

# CAREER ORIENTATIONS AS PREDICTORS OF THE LEVEL OF JOB INVOLVEMENT OF PROFESSIONAL PEOPLE

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## OPSOMMING

'n Poging word aangewend om 'n perspektief oor die stand van kennis met betrekking tot twee konstrakte, naamlik werksbetrokkenheid en loopbaanankers, te verskaf. 'n Studie waarin die vlak van werkbetrokkenheid van 1791 Suid-Afrikaanse professionele persone, betrokke in 14 professies en hul loopbaanoriëntasies gemeet is, word beskrywe. 'n Gepostuleerde verwantskap tussen werkbetrokkenheid en loopbaanoriëntasies word getoets. Meer-voudige regressie is gebruik om modelle van loopbaanoriëntasies as voorspellers van werkbetrokkenheid te bou. Betekenisvolle vlakke van voorspelling is vir al 14 professies verkry, met 'n voorspelling van 25,3% van die variasie in werkbetrokkenheid vir die steekproef as 'n geheel.

## ABSTRACT

An attempt is made to provide perspective on the current status with regard to two constructs, i.e. job involvement and career anchors. A study is described in which the level of job involvement and the career orientations of 1791 professionals, engaged in 14 professions in South Africa, were measured. A postulated relationship between job involvement and career orientations was tested. Multiple regression was used to develop models of career orientation scores as predictors of job involvement level. Significant levels of prediction were obtained for all 14 professions, with a prediction of 25,3% of the variance in level of job involvement obtained for the sample as a whole.

The measurement of job involvement seems to have originated with Lodahl and Kejner (1965, p. 24) who defined job involvement as "the degree to which a person is identified psychologically with his work, or the importance of work in his total self-image". In the same paper this formulation was augmented: "For this work, job involvement was defined as the degree to which a person's work performance affects his self-esteem" (p. 25), so that a performance-self-esteem relationship was apparently used as the basis of the definition. Kanungo (1982) developed a psychometrically better scale for the measurement of job involvement (Blau, 1985; Morrow & Wirth, 1989). In Kanungo's (1982) study job involvement was seen as psychological involvement with one's work (Blau, 1985). This view was adopted for the present study.

Job involvement is part of a constellation of variables which, according to Morrow (1983) consists of five foci, i.e. the Protestant work ethic, career salience, work as a central life interest, organization commitment and job involvement. Morrow (1983), as well as Morrow and McElroy (1986), expressed the view that concept redundancy existed in this area. Work by Blau (1985 and 1988), Brooke, Russel and Price (1988), Morrow and Goetz (1988), Morrow and Wirth (1989) and by Matthieu and Farr (1991) seems to have modified this view in favour of one where job involvement is seen as a separate construct differing also from constructs like career commitment

and career motivation. Knoop (1986), however, warned that job involvement is possibly career-based and that it may be futile to look for factors generally associated with job involvement. Randall and Cote (1991) developed a model of work commitment in which job involvement is seen as the central and essential element, related to other constructs but still a separate variable.

As measured by Kanungo's (1982) scale, job involvement is a unidimensional construct (Blau, 1985).

The career anchor construct has been developed by Schein (1975; 1977; 1982; 1985; 1987). A career anchor was described as an occupational self-concept consisting of interactions among an individual's perceptions of his/her own (i) talents and abilities; (ii) motives and needs; and (iii) attitudes and values. This self-concept was seen to develop out of actual experience and can, therefore, only be identified after the individual has passed through at least the socialisation phase of the career (Schein, 1978). Based on his original study, Schein (1975, 1978) defined five career anchors. Apparently in interaction with Schein, DeLong (1982) added a further four anchors which also appeared in Schein's later work (Schein, 1985, 1987).

This construct seems to straddle what can be called the differential or trait and factor approach (Crites, 1981) and the developmental or career stage approach (Sonnenfeld & Kotter, 1982; Super, 1983) to the study of the adult career. Schein's construct seems to be related to, for instance, Holland's (1973, 1985) well-articulated differential theory, but also has some

of its roots in, for instance, Super's (1950, 1983) career stage model. Nordvik (1991) conducted an empirical study in which some relationships between Holland and Schein's theories were found, but concluded that the two domains were rather distinct. The relationship to the differential career theories is seen in the central thrust which the identification of individual differences in values, motives and abilities has in the career anchor construct. In Schein's (1975) view, individual differences are, however, related more strongly to differences in career decision-making processes and career progression. Like theorists in the developmental approach, Schein (1978) also distinguished various career stages through which an individual passes during a lifetime, with special emphasis on the formative experiences of the socialisation phase. During this phase, it is argued, the individual's career anchor is developed. Schein's contribution, via the career anchor construct, to the developmental theories seems to be that career anchors provide a structure by means of which the pressures and options faced by an individual in career decision-making situations are filtered. Career movements which are made during the various stages, are then meaningful to the individual concerned. The values and needs embodied in a career anchor therefore come to represent a guiding principle for the individual in his/her career decision-making. In this way, the career anchor construct introduces an element of individual self-determination during the career, whereas the career stage (developmental) models tend to see the career as a series of predictable, common experiences which the individual has to wade (or struggle) through.

In summary, an individual's career anchor is an occupational self-concept which the individual "would not give up if you were forced to make a choice" (Schein, 1985, p. 28). Derr (1980), however, developed a graphic presentation of this development of a single, stable career anchor over time, illustrating how one anchor eventually becomes dominant. An important implication of Derr's model is that other value syndromes are not repressed or withered away entirely. They would continue to play an important, if diminished, role as long as they do not conflict directly with the dominant anchor. This appears to differ somewhat from the view of Schein (1985) that an individual has only one career anchor.

The theoretical considerations presented make it possible to postulate that career anchors can enhance or lower an individual's level of job involvement, i.e. if an individual's career anchor(s) does/do not "fit" well with his/her job, then the individual will not be highly involved in the job, and vice versa. In the present study, job involvement was therefore viewed as a dependent variable, the level of which could possibly be predicted by an individual's career anchors, in line with Schein's (1975) notion of career anchors holding individuals to career paths.

The present study was, therefore, an attempt to determine whether professionals' job involvement is related to their career anchors. Professionals were chosen as subjects as professional work has been relatively clearly differentiated from other occupations (Benjamin, 1987).

## METHOD

### Sampling

Three diverse and somewhat conflicting considerations were taken into account to determine the sample size. These were: (i) the sample size had to be within the financial and time budgets for the study, (ii) the sample had to be large enough to accommodate the statistical analyses which would be necessary to answer the research questions adequately, and (iii) the expected response rate, which was, conservatively, expected to be 33,3%. In terms of the statistical analyses planned, sample sizes had ideally to be about  $N = 100$  per profession. This meant that 300 questionnaires had to be distributed per profession.

Sampling was done from professional registers obtained from

the controlling body for each of the professions included in the study. Random sampling was done from the names in the registers in accordance with a method described by Moser and Kalton (1972). This method can, according to Moser and Kalton (1972, p. 83), be considered approximately equivalent to simple random sampling "when the list from which a systematic sample is selected, can be regarded as arranged more or less at random, or when the feature by which it is arranged, is not related to the subject of the survey". The names of members of the professions were arranged alphabetically in the registers. Only people probably between 30 and 44 years of age were included in the sample. This was done directly from those registers where birthdates were listed. Where date of birth was not available from the register, an approximation was made based on the first date of registration, assuming matriculation at the age of 17 or 18 and taking into account the number of years of study/training to qualify for registration in the professions concerned.

Samples of 300 could be obtained for 13 out of 14 of the professions. The exception was Dieticians where only 130 fell in the 30 to 44 years age group and questionnaires were sent to all.

A questionnaire, accompanied by a covering letter, was mailed to each member of the sample. Each questionnaire carried a code to identify respondents since feedback of the results was promised in the covering letter. The code was also used to identify non-respondents to the initial mailing; a reminder and an additional copy of the questionnaire were sent to them approximately six weeks after the initial mailing. Of the 4084 questionnaires originally sent out, 203 were returned unopened for a variety of reasons (e.g. person had moved and left no forwarding address). In total, 1968 responses were received early enough to be included in the analysis. This represented a rate of 48%. Of the 1968 questionnaires received back, 177 were excluded from the data analyses, when more than five items were left unanswered, when the questionnaire was completed by someone other than the person to whom it was sent, when a clear response pattern was discerned, or when it turned out that the respondent was younger than 30 or older than 44 years. A number of questionnaires were received too late to be included in the analyses. The number of questionnaires sent to members of each profession, the number returned unopened, and the number used in the analyses are shown in Table 2.

TABLE 1  
INITIAL AND FINAL SAMPLE SIZES PER  
PROFESSIONAL GROUP

Professional Group	Questionnaires sent	Returned unopened	Returned and used	Usable return rate
Accountants	317	21	100	31,6
Architects	300	9	156	52,0
Attorneys	299	2	98	32,8
Dentists	297	16	107	30,0
Dieticians	130	13	70	53,8
Medical Doctors	307	18	118	38,4
Engineers	299	7	180	60,2
Nurses	312	18	114	36,5
Pharmacists	311	5	140	45,0
Physiotherapists	319	27	133	41,7
Psychologists	300	22	111	37,0
Radiographers	299	29	121	40,5
Social Workers	300	5	151	50,3
Veterinarians	294	11	192	65,3
Total	4 084	203	1 791	43,8

From Table 2 it can be seen that the original estimate of a useable return rate of 33,3% was exceeded, except in the case of accountants and lawyers where the useable return rate was near to the original estimate at 31,6% and 32,8% respectively. The overall useable return rate was 43,8%.

The overall average age of the subjects was 35,9 years (SD = 3,6).

### Subjects

The sample consisted of 1791 members of 14 professions. Biographical characteristics of the sample are shown in Table 1.

It was decided to limit the age of members of the sample to between 30 and 44 years. This was based on the views of Slo-

cum and Cron (1985) and Schein (1987) that individuals between 30 and 44 years of age would have gone through the socialization or trial phase of their careers, and would be in a full membership or stabilization phase with their career anchors and career identity fully developed.

TABLE 2  
DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Profession	N	Mean Age	Gender		Home Language				Employer			
			Male	Female	Eng	Afr	Black	Other	Self	Gov	Private Sector	Retired/ Unem- ployed
			N	N	N	N	N	N	N	N	N	N
Accountants	100	39,56	100	0	58	38	0	4	90	3	6	0
Architects	156	35,03	147	9	76	65	0	15	101	10	45	0
Attorneys	98	35,23	91	6	38	54	1	4	86	4	7	0
Dentists	107	37,25	105	1	41	63	0	2	85	19	1	0
Dieticians	70	34,40	2	68	13	41	3	3	29	29	7	4
Medical Practitioners	118	36,32	91	25	56	51	1	9	63	46	7	1
Engineers	180	35,66	177	1	94	70	0	14	27	51	98	0
Nurses	114	34,58	6	107	32	39	40	2	1	76	29	0
Pharmacists	140	35,35	67	72	65	69	2	3	61	28	42	7
Physiotherapists	133	36,52	4	128	65	61	4	3	69	34	19	10
Psychologists	111	38,32	77	32	30	79	1	0	34	59	11	2
Radiographers	121	35,71	2	119	76	38	1	6	8	49	43	20
Social Workers	151	34,61	26	125	25	94	26	5	7	59	60	17
Veterinarians	192	35,71	166	25	99	82	0	10	199	40	31	1
Total	1 791	35,94	1 061	718	767	854	79	80	780	507	406	68

According to Sonnenfeld and Kotter (1982), various life and career stage theorists came to the conclusion that the post mid-40's is a stage of reassessment and reorientation, characterized by the recognition of limited time and a sense of reduced opportunities for new starts. It was therefore considered that professionals in the post-44 years of age category should not be included in the study, and that subjects younger than 30 years would not possess fully developed career anchors.

The gender distribution depicted in Table 1 seemed to reflect the (historical) position in the different professions with a tendency for male members to form the majority in most of the professions but with females forming the majority of nurses, radiographers, social workers, physiotherapists and dieticians. Pharmacists were divided approximately equally between males and females.

No information was asked about the race of respondents, and such information was also not available in the registers from which sampling was done. A slight majority of the respondents, i.e. 913, (51%) were working for employers and not self-employed.

### Measuring instruments

The survey questionnaire consisted of 11 biographic items and all the items included in three measuring instruments, i.e. the Career Orientations Inventory, developed by Schein and DeLong (DeLong, 1982) as published in Schein (1985), the short form of the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England & Lofquist, 1967) and the Job Involvement Questionnaire, developed by Kanungo (1982). Data obtained by means of the MSQ were not analyzed in the present study.

An Afrikaans translation of the Career Orientations Inventory, done by the Human Sciences Research Council of South Africa (Hirschowitz, 1987) was used.

The remainder of the survey instrument was translated from English into Afrikaans by using the translation-retranslation method (Brislin, Lonner & Thorndike, 1973).

The items included in the MSQ were presented separately in the survey questionnaire. The items of the Kanungo Job Involvement Questionnaire were randomly inserted among the items of the Career Orientations Inventory (which had the same response format) to reduce the affects of possible response sets.

The Kanungo (1982) Job Involvement Questionnaire was developed as an improvement on the previously widely used job involvement measure of Lodahl and Kejner (1965). The scale measures job involvement unidimensionally, as psychological identification with one's work. In different studies the 10-item scale has shown Cronbach alpha reliabilities between 0,83 and 0,87 (Kanungo, 1982; Blau, 1985). In the present study responses to this questionnaire were subjected to psychometric assessment as described elsewhere (Boshoff, Kaplan, Schutte & Kellerman, 1989). In terms of the results of these analyses it was decided, in line with a finding by Blau (1985), to discard item 7 ("Usually I feel detached from my job"). With this item eliminated the scale had a Cronbach coefficient alpha of 0,83.

The Career Orientations Inventory is a revision of previous questionnaires (Schein, 1985). As used in this study, it consisted of 41 items, to which respondents were to react in terms of 10 point scales. Nine career orientations are measured, viz. Geographical Security, Job Security, Autonomy and Independence, Entrepreneurship, Technical/Functional Competence, Managerial Competence, Service Dedication, Pure Challenge and Life Style Integration. Each orientation scale consists of five items, except Geographical Security and Job Security which are measured by three items each. Information on the development, validity and reliability of the instrument can be found in DeLong (1982, 1984), Schein (1985), and Van Blaricum and Beukes (1986). Further work on the psychometric qualities of the Inventory resulted in some changes to its scoring. (See Boshoff et al., 1989).

It should be pointed out that the Career Orientations Inventory does not purport to measure career anchors as such but rather career orientations, since perceptions of own abilities are not measured by this Inventory. According to Schein

(1985), career anchors are measured by means of a combination of the Career Orientations Inventory and a structured interview exercise.

**RESULTS**

A multiple regression procedure was used as the method to test for the postulated relationship.

Table 3 presents Pearson product-moment intercorrelation coefficients among the scores on the career orientations and Job Involvement scales for the total sample.

**TABLE 3  
INTERCORRELATIONS\*\* AMONG SCORES ON CAREER ORIENTATIONS AND JOB INVOLVEMENT (N = 1791)**

*	PC	SD	AI	ENT	SG	SJ	TF	M	LS
SD	,05								
AI	,14	-,14							
ENT	,42	-,16	,37						
SG	-,01	,13	,05	-,11					
SJ	,09	,38	-,23	-,24	,20				
TF	-,04	,28	,05	-,10	,34	,24			
M	,59	,13	-,00	,38	-,11	,26	-,10		
LS	,01	,22	,17	,08	-,09	,14	,17	,07	
JI	,42	,16	,04	,26	,01	,04	,22	,24	,04

\*\*Values significant at the ,01 level are shown in bold

\* Legend for abbreviations of variables

- PC Pure Challenge
- SD Service Dedication
- AI Autonomy/Independence
- Ent Entrepreneurship
- SG Geographical Security
- SJ Job Security
- TF Technical Functional Competence
- M Managerial Competence
- LS Livestyle Integration
- JI Job Involvement

The relationship between Pure Challenge and Job Involvement (17,6% common variance) is clearly the outstanding figure in this set of intercorrelations. The very low value of *r* needed for significance (due to the large sample) is clearly seen.

To determine whether level of Job Involvement could be predicted by means of the Career Orientations scores Stepwise Multiple Regression was employed, using the scores of the total sample. Only scores on the career orientations significantly related to job involvement (as shown in Table 3) were used in this attempt to build a prediction model. The results are shown in table 4.

**TABLE 4  
RESULTS OF STEPWISE MULTIPLE REGRESSION ANALYSIS FOR PREDICTING JOB INVOLVEMENT SCORE BY MEANS OF CAREER ANCHOR SCORES: TOTAL SAMPLE**

Step	Variable entered	Partial R <sup>2</sup>	Model R <sup>2</sup>	F	p > F
1	PC	,177	,177	383,5	,0001
2	TF	,055	,232	126,9	,0001
3	ENT	,012	,244	29,0	,0001
4	SD	,009	,253	22,1	,0001

It is obvious that the major part of the prediction is formed by two career orientations, i.e. Pure Challenge and Technical/Functional Competence, together predicting 23,2% of the variance in the dependent variable.

The stepwise multiple regression procedure was carried out in a similar way on the scores of the members of the different professions. The results of these analyses are shown in Table 5.

**TABLE 5  
MULTIPLE PREDICTION MODELS FOR DIFFERENT PROFESSIONS WITH DEPENDENT VARIABLE: JOB INVOLVEMENT**

Profession	Predictors	Partial R <sup>2</sup>	Model R <sup>2</sup>	F	p > F
Accountants	PC	,290	,290	40,1	,0001
	TF	,063	,353	9,5	,0027
Architects	PC	,199	,199	38,2	,0001
	TF	,070	,269	14,7	,0002
	SD	,026	,296	5,7	,0183
Attorneys	PC	,155	,155	17,6	,0001
	SD	,039	,193	4,6	,0354
Dentists	PC	,170	,170	21,4	,0001
	TF	,095	,264	13,4	,0004
Dieticians	SD	,288	,288	27,5	,0001
	PC	,121	,410	13,8	,0004
Engineers	PC	,099	,099	19,5	,0001
Medical Doctors	SD	,196	,196	28,2	,0001
	TF	,076	,271	11,9	,0008
	PC	,026	,297	4,1	,0045
Nurses	PC	,239	,239	35,1	,0001
	SJ	,029	,268	4,4	,0388
Pharmacists	PC	,219	,219	38,6	,0001
	SJ	,041	,260	7,5	,0068
Physiotherapists	PC	,157	,157	24,5	,0001
	TF	,099	,256	17,3	,0001
Psychologists	PC	,171	,171	22,1	,0001
	TF	,115	,286	17,0	,0001
	M	,039	,324	6,0	,0160
Radiographers	PC	,219	,219	33,8	,0001
	SD	,038	,256	6,0	,0161

The prediction models are, in all cases the ones where the maximum levels of prediction, as indicated in Table 5, were obtained. The information in Table 5 can be summarized as follows: Of the 14 multiple predictions calculated, only one indicated less than 10% common variance between predictors and the dependent variable; one prediction was between 11 and 20%, eight were between 21 and 30%, three between 31 and 40%, and one higher than 40%. It, therefore, seems as if career orientations are relatively good predictors of job involvement for most professional people. From Table 5 it also seems evident that the career anchor Pure Challenge can be regarded as a remarkably good predictor of the job involvement of professional people. Job Challenge also appeared as an antecedent of job involvement in Hall's (1976) Psychological Success Model of Career Development. The present finding can be seen as some confirmation of Hall's (1976) model.

**DISCUSSION**

It seems as if the research question posed in the introduction, could be answered in a relatively clearcut way. The following conclusions are drawn from the results.

The job involvement scores could, in the case of the whole sample, be predicted by means of career orientations scores to a quite useful level. This statement is even more applicable when the predictions in the various professions are taken into account. Possible inflation

of the correlations due to shared method variance seems possible, and should be taken into account when the results are interpreted. A group which seems to be outside the pattern, is the engineering profession where the accepted level of prediction was low. This finding is probably worthy of further investigation.

From Table 5 it can be seen that Pure Challenge appeared in all 14 prediction models as a significant predictor of level of Job Involvement. Technical Functional Competence appeared eight times and Service Dedication five times. These career orientations therefore seem to be important predictors of the level of job involvement of professional people. The finding with regard to Pure Challenge is in line with a relationship postulated by Hall (1976). It is speculated that the findings with regard to Technical Functional Competence and Service Dedication can possibly be related to some of the essential attributes of professional work as distilled by Benveniste (1987), who identified (1) application of skills based on technical knowledge, and (2) a sense of responsibility for serving the public as two of the elements of professional vocations. It seems possible that professional people are socialized into regarding behaviour which is in line with these two attributes as desirable in professional work, and that in this way a relationship between Job Involvement and Technical Functional Competence and Service Dedication come into being. This notion seems to be in line with Knoop's (1986) view that job involvement is possibly career-based.

This research could possibly lead to further work to try and determine the factors which influence job involvement of professional people. The results, i.e. that job involvement of individuals in different professions can be predicted (to varying degrees) by means of different combinations of career orientations are not fully understood. Why these combinations of relationships exist, should still be explored. Replication of the study to cross-validate the obtained results is also needed. In the present study, the gender variable has not been partialled out in a meaningful way, and is something which could be investigated in future studies.

It should be pointed out that Schein (1985) stated that an individual will have one (dominant) career anchor – in line with the fundamental argument about the role of the career anchor in the individual's career. The Career Orientations Inventory, however, measures the relative strength of nine different orientations. This apparent contradiction between what is measured by the Career Orientations Inventory and a fundamental element of the career anchor construct should probably be clarified in further research.

The study was limited to professional people working in South Africa. Extensions of this kind of work to other cultures and other occupational groups may be worthwhile in understanding of the career anchor construct and its operation and influence on people in different cultures and occupations.

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