

Organisational commitment and its relation to career anchors

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ABSTRACT

The changing and unstable workplace and its profoundly negative impact on employee loyalty, morale, motivation and job security have led to a renewed interest in the motives and values that determine individuals' psychological attachment to their organisations and occupations. The objective of the present study was to determine the relationship between individuals' organisational commitment as measured by the three-dimensional Organisational Commitment Questionnaire, and their career anchors, as measured by the Career Orientations Inventory. A convenience sample of 157 part-time honours students from a higher education institution was used. Results of a canonical correlation analysis indicated that the career anchors explain only 0.03% of the commitment variance, while the commitment variables explain only 0.4% of the career anchors variance. A number of significant relationships between the two variables are reported. The results also showed significant differences between the career anchors of males and females. The implications of the findings are discussed.

Key words: affective commitment, career anchors, career orientations, continuance commitment, normative commitment, organisational commitment, psychological attachment

INTRODUCTION

Industrial psychologists and human resource practitioners have long been concerned with employees' psychological attachment to the organisation in the light of economic events such as mergers, acquisitions or layoffs, all of which change the nature of the relationship between employees and the organisation (Baruch 2004; Bentein, Vandenberghe, Vandenberg & Stinglhamber 2005; Luthans & Sommer 1999). Structural arrangements around a small group of core employees and a larger group of peripheral workers, who have no security, benefits or strong involvement in

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organisational life, may lead to psychological contracts with less reciprocal commitment to organisations from employees (Cunha 2002). In addition, contingent employment arrangements, such as part-time working and short-term contracts, often result in less loyalty, dedication, commitment and willingness to expend extra effort on behalf of the organisation (Burke & Cooper 2002; Cunha 2002; Woodd 2000).

Research indicates that individuals' career motives and values, as described by their career anchors, have an impact on individuals' career decision-making and their psychological attachment to an occupation (Feldman & Bolino 2000; Kniveton 2004; Schein 1996). Career anchors are a key determinant of an individual's choice of a career or workplace. Individuals often become aware of their career anchor when their self-image is boosted or damaged by compulsory career moves, such as promotion or discharge (Schein 1996). The career anchor has the function of organising individuals' experiences, identifying individuals' long-term contributions, and establishing criteria for success by which individuals can measure themselves. In addition to helping understand the motives for choosing an occupation, career anchors provide a useful framework for examining how individuals' career anchors relate to their organisational commitment levels (Smit 1992).

In the context of this study, organisational commitment is regarded as an outcome of the career choices that are determined by individuals' career anchors. It is also assumed that the two concepts assess different attitudinal constructs. Although the type of data collected by research on career anchors and organisational commitment assesses either attitudes or values, the relationship between the two concepts has not been clearly defined (Smit 1992). Theoretically, attitudes and values tap internal concepts that are different from personality in that both are learned and acquired by exposure to outside stimuli. To date, however, there has been relatively little research on how individuals' organisational commitments in the multi-cultural South African organisational context relate to their career anchors. This research sets out to determine how the organisational commitment levels of race and gender groups relate to their career anchors and whether there are differences between the organisational commitment levels and career anchors of the respective race and gender groups. With more women entering the workplace, this study is considered to contribute important knowledge. The career anchors typology of Schein (1978, 1990, 1996) is used to determine which career anchors relate to the organisational commitment dimensions as proposed by Meyer & Allen (1991).

ORGANISATIONAL COMMITMENT

The concept of organisational commitment has attracted considerable interest in an attempt to understand and clarify the intensity and stability of an employee's dedication to the organisation (Mester, Visser, Roodt & Kellerman 2003). Researchers have distinguished between three approaches to study commitment, namely from

attitudinal, behavioural and motivational perspectives. In the context of this study, organisational commitment is regarded as an attitude, as it refers to the relatively stable mindsets of individuals towards their organisation (Allen & Meyer 1990). Meyer & Allen's (1991) three component model of organisational commitment is therefore of relevance to this research.

There is a considerable body of literature relating to the concept of organisational commitment. Although various definitions have been offered (Becker 1960; Buchannan 1974; Grusky 1966; Porter & Lawler 1968; Meyer & Allen 1991; Pretorius & Roodt 2004; Salancik 1977; Sheldon 1971), the common theme is the notion that commitment is the psychological bond of the employee to the organisation (Humphreys, Weyant & Sprague 2003). Meyer & Allen (1991) propose a distinction between the dimensions of affective commitment, continuance commitment and normative commitment. This reflects a difference between a preference to stay with the present organisation arising out of a sense of emotional attachment (affective commitment), compared to one rooted in a sense of economic necessity (continuance commitment) or of moral obligation (normative commitment) (Gallie, Felstead & Green 2001). According to Gbadamosi (2003), the more favourable individuals' attitudes toward the organisation are, the greater their acceptance of the goals of the organisation, as well as their willingness to exert more effort on behalf of the organisation.

Organisational commitment has also been related to occupational commitment. According to Werkmeister (1967), commitment is a manifestation of the individual's own self, and reflects value standards that are basic to the individual's existence as a person. According to Meyer, Allen & Smith (1993), the nature of an individual's involvement in an occupation is quite different depending on which form of commitment is predominant. An individual that is affectively committed (that is, who has a strong desire to remain in the occupation) was found to be more likely than someone who is not as attached to keep abreast of developments in the occupation and to remain within the organisation. The same was found to be true of individuals that have a strong normative commitment (that is, who have a sense of obligation to remain). In contrast, individuals that have a strong continuance commitment (that is, who recognise high costs associated with leaving the occupation) were found to be less inclined than those who remain for other reasons to involve themselves in occupational activities apart from those required to continue membership (Meyer et al. 1993).

Affective commitment develops when involvement in the occupation proves to be a satisfying experience (for example, by providing the opportunity to do satisfying work or affording the opportunity to develop valued skills). Continuance commitment develops when the individual makes investments (such as the time and effort put into acquiring occupation-specific skills) that would be lost or reduced in value if he or she were to change occupations. Finally, normative commitment develops as a result

of the internalisation of normative pressures to pursue a course of action, and the receipt of benefits that create a sense of obligation to reciprocate. For example, being a member of a family with a history of involvement in a particular occupation or receiving financial support to pursue a career could contribute to the development of normative commitment (Meyer et al. 1993). Furthermore, Bentein et al. (2005) found evidence for a linearly declining change in affective commitment and normative commitment over time.

CAREER ANCHORS

The concept of career anchor refers to a pattern of self-perceived talents and abilities, values and motives that influences a person's career-related decisions (Schein 1974, 1975, 1996). Subsequent research conducted by DeLong (1982) regarded the career anchor as a composite of one's career orientation and self-perceived talents. In the context of this study, the emphasis is on career orientation as a central part of the concept of career anchors for which measurement could be operationalised by means of the Career Orientations Inventory developed by Schein (1990). This is in line with other research on career anchors conducted by, for example, Rothmann (2001) and Van Vuuren & Fourie (2000). Kniveton (2004) and Nordvik (1996) point out that the concept of career anchors does not attempt to categorise the whole person but rather outlines individuals' orientation towards one focused aspect of their lives, namely their work. The concept of career anchors takes into account the occupational experiences of individuals and any changes in their work circumstances (Kniveton 2004).

The main utility of career anchors seems to be that it becomes a stabilising force in the total personality that guides and constrains future career decisions (Schein 1996; Van Vuuren & Fourie 2000). As such, career anchors affect the way in which individuals respond to events and experiences at work (Igbaria, Greenhaus & Parasuraman 1991; Ramakrishna & Potosky 2003). For example, an individual whose dominant career anchor is organisational stability might be expected to respond more negatively to news of a corporate restructuring or downsizing than a person whose dominant anchor is autonomy (Ramakrishna & Potosky 2003). Mignonac & Herrbach (2003) found that willingness to change jobs was linked to career orientation, whereas movement close to the current job was linked to immediate job satisfaction. Research conducted by Hsu, Jiang, Klein & Tang (2003) has shown that the knowledge of career anchors can provide the employer with a means of providing appropriate incentives to retain employees with very different career motivations.

Although Schein (1978) argued that, by definition, an individual could maintain only one dominant career anchor, his own empirical evidence suggested that individuals could hold more than one career anchor strongly. Given that the career anchor includes needs, values and talents that surface to the top of a person's self-

image, it is plausible that there is room at the top for more than one anchor (Feldman & Bolino 1996; Ramakrishna & Potosky 2003). According to DeLong (1982) and Butler & Waldrup (1999) one to three anchors tend to cluster together to form an individual's career and work preferences. To date, empirical data have not eliminated the possibility that multiple career anchors may stabilise over time, thus resulting in multiple stable dominant career anchors (Feldman & Bolino 1996; Kniveton 2004; Ramakrishna & Potosky 2003). According to Butler & Waldrup (1999), composites of the eight categories of career anchors proposed by Schein (1975, 1978) and Derr (1980) can explain why people remain engaged in a certain job or are committed to an organisation.

Feldman & Bolino (1996) reconceptualised Schein's eight career anchors into three distinct groupings along with their inherent motivations, namely talent-based, need-based and value-based anchors. This provides a useful framework for the present study. The talent-based anchors consist of managerial competence (willingness to solve complex, whole-of-organisation problems and undertake subsequent decision-making), technical/functional competence (the achievement of expert status among peers) and entrepreneurial creativity (opportunity for creativity and identification of new businesses, products or services). The need-based anchors consist of security and stability (long-term employment for health benefits and retirement options), autonomy and independence (personal freedom in job content and settings) and lifestyle (obtaining balance between personal welfare and welfare of the family with respect to work commitments), while the value-based anchors consist of pure challenge (testing personal endurance through risky projects or physically challenging work) and service and dedication to a cause (working for the greater good of organisations or communities). Table 1 presents an overview of the eight career anchors and their underlying motivations.

The results of studies suggest that the most determining factor that encourages the highest level of organisational commitment is job satisfaction (Lok & Crawford 1999). Job satisfaction, in turn, was found to be positively associated with job involvement (Van Wyk, Boshoff & Cilliers 2003). Significant correlations were found between job involvement and the entrepreneurial, service dedication and lifestyle career anchors (Van Wyk et al. 2003). The findings of a study conducted by Valentine, Godkin & Lucero (2002) show that organisational commitment was positively related to person-organisation fit. Research also demonstrated that a conflict between the personal characteristics of employees and the attributes of their organisations is related to job dissatisfaction, low organisational commitment, substandard job performance, job stress and turnover (Judge & Ferris 1992; Peterson 2003; Schneider, Goldstein & Smith 1995). Finally, research showed that gender was important in predicting and explaining organisational commitment (Elizur & Koslowsky 2001; Mellor, Mathieu & Swim 1994; Pretorius & Roodt 2004). Marshall & Bonner (2003) also found that males and females focus on different career anchors.

Table 1: Characteristics of the eight career anchors (Schreuder & Coetzee 2006: 221)

CAREER ANCHOR	CHARACTERISTICS
<i>Talent based anchors</i>	
Technical/functional competence	<ul style="list-style-type: none"> ● Identity built around content of work the technical/functional skill in which the individual excels ● Challenging work that allows application of expertise <p><i>Rewards</i></p> <ul style="list-style-type: none"> ● Want to be paid according to skills level ● Opportunities for self development in particular field
General managerial competence	<ul style="list-style-type: none"> ● High levels of responsibility ● Challenging, varied and integrative work ● Leadership opportunities that allow contribution to organisation ● Measure self by pay level desire to be highly paid <p><i>Rewards</i></p> <ul style="list-style-type: none"> ● Bonuses for achieving organisational targets ● Promotion based on merit, measured performance or results ● Promotion to a position of higher responsibility rank, title, salary, number of subordinates, size of budget
Entrepreneurial creativity	<ul style="list-style-type: none"> ● Enjoy creating new products or services, building new organisations through financial manipulation, or by taking over an existing business and reshaping it in one's image ● Obsessed with the need to create, requiring constant new challenge <p><i>Rewards</i></p> <ul style="list-style-type: none"> ● Wealth ● Ownership ● Freedom and power
<i>Need based anchors</i>	
Autonomy/independence	<ul style="list-style-type: none"> ● Clearly delineated, time bound kinds of work within area of expertise ● Clearly defined goals which allow means of accomplishment to the individual ● Do not desire close supervision <p><i>Rewards</i></p> <ul style="list-style-type: none"> ● Pay for performance, bonuses ● Autonomy oriented promotion systems
Security/stability	<ul style="list-style-type: none"> ● Stable, predictable work ● Concerned about the context of the work and the nature of the work itself ● Prefer to be paid in steady, predictable increments based on length of service ● Benefit packages which emphasise insurance and retirement programmes <p><i>Rewards</i></p> <ul style="list-style-type: none"> ● Seniority based promotion systems with published ranks spelling out how long a person must serve in any given grade before promotion is preferred ● Recognition for loyalty and steady performance ● Assurance of further stability and steady employment
Lifestyle	<ul style="list-style-type: none"> ● Desire to integrate the needs of the individual, family and career ● Flexibility ● Organisational attitude that respects personal and family concerns and that makes renegotiation of the psychological contract possible <p><i>Rewards</i></p> <ul style="list-style-type: none"> ● Company benefits that allow options for traveling or moving when family issues permit, part time work if life concerns require it, sabbaticals, paternity and maternity leave, day care options, flexible work arrangements
<i>Value based anchors</i>	
Service/dedication to a cause	<ul style="list-style-type: none"> ● Work toward some important values of improving the world in some manner ● Prefer helping professions (e.g. nursing, teaching, ministry) <p><i>Rewards</i></p> <ul style="list-style-type: none"> ● Fair pay ● Recognition for one's contributions ● Opportunities to move into positions with more influence and freedom
Pure challenge	<ul style="list-style-type: none"> ● Pursue challenge for its own sake ● Jobs where one faces tougher challenges or more difficult problems, irrespective of the kind of problem involved ● Highly motivated <p><i>Rewards</i></p> <ul style="list-style-type: none"> ● Adequate opportunities for self tests

In view of the foregoing, it was hypothesised that organisational commitment (as a reflection of individuals' attitudes and value standards regarding the organisation) would correlate highest with the needs-based and values-based career anchors and lowest with talent-based career anchors. It was also hypothesised that gender and race would have an impact on the relation between career anchors and organisational commitment. The purpose of the study was therefore to establish whether individuals' organisational commitment depends upon their career anchors. More specifically, the goal was to investigate whether:

- There was a significant relationship between the three organisational commitment components as proposed by Allen & Meyer (1990) and Schein's (1990) eight career anchors.
- There were differences between gender and race groups regarding their organisational commitment levels and career anchors.

RESEARCH STRATEGY

Participants

The participants in this study were honours students in the subject field of Industrial and Organisational Psychology at a higher education institution. Although questionnaires were sent to 470 students, only 157 usable questionnaires were returned. Of the respondents, 20% were male and 80% were female. The sample comprised 61% blacks and 39% whites. Eighty-three per cent of the sample was employed part-time and 17% was in full-time employment. The mean age of the participants was 29.

Measuring instruments

Two measuring instruments, namely the Organisational Commitment Questionnaire (Meyer et al. 1993) and the Career Orientations Inventory (Schein 1990) were used in the present study. A biographical questionnaire was used to obtain personal details of the participants.

Organisational Commitment Questionnaire (OCQ)

Organisational commitment was measured using the three-dimensional Meyer et al. (1993) instrument, which was originally developed by Allen & Meyer (1990). The affective, continuance and normative organisational commitment scales each comprise six items, a modification of the original questionnaire. Meyer et al. (1993) report internal consistency reliability estimates (Cronbach's alphas) for affective commitment (0.82), continuance commitment (0.74) and normative

commitment (0.83). Responses were made on a seven-point scale and were averaged to yield composite commitment scores for each respondent. The instrument was considered to be psychometrically acceptable.

Career Orientations Inventory (COI)

Schein's (1990) Career Orientations Inventory (COI) was used to measure the construct of career anchors. It should be pointed out that the COI does not purport to measure career anchors as such, but rather career orientations. In an attempt to validate and refine Schein's (1978) career anchor model, DeLong (1982) found that the COI measured career attitudes, values and needs of individuals, but did not reflect individuals' perception of their talents. According to DeLong (1982), the COI measures a central part of the concept of career anchors, namely career orientation.

The inventory consists of a set of 40 items, all of which are considered to be of equal value and to which subjects respond in terms of how true the statement is (Schein 1990). The scale used is a summated rating in the form of a six-point Likert-type scale. Total scores obtained for each of the eight categories of career orientation were summed up and averaged to yield an individual score for each career orientation.

The level of validity of the questionnaire was considered adequate for the study, as it was being used to predict broad trends rather than individual differences (Kaplan 1990). Ellison & Schreuder (2000) report internal consistency reliability estimates for the technical/functional (0.59), general management (0.71), autonomy (0.75), security (0.78), entrepreneurship (0.75), service (0.73), pure challenge (0.70) and lifestyle (0.64) career orientation scales for a sample of 295 predominantly white managers. These internal consistency reliabilities, as measured by the Cronbach alpha coefficient, are moderately high, with the exception of somewhat lower reliabilities for the technical/functional and lifestyle career orientation scales. Since the purpose of this study was not to make individual predictions based on the COI, but rather to investigate certain relations between constructs, the instrument was considered to be psychometrically acceptable (Van Vuuren & Fourie 2000).

Procedure

Questionnaires were mailed to all honours students in the subject field of Industrial and Organisational Psychology using the postal facilities of the higher education institution. Each questionnaire had a covering letter inviting subjects to participate in the study and assuring them that their individual responses would remain confidential. Participants were requested to complete the questionnaires and return them by mail to the researchers using the return envelope. The questionnaires were scored electronically according to the instructions of the authors thereof.

Statistical analysis

The statistical analysis was carried out with the help of the SAS-programme (SAS Institute 2000). Cronbach alpha coefficients were used to assess the internal consistency of the measuring instruments (Clark & Watson 1995). Canonical analyses were performed to assess the overall correlation between the two sets of variables. The underlying principle of canonical correlation analysis is to develop a linear combination of two sets of variables and to maximise the correlation between the two sets (Becker 2005). Because a non-probability sample was used in this research, effect sizes (rather than inferential statistics) were used to decide on the significance of the findings. Thus, although a cut-off point of $p < 0.05$ was set, a practical effect size of $r > 0.30$ (medium effect) (Cohen 1988) was also considered to be able to interpret the practical significance of the findings (Hays 1994). Effect size is a standardised index that, in the case of tests on means, expresses the difference between the means in standard deviation units (Tredoux & Durrheim 2002). Finally, multivariate analyses of variance (MANOVA) were performed to test firstly, whether blacks differ from whites on the career orientation and organisational scales, and secondly, whether males differ from females on these scales.

RESULTS

As the sample for the present study included predominantly black females, the reliability of the questionnaire was tested for the total sample as well as for the black members of the sample. Table 2 reflects the reliability scores obtained for the 1990 version of the COI. The internal consistency reliabilities of the total sample, as measured by the Cronbach alpha coefficient, are moderately high, with the exception of somewhat lower reliabilities for the technical/functional, general management and lifestyle career orientation scales. For the black members of the sample, the scales appear to have an acceptable internal consistency, with the exception of the technical/functional; service and pure challenge scales. A desirable reliability coefficient would usually fall in the range of 0.8 to 0.9 (Tredoux & Durrheim 2002). However, reliabilities as low as 0.3 are quite acceptable in the case of individual testing when instruments are used to gather group data (Tredoux & Durrheim 2002). The internal consistency coefficients for the affective, continuance and normative commitment scales are generally acceptable.

The descriptive statistics of the various measures are shown in Tables 3 and 4. As far as the career orientation scales for the total sample are concerned, subjects scored the highest on the *service/dedication to a cause*, *pure challenge* and *lifestyle* scales and the lowest on the *general management* scale. Table 3 indicates that black subjects scored the highest on the *service*, *pure challenge* and *technical/functional* career orientation scales, whilst whites scored the highest on the *lifestyle*, *technical/functional*

Table 2: Reliability of the COI and OCQ

Scale	Cronbach alpha Total sample (N = 157)	Cronbach alpha Blacks (N = 96)
Career Orientations Inventory (COI)		
Technical/functional	0.41	0.28
General management	0.67	0.67
Autonomy	0.78	0.76
Security/stability	0.78	0.78
Entrepreneurial creativity	0.78	0.79
Service	0.73	0.57
Pure challenge	0.73	0.51
Lifestyle	0.68	0.61
Organisational Commitment Questionnaire (OCQ)		
Affective	0.76	0.69
Continuance	0.70	0.65
Normative commitment (revised)	0.83	0.82

and *pure challenge* career orientation scales. Both blacks and whites scored the lowest on the *security/stability*, *entrepreneurial* and *general management* scales. The *service/dedication to a cause* and *pure challenge* career orientations reflected the highest scores within both the male and female groups, with females showing a higher preference for the *service/dedication to a cause* career orientation. Females also showed a higher preference for the *lifestyle* career orientation in comparison with men, who showed a higher preference for the *autonomy* career orientation.

The mean scores for the three organisational commitment scales were above their respective scale midpoints. The affective, continuance and normative commitment mean scores were 4.2, 4.1 and 3.5 respectively for the total sample. The affective commitment scale obtained the highest score for males and females, as well as blacks and whites, followed by continuance organisational commitment. The normative commitment scale obtained the lowest score.

The first objective of the study was to determine the relationship between the three organisational commitment scales and the eight career orientation scales. Canonical correlation analyses were performed to assess the overall correlation between the eight career orientation scales and the three organisational commitment scales. In order to determine the number of statistically significant canonical correlations, Wilks Lambda's chi-square test was performed. Table 5 shows the results of Wilks Lambda's

Table 3: Descriptive statistics for blacks ($N = 96$) and whites ($N = 61$)

Variable	Race	Mean	Standard deviation	Standard error
Career Orientations Inventory (COI)				
Technical/functional career orientation	Total	4.29	0.72	0.084
	Black	4.53		
	White	4.20	0.087	
General management career orientation	Total	3.33	0.94	0.113
	Black	3.65		
	White	3.12	0.118	
Autonomy career orientation	Total	3.99	1.03	0.129
	Black	4.37		
	White	3.80	0.134	
Security/stability career orientation	Total	3.85	1.07	0.137
	Black	3.99		
	White	3.74	0.143	
Entrepreneurial creativity career orientation	Total	3.90	1.11	0.140
	Black	4.26		
	White	3.67	0.146	
Service career orientation	Total	4.48	0.95	0.100
	Black	4.88		
	White	4.15	0.104	
Pure challenge career orientation	Total	4.43	0.83	0.102
	Black	4.80		
	White	4.17	0.106	
Lifestyle career orientation	Total	4.32	0.93	0.106
	Black	4.46		
	White	4.23	0.110	
Organisational Commitment Questionnaire (OCQ)				
Affective commitment	Total	4.22	1.20	0.154
	Black	4.04		
	White	4.38	0.161	
Continuance commitment	Total	4.12	1.09	0.139
	Black	4.04		
	White	4.04	0.145	
Normative commitment	Total	3.48	1.42	0.185
	Black	3.22		
	White	3.68	0.193	

chi-square test based on the mean scores of the subjects on all variables. The first canonical correlation was found to be 0.337 (11% overlapping variance) and the second was 0.244 (6% overlapping variance), which can be regarded as small to medium in effect size. Data on the first two pairs of canonical variates appear in Table 5.

In order to interpret the meaning of each canonical variate pair, the factor structure method was used. Those variables that correlate highly with a canonical variate can

Table 4: Descriptive statistics for males ($N = 32$) and females ($N = 125$)

Variable	Race	Mean	Standard deviation	Standard error
Career Orientations Inventory (COI)				
Technical/functional career orientation	Total	4.29	0.72	0.121
	Male	4.57		
	Female	4.25		
General management career orientation	Total	3.33	0.94	0.155
	Male	3.90		
	Female	3.22		
Autonomy career orientation	Total	3.99	1.03	0.175
	Male	4.60		
	Female	3.87		
Security/stability career orientation	Total	3.85	1.07	0.191
	Male	3.75		
	Female	3.88		
Entrepreneurial creativity career orientation	Total	3.90	1.11	0.194
	Male	4.41		
	Female	3.80		
Service career orientation	Total	4.48	0.95	0.162
	Male	4.72		
	Female	4.43		
Pure challenge career orientation	Total	4.43	0.83	0.144
	Male	4.92		
	Female	4.35		
Lifestyle career orientation	Total	4.32	0.93	0.157
	Male	4.38		
	Female	4.34		
Organisational Commitment Questionnaire (OCQ)				
Affective commitment	Total	4.22	1.20	0.212
	Male	4.27		
	Female	4.27		
Continuance commitment	Total	4.12	1.09	0.196
	Male	3.90		
	Female	4.17		
Normative commitment	Total	3.48	1.42	0.255
	Male	3.31		
	Female	3.55		

Table 5: Statistical significance of canonical correlations (Wilks Lambda's chi-square test)

Wilks' coefficient Lambda	Canonical correlation	Chi-square	df	p
0.810	0.337**	30.099	24.000	0.181
0.914	0.244*	12.875	14.000	0.536

* Correlation is practically significant $r > 0.20$ (small effect)

** Correlation is practically significant $r > 0.30$ (medium effect)

be regarded as having more in common with it. The correlations of the original measures with the canonical variate pairs are given in Table 6.

Table 6: Results of the canonical analysis: COI and OCQ

	First Canonical Variate		Second Canonical Variate	
	Correlation	Standardised Coefficient	Correlation	Standardised Coefficient
Career Orientations Inventory (COI)				
Technical/functional	-0.052	0.053	-0.114	-0.130
General management	-0.069	-0.107	-0.287	-0.154
Autonomy	0.496	0.606	-0.258	0.270
Security/stability	-0.854	-0.714	0.136	0.474
Entrepreneurial creativity	0.119	-0.053	-0.505	-0.559
Service	-0.021	0.019	0.000	0.314
Pure challenge	-0.030	-0.104	-0.208	-0.004
Lifestyle	-0.354	-0.251	-0.719	-0.922
Proportion of variance explained	0.140		0.124	
Redundancy index	0.016		0.007	
Organisational Commitment Questionnaire (OCQ)				
Affective commitment	-0.398	-0.008	0.003	0.534
Continuance commitment	-0.944	-0.715	0.292	0.716
Normative commitment	-0.712	-0.255	-0.632	-1.249
Proportion of variance explained	0.519		0.162	
Redundancy index	0.059		0.010	
Canonical correlation	0.337		0.244	

With a cut-off correlation of 0.30, the variables in the career orientations set that correlated with the first canonical variate were *autonomy*, *security/stability* and *lifestyle*. Among the set of organisational commitment variables, affective commitment, continuance commitment and normative commitment correlated with the first

canonical variate. In particular, it appears that autonomy (0.496), low security/stability (-0.854) and a low lifestyle (-0.354) orientation correlate with low continuance commitment (-0.944), low normative commitment (-0.712) and low affective commitment (-0.398). Overall, the standardised canonical correlation coefficients match the results of the canonical loadings, indicating the stability of the findings, in particular the associations with the continuance and normative commitment variables. However, the redundancy analysis of these results indicates that the career orientations explain only 0.03% of the organisational commitment variance. Conversely, the organisational commitment variables explain only 0.4% of the career orientation variance. Neither of the canonical variables was thus found to be a good overall predictor of the opposite set of variables. By contrast, each canonical variable was a stronger predictor of its own construct (career orientations: 2%; organisational commitment: 27%).

With a cut-off correlation of 0.30, the variables in the career orientations set that correlated with the second canonical variate were *entrepreneurial creativity* and *lifestyle*. Among the set of organisational commitment variables, normative commitment correlates with the second canonical variate. In particular, it appears that low entrepreneurial creativity (-0.505) and a low lifestyle (-0.719) orientation correlate with low normative commitment (-0.632). Overall, the standardised canonical correlation coefficients match the results of these canonical loadings, indicating the stability of the findings. However, the redundancy analysis of these results indicates that the career orientations explain only 0.005% of the organisational commitment variance. Conversely, the organisational commitment variables explain only 0.01% of the career orientation variance. Neither of the canonical variables was thus found to be a good overall predictor of the opposite set of variables. By contrast, each canonical variable was a stronger predictor of its own construct (career orientations: 1.5%; organisational commitment: 2.6%).

The second objective of the study was to determine whether the race and gender groups differed in terms of career orientations and organisational commitment. In order to establish whether there were any significant differences between the mean respective scores of blacks and whites, and males and females, multivariate analyses of variance (MANOVA) were performed as the box M test, and Levene's test of equality of error variance indicated that there were no significant differences between both the gender and race groups. Variances and error variances were assumed to be homogeneous across the gender and race groups.

MANOVA presents several criteria with which to assess multivariate differences across groups. Pillai's criterion was used, as it considers all the characteristic roots (Hair, Anderson, Tatham & Black 1995). The measure to use is the one most immune to violations of the assumptions underlying MANOVA. Hair et al. (1995: 278) assert that Pillai's criterion meets these requirements.

Table 7 shows that the MANOVA yielded a significant Pillai's trace statistic, firmly implying an overall difference between the two race groups ($p = 0.000$; partial Eta squared value = 0.304) and the two gender groups ($p = 0.004$; partial Eta squared value = 0.155). The partial Eta squared indicates that gender accounted for 16% of the overall variance, and race for 30% of the overall variance. Although no statistically significant differences were found between blacks and whites regarding the organisational commitment scales, differences of statistical significance were found between blacks and whites regarding all the career anchors, with the exception of the security/stability career anchor. The effect size was small to modest. The partial Eta squared indicates that the service career anchor accounts for 18% of the overall variance, and the pure challenge career anchor accounts for 14% of the overall variance. Table 8 presents these results.

Table 7: Multivariate test of differences between blacks and whites, and males and females

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	Pillai's Trace	0.155	2.856	9.000	140.000	0.004	0.155
Race	Pillai's Trace	0.304	4.247	11.000	107.000	0.000	0.304

Table 8: Test for differences between blacks' and whites' responses to the COI and OCQ

Variable	F	Sig.	Partial Eta Squared
Career Orientations Inventory (COI)			
Technical/functional career orientation	7.26	0.008	0.058
General management career orientation	10.232	0.002	0.080
Autonomy career orientation	9.437	0.003	0.075
Security/stability career orientation	1.546	0.216	0.013
Entrepreneurial creativity career orientation	8.584	0.004	0.068
Service career orientation	25.944	0.000	0.181
Pure challenge career orientation	18.494	0.000	0.136
Lifestyle career orientation	2.259	0.135	0.019
Organisational Commitment Questionnaire (OCQ)			
Affective commitment	2.404	0.124	0.020
Continuance commitment	0.000	0.990	0.000
Normative commitment	2.927	0.090	0.024

Table 9: Test for differences between males' and females' responses to the COI and OCQ

Variable	F	Sig.	Partial Eta Squared
Career Orientations Inventory (COI)			
Technical/functional career orientation	5.64	0.019	0.037
General management career orientation	15.099	0.000	0.093
Autonomy career orientation	13.804	0.000	0.085
Security/stability career orientation	0.400	0.528	0.003
Entrepreneurial creativity career orientation	7.868	0.006	0.050
Service career orientation	2.480	0.117	0.016
Pure challenge career orientation	12.432	0.001	0.077
Lifestyle career orientation	0.064	0.801	0.000
Organisational Commitment Questionnaire (OCQ)			
Affective commitment	0.000	0.990	0.000
Continuance commitment	1.554	0.215	0.010
Normative commitment	0.670	0.414	0.005

Although no statistically significant differences were found between males and females regarding the organisational commitment scales, differences of statistical significance were found between males and females for all the career anchors, with the exception of the security/stability, service and lifestyle career anchors. The effect size was small to modest. The partial Eta squared indicates that the general management and autonomy career anchors account for 9% of the overall variance, and the pure challenge career anchor accounts for 8% of the overall variance. Table 9 presents these results. Overall, the results indicate that the differences between the gender and race groups are attributable to the career anchors of the subjects.

DISCUSSION

The goal of this study was to determine how the organisational commitment levels of race and gender groups relate to their career anchors and whether there were differences between the organisational commitment levels and career anchors of the respective race and gender groups. It was pointed out in the introduction that a limited amount of research had been done to study how individuals' organisational commitment relates to their career anchors.

Overall, as expected, the needs-based and value-based career anchors predominated in the sample. Although the results showed a number of significant associations between the participants' organisational commitment levels and their career anchors,

the findings suggest that career anchors are not significant predictors of organisational commitment. However, these findings require further investigation with broader sample sizes before significant conclusions can be drawn. The correlation between the canonical variables confirmed previous research findings that the values-based career anchor, *service/dedication to a cause*, and the needs-based career anchor, *autonomy/independence*, tend to be associated with low normative or moral commitment (Smit 1992). In addition, the results showed that *lifestyle* as a needs-based career anchor also tends to associate with low normative commitment as well as with low continuance commitment. These findings suggest that the participants value their personal and family concerns and needs more than their transactional or relational attachment to the organisation.

Furthermore, it was found that the needs-based career anchors, *autonomy* and *security/stability*, are associated with low continuance and low normative commitment, while the entrepreneurial (talent-based) career anchor is associated with low normative commitment. These results indicate that participants with an autonomy career anchor value their personal need for independence more than their relationship with the organisation. Participants who value their need to be recognised for their loyalty and steady performance may place a high value on the emotional satisfaction they derive from the work context. However, it also appears from the findings that participants with an entrepreneurial career orientation may value their freedom and power more than the benefits they receive from the organisation (Schreuder & Coetzee 2006).

Overall, the black participants and both the male and female participants showed a higher preference for the values-based career anchors (*service/dedication to a cause* and *pure challenge*) and the needs-based *lifestyle* career anchor than for the talent-based career anchors. In terms of the needs-based career anchors, the white participants and the female participants in general showed a preference for the *lifestyle* career anchor, while the black and white male participants showed a preference for the *autonomy* career anchor. The results also confirm the findings of a study conducted by Marshall & Bonner (2003), which indicated a noticeable shift towards the *lifestyle* and *pure challenge* career orientations since the original research of the 1960s and 1970s on career anchors was done. The emphasis on the *pure challenge* career anchor may be an indication that the participants are possibly active learners, requiring ongoing training opportunities through on-the-job experience to enable them to take full advantage of change such as evolvement of technology, development of job roles and organisational restructuring. In addition, Heckert, Droste, Adams, Griffin, Roberts, Mueller & Wallis (2002) note that females to a greater extent than males, in their choice of career, put more emphasis on needs-based factors such as working conditions, facilities for child rearing and working hours.

The findings indicate that the race and gender groups differ significantly regarding their career anchors. No significant differences were found regarding the

organisational commitment of both the race and gender groups. Metcalfe & Dick (2002) report similar findings with respect to the organisational commitment of males and females. Although the female participants appear to differ from males in terms of their career anchors, as also noted by Marshall & Bonner (2003), they are just as committed as males. The male participants appear to be especially committed to the organisation that provides them with the autonomy to do their job in an independent fashion, while the female and white participants seemingly tend to be especially committed to the organisation that respects personal and family concerns. The black participants appear to be more committed to an organisation that provides them with the opportunity to express their sense of service or dedication to the people component of the business.

Generally, these findings suggest that the participants would most probably be more committed to the organisation that provides them with the opportunity to move into challenging positions where they can gain recognition for their contributions to the greater good of the organisation and society as a whole, and that allows them to integrate their personal, family and career needs. When provided with the opportunity to do satisfying work and develop valued skills, these participants would most probably prefer to stay with the present organisation out of a sense of emotional attachment that stems from the psychological fulfilment they gain from their occupational role. In addition, they may also consider the investments they made (such as time and effort put into acquiring their occupation-specific skills) before leaving the organisation. Generally, companies that are perceived to be too restrictive, inflexible regarding work–family arrangements and benefits and that do not provide challenging growth opportunities may well find they are losing such employees, not because they are performing poorly but because they are not fulfilling their employees' everyday career needs (Schreuder & Coetzee 2006).

The findings have both theoretical and practical implications. From a practical perspective, managers and industrial psychologists may find several important lessons here. Since organisational commitment appeared to be associated with career anchors, organisations that wish to enhance the commitment of their employees should strive for congruence between organisational rewards and the important motivations and values underlying their members' career anchors (Hsu et al. 2003; Kniveton 2004). Furthermore, attempts to enhance commitment should focus on both the values held by individuals (for example, challenging work assignments and opportunities to serve) and their needs for work/life balance and individual freedom (Elizur & Koslowsky 2001).

The main limitation of the study was arguably the relatively small sample size that was used, which influenced the possibilities of generalising the canonical results. In future studies of the relationship between organisational commitment and career anchors, researchers should ensure that they obtain larger samples across various occupational groups and industries. The convenience sample and the fact that it was

limited to honours students (only 17% of whom were in full-time employment) in the subject field of Industrial and Organisational Psychology naturally also limits the possibilities of generalising the results. Despite these limitations, the authors trust that the findings provide useful insights into how the organisational commitment of individuals relates to their career anchors. Researchers are encouraged to examine, both theoretically and empirically, these and other career-related and commitment constructs to yield more insightful conclusions regarding the effect of career anchors on employees' organisational commitment.

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