

Psychological career meta-capacities in relation to employees' retention-related dispositions

R. Tladinyane, M. Coetzee & A. Masenge

ABSTRACT

Staff retention has become a complex issue facing many contemporary organisations. The study examined the relationship dynamics between employees' psychological career meta-capacities (measured by the Psychological Career Resources Inventory) and their retention-related dispositions (measured by the Utrecht Work Engagement Scale and the Organisation-related Commitment Scale). A quantitative survey was conducted involving a non-probability purposive sample of predominantly black females in the early life/career stage, employed at managerial and staff levels ($N = 318$) in the field of industrial and organisational psychology. A canonical correlation analysis indicated a significant overall relationship between the psychological career meta-capacities and the retention-related dispositions. Structural equation modelling indicated a good fit of the data with the canonical correlation-derived measurement model. In the employment equity context, the findings provide valuable pointers for the design of career development practices aimed at retaining black females in the early career stage of their lives.

Key words: career development, retention, psychological career resources, career meta-capacities, career foci, commitment foci, work engagement

Introduction

Staff retention has become a complex issue facing many organisations today. Organisations face the challenge of attracting and retaining high calibre human

Ms R. Tladinyane (Senior Lecturer) and Prof. M. Coetzee are in the Department of Industrial and Organisational Psychology, University of South Africa. Mr A. Masenge is in the Office for Graduate Studies and Research, College of Economic and Management Sciences, University of South Africa. E-mail: tladirt@unisa.ac.za

Psychological career meta-capacities in relation to employees' retention-related dispositions

capital within a highly turbulent business environment that competes for scarce skills in times of global skills shortages (Brundage & Koziel 2010; Chabault, Hulin & Soparnot 2012). South Africa is experiencing a skills crisis in the retention of its top talent, a crisis that is unlikely to end in the foreseeable future (Kerr-Phillips & Thomas 2009). The loss of valuable knowledge and experience because of staff turnover increases the importance of staff retention for organisational sustainability and competitiveness (Burke & Ng 2006). This study focuses on the psychological attributes and dispositions that influence the retention of staff in the South African organisational context.

The retention of employees seems to be influenced by psychological attributes that include individuals' ability to adapt to and deal proactively with the changing and uncertain nature of their careers in the contemporary world of work (Ferreira 2010, 2012; Savickas 2011; Savickas, Nota, Rossier, Dauwalder, Duarte & Guichard 2009). In an increasingly unstable and unpredictable work world, people are becoming more dependent on their psychological and social capacities (human capital), and less dependent on organisational career arrangements because of the more frequent experiences of career transitions, and the demands for adaptability and greater individual agency in career decisions (Arthur, Khapova & Wilderrom 2005; Baruch 2004; Rossier, Zecca, Stauffer, Maggiori & Dauwalder 2012; Savickas 2011; Savickas & Porfeli 2012). In this regard, Converse, Pathak, DePaul-Haddock, Gotlib and Merbedone (2012) suggest that the development of personal career-related capabilities and dispositions has become important in the contemporary work world because individuals have to rely heavily on these capabilities and dispositions to effectively influence their career environment and regulate their behaviour to succeed in more turbulent work settings. Savickas & Porfeli (2012) also indicate the development of career meta-capacities as vital in negotiating the person–environment fit harmonics in a more uncertain and chaotic career context. Ferreira (2012) found that individuals' psychological career meta-competencies significantly increase their sense of job-embedded fit with, and commitment to, the organisation.

The present study focuses specifically on employees' work engagement (Schaufeli & Bakker 2004) and commitment to specific organisational foci (Roodt 1997) as a set of dispositional attributes that influence their potential retention. In the retention context, organisations thus need to take into consideration the changing priorities of employees and what attracts and keeps employees committed to and engaged in their jobs, careers, work, occupations and the organisation itself. The work engagement and commitment of employees are acknowledged by the research literature (Ferreira 2012; Roodt 1997; Schaufeli & Bakker 2004) as significant retention-related dispositions that organisations, managers and human resource professionals should

take cognisance of in the design of retention strategies. Retention-related dispositions (for example, work engagement, job embeddedness and organisational commitment) are seen to act as mediating constructs between an individual's work and personal life (Ferreira 2012; Mitchell, Holtom & Lee 2001a; Mitchell, Holtom, Lee, Sablinski & Erez 2001b)

Work engagement relates to employees' involvement in their jobs and assumes an energetic and efficacious connection with work activities (Coetzer & Rothmann 2007). Individuals who are highly engaged in their jobs also tend to be more committed to their organisation (Chalofsky & Krishna 2009; Field & Buitenbach 2011; Jackson, Rothman & Van de Vijver 2006). Highly engaged individuals tend to experience high mental energy levels, are devoted to and immersed in their jobs and are more likely to remain with the employing organisation because of lower turnover intentions (Schaufeli & Bakker 2004).

Organisational commitment as a retention-related disposition has been extensively studied in the South African retention context (Döckel 2003; Ferreira 2010; 2012; Lumley 2009; Roodt 1997; Van Dyk & Coetzee 2012). Employees' commitment to the organisation represents their emotional responses to or feelings about organisational issues or foci, which influence their psychological attachment to the organisation (Mitchell et al. 2001b; Roodt 1997). Organisational commitment is regarded as a particularly powerful predictor of employee turnover, because employees' level of commitment is dependent on how they interpret and make sense of their work context (Bentein, Vandenberghe, Vandenberg & Stinglhamber 2005; Meyer & Allen 1997). Research further suggests that people's personal career experiences and desires, and their self-awareness of these are becoming important in the contemporary workplace, because these could impact on their work engagement (Coetzer & Rothmann 2007) and level of commitment to the organisation (Döckel 2003; Ferreira 2012).

Research objective

The aim of this research was to investigate the relationship between individuals' psychological career meta-capacities and their retention-related dispositions, namely their work engagement and commitment to particular organisational foci (such as their work, jobs, occupations, careers and the organisation).

An understanding of the variables relating to the internal career, such as people's psychological career meta-capacities and retention-related dispositions, may influence their turnover intentions and be essential for organisations to consider in the retention of their staff. Although some research has been done on the relationship between psychological career meta-capacities and organisational commitment (Ferreira

Psychological career meta-capacities in relation to employees' retention-related dispositions

2010; 2012), there is little theoretical and empirical information on how employees' psychological career meta-capacities influence their retention-related dispositions, especially their work engagement and commitment to particular organisational foci (such as their work, jobs, occupations, careers and the organisation) in the South African employment equity context.

The current study thus potentially adds to the retention and career literature by fostering an understanding of how people's psychological career meta-capacities and dispositions influence the retention of employees in the South African organisational context.

Psychological career meta-capacities

Career meta-capacities are regarded as the set of psychological career resources that people use to proactively plan and manage their career development, influence their socio-occupational environments and self-regulate their behaviour in order to attain career success in the contemporary work setting (Coetzee 2008; Converse et al. 2012; Hall & Chandler 2005; Savickas & Porfeli 2012).

The psychological career resources framework of Coetzee (2008) is of relevance to this study. This framework has proven useful in the South African context for studying how people's career meta-competencies relate to their organisational commitment and job embeddedness (Ferreira 2010, 2012). According to Coetzee (2008), people's career meta-competencies comprise their career preferences, career values, career drivers, career enablers and career harmonisers. Kniveton (2004) posits that individuals' career motives, values and psychological resources have an impact on their career decision-making and their psychological attachment to an occupation. A well-developed psychological career resources profile enables individuals to proactively manage their career development (Coetzee 2008; Ebberwein, Krieskok, Ulven & Prosser 2004; Van der Heijde & Van der Heijden 2006) and has been shown to increase their affective commitment to the organisation (Ferreira 2010).

Career preferences and values guide the decisions individuals make in terms of their long-term career choices (Coetzee 2008). The meaningfulness of a career to the individual is influenced by what he or she prefers and values (Driver 1982; Kim 2005). Coetzee (2008) regards people's *career drivers* as the inner forces that determine what an individual wants or needs from his or her employment. Career drivers consist of people's career purpose, career directedness and career-venturing attitudes. These attitudes energise people and motivate them to experiment with new or alternative careers and employment possibilities that are based on their views

of the possible selves they could become or the possible working roles they could experience (Coetzee 2008).

A *career enabler* is a set of skills (practical, creative or self/other skills) that allows an individual to perform tasks relating to his or her career development well and helps him or her to achieve the desired and expected career outcomes. *Career harmonisers* comprise people's self-esteem, behavioural adaptability, emotional literacy and social connectivity. These psychological career meta-capacities act as promoters of flexibility and resiliency, and as controls by keeping the career drivers in balance so that people do not burn themselves out in the process of pursuing and reinventing their careers (Coetzee 2008).

People who possess a wide range of psychological career resources have been shown to be adaptable to changing career circumstances (Converse et al. 2012; Fugate, Kinicki & Ashforth 2004; Griffin & Hesketh 2005; McArdle, Waters, Briscoe & Hall 2007; Savickas & Porfeli 2012), and they are also likely to be more engaged in their work and committed to their job, work, career, occupation or the organisation.

Retention-related dispositions

In the context of the present study, the constructs of work engagement and organisational commitment foci are regarded as a composite set of retention-related dispositions. These dispositions act as mediating constructs between employees' work and personal lives, influencing their cognitive (non-affective) and affective reasons for staying or leaving an organisation or job, and hence their retention (Mitchell et al. 2001a & b; Tanova & Holtom 2008).

Work engagement

In the context of this research, work engagement refers to a positive fulfilling state of mind characterised by vigour, dedication and absorption (Schaufeli, Bakker & Salanova 2006). *Vigour* (a physical component) is characterised by high levels of energy and mental resilience, and being sufficiently willing to invest effort in one's work, despite any obstacles (Schaufeli et al. 2006). *Dedication* is characterised by experiencing a sense of importance in one's work, feeling passionate and proud of the job, and being inspired and challenged by work (Schaufeli et al. 2006; Storm & Rothmann 2003).

Absorption (cognitive component) refers to being completely and happily absorbed in one's work, unable to detach oneself from it and not noticing how quickly time flies (Schaufeli et al. 2006; Storm & Rothmann 2003).

Psychological career meta-capacities in relation to employees' retention-related dispositions

Work engagement relates to employees' psychological experiences of their work. Research has shown that disengagement from work may result in employee turnover, absenteeism and poor performance (Caldwell, Chatman & O'Reilly 1990; Coetzer & Rothmann 2007), while work engagement may result in job satisfaction, organisational commitment and lower turnover intention (Schaufeli & Bakker 2004).

Organisational commitment foci

Roodt (1997) suggested six foci relating to organisational commitment, namely work, job, career, occupation, organisation and union. *Work foci* refer to the loyalty of employees towards work itself. People who are strongly loyal to their work make sure that it is their responsibility to ensure that they add value to their employing organisation (Aryee, Chay & Chew 1994; Meyer & Allen 1997). *Career foci* refer to the identification and involvement of a person in his or her occupation (Mueller, Wallace & Prince 1992).

Job foci involve a person's dedication to a moderately temporary set of objective task requirements (Colarelli & Bishop 1990). This implies that the individual will be dedicated to tasks that come with the roles of the job. *Occupational foci* are seen as the commitment to an identifiable and specific line of work in which an individual engages in order to earn a living at a given point in time (Lee, Carswell & Allen 2000). An individual with *organisational foci* as his or her focus is willing to remain with the organisation by putting more effort into the attainment of the organisational goals. The individual's loyalty will be based on his or her acceptance of values and goals as his or her own (Roodt 1997).

Organisational commitment has been shown to be positively related to person–organisation fit (Valentine, Godkin & Lucero 2002). This implies that should conflict arise between the personal characteristics of employees – such as those indicated by their psychological career resources, work engagement and the attributes of their organisations – job dissatisfaction, low organisational commitment, job stress and turnover could most probably be experienced (Judge & Ferris 1992; Peterson 2003; Schneider, Goldstein & Smith 1995).

Psychological career meta-capacities in relation to retention-related dispositions

In line with Coetzee (2008), the researcher proposes that individuals with well-developed career meta-capacities are able to plan their careers, make certain decisions based on this planning, and explore new opportunities, and have the confidence to

implement these decisions in order to perform the activities needed to successfully accomplish their career objectives. People who have access to personal (psycho-social) resources at work tend to have a greater sense of self-worth, which places them in a better position to invest significant time and effort in pursuing their work activities, and they are thus more likely to achieve career success (Hobföll 2002). The psychological experience of career success in turn may enhance their levels of organisational commitment. People with high levels of psycho-social resources may be willing to seek more feedback from their supervisors, create social networks in the organisation that may help them to access relevant information, and obtain social support in the successful pursuit of their careers (Vandenberghe & Panaccio 2012).

Employees who feel strongly engaged and committed may define their relationships with their employers as long term, and have lower intent to quit, as opposed to employees who have lower levels of engagement and commitment to their organisations (Mallol et al. 2007; Meyer & Allen 1997; Schaufeli & Bakker 2004). Commitment to and engagement in one's work or career revolve around a process, an attitude, intentional goal-directed behaviour and a situation in a person's work life to achieve set career goals (Puah & Ananthram 2006). Since the psychological career resources include the positive and negative self-appraisals that individuals make in planning and managing their career development, one would expect the career meta-capacities (explained by their psychological career resources profile) to explain their retention related-dispositions (work engagement and commitment foci).

An individual with a well-developed psychological career resources profile may show stronger engagement towards the work and also be committed to different organisational foci. Strong feelings of work engagement and commitment to different foci may ensure that the individual will remain with the organisation owing to the perceived psychological contract between the employer and the employee. According to Ferreira, Basson and Coetzee (2010), the individual may be affectively more committed or psychologically connected to the organisation. The individual may refrain from leaving the organisation because of the perceived costs associated with such a move (continuance commitment). The individual may also feel a strong sense of responsibility towards the organisation (normative commitment), which in turn may influence his or her decision to leave.

Overall, we propose a significant and positive association between individuals' psychological career meta-capacities and their retention-related dispositions, namely their work engagement and commitment to particular organisational foci (such as their work, jobs, occupations, careers and the organisation). Although some research has been done on the relationship between psychological career meta-capacities and organisational commitment (Ferreira 2010, 2012), there is little theoretical

Psychological career meta-capacities in relation to employees' retention-related dispositions

and empirical information on the link between these variables. The psychological career resources model developed by Coetzee (2008) provides a sound theoretical and empirical basis for investigating individuals' career meta-capacities (Ferreira 2010, 2012). Roodt's (1997) organisational commitment foci framework and the work engagement framework of Schaufeli and Bakker (2003) have proven research evidence in the South African retention context (Mendes & Stander 2011; Roodt 1997).

Methodology

Research approach

A cross-sectional quantitative survey design was used to achieve the research objective.

Participants

A non-probability purposive sample of employed adults ($N = 318$) at managerial and staff levels in the field of industrial and organisational psychology participated in the study. Overall, the majority of the participants were black (76%) and female (76%), and were in the early adulthood life stage and establishment phase of their careers (84% = 26–40 years). The participants occupied staff level (57%) and managerial level (43%) positions in the South African services industry.

Measuring instruments

The Psychological Career Resources Inventory (PCRI) developed by Coetzee (2008) was used to measure the participants' self-perceived career meta-capacities. The PCRI (Coetzee 2008) is a self-rated multi-factorial measure containing 64 items and five subscales (career preferences, career values, career enablers, career drivers and career harmonisers). The inventory measures 15 constructs in total: career preferences (stability/expertise, managerial, variety/creativity and independence/autonomy); career values (growth/development and authority/influence); career drivers (career purpose, career directedness and career venturing); career enablers (practical/creative skills, and self/other skills) and career harmonisers (self-esteem, behavioural adaptability, emotional literacy and social connectivity). A six-point Likert-type scale was used for subject responses to each of the 64 items. Cronbach's alpha coefficients for each subscale range from 0.71 to 0.88. Studies conducted by Coetzee (2008), Coetzee and Bergh (2009) and Ferreira (2010, 2012) confirmed

the internal consistency, reliability and construct validity of the PCRI in the South African context.

The participants' work engagement was measured by means of the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker 2003). The UWES is a self-report questionnaire that includes 21 items. It is divided into three subscales (vigour, dedication and absorption). A six-point Likert-type scale was used for subject responses to each of 21 items. For two different samples, the Cronbach's alphas for vigour were 0.68 and 0.80 respectively. The Cronbach's alpha coefficient obtained for dedication was 0.91 for both samples, and for absorption, 0.73 and 0.75 respectively. Coetzer and Rothmann (2007) confirmed the internal consistency reliability and construct validity of the UWES for the South African context.

The participants' organisational commitment foci were measured by means of the Organisation-related Commitment Scale (OCS) (Roodt 1997). The OCS is a self-report questionnaire that includes 38 items, measuring the participants' commitment to work foci, job foci, occupational foci, career foci and organisational foci. A five-point Likert-type scale was used for subject responses to each of the 38 items. Acceptable construct validity and internal consistency reliabilities of ≥ 0.90 were reported by Roodt (1997), Storm and Roodt (2002) and Pretorius and Roodt (2004).

Procedure

Data were collected by mailing questionnaires to a purposive sample of employed adults enrolled for honours-level distance-learning studies in the field of industrial and organisational psychology in a particular year of study ($N = 628$). The postal facilities of the higher education institution were used. Additional data were collected during the annual discussion classes. The researcher made sure that no participant completed a questionnaire twice by checking that the student numbers on the questionnaires returned by mail were not duplicated in the questionnaires completed during the discussion classes. Permission for the research was obtained from the institution's research ethics committee. The purpose of the study was communicated to all participants in the questionnaire booklet. Participation was voluntary, and the respondents gave their permission for the results to be used for research purposes only. The anonymity and confidentiality of all the participants was ensured. A sample of 318 usable questionnaires was returned, yielding a response rate of 51%.

Statistical analysis

Descriptive (means, standard deviations and reliability analyses) and inferential (multivariate) statistical analysis was performed to achieve the objective of the study. Canonical correlation analysis was considered appropriate and useful, because the statistical analyses involved examining relationships between two composite sets of multiple variables. Canonical correlation analysis limits the probability of committing Type I errors (Hair, Black, Babin & Anderson 2010). In order to counter the probability of a Type I error, it was decided to set the significance value for interpreting the results at a 95% confidence interval level ($Fp \leq 0.05$). Effect sizes were used to decide on the practical significance of the findings. In line with the guidelines of Hair et al. (2010), the cut-off criteria for factorial loadings (≥ 0.30) were used to interpret the relative importance of the canonical structure correlations or loadings in deriving the canonical variate constructs. The redundancy index was also considered for assessing the magnitude of the overall correlational relationships between the two variates of a canonical function and the practical significance of the predictive ability of the canonical relationship (Hair et al. 2010). Squared canonical correlation (Rc^2) values of ≤ 0.12 (small practical effect), $\geq 0.13 \leq 0.25$ (medium practical effect) and ≥ 0.26 (large practical effect) ($Fp \leq 0.05$) (Cohen 1992) were also considered in the interpretation of the magnitude or practical significance of the results.

Structural equation modelling (SEM) was performed using AMOS 18 (Arbuckle, 1995–2009) to validate the overall relationship between the two canonical construct variates (psychological career meta-capacities and retention-related dispositions) as latent variables. The canonical correlation analysis results were regarded as the measurement model. In line with guidelines provided by Garson (2009), the researcher assumed that there is an adequate fit between the structural model and the measurement data when one obtains a confirmatory fit index (CFI) of 0.90 or higher, a root mean square error of approximation (RMSEA) of 0.08 or lower, and a standardised root mean square residual (SRMR) of 0.05 or lower.

Results

Descriptive statistics

Table 1 shows that the participants obtained the highest mean scores on the following PCRI subscales: stability/expertise career preference ($M = 5.30$; $SD = 0.64$); growth/development career value ($M = 5.49$; $SD = 0.66$); career purpose career driver ($M = 5.39$; $SD = 0.05$); and self-esteem career harmoniser ($M = 5.09$; $SD = 0.81$).

Table 1 also indicates that the participants obtained the highest mean scores on the UWES vigour ($M = 4.28$; $SD = 1.19$) and career foci ($M = 3.81$; $SD = 0.58$) subscales. In terms of the OCS, the participants scored highest on the OCS career foci ($M = 3.81$; $SD = 0.58$) and lowest on organisational foci ($M = 3.18$; $SD = 0.74$).

Acceptable internal consistency reliability coefficients were obtained for the three measuring instruments, except for the OCS work foci subscale ($\alpha = 0.04$). The researcher therefore decided to exclude the work foci subscale from the statistical analyses.

Canonical correlation analyses

A canonical correlational analysis was performed to assess the overall relationship between the psychological career meta-capacities construct variate and its variables (psychological career resources as a composite set of independent latent variables) and the retention-related dispositions construct variate and its variables (work engagement and organisational commitment foci as a composite set of dependent latent variables). Only the first function of the canonical model was statistically significant: $R_c = 0.50$ ($R_c^2 = 0.25$; large practical effect; $F_p = 1.91$; $p \leq 0.0001$); Wilks' Lambda (0.52; $p \leq 0.0001$).

In terms of the independent canonical variate, Table 2 shows that the psychological career meta-capacities construct variate was most strongly influenced by the following PCRI variables: managerial ($R_c = 0.34$), variety/creativity ($R_c = 0.62$), growth/development ($R_c = 0.46$), authority/influence ($R_c = 0.30$), practical/creativity ($R_c = 0.51$), self/other skills ($R_c = 0.50$), career purpose ($R_c = 0.37$), career directedness ($R_c = 0.58$), career venturing ($R_c = 0.47$), self-esteem ($R_c = 0.44$) and behavioural adaptability ($R_c = 0.45$). These PCRI variables showed a practically small to large degree of association with the psychological career meta-capacities variate construct. The PCRI career preference variable variety/creativity, the career value growth/development, the career enablers (practical/creative skills and self/other skills), career drivers (career directedness and career venturing) and career harmonisers (self-esteem and behavioural adaptability) contributed the most in explaining the career meta-capacities construct variate. Overall, the PCRI variables explain 17% of the overall variance in the psychological career meta-capacities canonical construct variate.

Table 2 further shows that the retention-related dispositions construct variate was most strongly influenced by the occupational foci ($R_c = 0.44$), career foci ($R_c = 0.82$) and UWES variables of vigour ($R_c = 0.55$), dedication ($R_c = 0.43$) and absorption ($R_c = 0.52$). These variables explain 25% of the overall variance in the retention-

Psychological career meta-capacities in relation to employees' retention-related dispositions

Table 1: Descriptive statistics: means, standard deviations and reliability summary statistics (PCRI, UWES and OCS) (*N* = 318)

Scale dimension	M (SD)	α
PCRI (psychological career resources)		
Career preference		
Stability/expertise	5.30 (0.64)	0.67
Managerial	4.48 (1.16)	0.85
Variety/creativity	5.05 (0.85)	0.83
Independence/autonomy	4.74 (0.91)	0.70
Career values		
Growth/development	5.49 (0.66)	0.71
Authority/influence	4.97 (4.97)	0.76
Career enablers		
Practical/creative skills	4.63 (0.91)	0.76
Self/other skills	4.93 (0.79)	0.78
Career drivers		
Career purpose	5.34 (0.72)	0.78
Career directedness	4.68 (0.86)	0.72
Career venturing	4.76 (0.94)	0.68
Career harmonisers		
Self-esteem	5.09 (0.81)	0.77
Behavioural adaptability	4.92 (0.79)	0.83
Emotional literacy	4.52 (0.96)	0.76
Social connectivity	5.04 (0.76)	0.77
UWES		
Vigour	4.28 (1.19)	0.89
Dedication	4.11 (1.61)	0.92
Absorption	3.97 (1.34)	0.90
OCS		
Work foci	3.75 (0.58)	0.04
Job foci	3.68 (0.50)	0.67
Occupational foci	3.78 (0.60)	0.65
Career foci	3.81 (0.58)	0.82
Organisational foci	3.18 (0.74)	0.93

related dispositions canonical construct variate. Table 3 shows that the psychological career meta-capacities construct canonical variate explains 25% ($Rc^2 = 0.25$;

moderate practical effect) of the variance in the retention-related dispositions construct canonical variate.

Table 2 shows that the psychological career meta-capacities canonical construct variate was able to predict only 4% (small practical effect) of the variance in the original work engagement and organisational commitment foci variables. The retention-related dispositions canonical construct variate was able to predict only 6% (small practical effect) of the variance in the original psychological career resources variables. Neither of the two canonical variate constructs was thus found to be a good overall predictor of the opposite canonical construct variate. By contrast, each canonical construct variate was a stronger predictor of its own construct variables.

Overall, it appears from the cross-loadings that the psychological career meta-capacity variety/creativity and career directedness variables contributed the most in explaining the variance in the retention-related dispositions canonical variate. The career foci and vigour variables contributed the most in explaining the variance in the psychological career meta-capacities canonical variate.

Structural equation modelling (SEM)

On the grounds of the significant relationships indicated between the independent and dependent canonical construct variates, and thus using the results of the canonical correlation analysis as the baseline measurement model, three structural equation models were investigated.

The initial baseline model (as shown in Table 3) shows a poor fit, with a chi-square of 437.93 (97 *df*); $CMIN/df = 4.52$; $p = 0.000$; $NFI = 0.84$; $RFI = 0.78$; $IFI = 0.87$; $TLI = 0.82$; $CFI = 0.87$ and $RMSEA = 0.10$. The second model (as shown in Table 4) shows a 92% improvement in the model ($NFI = 0.92$) and moderate fit, with a chi-square of 132.18 (40 *df*); $CMIN/df = 3.31$; $p = 0.000$; $RFI = 0.87$; $IFI = 0.94$; $TLI = 0.91$; $CFI = 0.94$; and $RMSEA = 0.09$.

The third model (as shown in Table 3) shows a 96% improvement in the model ($NFI = 0.96$) and good fit, with a chi-square of 54.93 (26 *df*); $CMIN/df = 2.11$; $p = 0.00$; $RFI = 0.93$; $IFI = 0.98$; $TLI = 0.96$; $CFI = 0.98$, $RMSEA = 0.06$ and $SRMR = 0.06$.

Overall, model 3 is a two-factor model in which variety/creativity, growth/development, practical/creative skills and self/other skills (career enablers), career directedness and career venturing (career drivers) and self-esteem loaded on to one factor (psychological career meta-capacities), and the organisational commitment foci variable (career foci) and the work engagement variables (vigour and absorption) loaded on to a second factor (retention-related dispositions).

Psychological career meta-capacities in relation to employees' retention-related dispositions

Table 2: Standardised canonical correlation analysis results for the first canonical function variates ($N = 318$)

Variate/variables	Canonical coefficients (weights)	Canonical loading (R_c) (structure correlations)	Canonical cross-loadings
Set of independent variables: PCRI			
Career preferences			
Stability/expertise	-0.35	0.10	0.05
Managerial	0.41	0.34	0.17
Variety/creativity	0.41	0.62	0.31
Independence/autonomy	-0.22	0.29	0.15
Career values			
Growth/development	0.30	0.46	0.23
Authority/influence	-0.06	0.30	0.15
Career enablers			
Practical/creative skills	0.04	0.51	0.26
Self/others skills	0.29	0.50	0.25
Career drivers			
Career purpose	-0.17	0.37	0.18
Career directedness	0.33	0.58	0.29
Career venturing	0.07	0.47	0.24
Career harmonisers			
Self-esteem	0.26	0.44	0.22
Behavioural adaptability	0.28	0.45	0.23
Emotional literacy	-0.13	0.06	0.03
Social connectivity	-0.59	-0.04	-0.03
Independent canonical variate: psychological career meta-capacities construct			
Shared variance: 0.17++			
Overall Rc^2 : 0.25++			
Redundancy index: 0.04+			
Set of dependent variables: UWES, OCS			
OCS			
Job foci	-0.22	0.17	0.09
Occupational foci	-0.36	0.44	0.22
Career foci	1.02	0.82	0.41
Organisational foci	-0.20	0.27	0.13
UWES			
Vigour	0.57	0.55	0.28
Dedication	-0.00	0.43	0.22
Absorption	0.18	0.52	0.26
Dependent canonical variate: retention-related dispositions construct			
Shared variance: 0.25++			
Overall Rc^2 : 0.25++			
Redundancy index: 0.06+			

+ $Rc^2 \leq 0.12$ (small practical effect size)

++ $Rc^2 \geq 0.13 \leq 0.25$ (moderate practical effect size)

+++ $Rc^2 \geq 0.26$ (large practical effect size)

Table 3: Structural equation modelling results: summary of fit statistics

Model	CMIN	Df	CMIN/df	p	NFI	RFI	IFI	TLI	CFI	RMSEA	SRMR	CMIN
1	437.93	97	4.52	0.000	0.84	0.78	0.87	0.82	0.87	0.10		
2	132.18	40	3.31	0.000	0.92	0.87	0.94	0.91	0.94	0.09		-305.75
3	54.93	26	2.11	0.001	0.96	0.93	0.98	0.96	0.98	0.06	0.06	-77.25

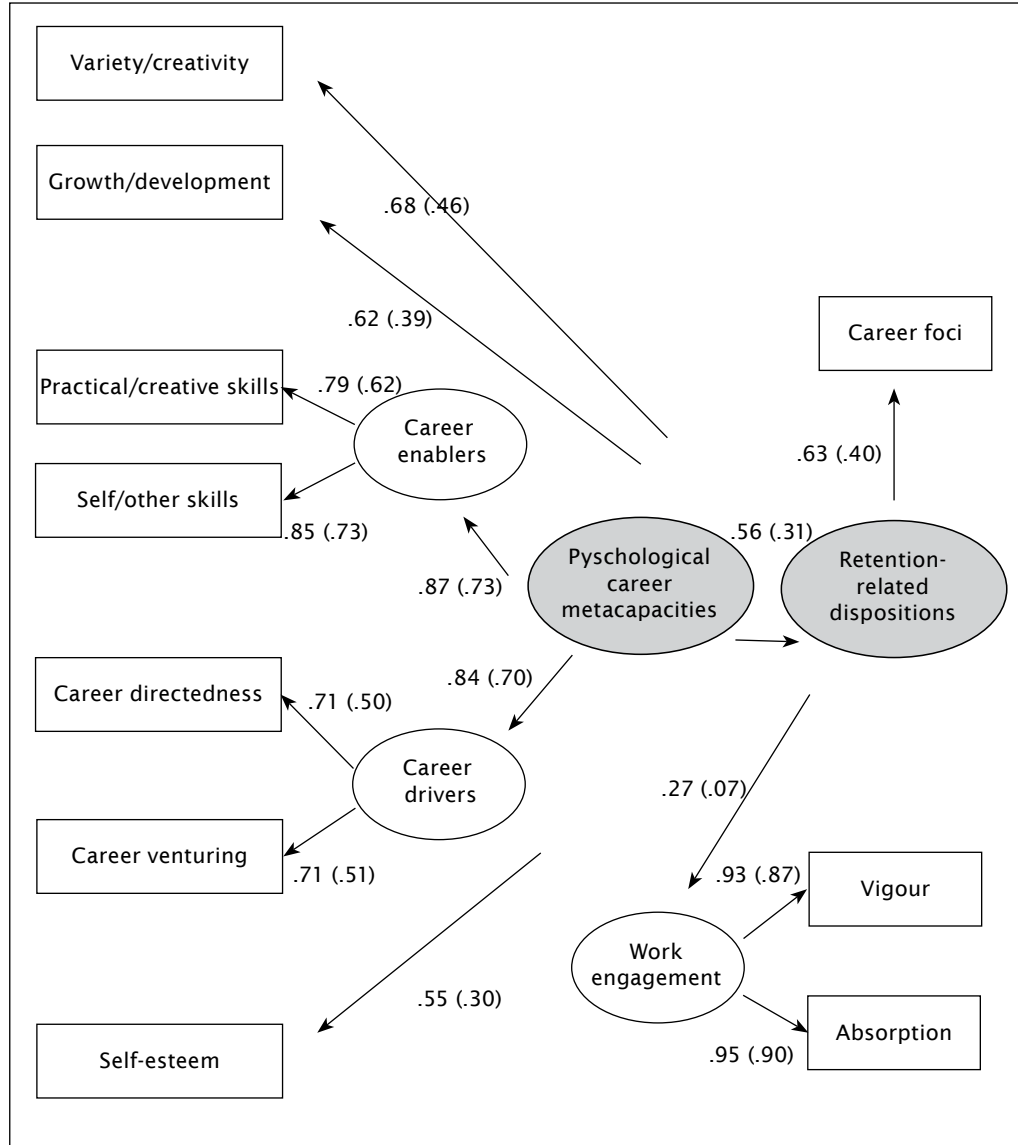
Note: CMIN(χ^2) = chi-square; df = degrees of freedom; p = significance level; NFI = Bentler-Bonett normed fit index; RFI = relative fit index; IFI = incremental fit index; TLI = non-normed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation; SRMR = standardised root mean square residual

Figure 1 indicates the standardised path coefficient estimates between the psychological career meta-capacities construct and its variables and the standardised path coefficient estimates between the retention-related disposition construct and its variables, work engagement and organisational commitment foci. The standardised path coefficient estimates between the psychological career meta-capacities construct and the retention-related dispositions construct are also indicated. Figure 1 also depicts the standardised path coefficients ($p \leq 0.001$).

The model fit (shown in Figure 1) indicates that the model explains 31% (large practical effect) of the variance in the retention-related disposition construct comprising organisational commitment foci (career foci) and work engagement (vigour and absorption). In terms of relative importance, the variance in the psychological career meta-capacities construct is mostly explained by the following psychological career resources variables: the career preference variety/creativity and career value growth/development, the career enablers (practical/creative skills), the career drivers (career directedness and career venturing) and the career harmoniser self-esteem.

Figure 1 shows that the career enablers (practical/creative skills and self/other skills) and the career drivers (career directedness and career venturing) explain 76% and 70% respectively of the variance in the psychological career meta-capacities construct. The self-esteem variable contributed the least in explaining the variance (30%) in the psychological career meta-capacities construct. The career foci variable contributed the most in explaining the variance (40%) in the retention-related dispositions construct. The work engagement variable contributed the least in explaining the variance in the retention-related dispositions construct (7%). Vigour (87%) and absorption (90%) significantly (very large practical effect) explained the variance in the work engagement variable.

Psychological career meta-capacities in relation to employees' retention-related dispositions



Note: All standardised path coefficient estimates *** $p \leq 0.001$. The squared multiple correlations (R^2) are shown in brackets.

Figure 1: Final structural model (3) linking the psychological career meta-capacities construct variables to the retention-related dispositions construct variables

Discussion

Overall, the results suggest that the psychological career meta-capacities construct (especially variety/creativity and career directedness) significantly contributed to explaining the participants' retention-related dispositions (career foci, vigour and absorption). In agreement with the reasoning of Savickas et al. (2009) and Rossier et al. (2012), it appears that the set of psychological career resources reflected in the participants' psychological career meta-capacities profile (as highlighted in Figure 1), may strongly influence other career or work-related outcomes such as the participants' commitment to and engagement in their careers in the organisation. People's psycho-social self-regulatory career capacities are deemed to be critical to the career development process (Savickas & Porfeli 2012), and according to the findings of the present study, important in increasing individuals' commitment and engagement.

It appears from the results that addressing the psychological needs underlying the participants' desire for variety/creativity, growth and development, career directedness (career goal clarity) and career venturing (willingness to explore new career/job opportunities and need for career mobility) and developing their career-related practical/creative skills, self/other skills and self-esteem, may increase their commitment to their careers and their levels of vigour and absorption (engagement). Employees who experience high levels of skills variety in their jobs are more likely to remain with the employing organisation (De Vos & Meganck 2007; Lesabe & Nkosi 2007). The reason for this could be that participants use this skills variety to develop their ability to positively connect with their organisation. Skills variety has also been shown to be related to the feelings of a sense of belonging and attachment to the organisation (Meyer & Allen 1997). The variety/creativity career preference describes individuals' need for careers that allow them to work on a variety of tasks that will require the use of present skills, abilities and knowledge and the development of new ones. When these individuals engage in repetitive tasks, they may end up being bored by routine jobs. Schaufeli & Bakker (2004) also found that if individuals experience variety in their jobs, they are more likely to be engaged. Research by Crawford, LePine & Rich (2010) also suggests that job demands that represent challenges and promote mastery, personal growth or future gains, such as higher levels of job responsibility, are significantly associated with work engagement.

Research by Döckel, Basson & Coetzee (2006) and João (2010) also found the need for career growth and advancement opportunities and challenging work to be significant factors that prevent professionally qualified employees leaving their organisations. Because individuals need to expand in their careers, discussing career development goals with employees can be beneficial in retaining them. Jiang & Klein (2000) also found that employees stay in organisations that promote career

Psychological career meta-capacities in relation to employees' retention-related dispositions

opportunities through learning and that afford them the opportunity to apply newly acquired skills in the organisation. Learning, developing and applying new knowledge and skills in the workplace have been found to be related to individuals' perceptions of subjective career success (Du Toit & Coetzee 2012). Research has shown that perceptions of the organisation's adherence to career-oriented practices such as training and development are positively related to commitment, which may lead to higher chances of retention (Baruch 2004). Organisations that provide their employees with such opportunities will thus be able to increase their chances of retaining valuable staff members.

The development of enabling career meta-capacities (practical/creative skills and self/other skills) and high levels of self-esteem appears to be crucial in increasing individuals' commitment to and engagement in their careers in the organisation. Career decision-making takes place in a relational context (Coetzee 2008; Phillips, Christopher-Sisk & Gravino 2001), which requires well-developed self-management and interpersonal skills. Practical intelligence and creative intelligence are required to implement career options and to make them work innovatively and creatively (Bay & Lim 2006; Coetzee 2008). People who have access to personal (psycho-social) resources at work tend to have a greater sense of self-worth, which places them in a better position to invest significant time and effort in pursuing their work activities, and makes them more likely to achieve career success (Hobföll 2002), which in turn may enhance their levels of commitment. People with high levels of psycho-social resources may be willing to seek more feedback from supervisors, create social networks in the organisation, which may help them to access relevant information, and obtain social support in the successful pursuit of their careers (Vandenberghe & Panaccio 2012).

The results further suggest that career directedness positively influences the participants' career commitment and sense of vigour. Having clarity about one's future career options and goals (career directedness) may lead to high levels of affective and normative commitment (Ferreira 2010). This is also confirmed by Meyer and Allen (1997), who indicated that role clarity and clarity on the goals of both the organisation and the individual do influence organisational commitment.

Conclusions, implications and recommendations

The overall findings of the study add to the retention and career literature through the identification of the psychological career meta-capacities that significantly influence employees' retention-related dispositions (their work engagement and commitment to career foci). The results suggest that favourable organisational

conditions and career development support practices that provide employees with a variety of challenging tasks they desire, and that allow them to think creatively and innovatively, may help to increase their commitment to their careers in the organisation and their work engagement. The results further suggest that managers and human resource professionals involved in staff retention should pay particular attention to career development support practices that address employees' needs for career growth, advancement opportunities and challenging work. Considering the fact that participants were in the establishment life/career stage, it is not surprising to find a strong desire for further growth and development opportunities. Coetzee (2008) reported similar results. According to Super's career stages, middle and late early-adulthood represent the stage during which the life composition of young adults becomes more established as they begin to settle down and become more committed to contributing towards their careers and organisations (Greenhaus, Callanan & Godshalk 2010).

It is recommended that organisations should work on becoming the employer of choice and developing clear career paths and career mobility (venturing) opportunities, especially for women, because more females are now entering the workplace. Career development should also assist these employees to develop the practical and creative skills they need to envision and plan their careers, and the personal and interpersonal management skills they need to manage their careers successfully in the organisation. Practical/creative skills relate to what De Fillippi and Arthur (1994) refer to as people's career identity ('knowing how' skills), while their career directedness relates to their career insight ('knowing why'). These career meta-capacities are regarded as being essential for achieving career success (Coetzee 2008; Verbruggen 2012) in the contemporary workplace. The results of the present study suggest that when individuals have confidence in their self-management and interpersonal relation skills in terms of managing their career development, they are likely to be more highly engaged in their jobs. The association between the participants' self/other skills and their overall level of work engagement appears to be significant in the retention context, because interpersonal relationship skills are viewed as critical for retention purposes (Kukano 2011). Interpersonal relationships at work relate to individuals' sense of job-embedded fit and a sense of belonging and commitment to the organisation (Ferreira 2012).

Since the present study was restricted to respondents predominantly employed in the service industry in the field of industrial and organisational psychology, the findings cannot be generalised to other occupational contexts. Given the exploratory nature of this study, associations between the participants' career meta-capacities (psychological career resources) and their retention-related dispositions (work

Psychological career meta-capacities in relation to employees' retention-related dispositions

engagement and organisational commitment foci) were thus interpreted rather than being established. Broader samples across various occupational, race, gender and age groups and economic sectors need to be researched before conclusions can be drawn about the relationship between employees' career meta-capacities and their retention-related dispositions. In the employment equity context, the findings provide valuable pointers for the design of career development practices aimed at retaining black females in the early career stage of their lives.

References

- Arbuckle, J.L. 1995–2009. *Amos 18 User's Guide*. Crawfordville, FL: Amos Development Corporation.
- Arthur, M.B., Khapova, S.N. & Widerrom, C.P.M. 2005. 'Career success in a boundaryless career world', *Journal of Organisational Behaviour*, 26: 177–202.
- Aryee, S., Chay, Y. & Chew, J. 1994. 'An investigation of the predictors and outcomes of career commitment in the three career stages', *Journal of Vocational Behaviour*, 44: 1–16.
- Baruch, Y. 2004. 'Transforming careers: From linear to multi-directional career paths', *Career Development International*, 9(1): 58–73.
- Bay, S.G.K. & Lim, K.M. 2006. 'Correlations of multiple intelligences and emotional intelligence: A closer analysis of theoretical assumptions', *Korean Journal of Thinking and Problem Solving*, 16(1): 53–64.
- Bentein, K., Vandenberghe, C., Vandenberg, R. & Stinglhamber, F. 2005. 'The role of change in the relationship between commitment and turnover: A latent growth modelling approach', *Journal of Applied Psychology*, 90(3): 468–48.
- Brundage, H. & Koziel, M. 2010. 'Retaining top talent: Still a requirement for firms', *Journal of Accountancy*, May: 38–44.
- Burke, R.J. & Ng, E. 2006. 'The changing nature of work and organisations: Implications for human resource management', *Human Resource Management Review*, 16: 86–94.
- Caldwell, D., Chatman, J. & O'Reilly, C. 1990. 'Building organisational commitment: A multifirm study', *Journal of Occupational Psychology*, 63: 245–261.
- Chabault, D., Hulin, A. & Soparnot, R. 2012. 'Talent management in clusters', *Organizational Dynamics*, 41: 327–335.
- Chalofsky, N. & Krishna, V. 2009. 'Meaningfulness, commitment, and engagement: The intersection of a deeper level intrinsic motivation', *Advances in Developing Human Resources*, 11: 189–203.
- Coetzee, M. 2008. 'Psychological career resources of working adults: A South African survey', *South African Journal of Industrial Psychology*, 34(2): 10–20.
- Coetzee, M. & Bergh, Z.C. 2009. 'Psychological career resources and subjective work experiences of working adults: An exploratory study', *Southern African Business Review*, 13(2): 1–31.

- Coetzer, C.F. & Rothmann, S. 2007. 'Job demands, job resources and work engagement of employees in a manufacturing organisation', *Southern African Business Review*, 11(1): 17–32.
- Cohen, J. 1992. 'Quantitative methods in psychology: A power primer', *Psychological Bulletin*, 112(1): 153–159.
- Colarelli, S.M. & Bishop, R.C. 1990. 'Career commitment functions, correlates and management', *Group and Organisation Studies*, 15(2): 158–176.
- Converse, P.D., Pathak, J., DePaul-Haddock, A.M., Gotlib, T. & Merbedone, M. 2012. 'Controlling your environment and yourself: Implications for career success', *Journal of Vocational Behaviour*, 80: 148–159.
- Crawford, E.R., LePine, J.A. & Rich, B.L. 2010. 'Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test', *Journal of Applied Psychology*, 95: 834–848.
- De Fillippi, R.J. & Arthur, M.B. 1994. 'The boundary-less career: A competency based perspective', *Journal of Organisational Behaviour*, 15: 307–324.
- De Vos, A. & Meganck, A. 2007. 'What HR managers do versus what employees value: Exploring both parties' view on retention management from a psychological contract perspective', *Personnel Review*, 38(1): 45–60.
- Döckel, D. 2003. The effects of retention factors on organisational commitment: An investigation of high technology employees. Unpublished doctoral thesis, University of Pretoria, Pretoria.
- Döckel, A., Basson, J.S. & Coetzee, M. 2006. 'The effect of retention factors on organizational commitment: An investigation of high technology employees', *South African Journal of Human Resource Management*, 4(2): 20–28.
- Driver, M.J. 1982. 'Career concepts: A new approach to research', In Katz, R. (Ed.), *Career issues in Human Resource Management*. Englewood Cliffs, NJ: Prentice-Hall.
- Du Toit, D. & Coetzee, M. 2012. 'Exploring the perceived career success of staff in a South African science and engineering company', *Journal of Psychology in Africa*, 22(1): 96–105.
- Ebberwein, C.A., Krieshok, T.S., Ulven, J.C. & Prosser, E.C. 2004. 'Voices in transition: Lessons on career adaptability', *Career Development Quarterly*, 52(4): 292–308.
- Ferreira, N. 2010. The relationship between psychological career resources and organisational commitment. Unpublished masters dissertation, University of Pretoria, Pretoria.
- Ferreira, N. 2012. Constructing a psychological profile for staff retention. Unpublished doctoral thesis, University of South Africa, Pretoria.
- Ferreira, N., Basson, J. & Coetzee, M. 2010. 'Psychological career resources in relation to organisational commitment: An exploratory study', *South African Journal of Human Resources*, 8(1): 284–294.
- Field, L.K. & Buitendach, J.H. 2011. 'Happiness, work engagement and organisational commitment of support staff at a tertiary education institution', *South African Journal of Industrial Psychology*, 37(1): 946–956.

Psychological career meta-capacities in relation to employees' retention-related dispositions

- Fugate, M., Kinicki, A. & Ashforth, B. 2004. 'Employability: A psycho-social construct, its dimensions, and applications', *Journal of Vocational Behaviour*, 65: 14–38.
- Garson, G.D. 2009. Structural equation modeling. [Online] Available at: <http://www2.uta.edu/sswmindel/S6367/SEM/Principles%20of%20SEM.pdf>. Accessed: 20 April 2012.
- Greenhaus, J.H., Callanan, G.A. & Godshalk, V.M. 2010. *Career Management* (4th edition). New York: Sage.
- Griffin, B. & Hesketh, B. 2005. 'Adaptable behaviours for successful work and career adjustment', *Australian Journal of Psychology*, 55(2): 65–73.
- Hair, J., Black, W., Babin, B. & Anderson, R. 2010. *Multivariate Data Analysis*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Hobföll, S.E. 2002. 'Social and psychological resources and adaptation', *Review of General Psychology*, 6: 307–324.
- Jackson, L.T.B., Rothmann, S. & Van de Vijver, F.J.R. 2006. 'A model of work-related well-being for educators in South Africa', *Stress and Health*: 22: 263–274.
- Jiang, J.J. & Klein, G. 2000. 'Supervisor support and career anchor on the career satisfaction of the entry-level information systems professional', *Journal of Management Information Systems*, 16(3): 219–240.
- João, T.F. 2010. The relationship between perceived career mobility, career mobility preference, job satisfaction and organisational commitment. Unpublished masters dissertation, University of South Africa, Pretoria.
- Judge, T.A. & Ferris, G.R. 1992. 'The elusive criterion of fit in human resource staffing decisions', *Journal of Business Ethics*, 15: 47–67.
- Kerr-Phillips, B. & Thomas, A. 2009. 'Macro and micro challenges for talent retention in South Africa', *South African Journal of Human Resources Management*, 1(17): 82–91.
- Kim, N. 2005. 'Organisational interventions influencing employee career development preferred by different career success orientations', *International Journal of Training and Development*, 9(1): 47–61.
- Kniveton, B.H. 2004. 'Managerial career anchors in a changing business environment', *Journal of European Industrial Training*, 28(7): 564–573.
- Kukano, C. 2011. Implementing personnel retention strategies at Cor Jesu College in the Philippines. Unpublished masters dissertation, University of South Africa, Pretoria.
- Lee, K., Carswell, J.J. & Allen, N.J. 2000. 'A meta-analytic review of occupational commitment: Relations with person- and work-related variables', *Journal of Applied Psychology*, 85: 799–811.
- Lesabe, R.A. & Nkosi, J. 2007. 'A qualitative exploration of employees' views on organisational commitment', *South African Journal of Human Resource Management*, 5(1): 35–44.
- Lumley, E. 2009. Exploring the relationship between career anchors, job satisfaction and organisational commitment. Unpublished masters dissertation, University of South Africa, Pretoria.
- Mallol, C., Holtom, B. & Lee, T. 2007. 'Job embeddedness in a culturally diverse environment', *Journal of Business Psychology*, 22: 35–44.

- McArdle, S., Waters, L., Briscoe, J.P. & Hall, D.T. 2007. 'Employability during unemployment: Adaptability, career identity and human and social capital', *Journal of Vocational Behaviour*, 71: 247–264.
- Mendes, F. & Stander, M. 2011. 'Positive organisation: The role of leader behaviour in work engagement and retention', *South African Journal of Industrial Psychology*, 37(1): 29–41.
- Meyer, J.P. & Allen, N.J. 1997. *Commitment in the Workplace: Theory, Research and Application*. Thousand Oaks, CA: Sage.
- Mitchell, T., Holtom, B. & Lee, T. 2001a. 'How to keep your best employees: The development of an effective retention policy', *Academy of Management Executive*, 15(4): 96–108.
- Mitchell, T., Holtom, B. & Lee, T.W., Sablinski, C.J. & Erez, M. 2001b. 'Why people stay: Using job embeddedness to predict voluntary turnover', *Academy of Management Journal*, 44(6): 1102–1123.
- Mueller, C.W., Wallace, J.E. & Prince, J.L. 1992. 'Employee commitment', *Work and Occupations*, 19(3): 211–236.
- Peterson, D.K. 2003. 'The relationship between ethical pressure, relativistic moral beliefs and organisational commitment', *Journal of Managerial Psychology*, 18(6): 557–572.
- Phillips, S.D., Christopher-Sisk, E.K. & Gravino, K.L. 2001. 'Making career decisions in a relational context', *Counseling Psychologist*, 29(2): 193–213.
- Pretorius, A.A.S. & Roodt, G. 2004. 'Die verband tussen werknemertevredenheid en organisasieverbondenheid', *South African Journal of Industrial Psychology*, 30(3): 65–74.
- Puah, P. & Ananthram, S. 2006. 'Exploring the antecedents and outcomes of career development initiatives: Empirical evidence from Singaporean employees', *Research and Practice in Human Resource Management*, 14(1): 112–142.
- Roodt, G. 1997. 'Theoretical and empirical linkages between work-related commitment foci', *South African Journal of Industrial Psychology*, 23(2): 6–13.
- Rossier, J., Zecca, G., Stauffer, S.D., Maggiori, C. & Dauwalder, J. 2012. 'Career Adapt-Abilities Scale in a French-speaking Swiss sample: Psychometric properties and relationships to personality and work engagement', *Journal of Vocational Behaviour*, 80: 734–743.
- Savickas, M.L. 2011. 'New questions for vocational psychology: Premises, paradigms, and practices', *Journal of Career Assessment*, 19(3): 251–258.
- Savickas, M.L., Nota, L., Rossier, J., Dauwalder, J.P., Duarte, M.E. & Guichard, J. 2009. 'Life designing: A paradigm for career construction in the 21st century', *Journal of Vocational Behavior*, 75: 239–250.
- Savickas, M L. & Porfeli, E.J. 2012. 'Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries', *Journal of Vocational Behavior*, 80: 661–673.
- Schaufeli, W.B. & Bakker, A.B. 2003. *Utrecht Work Engagement Scale Manual*. Preliminary manual. Utrecht: Occupational Health Psychology Unit, Utrecht University.

Psychological career meta-capacities in relation to employees' retention-related dispositions

- Schaufeli, W.B. & Bakker, A. B. 2004. 'Job demands, job resources and their relationship with burnout and engagement: A multi-sample study', *Journal of Organisational Behaviour*, 25: 293–315.
- Schaufeli, W.B., Bakker, A.B. & Salanova, M. 2006. 'The measurement of work engagement with a short questionnaire: A cross-national study', *Educational and Psychological Measurement*, 66(4): 701–716.
- Schneider, B., Goldstein, H.W. & Smith, D.B. 1995. 'The ASA framework: An update', *Personnel Psychology*, 48: 747–773.
- Storm, L. & Roodt, G. 2002. 'Die verband tussen organisasiesosialisering en organisasieverbondenheid', *Tydskrif vir Bedryfsielkunde*, 28(1): 14–21.
- Storm, K. & Rothman, S. 2003. 'A psychometric analysis of the Utrecht Work Engagement Scale in the South African Police Service', *South African Journal of Industrial Psychology*, 29(4): 62–70.
- Tanova, C. & Holtom, B.C. 2008. 'Using job embeddedness factors to explain voluntary turnover in four European countries', *International Journal of Human Resource Management*, 19(9): 1553–1568.
- Valentine, S., Godkin, L. & Lucero, M. 2002. 'Ethical context, organizational commitment and person–organization fit', *Journal of Business Ethics*, 41: 349–360.
- Vandenberghe, C. & Panaccio, A. 2012. 'Perceived sacrifice and few alternatives commitments: The motivational underpinnings of continuance commitment's subdimensions', *Journal of Vocational Behaviour*, 81: 59–72.
- Van der Heijde, C.M. & Van der Heijden, B.I.J.M. 2006. 'A competence-based and multidimensional operationalisation of employability', *Human Resource Management*, 45(3): 449–476.
- Van Dyk, J. & Coetzee, M. 2012. 'Retention factors in relation to organisational commitment in a South African medical and information technology services company', *South African Journal of Human Resource Management*, 10(2).
- Verbruggen, M. 2012. 'Psychological mobility and career success in the “new” career climate', *Journal of Vocational Behaviour*, 81: 289–297.