



A Methodological Approach to Developing a Measure of the Psychological Contract for Managers

Donald A.J. Cable

The University of Waikato, New Zealand

With a focus on a specific employment group this research attempted to add to the knowledge on the content of the psychological contract. Structured interviews with 35 managers generated 651 responses relating to the content of their psychological contracts. Analysis of those responses resulted in the development of an initial two-component measure of the contract. One component (23 items) included the managers' expectations relating to the organisation's obligations. The other component (16 items) included the managers' obligations relating to the perceived organisation's expectations. Validation of the measure was based on a questionnaire completed by 124 managers. Participants considered all items to be important aspects of the contract. Participants also rated as high the obligation of each party to meet the expectations of the other. Factor analysis of the measure revealed two factors in each component which, in line with previous research, were termed relational obligations and transactional obligations. A robust methodology is proposed for continuing research into the content of the psychological work contract.

■ **Keywords:** psychological contract, relational contracts, transactional contracts, measure development

Renewed interest in research into the psychological work contract followed the seminal work of Rousseau (1989). Prior to this, and since Argyris coined the term in 1960, interest in the concept had not been extensive. More recently there have been calls for research into the psychological contract to be grounded on a common understanding as to exactly what the psychological contract is (see, e.g., Conway & Briner, 2005). As Conway and Briner noted, the psychological contract, like many ideas in the social sciences, lacks an agreed definition. However, reinforced somewhat by their work, there is growing acceptance that the psychological contract evolves from the implicit and explicit promises that are made, or perceived to be made, between the individual and the organisation. Although definitions of the contract often used in research include the terms 'obligations' and 'expectations', Conway and Briner argued that these should only be considered a part of the contract if they are based on, or arise from, a perceived promise. This argument reinforces Rousseau's definition of the contract as 'an individual's beliefs regarding the

terms and conditions of a reciprocal exchange agreement', adding that one of the key issues is 'the belief that a promise has been made and a consideration offered in exchange for it' (1989, p. 123).

Conway and Briner (2005) suggested three general areas in which ongoing research into the psychological contract could be focused. First, the whole area of *content* is one that has been relatively neglected, with researchers developing measures ad hoc and not necessarily confirming with any scientific rigour the reliability or validity of such measures. Conway and Briner noted that 'relatively few studies have been conducted in this area' (p. 38). The second area, which is possibly more directly relevant to the employment relationship, is that of contract *breach* (and/or violation), or conversely, fulfilment.

ADDRESS FOR CORRESPONDENCE: Donald Cable, The University of Waikato, Private Bag 3105, Hamilton, New Zealand. E-mail: dcable@waikato.ac.nz

Finally, they present a case for understanding the psychological contract from a *process* perspective, suggesting that 'The contents of the psychological contract are those things that the employee and the employer agree to exchange with one another' (p. 4) and that a contract 'is by definition a process involving a series of unfolding events and interpretations of those events' (p. 132). The present study focused on the content of psychological contracts, since breach/violation, or the processes surrounding such events, can only be studied once agreement has been reached on what the psychological contract actually contains.

Reinforcing the decision to focus on content were the comments of Rousseau and Tijoriwala (1998), who offered three types of psychological contract assessment: *content-oriented*, which examines the content of the psychological contract and its perceived terms; *feature-oriented*, which compares the psychological contract to some attribute or dimension (feature) and describes it accordingly; and *evaluation-oriented*, which assesses the degree of fulfilment, change or violation. Rousseau and Tijoriwala noted that one way the psychological contract may be operationalised is through the specific terms (content) of the contract by focusing on individual contract elements. They noted that 'Content-oriented assessment addresses the terms and reciprocal *obligations* that characterise the individual's psychological contract' (p. 685, emphasis added). This approach is the focus of the present study.

Psychological contracts are proposed to vary across a number of factors (Dabos & Rousseau, 2004; McLean Parks, Kidder, & Gallagher, 1998; Rousseau & Tijoriwala, 1998; Thomas, Au, & Ravlin, 2003), with Muchinsky (2003) suggesting that the globalisation of business, including global labour markets, will bring an evolutionary focus on cultural differences in the development and management of the psychological contract. Beyond cultural differences, other factors such as employment level are also proposed to influence psychological contract content. These potential variances in psychological contract content reinforce the importance of investigating the specific content of psychological contracts for different employment groups and environments.

Any attempt to define the content of a *generic* psychological contract could potentially fail to recognise the many factors that influence individual employees' contracts. For example, an entry-level factory worker could have different expectations of, and perceive different obligations from, their organisation than a senior manager in a commercial organisation (Herriot & Pemberton, 1997). The likelihood is that a factory worker's psychological contract would be more transactional in content, focussing on the immediate transactional nature of the employment relationship and more concerned with self-interest. In contrast, a

senior manager's psychological contract would likely be more relational in content, focussing on the ongoing relationship between them and the organisation. Other potential differences can be proposed. Senior managers, for example, may believe the organisation is obligated to support them in their own development by releasing them during work hours to attend university courses. Factory workers are unlikely to have this expectation but may have an expectation that the organisation is obligated to provide them with on-the-job training. A generic measure of the psychological contract has the potential to omit, in any assessment of contract fulfilment, important contractual information relevant to specific employment groups. Only by exploring the content of the contract for disparate groups of employees will the importance of this be confirmed.

The decision to focus on a managerial population, in preference to groups at other employment levels, was largely pragmatic but based on a number of factors. The belief was that managers would be more accessible for surveying, and that they would be more likely to understand, appreciate, and articulate the concepts involved in the present study. A review of published research also indicated that no measure of the psychological contract had yet been developed specifically for managers. For example, a measure developed by Guest and Conway (2002) focussed solely on the organisation's perspective of what the psychological contract contains and did not consider the employees' perspective. Similarly, although Rousseau (2000) developed a measure for use in a managerial environment, her sample was MBA students and no information on the development of the items was provided.

The present study involved two phases. In the first phase a specific measure of the psychological contract was developed that may, following validation, be used to assess the degree of fulfilment, or conversely breach or violation, of the psychological contract for managers. Study 1 involved qualitative interviews that provided information on perceived contract content that was used to develop a preliminary measure. This measure was included in a questionnaire that was completed by managers in Study 2. To explore construct validity the data from Study 2 were subjected to factor and reliability analyses resulting in the development of a four-component final measure of the psychological contract for managers.

Study 1: Developing the Measure

Study 1 focused on the creation of a measure of the psychological contract for managerial level employees that could subsequently be assessed for construct validity. While Anderson and Schalk (1998), supported by Cavanaugh and Noe (1999), suggested that most employees are able to describe the content of their contract, they argued that there is no real consensus about

what the psychological contract is or what it actually encompasses. Both Kotter (1973) and Sims (1994) proposed that the psychological contract may literally contain thousands of items, and therefore making a complete list would be impracticable, if not impossible. It is from this list of 'thousands of items' that individuals draw specific and relevant items, grouping them into higher level and broader categories or classes, to form the content of their own idiosyncratic psychological contract. This grouping of items into higher level and broader categories or classes was the methodological approach adopted in this study.

As the psychological contract is very much an individual construction or perception (Rousseau, 1989; Rousseau & Tijoriwala, 1998), directly asking managers what they believed was in their contract was adopted as a valid approach to determining content. This approach was reinforced by Rousseau and Tijoriwala (1998, p. 681, emphasis added) who commented that 'Subjective or self-reported measures are the most direct source of information on the nature and content of the psychological contract'. Accordingly, rather than developing a measure of the psychological contract based on a priori conceptualisations, an inductive approach was adopted in which items were elicited from participants ensuring, as much as practicable, that the measure reflected individuals' beliefs regarding the content of their contracts.

METHOD

Participants

Seven large private and public New Zealand organisations, chosen because of their size and hence potential management structure, extended invitations to their managers (defined as 'the direct reports to the chief executive officer or managing director of the company, and their direct reports, where such managers held either line or staff budgetary and financial reporting responsibility for company resources or assets') to participate. Thirty-five managers were interviewed: 68.6% male; 94.3% European; 51.4% aged 30–40; 86% tertiary qualified.

Procedure

Prior to the commencement of the interviews participants confirmed that they had some appreciation and understanding of the concept and nature of the psychological contract, and the objectives of the interview. Interviews typically lasted 30–40 minutes, with transcripts subsequently being captured electronically for verification by participants and analysis.

Measures

A structured interview form, developed specifically for this study, asked managers for their views on the content of their psychological work contract. They were requested to focus specifically on the promises and obligations that were not included or covered in their formal written

employment contract and that related specifically to their current employment. Acknowledging the mutuality inherent in the contract (individual and organisation), managers were asked to reflect upon two perspectives. The first perspective focussed on what the managers believed they had promised the organisation, or what they believed they were obligated to provide the organisation (e.g., 'What do you believe *you* are obligated to provide *your employer*?'). The second perspective focused on what the managers believed the organisation had promised them, or what their organisation was obligated to provide them (e.g., 'What do you believe *your employer* is obligated to provide *you*?'). Managers were asked to rate on a 4-point scale how important (1 = *Low*, 4 = *High*) it was to them to either fulfil, or have met, the obligation identified in each response.

RESULTS

The 651 interview responses generated from the 35 interviews were subjected to a content analysis process by four subject matter experts (SME) knowledgeable in the field of organisational psychology. The 651 responses were divided into four approximately equal packets. Each packet was given to an SME with the instruction to review the responses in the packet and to create categories or keywords that described or reflected the obligation identified in each response. The SMEs were then instructed to assign all the responses in their packet to one of the categories they had created. Each packet of responses was analysed in this way by three alternative SMEs to determine the degree of consensus for allocation to a category. At the conclusion of this process 66 responses (10%) remained unassigned as either agreement on allocation was not achieved, or the responses were so unique that the categories created for them contained only one or two responses each. Effectively, at this stage a 90% agreement rate in response-to-category assignment between the SMEs had been achieved. No obvious pattern existed within the 66 unallocated responses and they did not group noticeably within the original interview questions types. These responses were considered unlikely to impact on the final list of categories and were therefore discarded from subsequent analysis.

The analysis of the interview responses resulted in a preliminary list of 73 categories. In a joint exercise involving the researcher and the SMEs, elimination of duplication in categories reduced the number to 37. Seven further categories, with fewer than five responses assigned to each, were also eliminated. Such categories were considered to be less important generally, and to have minimal impact if any on the overall objective of the study, due to the idiosyncratic nature of the responses in those categories. The means and standard deviations for importance of the remaining 30 categories were computed. Based on this analysis the decision was

made to retain the 30 categories in the development of the final measure and to refer to these categories simply as obligations, based on the argument that an obligation arises from a promise.

In the final step of the development of the measure the direction of the obligation as defined by the original response was analysed. Two possible directions existed: what the employee believed the organisation was obligated to provide, and what the employee believed he/she was obligated to provide. If, in either direction, the number of responses in any category fell below five, that category was removed (for that specific direction only). Such categories, because they likely reflected the idiosyncratic nature of psychological contracts, were considered to be less critical in the development of the measure. This resulted in one component of the measure, representing the organisation's obligations, containing 23 categories (Table 1), and the second component, representing the employee's obligations, containing 16 categories (Table 2), being carried forward to the validation phase of the study.

DISCUSSION

Study 1 developed a measure believed to represent the content of the psychological work contract for New

Zealand managerial level employees. The primary validation concern in Study 1 was to establish content validity, defined by Westen and Rosenthal (2003) as 'the extent to which the measure *adequately* samples the content of the domain that constitutes the construct' (p. 609, emphasis added). However, the degree to which representation may be confirmed is limited, for as Murphy and Davidshofer (1998) argued, content validity cannot be measured or assessed by a single statistic. Referencing Guion (1977), Murphy and Davidshofer proposed that content validity 'represents a judgement regarding the degree to which a test provides an *adequate* sample of a particular content domain' (p. 151, emphasis added) and they described a basic procedure for establishing this, although also claiming that, in practice, this procedure is difficult to implement. One may, however, make a reasonable assessment of the degree of compliance achieved with each of the steps involved in the procedure proposed by Murphy and Davidshofer and argue with some confidence that content validity has been achieved.

The first step in the content validation procedure described by Murphy and Davidshofer (1998) involves describing the content domain, that is, establishing the boundaries around the total set of behaviours that

TABLE 1

Psychological Contract — 23 Organisation Obligations

Organisation Obligation	Relating to:
Career development	Availability of career development opportunities
Communication	Communicating organisational knowledge to employees
Employment contract	Fulfilment of the formal employment contract
Equitable treatment	Treating all employees fairly and equitably
Fair pay	Competitive remuneration
Feedback	Providing feedback on performance and other issues
Follow through	Apply organisational policy consistently
Integrity	Acting with integrity, staying true to values and beliefs
Intellectual capital	Promotion and management of intellectual knowledge
Leadership	Providing leadership and motivation
Loyalty	Expressing support for organisational members
Organisational commitment	Commitment to success of organisation
Organisational culture	Maintaining acceptable norms and values
Organisational objectives	Managing change and providing strategic direction
Organisational Support	Providing professional and personal support
Personal development	Providing personal development/growth opportunities
Pleasant/safe working environment	Providing a physically and socially safe environment
Professionalism	Maintaining professionalism at all times
Resources	Providing resources to carry out role
Respect	Being treated with respect
Rewards	Providing rewards of value to employee
Teaming	Creating an environment in which people work together
Work–life balance	Supporting employees in maintaining work–life balance

TABLE 2

Psychological Contract — 16 Employee Obligations

Employee obligation	Relating to:
Career development	Pursuing career development opportunities
Communication	Keeping employer informed, sharing knowledge
Equitable treatment	Treating fellow employees fairly and equitably
Flexibility	Remaining adaptable to role requirements
Integrity	Staying true to own values and beliefs
Job commitment	Committing to the job
Leadership	Providing leadership to others
Loyalty	Loyalty toward the organisation
Organisational commitment	Commitment to the success of the organisation
Organisational culture	Subscribing to the organisation's norms and values
Organisational objectives	Meeting organisational goals and performance objectives
Organisational support	Providing support and guidance to fellow employees
Personal development	Committing to own personal development and growth
Social/self-responsibility	Respecting others and self
Teaming	Committing to working with others to achieve performance goals
Work-life balance	Maintaining a balance between work and non-work activities

describe what it is that is being assessed. Following a review of relevant literature, and of the development of the interview structure based upon that review, the 651 interview responses were believed to provide a comprehensive representation of the content domain for the psychological work contract for managers and established the boundaries surrounding that construct. Comparing the measure developed with measures developed by Guest and Conway (2002), and Rousseau (2000) provided further support for that contention.

The second step in Murphy and Davidshofer's (1998) procedure involves determining the areas of the content domain that are measured by each test item. This step was undertaken by having the subject matter experts analyse the 651 interview responses. Given that the responses effectively described the broader lower level behaviours expected or perceived to exist within the realm of the psychological contract, the measure derived from those responses provides a valid representation of the content domain.

For the final step in Murphy and Davidshofer's (1998) procedure, which involves a comparison between the structure of the measure and the structure of the content domain, the same argument prevails. If the interview responses are indeed representative of the content domain, then grouping those responses based on similarity of descriptors provides the structure for the content domain. Based on definitions of content validity (Jewel, 1998; Westen & Rosenthal, 2003), and adherence to the procedure for establishing content validity (Murphy and Davidshofer), the measure of the psychological contract provides an *adequate* measure of

that construct and possesses an acceptable level of content validity.

Study 2: Validating the Measure

A questionnaire was constructed to validate the measure developed in Study 1.

METHOD

Participants

A convenience sample was drawn from the managerial ranks of 13 large private and public New Zealand organisations. Three hundred and sixty eight questionnaires were distributed with a 34% response rate ($N = 124$). Sixty-nine percent of participants were male; age ranged from 27 years to 63 years (mean = 44); 85% were European and 4% were Maori; 46% were earning in excess of \$NZ100,000 per annum; 37% held an undergraduate degree and 26% held a post-graduate qualification; organisational tenure ranged from one to 48 years (mean = 8.6, $SD = 8.76$).

Procedure

The questionnaire, with a return-addressed envelope, was distributed to participants via the internal mail service of participating organisations. Prior to distribution, the managerial focus of the study was stressed and agreement secured that only managers meeting the criteria defined in Study 1 would be invited to participate.

Measures

The measure of the psychological contract developed in Study 1 was included in the survey. Using a question stem developed specifically for this survey, participants

were requested to state, for each obligation, the extent to which they believed they or the organisation had an obligation to meet each item of content of the psychological contract, and how important it was to them to either meet, or have met, each of those obligations. For extent, the questions followed the general format 'To what extent do you believe [you have/your organisation has] an obligation to ...' with responses rated on a 7-point scale anchored from 1 = *No obligation* to 7 = *Extreme obligation*. For importance, the questions followed the format 'How important is it to you personally [or for your organisation] to ...' with responses rated on a 7-point scale anchored from 1 = *No importance* to 7 = *Extreme importance*. The importance rating was subsequently used to further assess the relevance of each obligation for the psychological contract.

RESULTS

Prior to assessing construct validity the mean importance for each obligation in the measure was assessed (Table 3, organisation obligations, Table 4, employee obligations). Based on this analysis the decision was made to retain all items. The item means for all obligations within the organisation's obligations component

of the measure were above 4.8 (close to highly important). The item means for all obligations within the employees' obligations component of the measure were above 5.0 (highly important).

The possibility that some individual participants consistently scored low across all items, while others consistently scored high, was explored to determine whether or not this potential response pattern may have affected the overall item means. The average scores for participants on both components of the measure were calculated and the frequency with which those average scores occurred over all participants was analysed. The results confirmed that very few participants consistently scored low across all items in the measure, confirming that all participants considered most obligations to be important. Based on this analysis the decision to retain all obligations was justified. Finally, as reliability analysis confirmed that deleting any obligations from the measure (organisation obligations, $\alpha = .94$, and employee obligations, $\alpha = .91$) would not have improved reliability, the measure was retained intact.

The dimensionality and factor structure of the measure was analysed using maximum likelihood factor

TABLE 3
Importance of Organization Obligations ($N = 124$)

Item no.	Item description	Min	Max	Mean importance	Standard deviation
1	Provide career development opportunities	2	7	4.85	1.19
2	Communicate organisational knowledge	2	7	5.46	.88
3	Fulfil the formal employment contract	3	7	6.06	1.02
4	Treat all employees fairly and equitably	2	7	5.89	1.10
5	Provide competitive remuneration	2	7	5.56	.94
6	Provide feedback on performance and other issues	3	7	5.68	.97
7	Apply organizational policy consistently	3	7	5.53	1.12
8	Act with integrity, staying true to its values and beliefs	4	7	6.17	.86
9	Promote and manage the use of intellectual knowledge	2	7	5.08	1.05
10	Provide leadership and motivation	3	7	5.80	.99
11	Express support for employees	3	7	5.58	1.04
12	Demonstrate commitment to its own success	1	7	5.51	1.19
13	Maintain acceptable norms and values	2	7	5.55	1.12
14	Manage change and provide strategic direction	3	7	5.81	.97
15	Provide professional and personal support	2	7	5.06	1.15
16	Provide personal growth and development opportunities	2	7	4.92	1.18
17	Provide a physically and socially safe environment	2	7	5.73	1.13
18	Maintain professionalism at all times	2	7	5.65	1.05
19	Provide employees with the resources to carry out the job	2	7	5.85	.94
20	Treat employees with respect	4	7	6.04	.91
21	Provide rewards of value to employees	1	7	5.14	1.11
22	Create an environment in which people work together	2	7	5.31	1.08
23	Support employees in maintaining work-life balance	2	7	5.01	1.28

Note: All items measured on 7-point scale anchored 1 = No importance, 7 = Extremely important.

TABLE 4
Importance of Employee Obligations ($N = 124$)

Item no.	Item description	Min	Max	Mean importance	Standard deviation
1	Pursue career development opportunities	2	7	5.08	1.245
2	Keep your employer informed and share knowledge	1	7	5.49	.96
3	Treat fellow employees fairly and equitably	2	7	6.06	1.00
4	Remain adaptable to role requirements	2	7	5.68	.96
5	Stay true to your own values and beliefs	4	7	6.29	.83
6	Be committed to the job	2	7	5.81	1.00
7	Provide leadership to others	4	7	5.96	.87
8	Be loyal to the organisation	1	7	5.52	1.17
9	Be committed to the success of the organisation	1	7	5.82	1.00
10	Subscribe to the organisation's norms and values	2	7	5.20	1.16
11	Meet organisational goals and performance objectives	2	7	5.87	.92
12	Provide support and guidance to fellow employees	3	7	5.86	.88
13	Be committed to own personal growth and development	2	7	5.48	1.08
14	Respect others and self	4	7	6.15	.92
15	Be committed to working with others to achieve performance goals	3	7	5.79	.95
16	Maintain a balance between work and non-work activities	2	7	5.77	1.05

Note: All items measured on 7-point scale anchored 1 = No importance, 7 = Extremely important.

analysis. In order to determine the appropriateness of conducting factor analysis, the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO-MSA), which tests whether the partial correlations among the variables are small, was interpreted. The closer the KMO-MSA is to one the more appropriate it is to conduct factor analysis (Hair, Anderson, Tatham, & Black, 1995). As the measure of the psychological contract was a new measure, maximum likelihood factor analysis was considered appropriate to search for factors in the measures (Kline, 2000). Three criteria were used to determine the number of factors to rotate in the factor analysis: (a) the a priori hypothesis that each measure was unidimensional, (b) the values of the eigenvalues (latent roots) as confirmed in the scree plots, with eigenvalues greater than 1 indicating potential factors, and (c) the interpretability of the factor solution (Hair, Anderson, Tatham, & Black, 1995; Kline, 2000). In these analyses, a factor-loading criterion of 0.40 was accepted as confirming a significant loading. Given that this was a new measure being developed, a conservative approach to factor loadings was adopted to ensure that less significant items were not included.

Organisation Obligations

The KMO-MSA for the 23 items in the organisation obligations component of the measure was .92. Two factors with eigenvalues of 9.89 and 1.99 were rotated and, as the factors were expected to be correlated, an oblimin (oblique) rotation procedure with Kaiser nor-

malization was used (Breakwell, Hammond, & Fife-Schaw, 2000; Hair, Anderson, Tatham, & Black, 1995). In the initial factor analysis item two (Communicate organisational knowledge) did not achieve a significant loading. Additionally, two items (Item 11, Express support for employees; Item 22, Create an environment in which people work together) loaded significantly onto both factors. These items were removed from the measure and the factor analysis rerun. The final rotated solution yielded two interpretable factors accounting for 41% and 7% of the item variance respectively (Table 5).

Factor 1 items relate to obligations that affect more directly the organisation's culture or climate, or the general working environment; for example, 'Treat all employees fairly and equitably' (Item 4) and 'Provide leadership and motivation' (Item 10). These obligations may be interpreted as expressing the way employees expect the organisation to behave generally and are more concerned with the individual's belief as to what the organisation is obligated to provide in order to develop/maintain a productive employment relationship with its employees. This factor was therefore labelled 'relational' (Guzzo & Noonan, 1994).

Factor 2 items relate to obligations that have a more direct and immediate effect on, or benefit to, the individual him/herself; for example, 'Provide competitive remuneration' (Item 5), and 'Provide personal growth and development opportunities' (Item 16). These obligations may be interpreted as expressing the way

TABLE 5
Factor Loadings — Organisation Obligations

Item no.	Item description	Factor 1	Factor 2
20	Treat employees with respect	.83	.00
8	Act with integrity, staying true to its values and beliefs	.81	-.14
7	Apply organisational policy consistently	.74	-.01
6	Provide feedback on performance and other issues	.73	.00
18	Maintain professionalism at all times	.71	.01
14	Manage change and provide strategic direction	.67	.01
19	Provide employees with the resources to carry out the job	.62	.23
17	Provide a physically and socially safe environment	.60	.00
4	Treat all employees fairly and equitably	.60	.00
13	Maintain acceptable norms and values	.59	.11
10	Provide leadership and motivation	.53	.29
12	Demonstrate commitment to its own success	.51	.13
9	Promote and manage the use of intellectual knowledge	.48	.26
3	Fulfil the formal employment contract	.42	-.01
16	Provide personal growth and development opportunities	.00	.81
15	Provide professional and personal support	.22	.68
1	Provide career development opportunities	-.15	.64
21	Provide rewards of value to employees	.19	.62
5	Provide competitive remuneration	.22	.57
23	Support employees in maintaining work-life balance	.32	.49
Eigenvalues		8.65	2.00
Percent variance explained		41	7
Factor correlation: $r = .61, p < .01$.			

employees expect the organisation to behave toward them individually. For their contribution to organisational success the individual expects reciprocation and opportunities that provide a more immediate payback, reward, or positive outcome. This factor was therefore labelled 'transactional' (Guzzo & Noonan, 1994).

Based on this analysis, two variables were constructed. The first variable contains 14 items termed organisation relational obligations ($\alpha = .92$), and the second variable contains six items termed organisation transactional obligations ($\alpha = .85$).

Employee Obligations

The KMO-MSA for the 16 items in the employee obligations component of the measure was .88. Two factors with eigenvalues of 7.14 and 2.07 were rotated and, as the factors were expected to be correlated, an oblimin (oblique) rotation procedure with Kaiser normalisation was used (Breakwell, Hammond, & Fife-Schaw, 2000; Hair, Anderson, Tatham, & Black, 1995).

In this analysis item two (Keep your employer informed and share knowledge), did not achieve a significant loading. Additionally, Item 15 ('Be committed to working with others to achieve performance goals') loaded significantly onto both factors. These items were removed from the measure and the factor analysis

rerun. The final rotated solution yielded two interpretable factors accounting for 44% and 15% of the item variance respectively (Table 6).

Following the same argument as for the organisation obligations factors, the factor 1 items relate to obligations that more directly affect the organisation itself; for example, 'Be committed to the job' (Item 6) and 'Be loyal to the organisation' (Item 8). These obligations may be interpreted as expressing the way employees believe they should behave toward the organisation. This factor was therefore labelled 'relational' (Guzzo & Noonan, 1994). Factor 2 items relate to obligations that have a more direct effect on the individual him/herself or fellow workers; for example, 'Be committed to own personal growth and development' (Item 13) and 'Respect others and self' (Item 14). These obligations may be interpreted as expressing the way employees expect to behave in the workplace generally and how they expect to behave toward fellow employees. This factor was therefore labelled 'transactional' (Guzzo & Noonan, 1994).

Based on this analysis, two variables were constructed. The first variable contains seven items termed employee relational obligations ($\alpha = .88$), and the second variable contains seven items termed employee transactional obligations ($\alpha = .85$).

TABLE 6

Factor Loadings — Employee Obligations

Item no.	Item description	Factor 1	Factor 2
9	Be committed to the success of the organisation	.88	-.11
6	Be committed to the job	.78	.00
10	Subscribe to the organisation's norms and values	.71	-.01
11	Meet organisational goals and performance objectives	.70	.01
8	Be loyal to the organisation	.68	.01
4	Remain adaptable to role requirements	.63	.00
7	Provide leadership to others	.60	.25
16	Maintain a balance between work and non-work activities	-.18	.82
13	Be committed to own personal growth and development	.00	.75
5	Stay true to your own values and beliefs	-.01	.71
14	Respect others and self	.26	.63
12	Provide support and guidance to fellow employees	.35	.55
1	Pursue career development opportunities	.13	.48
3	Treat fellow employees fairly and equitably	.31	.43
Eigenvalues		6.14	2.01
Percent variance explained		44	15
Factor correlation: $r = .50, p < .01$.			

DISCUSSION

Much of the research to date involving the psychological work contract has used measures developed ad hoc and a priori by researchers and for which little evidence of construct validity has been established or provided. The present research attempted to address that situation by using an inductive approach to the development and validation of a measure of the psychological contract and by focusing on a specific employment sector. Insofar as could be determined, no other published research had as its main objective the development of a measure for a specific employment sector. This research has confirmed what managers believe is important to them regarding the content of their psychological work contracts. Study 2 confirmed that the measure developed is reliable and valid and may be used with confidence in assessing the psychological contract for this employment sector.

Accepting Rousseau's (1989) and others (Morrison & Robinson, 1997; Turnley, Bolino, Lester, & Bloodgood, 2003) argument that the psychological contract is an individually constructed and perceived phenomenon, participants were relied upon to provide both their and the organisation's perspective (Goddard, 1984; Rousseau, 1995). Two views were therefore captured; what the individual believed the organisation had promised him or her, and what the individual believed the organisation expected from him or her in return. These two views are generally termed the individual's obligations and the organisation's obligations, again based on the argument that a promise creates an obligation,

which in turn creates an expectation of fulfilment by the other party.

Factor analysis revealed two factors for each component of the measure. While there is some debate in the literature over the view that psychological contracts may contain both transactional and relational items (see for example Conway & Briner, 2005), there is also wide acceptance that contracts may not be purely of one form or the other. Indeed, some authors (see for example Millward & Brewerton, 2000) have argued that the relational/transactional distinction may exist on a continuum. Extending the argument that the content of psychological contracts is dependent on a number of factors, including employment sector, the position of a psychological contract on this continuum is also likely to depend on similar factors. For example, the psychological contracts of managers are more likely to lean toward the relational end of that continuum, whilst the contracts of factory workers are more likely to lean toward the transactional end of that continuum. The argument is that managers are more likely to have, as a dominant consideration, the maintenance and nurturing of their relationship with the organisation. Factory workers, on the other hand, are more likely to consider immediate transactions with the organisation, including matters such as hours of work and rates of pay, as more important. The nature of the factors identified in this study supports the use of the terms relational and transactional and also supports the notion that managers' psychological contracts are more relational than transactional.

How the idiosyncratic content of the psychological contract may be measured in practice remains an issue to

be faced by both developers and users. Although measures that capture the commonalities of content for a specific and identified employment group can be developed, they may exclude the obligations and expectations arising from promises, explicit or implicit, idiosyncratic to an individual. As both Kotter (1973) and Sims (1994) speculated, the psychological contract may literally contain thousands of items. Condensing these into a practical and realistic measure for any employment sector will result in some loss of idiosyncratic detail.

Despite the loss of idiosyncratic content, a measure has been developed that captures the important obligations of the psychological contract for managers and against which other measures may be compared and/or validated. In doing so, an understanding of the content of psychological contracts has been furthered. As ongoing research into content focuses on different samples, the extent to which content varies across those samples will become evident. The present study provides a robust methodology for conducting that research and for exploring the premise that psychological work contracts are influenced by a number of significant factors including employment level.

Limitations

The sample size may influence the extent to which the results may be generalised to other managerial samples. Additionally, the low response rate may have introduced a positive bias to the data (see for example Dreher, 1977; see, e.g., Rogelberg, Luong, Sederburg, & Cristol, 2000), further restricting generalisability. Although the sample size was small, the factor analyses produced reliable factors and fell within the range of $N = 100$ to 200 for models with well-determined factors (MacCallum, Widaman, Zhang, & Hong, 1999). That this research included only managers from New Zealand organisations may also restrict its applicability and the extent to which the results may be generalised to other countries.

Future Research

An underlying premise of this research was that the content of psychological contracts will vary across a number of factors at societal, organisational, and individual levels (Conway & Briner, 2005; Dabos & Rousseau, 2004; McLean Parks, Kidder, & Gallagher, 1998; Rousseau & Tijoriwala, 1998; Thomas, Au, & Ravlin, 2003). Confirming whether or not this premise has foundation potentially opens up a kaleidoscope of opportunities for researchers to pursue continuing research into the content of the psychological contract. Psychological work contracts are studied because of the impact that breach or violation (nonfulfilment) of those contracts has on the employment relationship, although there is increasing interest in also understanding the effects of psychological contract fulfilment and over-ful-

filment (Ho, 2005; Kotter, 1973; Lambert, Edwards, & Cable, 2003). Research indicates that when the psychological contract is violated, the attitudes and behaviours of individuals are negatively affected, with a consequential impact on organisational functioning. Having valid and specific measures will lead to a greater understanding of the effect that contract fulfilment may have on an individual's attitudes and behaviours.

Conclusion

The content of psychological contracts is proposed to vary by employment level. This may be illustrated by comparing the potential content of the contract for a manager versus the potential content of the contract for a factory worker. The expectations each would have, and therefore the obligations they believed the organisation would have toward them, would differ. Although this research indicates that much of the content of psychological contracts for managers may be reasonably common, and provides the items that may be included in a measure to assess fulfilment of the contract, the relevance or strength of specific items may vary depending on individual circumstances or expectations.

What emerges is the likelihood that while researchers may be able to develop psychological contract measures that represent specific groups of employees, ultimately what is in an individual's psychological contract, and the relevance of that content, is very much an individual construction. So, while measures may be developed that will contain content of common interest to specific groups of workers there will always be items of specific interest to individuals that may be excluded from those measures. This highlights the idiosyncratic nature of psychological contracts as discussed by many authors (Freese & Schalk, 1996; Kotter, 1973; McLean Parks, Kidder, & Gallagher, 1998; Sims, 1994).

An understanding of the consequences of breach or violation (and increasingly fulfilment) of the psychological contract drives the ongoing research interest in the phenomenon. That research will be more credible and more applicable when it utilizes measures of the psychological contract that have established validity and that acknowledge the many influences on the formation of content. Like Rousseau and Tijoriwala (1998, p. 693), researchers may 'look forward to new research from the growing array of international researchers actively studying organisations and workers from the perspective of the psychological contract'.

Acknowledgments

The author thanks Professor Michael O'Driscoll, University of Waikato, for helpful comments on earlier drafts of this article.

References

- Anderson, N., & Schalk, R. (1998). The psychological contract in retrospect and prospect. *Journal of Organisational Behavior*, 19, 637–647.
- Breakwell, G.M., Hammond, S., & Fife-Schaw, C. (2000). *Research Methods in Psychology* (2nd ed.). London: Sage.
- Cavanaugh, M.A., & Noe, R.A. (1999). Antecedents and consequences of relational components of the new psychological contract. *Journal of Organizational Behavior*, 20, 323–340.
- Conway, N., & Briner, R.B. (2005). *Understanding psychological contracts at work. A critical evaluation of theory and research*. New York: Oxford University Press.
- Dabos, G.E., & Rousseau, D.M. (2004). Mutuality and reciprocity in the psychological contracts of employees and employers. *Journal of Applied Psychology*, 89(1), 52–72.
- Dreher, G.F. (1977). Nonrespondent characteristics and respondent accuracy in salary research. *Journal of Applied Psychology*, 62(6), 773–776.
- Freese, C., & Schalk, R. (1996). Implications of differences in psychological contracts for human resource management. *European Journal of Work and Organizational Psychology*, 5(4), 501–509.
- Goddard, R.W. (1984). The psychological contract. *Management World*, 13(7), 12–14.
- Guest, D.E., & Conway, N. (2002). Communicating the psychological contract: an employer perspective. *Human Resource Management Journal*, 12(2), 22–38.
- Guzzo, R.A., & Noonan, K.A. (1994). Human resource practices as communications and the psychological contract. *Human Resource Management*, 33(3), 447–462.
- Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1995). *Multivariate Data Analysis* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.
- Herriot, P., & Pemberton, C. (1997). Facilitating new deals. *Human Resource Management Journal*, 7(1), 45–56.
- Ho, V.T. (2005). Social influence on evaluations of psychological contract fulfillment. *Academy of Management Review*, 30(1), 113–128.
- Jewel, L.N. (1998). *Contemporary industrial/organizational psychology* (3rd ed.). Pacific Grove, CA: Brooks/Cole Publishing Coy.
- Kline, P. (2000). *An easy guide to factor analysis*. London: Routledge.
- Kotter, J.P. (1973). The psychological contract: Managing the joining-up process. *California Management Review*, 15, 91–99.
- Lambert, S.J., Edwards, J.R., & Cable, D.M. (2003). Breach and fulfilment of the psychological contract: A comparison of traditional and expanded views. *Personnel Psychology*, 56(4), 895–933.
- MacCallum, R.C., Widaman, K.F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, 4(1), 84–99.
- McLean Parks, J., Kidder, D.L., & 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, 697–730.
- Millward, L.J., & Brewerton, P.M. (2000). Psychological contracts: Employee relations for the twenty-first century? In C.L. Cooper & I.T. Robertson (Eds.), *International Review of Industrial and Organisational Psychology* (Vol. 15, pp. 1–61): John Wiley & Sons.
- Morrison, E.W., & Robinson, S.L. (1997). When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review*, 22(1), 226–256.
- Muchinsky, P.M. (2003). *Psychology Applied to Work* (7th ed.). Belmont, CA: Wadsworth/Thomson.
- Murphy, K.R., & Davidshofer, C.O. (1998). *Psychological Testing: Principles and Applications* (4th ed.). Upper Saddle River, NJ: Prentice Hall.
- Rogelberg, S.G., Luong, A., Sederburg, M.E., & Cristol, D. S. (2000). Employee attitude surveys: Examining the attitudes of non-compliant employees. *Journal of Applied Psychology*, 85(2), 284–293.
- Rousseau, D.M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2(2), 121–139.
- Rousseau, D.M. (1995). *Psychological contracts in organizations*. Thousand Oaks, CA: Sage Publications.
- Rousseau, D.M. (2000). Psychological contract inventory technical report. Retrieved March, 2002, from http://www.andrew.cmu.edu/user/rousseau/0_reports/pci.pdf
- Rousseau, D.M., & Tijoriwala, S. A. (1998). Assessing psychological contracts: Issues, alternatives and measures. *Journal of Organizational Behavior*, 19, 679–695.
- Sims, R.R. (1994). Human resource management's role in clarifying the new psychological contract. *Human Resource Management*, 33(3), 373–382.
- Thomas, D.C., Au, K., & Ravlin, E. C. (2003). Cultural variation and the psychological contract. *Journal of Organizational Behavior*, 24, 451–471.
- Turnley, W.H., Bolino, M.C., Lester, S.W., & Bloodgood, J.M. (2003). The impact of psychological contract fulfillment on the performance of in-role and organizational citizenship behaviors. *Journal of Management*, 29(2), 187–206.
- Westen, D., & Rosenthal, R. (2003). Quantifying construct validity: Two simple measures. *Journal of Personality and Social Psychology*, 84(3), 608–618.

