Thompson and Bunderson, 2003), and for a voluntary service ethos to be integrated into the relational component of the psychological contract (Cunningham, 2010). Nonetheless, Cunningham (2010) has shown that there are limits regarding the extent to which a voluntary service ethos or value-base can compensate for other unfulfilled dimensions of the psychological contract.

Shore and Barksdale (1998) conceptualize psychological contracts as involving *a level of obligation* (referring to the level of inducements as per Lambert *et al.*, 2003) and *a degree of balance* (referring to a shared perception of obligations between an employer and employee). This leads to four potential psychological contract types that can predict employee beliefs and attitudes. The first, ‘mutual-low obligations’, exists when both the employer and employee are low to moderate on obligations and are therefore balanced. Employees perceive low levels of employer obligations, put in minimal effort to maintain the employment relationship and expect a limited amount in return. The second, ‘mutual-high obligations’, is again a balanced category. In this instance, both employers and employees score high on obligations, with strong underpinning social exchange relationships. In addition, there are two unbalanced categories of relationships. ‘Employee over-obligation’ arises when employee obligations are higher than employer obligations. In contrast, ‘employee under-obligation’ arises from low employee obligation and high employer obligation. Shore and Barksdale (1998) suggest that ‘employee under-obligation’ is the result of employee perceptions of a contract violation on the part of the employer.

Contract breach, a construct developed by Morrison and Robinson (1997), refers to a cognitive recognition that a discrepancy exists between what was promised and what was received. In contrast, violation refers to the affective and emotional reaction to the breach, including feelings of anger and injustice arising from the realisation that the organization has not fulfilled its obligations (Raja *et al.*, 2004). The feelings-based nature of violation is distinct from the cognitive perception of breach (Morrison and Robinson, 1997). The discrepancy which leads to breach and/or violation can take the form of under or overfulfillment (Lambert *et al.*, 2003). Montes and Irving (2008) found that employees respond differently to breaches of different psychological contract components. Specifically, they respond negatively to under and overfulfillment of relational promises but only negatively to underfulfillment of transactional promises. Underfulfillment is more likely to occur when an organization and/or employee are performing poorly; when employees do not undergo formal socialisation; where they are vigilant in monitoring the employment relationship; where they had little interaction with organizational members prior to being hired; where they had prior experience of breach; and where they had numerous alternative employment choices at the time of hire (Robinson and Morrison, 2000).

The impact of psychological contract breach

Prior research has consistently found that psychological contract fulfillment can positively impact employees' attitudes and behaviours, while breach can have a negative impact. Perceived breach has been positively related to violation, mistrust and turnover intention (Zhao *et al.*, 2007), and negatively related to job satisfaction, organization citizenship behaviours, in-role performance and organizational commitment (*ibid*). In general, employees who perceive that their psychological contract has been breached are more likely to engage in compliance or resistance behaviours (Anderson and Schalk, 1998).

Research is affording increasing attention to the role played by psychological processes (Hui *et al.*, 2004) and situational factors (Turnley and Feldman, 1999) in translating psychological contract beliefs into employee attitudes and behaviours. Two theories have been utilized to explain these psychological processes. Social exchange theory argues that parties to an exchange will ensure equity by engaging in negative behaviours if they receive less than they should and positive behaviours if they receive more (Rousseau, 1989; 1995). More recently, the group value model has been used to argue that the reactions of employees cannot be explained by entirely instrumental considerations (Restubog *et al.*, 2008). Employee reactions are also influenced by concerns about their longer-term social relationship with the

organization (Lind and Tyler, 1988). As a result, the group value model argues that unmet obligations can lead to lower trust in the organization which can, in turn, lead to reduced organizational identification and fewer organization citizenship behaviours (Restubog *et al.*, 2008). However, Montes and Irving (2008) suggest that trust may be more relevant to relational rather than transactional obligations, due to the subjectivity and uncertainty associated with the former.

While important, reciprocity and trust are two of many psychological mechanisms used to explain the impact of psychological contract breach. Others include self-interest (Blau, 1964); organizational identification (Restubog *et al.*, 2008); instrumentality (Hui *et al.*, 2004); affective reactions (Cassar and Briner, 2011; Dulac *et al.*, 2008; Zhao *et al.*, 2007) and; personality characteristics (Raja *et al.*, 2004). Importantly, it has been found that some aspects of personality moderate the translation of breach into violation. Those with equity sensitivity are more inclined to respond to perceived breach with feelings of violation. In contrast, those with an external locus of control are less inclined to do so (Raja *et al.*, 2004). While personal characteristics and personality may be beyond the influence of organizations, managers may use situational factors to ameliorate the impact of breach.

Situational factors affecting the translation of perceptions of contract breach to behavioural outcomes include whether the breach was due to a misunderstanding or deliberate renegeing on promises (Robinson and Morrison, 2000); whether the violation is perceived to be justifiable (Turnley and Feldman, 1999); whether the decision making process leading to the violation was fair (Turnley and Feldman, 1999; Robinson and Morrison, 2000) and; the availability of attractive alternative employment (Turnley and Feldman, 1999).

Regardless of the mechanism(s) at work, a significant body of research illustrates that psychological contract breach (as defined by Morrison and Robinson, 1997) is positively associated with a range of undesirable outcomes, including the likelihood of exit and neglect of in-role job performance (Turnley and Feldman, 1999). It is also negatively associated with a range of desirable outcomes including intention to remain (Guzzo *et al.*, 1994; Robinson, 1996; Robinson and Rousseau, 1994), employee performance (Robinson, 1996); organizational citizenship behaviours (Robinson and Morrison, 1995; Coyle-Shapiro and Kessler, 2000); trust (Dulac *et al.*, 2008; Robinson and Rousseau, 1994) and; organizational commitment (Dulac *et al.*, 2008; McInnis *et al.*, 2009; Coyle-Shapiro and Kessler, 2000; Guzzo *et al.*, 1994). Our focus on organizational commitment, as well as the sustained attention afforded to it in the literature, reflects its position as the 'holy grail' of soft human resource management (Alatrasta and Arrowsmith, 2004).

Organizational commitment and the psychological contract

Organizational commitment has been defined as the ‘strength of an individual’s identification with, and involvement in, a particular organization’ (Mowday *et al.*, 1982: p. 27). Although Allen and Meyer’s (1990) conception of affective, normative and continuance commitment is commonly adopted, we utilize Mowday *et al.*’s (1979; 1982) conception due to their explicit focus on values, which are central to the non-profit employment relationship. Specifically, Mowday *et al.* (1979) identify three underpinning dimensions: a strong desire to retain membership in the organization (Loyalty); a strong belief in and acceptance of the organizational goals (Values); and a willingness to exert considerable effort on behalf of the organization (Effort).

There are established links between the nature of the psychological contract and an individual’s commitment to the organization (McInnis *et al.*, 2009; Sturges *et al.*, 2005; Bunderson, 2001; Coyle-Shapiro and Kessler, 2000). Employees with relational, rather than transactional, psychological contracts have higher levels of organizational commitment (Millward and Hopkins, 1998). This finding arises as, under relational psychological contracts, the employer and employee both emphasize relational and longer-term employment relationships, with employees displaying greater investment in, and emotional attachment to, the organization.

In addition, psychological contract breach has been linked to levels of commitment (Zhao *et al.*, 2007). Psychological contract breach has been shown to lead to lower affective commitment, referring to a person’s emotional attachment to an organization (Coyle-Shapiro and Kessler, 2000; Cassar and Briner, 2011). Breach has also been shown to lead to higher continuance commitment, linked to an individual’s assessment of investment costs and risks in deciding to leave an organization (Cassar and Briner, 2011). Building upon previously detailed positive links between psychological contract fulfillment, higher levels of fulfilled obligations and employee outcomes (including commitment), we expect that:

Hypothesis 1: Non-profit sector employees with perceived psychological contract fulfillment will report higher levels of organizational commitment than those with psychological contract breach.

Hypothesis 1b: Non-profit sector employees with high levels of fulfilled psychological contract obligations will report higher levels of organizational commitment than those with moderate or low levels of fulfilled obligations.

The nature of the work role, the psychological contract and organizational commitment

The nature of the work role influences the tasks employees perform, the employment relationships they experience, as well as their performance and attitudes (c.f. Kulik *et al.*, 1987; Lepak and Snell, 2002). The nature of the work role is affected by the job itself, as well as the context in which it is enacted (Ilgen and Hollenbeck, 1991). In this non-profit sector study, front-line service delivery roles are predominantly undertaken by professional employees. Such employees are typically managed under a commitment rather than a compliance approach to HR (c.f. Walton, 1985; Arthur, 1994) due to their position as ‘core’ employees, of strategic value to their organization (c.f. Lepak and Snell, 2008; 1999). Reflecting Rousseau’s (1995) recognition that psychological contracts among groups of co-workers can vary, core professional employees are likely to report higher levels of perceived psychological contract expectations than their co-workers. The content of these expectations may also differ. Bunderson (2001) found that professional role obligations were based on relational, rather than transactional exchanges and perceived professional breach was negatively associated with organizational commitment and productivity. Our cluster profiling will facilitate validation of the characteristics of employees sharing types of psychological contracts. We argue that employees in professional front-line service delivery roles in our non-profit organization will be proportionately over-represented among those reporting high levels of perceived psychological contract obligations, fulfillment and organizational commitment, due to their professional status and their position as ‘core’ employees. Specifically, we propose that:

Hypothesis 2: Non-profit employees with professional front-line service delivery roles will be proportionately over-represented among employees reporting high levels of perceived psychological contract obligations and fulfillment, relative to fundraising, retail and support staff.

Hypothesis 2b: Non-profit employees with professional front-line service delivery roles will be proportionately over-represented among employees reporting high levels of organizational commitment, relative to fundraising, retail and support staff.

To date, relatively few studies have compared the commitment of permanent and temporary employees (Guest, 2004). Although evidence is inconclusive (De Cuyper *et al.*, 2007; Guest, 2004), some research has suggested that contingent employees are less committed to their organization (e.g. Coyle-Shapiro and Kessler, 2002), as they receive fewer inducements

than their permanent counterparts (Van Dyne and Ang, 1998). A similar argument has been made with reference to part-time relative to full-time staff, although research findings have also been inconclusive (Conway and Briner, 2002a). While employers may equally value both part and full-time employees, part-time employees are often portrayed as having a short-term focus, oriented towards pecuniary benefits (Shore and Tetrick, 1994; Gakovic and Tetrick, 2003). They may also be less involved in the organization's social system, receive fewer opportunities for development or advancement and less organizational support (Gakovic and Tetrick, 2003). Reflecting this, when controlling for tenure, Gakovic and Tetrick (2003) found that full-time employees reported higher levels of perceived relational obligations to their employer. They also reported higher levels of affective commitment and the sacrifice dimension of continuance commitment. Gakovic and Tetrick (2003) identify the need for studies to consider the employment relationships of permanent part-time employees, noting that long-term part-time work agreements can be used to retain valued employees. Drawing on these findings, in conjunction with the decision by permanent employees to adopt a role in an economically disadvantageous sector (Almond and Kendall, 2000), we propose that:

Hypothesis 3: Employees with permanent contract status will be proportionately over-represented among those reporting high levels of perceived psychological contract obligations, fulfillment and organizational commitment, relative to those with temporary contract status.

Hypothesis 3b: Employees with full-time contract status will be proportionately over-represented among those reporting high levels of perceived psychological contract obligations, fulfillment and organizational commitment, relative to those with part-time contract status.

Hypothesis 3c: Employees with permanent full-time contract status will be proportionately over-represented among those reporting high levels of perceived psychological contract obligations, fulfillment and organizational commitment, relative to other contract status groups.

Methodology

Sample and Procedure

Survey data was collected in a large Irish non-profit organization, which provides services to individuals with disabilities and their families. Surveys were distributed in hard-copy to the 1,070 paid employees in the organization. A total of 428 completed questionnaires were

returned, resulting in a response rate of 40%. Of these respondents, 14% were male and 86% were female. A large proportion of respondents were in the 31-40 years age range (30%). The majority (52%) had been working in the organization for 1-5 years, with 47% employed under permanent full-time contracts, 41% employed under permanent part-time contracts, and the remainder on temporary contracts. Across the respondents, 63% were engaged in professional front-line roles, 18% in support staff roles, 9% in fundraising and retail roles and 10% in other roles.

Measures

Psychological contract breach: Psychological contract breach has been measured in four ways in previous research (Restubog *et al.*, 2008). These include (1) a composite measure of breach, based on the perceived fulfillment of various content items (e.g. Robinson and Morrison, 1995; Robinson, 1996; Restubog and Bordia, 2006). However, this has been criticized as giving no indication of the extent to which an obligation was actually promised (Coyle-Shapiro and Kessler, 2000; Restubog *et al.*, 2008). (2) A second approach is a global assessment of breach, based on how well an organization is perceived to have fulfilled its bundle of promised obligations (e.g. Robinson and Morrison, 2000; Turnley and Feldman, 1999). Montes and Irving (2008) developed this approach to include consideration of a range of responses from under to overfulfillment; (3) A third approach is a weighted measure of breach, whereby content items are weighted according to the significance attached to them by respondents (c.f. Restubog *et al.*, 2008) and finally; (4) a composite evaluative measure, which considers which obligations have been promised (explicitly or implicitly) and the extent to which the organization has fulfilled these promises (e.g. Coyle-Shapiro and Kessler, 2000; Conway and Briner, 2002b; Turnley *et al.*, 2003). Restubog *et al.* (2008) advocate this composite approach, which was adopted in this research. It allowed us to consider the nature (relational, transactional and training) and magnitude of the promised obligations as well as whether these were delivered.

We utilized a scale developed by Coyle-Shapiro and Kessler (2000). Each item linked to one of three psychological contract categories – relational, transactional and training. Respondents were asked to indicate the extent to which (1) they believe that their employer is obligated to provide each of nine items (perceived psychological contract obligations) and (2) whether they have been provided with these items (perceived psychological contract fulfillment). Responses were measured on a five-point Likert scale ranging from ‘not at all’ (1) to ‘a great extent’ (5).

Following principal component factor analysis with varimax rotation, it was found that the items loaded cleanly onto three individual factors – relational, transactional and training. This is consistent with Coyle-Shapiro and Kessler’s (2000) argument that training represents a distinct psychological contract component. For this reason, these three components are presented independently for (1) belief in obligations and (2) fulfillment of obligations in the remainder of our analysis. The Cronbach’s alpha values for these factors are as follows: belief in relational obligations ($\alpha = 0.71$); belief in transactional obligations ($\alpha = 0.72$); belief in training obligations ($\alpha = 0.75$); fulfillment of relational obligations ($\alpha = 0.60$); fulfillment of transactional obligations ($\alpha = 0.85$) and; fulfillment of training obligations ($\alpha = 0.92$). While the alpha co-efficient for the perceived fulfillment of relational obligations is low, reliability values of 0.60 and above are considered adequate (Carmines and Zeller, 1979; Hair *et al.*, 1998; Sakakibara *et al.*, 1997).

Organizational commitment: All 15 items from the Mowday *et al.* (1979) Organizational Commitment Questionnaire (OCQ) were measured in the research. However, in this analysis we utilize a sub-set of six of these items, specified in the relevant findings sections. These items are collectively used as an organizational commitment measure. In addition single-items with high reliability scores are used to consider three sub-dimensions of commitment, namely (1) loyalty to the organization (Loyalty); (2) acceptance of organizational values (Values); and (3) willingness to exert a great deal of effort to achieve organizational goals (Effort).

Our selection of these six items, based on two items for each of Loyalty, Values and Effort was premised on our concern for conceptual clarity. Allen and Meyer (1990) note conceptual confusion in the study of commitment. Although commitment refers to a psychological state that binds an individual to an organization, they note that affective, normative and continuance commitments are very different constructs. They argue that the OCQ measures affective commitment. However, Mowday (1998) notes that even within the OCQ there is some confusion, because items reflecting various forms of affective commitment are combined into a single score. We wanted to look at Mowday *et al.*’s (1982) three dimensions of affective commitment (Loyalty, Values and Effort). The six items selected had a clear conceptual fit with these dimensions. We used single rather than two-item scales to consider these dimensions in order to optimize reliability values. Exploring these dimensions individually was valuable in the paper as, following Janssens *et al.* (2003), they are important areas in which employment relationships may differ. In particular, as detailed in our literature review, Values have been argued to be central in the non-profit employment relationship.

The six items were measured using a five-point Likert scale ranging from ‘strongly disagree’ (1) to ‘strongly agree’ (5). The combined six-item scale and three single-item scales were used to validate the clusters established in the analysis (see Ketchen and Shook, 1996; Janssens *et al.*, 2003). Validation entails considering the implications of the clusters, in terms of their relationship to a theoretically relevant external variable (in our case organizational commitment and its three sub-dimensions), not utilized in the clustering process.

Data analysis

Clustering is a well-known technique for finding groups in data (see Frayley and Raftery, 1998). In this paper, we use fuzzy *c*-means clustering (Bezdek, 1980; 1981) which, unlike crisp *k*-means clustering (Ketchen and Shook, 1996), and the Ward’s method utilized by Janssens *et al.* (2003), recognizes that each object may be associated with more than one cluster. Degrees of cluster membership are indicated by a membership coefficient (see Zadeh, 1965). Fuzzy clustering is a particularly appropriate technique for discerning patterns amongst ambiguous data, such as in the investigation of psychological contracts, where employees can display combinations of relational, transactional and training psychological contract factors (Shore and Tetrick, 1994). Hence an employee may be associated, to varying degrees, with each of the established clusters. We note that our fuzzy clustering analysis captures the content and level of perceived psychological contract obligations, and the extent to which these are fulfilled. This gives more detail than a difference-score approach, which does not capture the level of obligation.

Once our clusters are established the hypotheses are tested using two analytic strategies: (1) cluster validation, which entails assessing the clusters’ relationship with organizational commitment and (2) cluster profiling, to illuminate the characteristics of the employees associated with each cluster. Hypothesis 1 and 1b are tested using cluster validation. This entails consideration of statistically significant differences in the mean values of organizational commitment (as a relevant external variable) across the clusters. For example, in considering hypothesis 1 we evaluate statistically significant differences in mean values of organizational commitment for clusters of employees with fulfilled and unfulfilled psychological contracts. The remainder of the hypotheses (hypotheses 2, 2b, 3, 3b and 3c) are tested using a combination of cluster validation and profiling. For the purposes of this paper, the first stage of cluster profiling entails considering the characteristics of the employees most associated with each cluster. We then engage in more nuanced analysis, considering the representation of specific cohorts of employees in each cluster, relative to the workforce as a

whole. This enables us to identify relative levels of perceived psychological contract obligations, fulfillment and commitment for specific employment characteristics. This approach follows Janssens *et al.*, (2003). However, although we adopt hypotheses for clarity, we note that this is atypical in cluster papers. As a consequence, we supplement consideration of our hypotheses with generative discussion, based on our cluster profiling.

Findings

Fuzzy c-means clustering of paid employees in the non-profit sector

We investigated three clusters, without loss of generality. The selection of three clusters was based on their theoretical validity, although four and five cluster models were also considered in earlier stages of our data analysis. The clusters represent groups of paid employees in the organization, differentiated by the contents of their psychological contracts (e.g. our six factor values). In this section, we detail the findings underlying the identification of the clusters, prior to providing an overview of the cluster characteristics.

Insert Figure 1 about here

Insert Table 1 about here

Figure 1 and Table 1 provide evidence of the relative value of each psychological contract factor for the individual established clusters, based on the cluster factor means. The cluster factor means were found by grouping employees to clusters based on majority association and taking the means of their values over the different factors. Comparison of these cluster factor means enables us to evaluate the ability of the clustering process to discern types of psychological contract, described here as Low-delivered (L-d), High-breach (H-b) and High-delivered (H-d). To interpret Figure 1, follow the lines labelled with ‘L-d’, ‘H-b’ and ‘H-d’, connecting the cluster factor means, for the ‘Low-delivered’, ‘High-breach’ and ‘High-delivered’ clusters, respectively. Notched box plots show the spread of the factor values amongst the 428 employees.¹ The individual cluster factor means are shown as points, with their value given next to them. In addition, where two cluster factor means are not significantly different from each other - based on post-hoc analysis tests and 5% significance level - they

¹ Within a notched box plot, the line inside the box is the median, the notch away from the median is the median confidence interval (height 3.14 times the inter-quartile range divided by the square root of the total weight of the data), the bottom and top of the box are the 1st and 3rd quartiles, and the bottom and top whiskers 1.5 the inter-quartile range (not extending past the range of the data), further points are potential outliers. The dashed line H structure overlayed on the notched box plot shows the mean (horizontal line) and one standard deviation above and below the mean (vertical dashed lines).

are enclosed in a shaded oval. For example, for Ful_Rltl, the cluster factor means are not significantly different for the High-breach (H-b) and Low-delivered (L-d) clusters.

The ordering of the cluster factor means for each psychological contract factor is detailed below. This overview takes account of their relative positions (from low to high mean value), and significant or non-significant differences between clusters (as shown in Table 1):

- i - iii) For belief in relational obligations (Bel_Rltl); belief in transactional obligations (Bel_Trnl) and; belief in training obligations (Bel_Trng), the lowest cluster factor mean is evident in the Low-delivered cluster, followed by the High-delivered cluster, with the highest cluster factor mean evident in the High-breach cluster. Of these, the High-delivered and High-breach clusters are consistently grouped together and not significantly different from each other.
- iv) For perceived fulfillment of relational obligations (Ful_Rltl), the lowest cluster factor mean is evident in the Low-delivered cluster, followed by the High-breach cluster, with highest mean evident in the High-delivered cluster. Of these, the Low-delivered and High-breach cluster factor means are grouped together, and not significantly different from each other.
- v - vi) For both perceived fulfillment of transactional obligations (Ful_Trnl) and perceived fulfillment of training obligations (Ful_Trng), the lowest cluster factor mean is evident in the High-breach cluster, followed by the Low-delivered cluster, with the highest mean evident in the High-delivered cluster. The mean values for each are all significantly dispersed.

Based on this analysis, we identify the characteristics of each cluster as follows:

High-delivered employees: The 182 employees most associated with this cluster perceive their employer to have high levels of obligations across the relational, transactional and training components of the psychological contract. They also perceive that these have been fulfilled. The use of the descriptive term ‘high-delivered’ reflects their belief in high levels of employer obligations and their perception of a high degree of fulfillment.

High-breach employees: The 119 employees most associated with this cluster perceive their employer to have high levels of obligations across the relational, transactional and training psychological contract factors. However, they do not perceive that these have been fulfilled. Hence, a discrepancy exists between their beliefs regarding their employer’s obligations, and the extent to which these are fulfilled. In practice, this means that their psychological contract expectations have been breached.

Low-delivered employees: The 127 employees most associated with this cluster perceive their employer to have low levels of obligations and low/moderate fulfillment. This cluster shows

an empirically neglected group of employees, namely those that have no noticeable conflict regarding perceived and received obligations, but who have lower levels of perceived obligations than the High-delivered cluster.

Next we consider the relationship between the psychological contract types (clusters) presented above and organizational commitment.

Psychological contract clusters and organizational commitment

This section considers the relationship between the psychological contract clusters and the six-item organizational commitment scale. It also considers the relationship with three high-reliability single-item scales measuring sub-dimensions of organizational commitment (Loyalty, Values and Effort) from Mowday *et al.*'s (1979) OCQ. The organizational commitment variables considered are theoretically related to the clusters, but are not used in defining them. Hence, this section of the paper presents a validation of the established clusters (see Ketchen and Shook, 1996) and considers their implications for an aggregated commitment measure and three sub-dimensions of commitment. Organizational commitment is an important indicator of organizational effectiveness (Steers, 1975).

Six-item organizational commitment measure

Insert Table 2 about here

The six-item organizational commitment scale has a Cronbach's alpha (α) value of 0.801 indicating strong reliability. The items comprising this scale are drawn from the OCQ and include: (1) Talk up the organization to friends (Loyalty 1); (2) Care about the fate of the organization (Loyalty 2); (3) Difficult to agree with organization's policies (Values 1); (4) My values and the organization's values are the same (Values 2); (5) Willingness to go beyond what is normally expected (Effort 1) and; (6) The organization inspires my job performance (Effort 2).

Our findings presented in Table 2 show that the lowest cluster item means are evident among the High-breach employees, followed by the Low-delivered employees, with the highest values evident among the High-delivered employees. The ordering of the findings suggests that, on average, the High-breach employees report the lowest levels of organizational commitment, followed by the Low-delivered employees, with the High-delivered employees reporting the highest commitment levels. Table 2 further indicates that there are statistically

significant differences between the three clusters (at 5% level). In addition, our post-hoc analysis for organizational commitment identifies significant differences in levels between all neighbouring pairs of clusters (at 5% level).² Next we consider findings for the sub-dimensions of organizational commitment, namely Loyalty, Values and Effort.

Loyalty, Values and Effort as sub-dimensions of organizational commitment

The use of single-item scales is increasing in popularity (Sackett and Larson, 1990; Wanous and Hudy, 2001) and has been deemed acceptable when the research question or situation implies their use (Wanous *et al.*, 1997) and when their reliability is considered (Warren and Landis, 2007). The decision to use single rather than multi-item scales in this analysis arose in response to previously detailed conceptual confusion in the study of commitment (Allen and Meyer, 1990), as well as poor reliability scores for two-item scales. Initial factor analysis led to all 15 OCQ items loading onto one factor, rather than the three of interest in this study. As a result, six items with conceptual fit and strong face validity were selected, two each for Loyalty, Values and Effort respectively. Initially, three two-item scales were examined. Weak reliability scores of 0.58 for Loyalty, 0.56 for Values and 0.52 for Effort led us to consider single-item measures.

The single-items produced reliability values ranging from 0.38 up to 0.87.³ A minimum reliability estimate of 0.70 for individual level data has previously been deemed acceptable (Wanous and Hudy, 2001; Wanous *et al.*, 1997). The specific reliability values for each item are detailed in Table 3, which illustrates that for each sub-dimension of commitment (Loyalty, Values and Effort) there was one item with strong reliability (above 0.70) and one with weak reliability (below 0.70). This facilitates comment on the impact of reliability values on the reported relationship between the psychological contract and organizational commitment. Similar patterns of findings were evident across high and low reliability items as per Table 3. Specifically, across all three sub-dimensions (Loyalty, Values and Effort), the High-breach cluster displays the lowest level of commitment, with the Low-delivered cluster consistently the second ranked, while the High-delivered cluster constantly displays the highest levels. However, single-items with reliability values above 0.70 showed more significant differences

² For brevity, only post-hoc results are presented between neighbor pairs of clusters, any statistical inference between the clusters with lowest and highest cluster item means can be inferred from the presented results.

³ Their reliability was considered using Spearman's correction for attenuation formula (Wanous and Reichers, 1996; Wanous *et al.*, 1997).

between clusters. Only the single-items with reliability values above 0.70 are considered in the remainder of our analysis.

Loyalty

Loyalty towards the organization is considered using the following OCQ item: Talk up the organization to friends (Loyalty 1 - reliability value $r_{xx} = 0.81$). Overall, the ordering of the findings presented in Table 3 suggests that the High-breach employees have the least loyalty towards the organization, followed by the Low-delivered employees, with the High-delivered employees exhibiting the highest levels of loyalty. For Loyalty 1, the ANOVA results presented in Table 3 indicate that there are statistically significant differences between the three clusters (at 5% level). In addition, our post-hoc analysis for Loyalty 1 identifies significant differences in the level of loyalty between all neighbouring pairs of clusters (at 5% level).

Insert Table 3 about here

Values

Acceptance of organizational values (values congruence) is considered using the following OCQ item: My values and the organization's values are the same (Values 2 - $r_{xx} = 0.71$). Similar to 'Loyalty 1', our findings from Table 3 show the High-breach cluster has the lowest mean, followed by the Low-delivered cluster, with the highest values achieved by the High-delivered cluster. For Values 2, the ANOVA results also presented in Table 3 indicate that there are statistically significant differences between clusters (at 5% level). In addition, our post-hoc analysis identifies significant differences in the level of Values 2 between all neighbouring pairs of clusters (at 5% level).

Effort

Willingness to exert effort on behalf of the organization is considered using the following OCQ item: The organization inspires my job performance (Effort 2 - $r_{xx} = 0.87$). Mirroring previous patterns, findings from Table 3 show that the lowest cluster mean is evident among the employees in the High-breach cluster. This is followed by the Low-delivered cluster, with the highest values evident for the High-delivered cluster. For Effort 2, the ANOVA results presented in Table 3 indicate that there are statistically significant differences between each

cluster (at 5% level). In addition, our post-hoc analysis indicates significant differences between all clusters (at 5% level).

Overall, this section of our analysis shows that the clusters display consistent differences across our six item organizational commitment measure and the three single-items measures of Loyalty, Values and Effort. Next we present cluster profiles, as per Janssens *et al.* (2003).

Cluster Profiles

In this section we follow Janssens *et al.* (2003) in developing cluster profiles based on the type of employment contract and work-role held (see Tables 4 and 5). We then consider the implications of the cluster demographics and their relationship to organizational commitment.

Insert Tables 4 and 5 about here

The first cluster profile presented is that of the Low-delivered cluster. This accounts for 29.7% of all employees and is characterized by low levels of perceived psychological contract obligations and low/moderate fulfillment. The most salient features of the Low-delivered cluster are the high percentage of the total population of temporary employees (employment contract) and support staff (work role) associated with it. As per Table 4, in terms of the type of employment contracts held, full-time permanent employees are proportionately under-represented, with 24.8% of all permanent employees associated with the cluster, while temporary employees are strongly over-represented (55.1%). The percentage of the total population of temporary employees in the cluster is more than twice that evident in the High-breach cluster (24.5%), and almost three times that in the High-delivered cluster (20.4%). In terms of the work role held, staff with professional front-line roles (27.7% of all these employees) or fundraising and retail (23.1%) roles are proportionately under-represented, while support staff (40.2%) are significantly over-represented. This draws attention to strong proportional over-representation of temporary and supporting employees in the low-delivered cluster, differentiated by low psychological contract expectations.

The High-breach cluster accounts for 27.8% of all employees and is characterized by high perceived obligations and low fulfillment (e.g. psychological contract breach). The most salient feature of the High-breach cluster is the high percentage of the total population of fundraising and retail staff (work role) associated with it. As per Table 4, in terms of the employment contract held, the representation of the total population of employees holding full

(27.7%), part-time (28.8%) and temporary (24.5%) contracts is relatively balanced. As per Table 5, in terms of work role held, the High-breach cluster has proportional over-representation of the total population of fundraising and retail employees, with 53.8% of all these employees associated with the cluster, and under-representation of professional front-line staff (25.1%) and support staff (20.8%). This highlights that employment contract did not appear to significantly affect experience of psychological contract breach. However, it draws attention to strong proportional over-representation of fundraising and retail staff among employees experiencing psychological contract breach.

The High-delivered cluster accounts for 42.5% of all employees and is characterized by high levels of perceived obligations and high fulfillment. The most salient features of the High-delivered cluster are the low proportional representation of staff on temporary contracts (employment contract), the low representation of staff engaged in fundraising and retail work and the high representation of professional front-line staff (work role). As per Table 4, in terms of employment contract, this cluster displays proportional over-representation of the total population of full (47.5%) and part-time (42.9%) permanent employees, and a significant proportional under-representation of temporary employees (20.4%). In terms of the work role held, as per Table 5, it accounts for the largest proportional representation of professional front-line staff (47.2%), with support staff (39.0%) and fundraising and retail staff (23.1%) proportionately under-represented. This draws attention to proportional over-representation of permanent, professional front-line employees among those with high fulfilled psychological contract expectations. Next we consider our findings with reference to our hypotheses, before considering their broader potential implications for research and practice.

Discussion

Insert Figure 2 about here

As illustrated in Figure 2, our fuzzy clustering analysis established three psychological contract clusters, comprised of employees with high fulfilled perceived obligations (High-delivered cluster); low fulfilled perceived obligations (Low-delivered cluster); and high unfulfilled perceived obligations (High-breach cluster). We note that, in investigating a four cluster solution, we did not find a cluster that matched the employee under-obligation psychological contract identified by Shore and Barksdale (1998). Instead, we established an additional cluster, which fell between our High-breach and High-delivered clusters. Crucially,

we note that the established clusters had systematic differences across our six-item organizational commitment scale, drawn from Mowday *et al.* (1979). These differences were also evident across three single-item measures for each of Loyalty, Values and Effort. Levels of commitment and its three sub-dimensions increased across the High-breach, Low-delivered and High-delivered clusters.

In considering the findings detailed above we note that hypotheses 1 and 1b were supported, based on the cluster validation illustrated in Tables 2 and 3. Hypothesis 1 proposed that non-profit employees with psychological contract fulfillment (those in the High-delivered and Low-delivered clusters) would report higher levels of organizational commitment than those with psychological contract breach (the High-breach cluster). This finding aligns with prior research regarding the negative impact of psychological contract breach. This is a significant problem in organizations, as it can reduce organizational commitment (Dulac *et al.*, 2008), foster a belief among employees that they are not supported by their organization (Zagenczyk *et al.*, 2009) and that their employer does not care about their well-being (Robinson, 1996). As a result, employees will be motivated to restore balance in the exchange relationship by reducing their contribution to the organization. They may be less loyal to their organization, lower their work performance or display fewer organizational citizenship behaviours (Chen *et al.*, 2008). Importantly, fundraising and retail staff were most represented in the high-breach cluster, with more than half of these staff feeling that their psychological contracts had not been met. We discuss how managers can mitigate the impact of perceived psychological contract breach in our implications section.

Hypothesis 1b was also supported, as higher than average levels of organizational commitment were reported by employees' in the High-delivered relative to the Low-delivered cluster. This finding is congruent with prior research in which the absolute level of inducement was found to impact employee outcomes (Janssens *et al.*, 2003; Lambert *et al.*, 2003; Shore and Barksdale, 1998). It is also consistent with social exchange theory, where employees who perceive their expectations have been met are motivated to reciprocate through increased work effort and greater commitment (Rousseau, 1989).

Hypotheses 2 and 2b were also supported. These differentiated between staff with professional front-line service delivery work roles and others. This was done on the basis that core professional employees are likely to be proportionately over-represented among employees who expect and receive high levels of psychological contract obligations. We tested hypothesis 2 using cluster profiling, considering the proportional representation of professional front-line service-delivery employees in the high-delivered cluster, relative to the workforce as

a whole (see Table 5). In support of hypothesis 2, professional front-line service-delivery employees are over-represented in this cluster, relative to other staff groups. Table 5 illustrates that 42.5% of all staff were members of the high-delivered cluster. In proportional terms, professional front-line service-delivery employees had the highest representation in this cluster, with 47.2% of this work role group being members' of this cluster, compared to 39.0% of all support staff and 23.1% of all fundraising and retail employees. Thus, in line with hypothesis 2, professional front-line staff were proportionately over-represented in this cluster while support, fundraising and retail staff were proportionally under-represented. Supporting hypothesis 2b, Tables 2 and 3 illustrate that employees in the High-delivered cluster reported higher average levels of organizational commitment than others.

Finally, the second systematic difference across the clusters pertained to contract status. This is important, as it has been suggested that contract status plays a role in how employees view the exchange relationship with their employer and how they respond to inducements received from that relationship (Millward and Hopkins, 1998; Coyle-Shapiro and Kessler, 2002). Specifically, it has been found that contingent employees are less committed to their organization and less inclined to engage in organizational citizenship behaviours than their permanent counterparts (Coyle-Shapiro and Kessler, 2002). This may be because permanent employees receive more employer inducements than temporary staff (Van Dyne and Ang, 1998). Reflecting this, hypothesis 3 proposed that employees with permanent contract status will be proportionately over-represented among employees reporting high levels of perceived psychological contract obligations, fulfillment and organizational commitment. We tested this using cluster profiling and validation. As previously, we considered the proportional representation of permanent employees in the High-delivered cluster, characterized by high levels of perceived obligations and fulfillment. Table 4 illustrates that 42.5% of all employees were members of the high-delivered cluster. In proportional terms, 47.5% of all full-time permanent, 42.9% of all part-time permanent and 20.4% of all temporary employees were members of this cluster. Hence, permanent employees (and particularly those holding full-time roles) were over-represented among those in the high-delivered cluster. As per Tables 2 and 3, membership of this cluster leads to higher levels of organizational commitment. Thus hypothesis 3 was supported.

Hypothesis 3b considered full-time versus part-time contract status and proposed that full-time employees will be proportionately over-represented among those reporting high levels of perceived psychological obligations, fulfillment and organizational commitment relative to part-time. Previous research has been inconclusive (Conway and Briner, 2002a),

although some authors have suggested that full-time employees may have higher levels of perceived psychological contract obligations than others, due to greater involvement in the organization's social system and a longer-term focus (Shore and Tetrick, 1994; Gakovic and Tetrick, 2003). As previously, 42.5% of all staff were associated with the high-delivered cluster. In support of hypothesis 3b, full-time employees were proportionately over-represented in this (47.5%), relative to part-time staff (42.9%). Employees in this cluster reported high levels of psychological contract obligations and fulfilment and associated high levels of organizational commitment. Thus hypothesis 3b was upheld. Similarly, hypothesis 3c was supported, with the highest relative proportion of membership to the High-delivered cluster being permanent-full time staff.

Work-role and psychological contract type: Towards an agenda for future research

The findings from our cluster profiling suggest the importance of work role and contract status in understanding the non-profit employment relationship. Our cluster profiles drew particular attention to segmentation in the proportional representation of employees experiencing psychological contract types, by work role. Specifically, professional front-line staff were proportionately over-represented among those with high fulfilled psychological contracts, support staff were significantly proportionately over-represented among employees with low, but fulfilled psychological contracts and fundraising and retail staff were significantly proportionately over-represented among employees experiencing psychological contract breach. We turn to the non-profit context to consider what might explain this segmentation, and to identify an associated agenda for future research.

Work roles are strongly influenced by the contexts in which they are enacted (Ilgen and Hollenbeck, 1991). Significant evidence shows that employees are attracted to work in non-profit organizations given their commitment and identification with non-profit values and the organization's mission (O'Connell, 1988; Kim and Lee, 2007; Mirvis and Hackett, 1983). To date, person-organization values fit has been identified as important in predicting job satisfaction (Westerman and Cyr, 2004), organizational commitment and turnover (Moynihan and Pandey, 2008). However, we propose that values congruence may provide a limited conception of what influences non-profit employees in their employment relationship. Cunningham's (2010) voluntary service ethos (proposed as a relational psychological contract dimension) posits that employees will commit to their employer to work towards certain value-based goals. This is captured by Gruys *et al.*'s (2008) concept of 'values enactment'. This is 'the degree to which an employee enacts the espoused values of the organization' (*ibid*, p. 811).

We note that values enactment goes over and above the values congruence that has been shown to predict job satisfaction (Westerman and Cyr, 2004), organization commitment (*ibid*) and intention to remain (Westerman and Cyr, 2004; Moynihan and Pandey, 2008). For example, employees with high values congruence, who expected but are unable to enact their values due to the nature of their work role in a non-profit organization, may experience frustration and low job satisfaction, leading to reduced organizational commitment, including reduced loyalty towards the organization, reduced acceptance of organizational values and reduced in-role effort. Thus, we propose the extent of opportunities for values enactment as a potential differentiating factor, explaining segmentation in non-profit employees' psychological contracts. Front line staff in this study could be categorized as key professionals in mission-delivery given their direct role in service provision and their knowledge acquired through long-term, prescribed training (Wilensky, 1964). These front line employees are directly involved in delivering the primary service of the non-profit organization and thus have a substantial role in mission-delivery, delivered through value enactment.

It has long been recognized that value-based work can 'provide a deep sense of purpose and enhance an employee's self-concept and affinity for the work and the constituency to which he or she tends' (Thompson and Bunderson, 2003: p. 583). In spite of this, research on values in organizations remains in its nascent stages (Gruys *et al.*, 2008). Understanding the role of values in the ongoing employment relationship, as well as during the selection decision may be of significant utility to managers and may represent a significant contribution to how ideological and value-based factors shape the non-profit employment relationship. Future research should directly explore differences in attitudinal and behavioral outcomes between employees who have different levels of values enactment in a non-profit employment context. In addition, research should consider the impact of personal values enactment relative to employees' awareness of values-related activities undertaken in the broader organization context. This would require the development of a scale that explicitly tests the importance of values enactment within non-profit work roles. More broadly, our findings suggest the need to consider the potential impact of the nature of the work role on the employment relationship, which has been neglected in consideration of the psychological contract to date.

Finally, additional research should explicitly consider differences between the psychological contracts of permanent and temporary employees in the non-profit sector – and how such differences might be ameliorated. This is particularly important in the non-profit context where there is a high rate of temporary employment contracts (Clark, 2006). Previous research has suggested that variations in obligations and inducements have more influence on

the outcomes of temporary rather than permanent employees (Coyle-Shapiro and Kessler, 2002; Guest, 2004). As a result, the marginal return from investment in temporary employees may be greater from that of permanent employees. In this research temporary employees were over-represented amongst those with low perceived obligations. They comprised 55.1% of the low-delivered cluster, which accounted for 29.7% of all employees. Newton McClurg (1999) suggests that attention to the personal needs and support of temporary employees is associated with higher levels of commitment. In combination, further research into values enactment in the work role and contract status would extend our understanding of how the nature of employment shapes the non-profit employment experience, particularly for paid employees.

Practical Implications

Our findings raise a number of practical implications for employers in the non-profit sector. These pertain to the segmentation of the employment relationship and the associated development and maintenance of employees' psychological contracts. By focusing on these issues, organizations can work towards decreasing perceived psychological contract breach and increasing commitment.

Decreasing perceived psychological contract breach

Our findings have illustrated segmentation in the non-profit employment relationship across our three clusters, in terms of organizational commitment levels and its sub-dimensions of loyalty, values and effort. Crucially, we note that the cluster of employees with the highest perceived psychological contract obligations, High-breach employees, have the lowest levels of organizational commitment, across these three clusters. This finding is underpinned by psychological contract breach.

One strategy to diminish the effect of perceived psychological contract breach is to increase perceived organizational support (Zagenczyk *et al.*, 2009). Proponents of perceived organizational support propose that employees develop beliefs concerning the 'extent to which the organization values their contributions and cares about their well-being' (Eisenberger *et al.*, 1986: p. 501). This can be achieved by providing employees with mentors and supportive supervisors (Zagenczyk *et al.*, 2009). A second approach is to identify perceptions of psychological contract obligations among key groups of employees (e.g. professional front-line; fundraising; support staff) or among groups with different employment arrangements (e.g. temporary and permanent employees). Understanding perceived employer obligations among key workforce groups can help to identify issues and provide a basis from which to address

them. For example, we have drawn attention to a disproportionate level of contract breach among fundraising and retail staff.

We note that, beyond the non-profit context considered in this paper, the nature of the work role undertaken by staff may affect their expectations within the employment relationship. For example, employees may be concerned with a variety of salient issues in their particular work contexts, potentially including values enactment in non-profit organizations; power and autonomy in medical contexts (Freidson, 2001); creativity and innovation in professional service firms (Swart, 2007) and; discretion and non-scripted engagements in service firms (Jenkins *et al.*, 2010). While speculative, these examples draw attention to the need to consider the heretofore neglected nature of the work role in psychological contract research, as the nature of the work role and associated drivers of success may influence employee expectations in the employment relationship.

Limitations and methodological considerations

This exploratory study has a number of limitations. Our analysis is premised on cross-sectional data from one non-profit organization, engaged in providing services to individuals with disabilities and their families. Neither the nature of the data nor the cluster analysis undertaken allows us to make causality claims. Cluster analysis is based on finding groups in data, rather than associational or causation analysis. Thus, in spite of our high response rate, we suggest the need for further research across multiple non-profit organizations engaged in providing a variety of services, to strengthen the analytical and statistical generalizability of our findings. However, it is noteworthy that our clusters were of relative equal size, with more than 27% of our sample in each cluster. As a result, the number of employees in each cluster allows for confidence in the supporting statistical analysis undertaken. In addition, we note that, although considered acceptable by some, the alpha co-efficient for the perceived fulfillment of relational obligations was low, with a reliability value of 0.60. We also note potential concern with the use of our single-item measures, although those specifically described had reliability scores above 0.70.

The response-scale for our psychological contract measure does not allow for consideration of breach through overfulfillment of psychological contract obligations, as per Lambert *et al.* (2003) and Montes and Irving (2008). Although we consider promised and delivered inducements independently, we do not test for their separate effects, or for the separate effects of relational and transactional inducements, as advocated by Montes and Irving (2008). However, future research could undertake independent clustering on the basis of

promised and delivered obligations respectively, with cluster validation to assess their relative impact on outcomes. A similar approach could be taken in considering the relative impact of relational, transactional or training components of the contract, as advocated by Montes and Irving (2008). Thus, fuzzy clustering has significant potential for future psychological contract research.

Due to the exploratory nature of our study and the above limitations, we recognize the limited and hypothetical nature of our findings (Payne and Williams, 2005). However, following Bamberger (2008), we draw attention to their generative value. As a result of the neglect of the nature of the work role in psychological contract research to date, we propose the following ‘testable propositions’ that build on our discussion section and may inform the agenda for future research on the impact of the nature of the work role, on the employment relationship (and on psychological contract expectations in particular). These include:

Proposition 1: Values enactment will be a perceived psychological contract obligation for non-profit employees.

Proposition 1b: Higher absolute levels of fulfilled values enactment will be positively associated with desirable employee outcomes for non-profit employees.

Proposition 2: High autonomy will be a perceived psychological contract obligation for medical employees.

Proposition 2b: Higher absolute levels of fulfilled autonomy will be positively associated with desirable employee outcomes for medical employees.

Proposition 3: High scope for creativity and/or innovation will be a perceived psychological contract obligation for professional service employees.

Proposition 3b: Higher absolute levels of fulfilled creativity and/or innovation will be positively associated with desirable employee outcomes for professional service employees.

Proposition 4: Discretion will be a perceived psychological contract obligation for service firm employees.

Proposition 4b: Higher absolute levels of discretion will be positively associated with desirable employee outcomes for service firm employees.

In addition, attention needs to be afforded to the likely impact a range of other work roles, including administrative and manufacturing roles, might have on psychological contract expectations.

CONCLUSION

The psychological contract is an important explanatory framework in understanding employee attitudes and behaviours in the employment relationship (Shore and Tetrick, 1994). Our analysis has extended traditional concern with psychological contracts and organizational commitment to a neglected employee group: paid employees in the non-profit sector. Our focus on organization commitment and its sub-dimensions of loyalty, values and effort is particularly pertinent due to the value-oriented nature of employment in the non-profit sector; the potential ideological loyalty to organizational mission and; the associated potential for discretionary effort extended by employees.

We advance the understanding of psychological contract theory by focusing both on the content of the psychological contract and the demographic characteristics of clusters of employees with similar psychological contracts. Our analysis draws attention to segmentation in the non-profit employment relationship, underpinned by differences in work role and employment contract. The paper suggests the need for organizations to reduce the opportunity for, and impact of, perceived psychological contract breach, through the differential management of workforce groups sharing common employment status or professional expectations. In the non-profit context our discussion suggests the potential importance of values enactment within the work role. Building on this, the most significant contribution of the paper is perhaps the identification of the need to consider how employment characteristics – and the nature of the work role in particular – influence the psychological contract and the employment experience across professions and contexts. This is an intuitive, but empirically neglected, influence on employees' psychological contracts.

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Table 1. Statistical results describing the differences between the factors used in the clustering (Mean, Standard deviation, ANOVA and post-hoc analyses).

Mean Order and ANOVA	Bel_Rltd (3.848, 1.003) ($\alpha = 0.71$)			Ful_Rltd (3.336, 1.122) ($\alpha = 0.60$)		
	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>
	2.780 (0.936)	4.311 (0.621)	4.291 (0.615)	2.571 (0.936)	2.769 (0.911)	4.242 (0.615)
	(195.12*, .000) ^a L-d <(*,*) H-d <(-,·) H-b			(201.22*, .000) ^a L-d <(-,·) H-b <(*,*) H-d		
Mean Order and ANOVA	Bel_Trnl (4.431, 0.649) ($\alpha = 0.72$)			Ful_Trnl (3.582, 1.022) ($\alpha = 0.85$)		
	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>
	3.957 (0.811)	4.716 (0.377)	4.576 (0.462)	3.492 (0.779)	2.576 (0.875)	4.302 (0.596)
	(64.59*, .000) ^a L-d <(*,*) H-d <(-,·) H-b			(198.49*, .000) ^a H-b <(*,*) L-d <(*,*) H-d		
Mean Order and ANOVA	Bel_Trng (4.629, 0.554) ($\alpha = 0.75$)			Ful_Trng (3.667, 1.087) ($\alpha = 0.92$)		
	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>
	4.368 (0.705)	4.776 (0.379)	4.714 (0.465)	3.717 (0.881)	2.557 (0.929)	4.357 (0.632)
	(22.52*, .000) ^a L-d <(*,*) H-d <(-,·) H-b			(182.54*, .000) ^a H-b <(*,*) L-d <(*,*) H-d		

^a The bracketed values (x, y) denote F-statistic and significance based on one-way ANOVA

Superscript (h, k) denote post-hoc significance levels based on h - Bonferroni and k - Games-Howell

+ $p \leq 0.10$; * $p \leq 0.05$ (two-tailed tests)

Table 2. Between cluster differences for Organizational Aggregated Loyalty, Values and Effort Values to Single Commitment Value (Mean, Standard deviation, ANOVA and post-hoc analyses reported)

Mean Order and ANOVA	Commitment (3.731, 0.717) ($\alpha = 0.80$)		
	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>
	3.705 (0.683)	3.357 (0.758)	3.993 (0.593)
	(32.59*, .000) ^a H-b <(*,*) L-d <(*,*) H-d		

^a The bracketed values (x, y) denote F-statistic and significance based on one-way ANOVA.

Superscript (h, k) denote post-hoc significance levels based on h - Bonferroni and k - Games-Howell

+ $p \leq 0.10$; * $p \leq 0.05$ (two-tailed tests)

Table 3. Between cluster differences for Organizational ‘Loyalty’, ‘Values’ and ‘Effort’ (Mean, Standard deviation, ANOVA and post-hoc analyses reported)

Mean Order and ANOVA	Loyalty 1 (3.785, 1.065) ($\alpha = 0.81$)			Loyalty 2 (4.150, 0.802) ($\alpha = 0.52$)		
	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>
	3.740 (0.969)	3.370 (1.171)	4.088 (0.959)	4.087 (0.767)	4.000 (0.864)	4.291 (0.764)
	(17.83*, .000) ^a H-b <(*,*) L-d <(*,*) H-d			(5.41*, .005) ^a H-b <(-,·) L-d <(+,+) H-d		
Mean Order and ANOVA	Values 1 (3.266, 1.137) ($\alpha = 0.50$)			Values 2 (3.647, 1.001) ($\alpha = 0.71$)		
	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>
	3.378 (1.133)	2.664 (1.107)	3.582 (1.003)	3.606 (0.944)	3.269 (1.140)	3.923 (0.850)
	(27.38*, .000) ^a H-b <(*,*) L-d <(-,·) H-d			(16.66*, .000) ^a H-b <(*,*) L-d <(*,*) H-d		
Mean Order and ANOVA	Effort 1 (4.117, 0.926) ($\alpha = 0.38$)			Effort 2 (3.418, 1.108) ($\alpha = 0.87$)		
	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>	<i>Low-delivered</i>	<i>High-breach</i>	<i>High-delivered</i>
	4.024 (0.947)	4.000 (1.081)	4.258 (0.776)	3.394 (1.017)	2.840 (1.150)	3.813 (0.968)
	(3.76*, .024) ^a H-b <(-,·) L-d <(+,+) H-d			(31.79*, .000) ^a H-b <(*,*) L-d <(*,*) H-d		

^a The bracketed values (x, y) denote F-statistic and significance based on one-way ANOVA

Superscript (h, k) denote post-hoc significance levels based on h - Bonferroni and k - Games-Howell

+ $p \leq 0.10$; * $p \leq 0.05$ (two-tailed tests)

Table 4. Employment contract

Cluster – count (%)	Type of contract		
	Full-time permanent	Part-time permanent	Temporary
<i>Low-delivered</i> - 127 (29.7%)	50 (24.8%)	50 (28.2%)	27 (55.1%)
<i>High-breach</i> - 119 (27.8%)	56 (27.7%)	51 (28.8%)	12 (24.5%)
<i>High-delivered</i> - 182 (42.5%)	96 (47.5%)	76 (42.9%)	10 (20.4%)

Has associated Pearson Chi-Square with value 19.537 and significance 0.001 (2-sided).

Table 5. Employee work roles

Cluster – count (%)	Position in organization			
	Professional front-line staff	Support staff	Fundraising & retail staff	Other
<i>Low-delivered</i> - 127 (29.7%)	75 (27.7%)	31 (40.2%)	9 (23.1%)	12 (29.3%)
<i>High-breach</i> - 119 (27.8%)	68 (25.1%)	16 (20.8%)	21 (53.8%)	14 (34.1%)
<i>High-delivered</i> - 182 (42.5%)	128 (47.2%)	30 (39.0%)	9 (23.1%)	15 (36.6%)

Has associated Pearson Chi-Square with value 21.488 and significance 0.001 (2-sided).

Figure 1. Constituent factor cluster means for three perceived obligation clusters Low-delivered (L-d), High-breach (H-b) and High-delivered (H-d), found using the fuzzy *c*-means clustering technique.

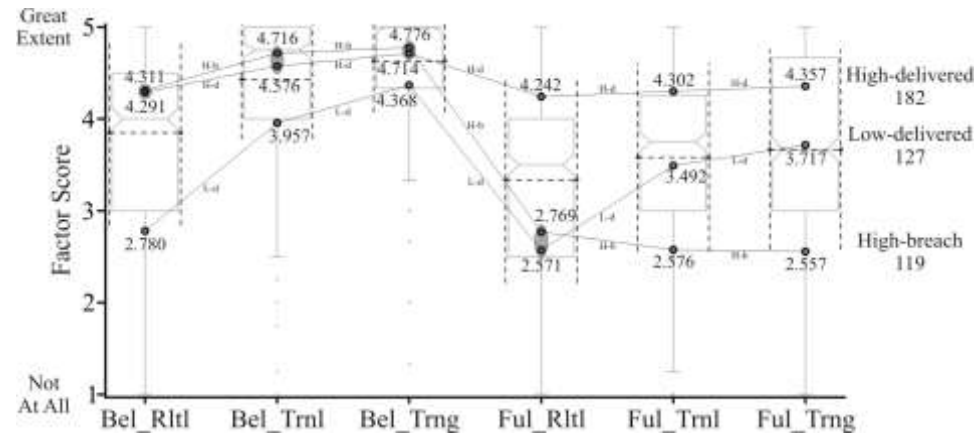


Figure 2. Outline of Investigation undertaken in this paper

