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paper text:

An adapted measure of ethical climate in organisations – a South African study Prof Anton Grobler PhD (Industrial and Organisational Psychology) Area Head: Leadership and Organisational

Behaviour

1Graduate School for Business Leadership e-mail address:

grobla@unisa.ac.za ABSTRACT A study 99was conducted to analyse the ethical climate 39of the Ethical Climate Questionnaire empirically, in typology order to develop a unique South African typology. This typology was tested for the equivalence of the construct between the private and public sector. A three ethical climate type solution was found (in contrast with the initial nine, and later five type typology). The results suggest that the construct is equivalent for both the private and public sectors. The findings could be used as a foundation for future studies, as well as for ethical climate measurement within the South African 14Ethical climate; Ethical Climate Questionnaire (ECQ); context. Keywords: measurement ethical climate;65Victor and Cullen's ethical climate typology; locus of analysis; ethical criteria; management of ethics. INTRODUCTION The world has recently been hit by a plethora of corporate scandals and recurring ethical transgressions of their leaders and employees. The most recent international case, that of Volkswagen (the so-called emissions

been hit by a plethora of corporate scandals and recurring ethical transgressions of their leaders and employees. The most recent international case, that of Volkswagen (the so-called emissions scandal), as well as Enron Corp., WorldCom Inc. and Tyco, and in South Africa, J Arthur Brown plundering Fidentia, Pioneer Foods, Tiger Consumer Brands and Premier Foods (price fixing), and recently allegations of fraud and corruption and unethical management at the Passenger Rail Agency of South Africa (PRASA), just to mention some. This has led to organisations (and all stakeholders) placing a high premium on ethical behaviour of leaders and employees. The shared perceptions of this behaviour, related to what is considered as ethically correct behaviour within that specific context (organisation), is collectively referred to as the ethical climate of the organisation.

Ethical climate (and subsequently the

28Ethical Climate Questionnaire [ECQ]), as

conceptualised and developed by Victor and Cullen (1987, 1988)

consists of a nine

ethical climate type typology, and is regarded as the

5dominant framework in

organisational studies considering ethical climate

(Mayer, Kuenzi & Greenbaum, 2009).

5to discern the ethical climate of an organisation by Mayer et al. (2009) attempted statistically analysing variables along two dimensions, namely the ethical criteria leading to normative decision making and the locus of analysis for decision making. The ECQ has been studied by various scholars, with the recent studies mainly conducted in the USA, Japan, Singapore and China (Shafer, 2015) and Australia (Shacklock, Manning & Hort, 2011). There are, however, some philosophical concerns about the ECQ, but that fall outside the scope of this article. The critique relates amongst other to the definition underpinning 8definition whether the the ECQ. Mayer et al., (2009:200) indicated that it is not clear in the determination of what is "correct behaviour" only resorts within a specific organisation or whether it must coincide with general societal norms. It is further postulated that 92ethical climate is a type of organisational climate that is made up of the shared perception of amongst others policies, procedures rewards and support, but Victor and Cullen's (1987) definition does not include it directly. They added these aspects to their extended definition (Victor & Cullen, 1988), but the instrument was not adjusted to make provision for it. A further critique raised by Arnaud (2010) is regarding the 78two dimensions, ethical criteria and locus of and specifically whether it represents two 97distinct and independent analysis, aspects of ethical climate. She went further to question the comprehensiveness of the model (instrument) 34to capture the true breadth of the ethical climate construct. This is however a purely empirical study 90to determine the typology of ethical climate

within the

South African context, without questioning the philosophical assumptions and

theories underpinning this instrument. Although ethical climate is a well-researched construct and instrument, no African and specifically South African studies on this topic could be found. The use of the ECQ would then be based on the structure (typology) established in other countries, negating the impact of the unique South African context. This is especially important, as Shacklock et al.

(2011) indicate that

2diversity in patterns of ethical climate dimensions across

studies with different populations is

expected, mainly because of the differences in

organisations or sectors, and from this article's perspective, even more so across countries. Previous research in various settings has resulted in nine, six, five, four and three climate type

typologies, indicating the variability in the conceptualisation

74of ethical climate. In order

to measure ethical climate in

South African organisations effectively, a context-specific

typology should be developed, as one cannot merely haphazardly choose a specific typology without testing it empirically. It is then postulated that a situational approach be adopted for the accurate measurement of ethical climate, instead of the universal approach, just accepting 'only one best way of responding', based on studies from abroad. The purpose and contribution of the

89research on which this article is based was

therefore fourfold. Firstly, the aim was

8to provide a conceptual understanding of the construct 'ethical climate', and

ethical

climate measurement through a literature study, and secondly, to develop a South African specific typology of ethical climate by means of exploratory factor analysis and other related statistical

techniques. The third aim was

45to test the equivalence of the factor structure

(typology) across sectors,

82i.e. public sector and private sector in

order to establish its

utility within the total South African context. Lastly, recommendations were made regarding the measurement of ethical climate in South Africa, and for future research. The structure of this article

follows this sequence. THE CONSTRUCT 'ETHICAL CLIMATE'

76Ethical climate is a

multidimensional concept that has been studied and defined

by various scholars mainly

in studies related to the management of ethics in organisations. Ethical climate was initially defined

by Schneider (1975:474) as

44"a stable, psychological meaningful, shared perception

employees hold concerning ethical procedures and policies existing in their

organisation". In the same way Wu and

Tsai (2012) as well as Parboteeah and Kapp

(2008) defined

32ethical climate as the prevailing perceptions of typical

organisational practices and procedures that have ethical content. Ethical climate

has been defined in a

more collective way by Mayer, Kuenzi, and Greenbaum (2010),

Deshpande, Joseph and Shu (2011), Huang, You and Tsai (2012) and Hwang and Park (2014). Their definitions include the central aspect of shared perceptions of employees, but also how ethical issues are generally (and should be) addressed within an organisational context and what is considered to be ethically correct behaviour. Martin and Cullen (2006) add the dimension of moral consequences of organisational practices, procedures and policies. They are also of the opinion that

an ethical climate arises

30when members believe that certain forms of ethical

reasoning or behaviour are the expected standards or norms for decision making

within

a specific organisation.

26Ethical climate therefore influences both the

decision making and subsequent behaviour in response to ethical dilemmas.

Schwepker and

Hartline (2005) define ethical climate in a similar way, but they add the shared

and organisational ethical values to their definition. They regard ethical climate to be

10a type

of cultural control which results from an accumulation of organisational rituals,

stories, and norms of interaction. They are

also of the opinion that ethical climate is

10largely determined by the normative values and behaviour patterns that exist

among employees throughout the

organisation.

10When a climate is created

where ethical values and behaviours are fostered, supported and shared, more

ethical behaviour occurs.

Their view is congruent with the definition of ethical climate of

Rasmussen, Malloy and Agarwal (2003). Guerci, Radaelli, Siletti, Cirella and Shani (2015) add the aspect of reinforcement of ethical behaviour, specifically the way that an organisation supports and rewards ethical behaviour, which might be considered as an organisational practice on its own that also needs to be subjected to ethical scrutiny. DeConinck (2011:618) contends that ethical climate

relates to

24"the perceptions of rightness or wrongness present in the

organization's work environment and establishes the norms for acceptable and

unacceptable behaviour within the company". This

empirical research conducted

62in this study was based on the ECQ developed by Victor and Cullen (1987, 1988)

who are considered to be the pioneers of ethical climate theory (Mayer et al., 2009). They approached it from a moral philosophy, moral psychology and sociological perspective (Parboteeah et al., 2010). For the purpose of this article it is suggested that their definition be used as the overall definition of ethical climate. Their definition largely captures the essence of the definitions and

opinions of the various scholars as discussed above. They define

16ethical climate as "the

shared perceptions of what ethically correct behaviour is and how ethical issues

should be handled in the organisation"

(Victor & Cullen, 1987:51-52). They extended

their definition to define

33ethical climate as "the prevailing perceptions of typical

organisational practices and procedures that have ethical content" (Victor &

Cullen, 1988:

101). MEASUREMENT OF ETHICAL CLIMATE (ECQ) There are various

instruments to measure ethical climate, which is considered to be an important aspect in the management of ethics in organisations. Ethical climate in this study was measured with the ECQ,

which is based

8on Victor and Cullen's (1987, 1988) theoretical typology of ethical

climate

that consisted of two dimensions. This is considered to be

25the most widely

used instrument to measure ethical climate (Peterson, 2002; Mayer et al.,

2009). Arnaud

(2010) indicated that the ECQ is used in 75% of all empirical studies related to ethical

28climate. Victor and Cullen (1987, 1988) pointed out that the first dimension is related

to

the

18ethical criteria used for decision-making purposes. The second

dimension relates to the locus of analysis as a referent in ethical decisions. They

based the first dimension on three moral philosophies, namely

egoism14(concern for self-interests), 6 benevolence (concern for greatest utility

of greatest number of people), and principle (concern for following rules and

principles).22The second dimension is based on sociology referent theory. They

defined locus of analysis as individual, local (corresponds to organisation) and

cosmopolitan (corresponds to society), and developed a nine theoretical ethical

climate type typology by combining these two dimensions. The ECQ is thus multidimensional in terms of the nine hypothesised ethical climates (Cullen, Victor & Bronson, 1993). The items of the ECQ composing the instrument 27were written to capture nine ethical climate types. The **ECQ** 11did not "focus on whether the respondent believed he or she did not behave ethically nor did it emphasize whether the respondent saw the ethical climate as good or bad" (Victor & Cullen, 1987:58). 29cross-tabulation of the two dimensions resulting in the Table 1 below represents the nine hypothesised ethical climate types with the respective ECQ item numbers in brackets. TABLE 1: ETHICAL CLIMATE TYPOLOGY (ADAPTED FROM VICTOR & CULLEN, 70ETHICAL CRITERIA LEVEL OF ANALYSIS Individual Local 1987:56) Cosmopolitan Egoistic 1. Self-interest (16;17;18) 2. Company interest 3. Efficiency (6;7;22) (19;20;21) Utilitarian / 814. Friendship 5. Team play 6. Social responsibility Benevolence (3;4) (1;2) (5) Principle / Deontology 7. Personal morality (23;24;25;26) 8. Rules and procedures (12;13;14;15) 9. The law or professional codes (9;10;11) The ethical criteria (which are 3Kohlberg's theory of moral development) include egoism, benevolence based on or utilitarianism, and principle or deontology, whereas the individual, local or cosmopolitan levels are part of the locus of analysis. Egoism is the desire to maximise one's own interest. Benevolence relates to the desire of not only maximising one's own interest but also others, 75is the desire to do the absolute meaning that it maximises jointed interest. Principle

right thing regardless of the outcomes of the actions, meaning deontology is not interested in whose interests are affected by doing the right thing (Yener, Yaldiran & Ergun, 2012). The 3locus of analysis refers to the main referent group that identifies "the source of moral reasoning used for applying ethical criteria to organisational decisions and/or the limits on what would be considered in ethical analysis of organisational decisions" (Victor & Cullen, 1988:105). The individual and local loci of analysis identify the sources of ethical reasoning within the individual and the organisation respectively, with the cosmopolitan outside the organisation. The intersect 60section of the two dimensions forms a 3 X 3 matrix comprising nine types 23of ethical climates, namely self-interest, company profit, efficiency, friendship, team interest, social responsibility, personal morality, rules and standard operating procedures, and laws and professional codes (Yener et al., 2012). 93Cullen et al. (1993) refined the ECQ, to investigate the presence of these nine a priori ethical climates and added 10 items to the original ECQ scale. An empirical study of the items involving the ECQ identified six ethical climate types (Victor & Cullen, 1987). Using a different sample on the upgraded version of the 47Victor and Cullen (1988) identified five climate types, namely caring, law ECQ. and code, rules, instrumental, and independence. A brief description of the five climates is presented below, with examples of the typical items associated with the respective types: i. Caring

2to the degree to which the environment may be characterised by relates employees who are genuinely interested in the well-being of each other25("What is best for everyone in the organisation is the major consideration here"); ii. Law and 2to the degree to which employees adhere stringently to code relates their professional code of practice and government laws 37("People are expected to comply with the law and professional standards over and above other considerations"); iii. Rules relates to 49the degree to which employees stringently follow the rules and mandates of their organisation or business unit ("It is2very important to follow the organisation's rules and procedures here"); iv. Instrumental relates 2to the degree to which employees look out for their own self-interest14("In this organisation, people protect their own interests above all else"); v. Independence refers 2to the degree to which employees would be expected to be guided by their personal moral beliefs2("In this organisation, people are expected to follow their own personal and moral beliefs"). These five ethical climate types of the ECQ have become the norm in ethical climate research and appear regularly in a variety of empirical studies (Martin & Cullen, 2006; Yener et al., 2012). Having said that, it must be noted that Shacklock et al. 2 diversity in patterns of ethical climate types across different (2011) claim that the

populations and studies is not unexpected and should contextually be analysed. They argue that the pattern (and unique composition) of 2relevant climate types will vary between organisations in different industries and between different types of 11version of the ECQ was used in organisations within an industry. The 26-item this study. The reason for selecting the shortened version of the ECQ (26 items instead of the 36-item format) was based on Fritzsche's (2000) assertion that the 26-item format yielded more 27interpretable without losing the essence of factors (ethical climate types) that are the factors from the larger scale 43by Victor and Cullen (1988). The used ECQ was presented on six -point Likert scale, ranging from 0 (completely false) to 5 (completely true). The rationale for each item of the ECQ was that it would determine 52how accurately each of the items described the general work climate of the respondents. The maximum score for ECQ (all 26 items) is 130 and the minimum score is 0. In 15high levels of terms of the total score (out of 130), a high score and low score indicates ethical climate and low levels of ethical climate respectively. The same is true for the five ethical climate types, where a high score indicates 77the relative predominance of that 34Victor and Cullen (1988) ethical climate type, compared to the others. reported that there is evidence of acceptable reliability of the 68With the instrument.

exception of low relaibility of the independence scale whose alpha was 0.

65, the

measures have satisfactory reliabilities ranging from 0.73 to 0.81 which is above the general acceptable norm of 0.70 (Tabachnick & Fidel, 2007). Correlations between the scales (five ethical climate types) ranged between .00 and 0.47 (Victor & Cullen, 1988). This is an indication of

61a moderate degree of independence between the scales, with the exception of

the relationship between the

professionalism climate scale and the other scales. The

remaining scales displayed reasonably low levels of intercorrleation with r's from 0.37 to .00. Victor

and Cullen (1988) found

17evidence of convergent validity in the parameter

estimates and t-values of the ECQ. The parameter estimates were high in value and

the t-values were statistically significant (greater than 2.0), meeting the criteria for

convergent validity.

RESEARCH DESIGN Research approach

80This study

employed a typical empirical paradigm using a cross-sectional

design and quantitative

analysis. Surveys were used as data generation technique. Leedy and Ormrod (2014) highlighted the fact that a cross-sectional design involves sampling and comparing people from several different

demographic groups. This approach enables the researcher to collect the required

84data at

the same time. The study reported in

this article formed part of a larger ethics research

focus area, consisting of the primary researcher (the author) and 21 students completing their

research reports for the degree

56Master's in Business Leadership (MBL)

at the

56Unisa Graduate School of Business Leadership

(SBL) in 2015. Ethical clearance for

the total research focus area

88was granted by the SBL's research ethics committee

on the 13th of March 2015 (reference number: 2015 SBL 001 CA). Research 35participants The population (N) consisted of employees of 21 organisations in South Africa, with 60 employees per organisation selected randomly by the participating students. The characteristics of the participants in terms of the three relevant demographical variables, namely sector, race and gender, 9are reported in Table 2. TABLE 2: CHARACTERISTICS OF THE SAMPLE (N = 1 260) Category n Per cent Cumulative Percentage Sector Private 1 020 81.0 81.0 Public 240 19.0 100.0 Race African 603 50.2 50.2 Coloured 96 8.0 58.2 White 374 31.1 89.3 Indian 129 10.7 100.0 Gender Male 704 58.1 58.1 Female 507 41.9 100.0 The total sample consisted of 1 260 respondents, with 81% (1 020) from the private sector and 19% (240) from the public sector. 38In terms of race, the majority of participants were African (50.2%), followed by white (31.1%), Indian (10.7%) and coloured the (8.0%). The representation of the gender groups was slightly higher for the male group with 58.1% compared to that of 41.9% of the female group. The 15average age of the respondents was 37.26 years, and the average tenure in the specific organisation was 7.24 years 9Statistical analysis The statistical analysis was conducted with the use of Statistical Package for the Social Sciences (SPSS), 87To determine the most version 23. appropriated factor structure of the ECQ, exploratory factor analysis was conducted (technically reference is made to factors, but should be read as ethical climate types throughout the 1Factor analysis is often used in scale methodology and results section of this article).

or test development and evaluation.

Factor analysis is a technique intended

1to

reduce the number of variables to a smaller subset of variables based on

variability in the patterns of correlations (Pallant

2013). The decision regarding the

54number of variables (factors) to be retained was based on the Kaiser criterion

(eigenvalue of 1 or

more), together with the scree plot (with specific reference to the shape of

the curve) and lastly the Monte Carlo PCA for parallel analysis. An orthogonal rotation, and specifically Varimax rotation, was conducted, because of the inherent nature of a typology, where it is assumed that the factors (in this case the ethical climate types) are distinct and independent

variables.

21Varimax attempts to maximise the dispersion of loadings within

factors. Therefore, it intends to load a smaller number of variables highly onto each

factor resulting in more interpretable clusters of factors

(Tabachnick & Fidell, 2007).

1A very important criterion when deciding on the use of factor analysis is the

number of respondents as well as the ratio between items and respondents

(Hair, Black, Babin & Anderson 2010). The general opinion of

Meyers, Gamst and

Guarino (2013)

1 is that the number of respondents should not be fewer than

200.1Hair et al. (2010) regard five items per respondent as the lower limit. Both

Hair et al. (2010) and Meyers et al. (2013) indicate that the decision on the cut-off

value of the factor loading should also be based on sample1size, with minimum

loading of 0.4 to 0.5 in a study with around 200 respondents. Cronbach's alpha coefficients were used to determine the validity and reliability of the constructs measured in the ECQ. Cronbach's alpha determines the internal consistency of a test or scale and is articulated as a number between 0 and 1 with adequate measuring values of Cronbach's alpha ranging from 0.70 to 0.95 (Tabachnick & Fidel, 2007). In order to determine the utility of the ECQ 96within the South African context, and specifically in terms of its structural equivalence between the private as well as public sector, 7target (Procrustean) rotation was used to determine the construct equivalence of the ECQ. After the 9 target rotation had been carried out, the factorial agreement was estimated using Tucker's coefficient of agreement (Tucker's phi).6Values higher than 0.95 are seen as evidence of factorial similarity, whereas values lower than 0.85 are taken to point to non-negligible incongruities (Van de Vijver & Leung, 1997).1RESULTS An exploratory factor analysis of the 26 items of the ECQ was performed on the data of 1 260 respondents. Prior to running the analysis with IBM SPSS, the data were screened by examining descriptive statistics on each item, inter-item

correlations, and possible univariate and multivariate assumption violations. From the initial assessment, all variables were found to be interval-like, variable pairs appeared to be bivariate, were normally distributed, and all cases were independent of one another. The relatively large sample size (1 260) contributed to an acceptable variable-to- case ratio (48 1:1). The Kaiser -Meyer-Olkin measure of sampling adequacy and the Bartlett's test of sphericity were performed to determine the suitability for factor analysis. The 100results are reported in Table 3.19TABLE 3: KAISER-MEYER-OLKIN MEASURE OF SAMPLING ADEQUACY AND BARTLETT'S TEST OF SPHERICITY Kaiser-Meyer-Olkin Measure of Sampling Adequacy 0. 91 Bartlett's Test of Sphericity Approx. Chi-16 930.91 df 325 Sig. <.001 42The Kaiser-Meyer-Olkin measure of square sampling adequacy was 0.90, indicating that the present data were suitable conduct an exploratory factor 1analysis. Similarly, Bartlett's test of sphericity was significant at p< .001, indicating sufficient correlation between the variables to proceed with the analysis. The K1 rule was used in conjunction with the scree plot to determine the number of factors. The Kaiser's criterion focusing on

eigenvalues larger than

one.

one

1was performed and is reported in Table 4.

TABLE 4: EIGENVALUES LARGER THAN ONE AND EXPLANATION OF

VARIANCE Component Initial Eigen values Extraction sums of squared loadings

Rotation sums of squared loadings Total % of Cumulative 53Total % of Cumulative

Total Variance % Variance % **1 8.** 23 **31.** 67 **31.** 67 **8.** 23 **31.** 67 **31.**

67 7.14 2 3.60 13.86

45.53 3.60 13.86 45.53 6.38 3 2.21 8.49 54.02 2.21 8.49 54.02 3.25 4 1.14 5.46 55.16 1.42 5.46 59.48 2.86 5 1.01 3.89 59.05 1.01 3.89 63.37 1.92 Five factors reported eigenvalues larger than

38with the first factor explaining 31.67% of the variance in the

construct ethical

climate, followed by 13.86%, 8.49%, 5.46% and 3.89% of factors two to five respectively. The total variance explained by the five factors is 59.05%. Cattell's 1scree test, which is focused

on retaining the factors before the break (elbow rule) was performed and the

results are reported in Figure 1. Fig. 1: Cattell's scree plot It is evident that the

elbow flattens off after the 4th factor. The Monte Carlo parallel analysis

simulation technique was utilised to determine the number of factors that

account for more variance than the components derived from random data. The

eigenvalues obtained from the actual data are compared to the eigenvalues

obtained from the random data. If the actual eigenvalues from the principal

component analysis from the actual data are greater than the eigenvalues from

the random data, the factor is retained. The results are reported in Table 5. TABLE 5: RESULTS OF THE MONTE CARLO PARALLEL ANALYSIS Component Actual Criterion value from Decision number eigenvalues from parallel analysis **PCA** 511 8.24 1. 27 accept 2 3.60 1. 23 accept 3 2.21 1. 20 accept 4 1. 14 1. 18 reject 5 1.01 1.15 1reject The results of the Monte Carlo parallel analysis yielded a three -factor model. The three factors accounted for 54% of the total variance (see Table 4). The64results of the correlational analysis (Pearson correlation) are reported in Table 6. TABLE 6: CORRELATIONS BETWEEN EXTRACTED FACTORS F1 F2 F3 46**F1** Pearson Correlation 1 Sig. (2-tailed) N 1 239 F2 Pearson Correlation 0.13 1 Sig. (2tailed)<.001 N 1 218 1 236 F3 Pearson Correlation -.02 0.31 101**1 Sig. (2-tailed) 0.** 39 1 227 1 228 1 247 The correlations between the pairs of factors were below 0.4 <.001 N (between -0.02 and 0.31, with an average correlation of 0.15.), 1suggesting the appropriateness of an orthogonal rotation; thus, Varimax rotation was used. The structure coefficients from the Varimax rotation (with the distinct factors or ethical climate types) are 1 in Table 7. TABLE 7: FACTOR LOADINGS (VARIMAX ROTATION) AND presented THE DESCRIPTIVE STATISTICS OF THE ITEMS Factor 1: Institutionalised ethics / ethical work environment Q # Description Mean SD Factor loading ECQ1 What is best for everyone

n the organisation 2.96 1.34 0.66	12is the r	<mark>najor conside</mark> r	ation here. EC	Q2 The mo	ost			
important concern is the go	od of all	3.11 1.32 0.69 tl	ne <mark>12people</mark>	in the				
organisation as a whole. ECQ3 Our major concern is always what is best for								
.29 0.64 the other person. ECQ4	4 <mark>ln this</mark> c	rganisation, peo	ple look out fo	r each oth	ner's			
good ECQ5 ECQ6 In this orga	anisation, it i	s expected tha	t you will alwa	ys do wha	at is			
right for the customers and po	ublic. ECQ7	The most effic	i <mark>ent way is alw</mark>	ays the ri	ght			
way in this organisation. In this organisation, each person is expected above all to								
work efficiently. ECQ8 ECQ9	People are	e expected to c	omply with the	e law and				
professional standards over and above other considerations. In this organisation,								
the law or ethical code of th	eir professio	<mark>n is the major</mark>	consideration. 2.	74 1.27 4.0	6 1.0			
26 1.37 3.83 1.19 4.14 .98 3.88 1	.11 0.65 0.6	9 0.69 0.74 0.76	0.78 ECQ10 9	4 <mark>ln this</mark>				
organisation, people are ex	pected to	4.11 1.03 0.77	31 strictly fo l	llow legal	or			
professional standards. ECG	Q11 In this	organisation, the	first consider	ation is				
whether a decision violates	any law. 3	90 1.14 0.68	ECQ12 ECQ13	<mark>2lt is ve</mark>	ry			
important to follow the orga	anisation's	rules and proc	edures here.	4.17 1.02	0.77			
66Everyone is expected to s	stick by org	anisation rules a	and procedure	s. 4. 15	1.03			

0.74 ECQ14	ECQ15	2Succes:	sful pe	ople in this o	organisation go	by the bo	3.20	
1.33 0.67	2People	in this org	<mark>janisat</mark>	ion strictly o	bey the organi	sation pol	icies. 3.34	
1.21 0.73 Factor 2: Instrumental Q# Description Mean SD Factor loading ECQ16 12In this								
organisati	on, peop	le protect	their o	wn interests	above all else.	1.80 1.3	2 0.67 ECQ17	
In this organisation, people are mostly out for themselves. 2.06 1.38 0.70 ECQ18 2There is								
no room	for one'	s own per	sonal r	morals or eth	ics in this orga	nisation.	2.51 1.32	
0.63 13E0	CQ19 Pe	ople are ex	xpecte	d to do anyth	ning to further t	he organisa	ation's	
interests	, regard	less of the	conse	equences.	2.85 1.46 0.61 EC	Q20 Peopl	e here	
2are con	<mark>cerned v</mark>	with the or	<mark>ganisa</mark>	tion's interes	sts — to the exc	clusion of	all else.	
2.29 1.28 0.4	18 ECQ21	2 <mark>Work</mark>	is cons	sidered subs	tandard only w	<mark>hen it hur</mark>	ts the	
organisa	tion's in	terests.	2.41 1.	37 0.62 ECQ22	2 63The majo	r respons	ibility of	
people in this organisation is to control costs. 1.86 1.39 0.46 Factor 3: Personal morality								
Q# Description 67Mean SD Factor loading ECQ23 In this organisation, people are								
expected to 2.62 1.34 0.66 20follow their own personal and moral beliefs.								
ECQ24 Each person in this organisation decides for themselves what is right and								
wrong.	2.93 1.4	2 0.80 ECQ	25 The	2most imp	ortant concern	in this or	ganisation	

is each person's own sense of right and wrong. 2In this 2.87 1.37 0.79 ECQ26 organisation, people are guided by their own personal ethics. 2.82 1.41 0.75 The 1 results of the factor analysis with regard to the ECQ are summarised in Table 7. A factor loading cut-off point of 0.5 for inclusion in the interpretation of a factor was used. All 26 items loaded on the three factors. F1: Institutionalised ethics (ethical work environment) has 15 items, F2: Instrumental had 7 items, followed by F3: Personal morality with 4 items. The 1communalities of the three factors, although not reported in Table 7, are in most cases relatively high (> 0.3). The only item that fell outside the original 3x3 matrix 1522, "The major responsibility of people in this organisation is to typology is item control costs". 36by Victor and Cullen which was originally listed under Efficiency (1988). The results of the exploratory factor analysis, however, allocated it under Company profit, and on face value, it belongs under the new factor Instrumental. The 1descriptive statistics as well as the internal consistency of each of the factors 1as assessed by coefficient alpha is shown in Table 8. TABLE (ethical climate types) 8: DESCRIPTIVE STATISTICS, CRONBACH'S ALPHA COEFFICIENT OF THE THREE FACTORS OF THE ECQ Range Minimum Maximum Mean SD Skewness Kurtosis α F1 4.93 0.07 5.00 3.58 0.85 -0.93 1.20 F2 5.00 0.00 5.00 2.26 0.85 0.22 0.20 F3 2.86 0.00 2.86 1.60 0.65 -0.11 -0.33 0.93 0.74 0.84 With: F1 = Institutionalised ethics (ethical work environment), F2 =

1descriptive statistics in Table 8 show that

Instrumental and F3 = Personal morality The

the outstanding factor is F1 (Institutionalised ethics / ethical work environment), which is deduced from the high weighted mean score (3.58) with the lowest being that of Personal morality 1skewness and kurtosis values of the factors do not exceed the critical (1.60). The values of 2.00 and 7.00 respectively (West, Finch & Curran 1995), which is an indication that the data is normally distributed. F1 and F3 (Instrumental and Personal morality) reported a negative value on the skewness scale, with the skewness values ranging between -0.93 and 0.22. 1which is an indication that the distribution has relatively few small values and tails off to the left. The Cronbach's alpha coefficients of the factors are acceptable if the guideline of ? > 0.70 (Nunnally & Bernstein 1994) is applied. It would thus appear that the factors possess acceptable levels of internal consistency.2To examine how groups differ on each of the particular ethical climate types, post hoc comparisons (Scheffé test) 2were conducted. To summarise the pattern of relationships from the myriad of post hoc comparisons, Table 9 was produced using the following rules: If one of the three newly developed ethical climate types 2displayed a mean score significantly higher than the other two climate types 55one of the five original ethical climate types as on defined by Victor and Cullen (1988), 2a value of 'High' for that ethical then

climate type was assigned. Similarly, if

newly developed ethical climate type displayed a

mean score

2significantly lower than the other two ethical climate types, then it was

assigned a value of 'Low' for that ethical climate

type. TABLE 9: PATTERN OF MEANS

SCORES REPORTED BY THE THREE NEW ETHICAL CLIMATE TYPES ON

13VICTOR

AND CULLEN'S (1988) ORIGINAL ETHICAL CLIMATE TYPES

Climate type CARING

LAW & (cluster) CODES F 1 F 2 RULES INSTRUMENTAL INDEPENDENCE High High Mean 3.44 4.19 3.89 Low 2.17 -- 2.73 SD 0.82 Low Mean 2.12 0.69 0.76 -- -- 2.91 2.80 0.80 High 3.09 1.09 -- 3.04 SD F 3 Mean 1.16 1.30 1.31 Low Low 1.38 2.57 2.20 0.86 Low 1.48 1.28 High 4.10 SD 0.73 1.37 1.22 0.49 0.89 With: F1 = Institutionalised ethics (ethical work environment), F2 = Instrumental and F3 = Personal morality From Table 9 it is clear that the largest ethical climate type

(in terms of its composition across the five original

39climates as defined by Victor and

Cullen (1988) is F1 = Institutionalised ethics

(ethical work environment). This

2ethical

climate type may be typified simply as being high on

Caring (M = 3.44; SD = 0.82),

Law and Codes

$$72(M = 4.19; SD = 0.69)$$
 and Rules $(M = 3.89; SD = 0.69)$

76), but low on

Instrumental (M = 2.17; SD = .80). On the other hand, F2 = Instrumental may be described as being high on the original Instrumental dimension (M = 3.90; SD = 0.86) and low on Caring (M = 1.38; SD = 0.73). F3 = Personal morality measured high on Independence (M = 4.10; SD = 0.89) but low on

Caring

58(M = 1.38; SD = 0.73), Rules (M = 2.20; SD = 1.22) and Instrumental (M = 1.48;

SD = 0.

49). The

73last step in the analysis was intended to determine the

construct equivalence of the newly developed ethical climate types, by comparing the private sector with the public sector. The factor loadings of the private sector and public sector 7groups

were rotated to one target group. After target rotation had been carried out, the

factorial agreement was estimated using Tucker's coefficient of agreement

(Tucker's phi). The Tucker's phi coefficients for the two sector groups are reported

in Table 10. TABLE 10: CONSTRUCT EQUIVALENCE OF THE

3 FACTOR SOLUTION

(TYPOLOGY) OF THE ECQ (N = 1 260) Sector

41n Percentage Tucker's phi F1

Tucker's phi F2 Tucker's phi

F3 Private sector 1 020 81% 1.00 1.00 1.00 Public sector 240

19% 1.00 0.99 1.00 With: F1 = Institutionalised ethics (ethical work environment), F2 = Instrumental

and F3 = Personal morality

9Inspection of Table 10 confirms that the Tucker's phi

coefficients for

F1 = Institutionalised ethics (ethical work environment) and F3 = Personal

morality (both with p(XiYi) = 1.00 and p(XiYii) = 1.00) and F2 = Instrumental (p(XiYi) = 1.00 and p(XiYii) = 0.99) were reported for both the private sector and public sector, suggesting acceptable structural or construct equivalence (factorial loadings of pooled group = Xi, private sector = Yi and public sector = Yii). It therefore supports the notion that the three factors are equivalent across the

sectors because the

59factor loadings of the items on the latent factors are invariant

across the

two groups. DISCUSSION OF RESULTS In this study, the ethical climate scale

(ECQ)

1based on the literature and previous studies by Victor and

Cullen (1987, 1988)

was validated and adapted to the South African context. Three factors (ethical climate types) with satisfactory psychometric properties were extracted, namely Institutionalised ethics (ethical work environment), Instrumental and Personal morality and are depicted in Table 11. TABLE 11: THE 3 FACTOR TYPOLOGY AND THE CORRECPONDING ITEMS THAT LOADED ON THE

RESPECTIVE FACTORS ETHICAL

13THEORY LOCUS OF ANALYSIS Individual

Local Cosmopolitan Egoism

INTRUMENTAL Efficiency Selfinterest (6;7) (16;17;18)

Company profit (19;20;21; 22 [EC]) Benevolence Friendship (3;4) Social responsibility Team interest 5 (1;2) Principle Personal morality Company rules (23;24;25;26) (12;13;14;15) Laws and professional codes (9;10;11) The largest ethical climate type, named Institutionalised ethics (ethical

work environment), is a composite ethical climate type, across all

40three ethical criteria

(egoism, benevolence and principle) as well as the three loci of analysis

(individual, local and cosmopolitan). This supports the

notion of Arnaud (2010) that

there is possibly not a clear distinction between the two dimensions (locus of analysis and ethical criteria) as initially intended by Victor and Cullen (1987, 1988). It comprises Friendship (individual locus of analysis) and Team interest (local locus of analysis) with egoism as ethical criterion, and

69Company rules and Laws and professional codes (local and

cosmopolitan loci of

analysis respectively) with Principle as the ethical criterion. All three the cosmopolitan locus of

analysis dimensions,

71Efficiency, Social responsibility and Laws and professional

codes, which resort under the

egoism, benevolence and principle ethical criteria respectively,

are factored into this composite dimension. The Institutionalised ethics (ethical work environment) climate type is therefore defined as a working environment with clearly defined and institutionalised ethics, where employees and management are genuinely interested in the well-being of each other as well as that of all stakeholders and customers, where all organisational (and individual) behaviour adhere stringently to their professional codes of practice and governance through disciplined and consistent following of the rules and mandates of the organisation in order to be efficient. The

second ethical climate type is Instrumental and it relates

2to the degree to which

employees focus on their self-interest and rests on the

egoism ethical criterion, across

the loci of analysis of individual and local. Because the ethical criterion is solely egoism, this ethical climate type relates to the maximisation of self-interest (for individuals) economic interest (for the organisation), with the decision maker seeking alternatives with consequences that most satisfy

his/her or the organisational needs (Parboteeah & Cullen, 2003). Since the loci of analysis are jointly individual and local it is regarded as a combined ethical climate type between self-interest and company profit for private organisations and organisational interest for the public sector. This 26ethical climate type can therefore be defined as the joint maximisation of organisational interest (including company profit for private sector organisations) and subsequently the interest of employees of the organisation. The last ethical climate type is Personal morality, 2to the degree to which employees would be expected to be guided which refers by their personal moral beliefs in making decisions. 86This ethical climate type is similar to the original Independence type of Victor and Cullen (1988) and is located on the 29on the principle ethical criterion and individual locus of analysis. initial 3X3 matrix The 3personal ethical beliefs and standards, to which this ethical climate type refers, are limited to principles and deontological considerations about ethical issues. The definition of this ethical climate type is the perceived degree of discretion (and independent ethical reasoning) that a decision maker has to apply to his or her personal ethical beliefs and morality within the organisational context. 57Employees are expected to follow their own personal and moral beliefs, to 16 decide for themselves what is right and wrong, guided by their own personal 50The results of this ethics. study confirm the construct (structural) equivalence of the ECQ for both the private public sector in South Africa. It can therefore be deduced that the same constructs of and

41groups (Van de Vijver & Leung, 1997).6No ethical climate were measured in the two evidence was found for uniform or non-uniform bias of the items of the ECQ for sector groups. CONCLUSION, LIMITATIONS AND RECOMMENDATIONS "The 8scientific study of business ethics and ethics specifically, must meet high standards of conceptual and methodological rigour to help make sure it emerges as a mainstream management topic" Mayer et al. (2009:207). In order 83**to** contribute to the existing body of knowledge (which has been identified as lacking in the South African and African context), this empirical study, involving 1 260 participants across 21 companies in South Africa, sought to (i) provide a conceptual understanding of the construct 'ethical climate', and ethical climate measurement, (ii) develop a South African specific typology of ethical 45**test the equivalence of the** newly developed **factor structure** climate and (iii) (typology) between the public sector and private sector. The Ethical Climate Questionnaire (ECQ) (the 26-item version) was used. Many definitions of ethical climate were analysed, but because the ECQ is 98based on the definition and conceptualisation of ethical climate 91 by Victor and Cullen (1987, 1988), it was acknowledged that 48 ethical climate is defined in terms of shared perceptions of what ethically correct behaviour is and how ethical issues (including typical organisational 20practices and procedures that have ethical content) are handled in the organisation. The results of

the

exploratory factor analysis yielded a three ethical climate type typology, with the three

types being Institutionalised ethics (ethical work environment), Instrumental and Personal morality. The initial nine ethical climate type typology (Victor & Cullen, 1987) which was followed by the five type typology (Victor & Cullen, 1988) was used as a point of reference to structure, name and define the newly developed types. The definitions of the three types were formulated and are included

36in the discussion section of the article. All three the ethical climate types

reported

acceptable psychometric properties. A further significant finding of this study is that structural (construct) equivalence exists if this newly developed ethical climate typology is compared between the private and public sector. Recurrent limitations, as postulated by scholars conducting previous studies, should be highlighted. Firstly, there is no system to distinguish systematically between the sources, for instance, to compare top management's responses with those of their employees

(Mayer et al., 2009). Secondly, it is acknowledged that the

5ethical climate framework

was designed to capture formal, normative systems; however, a deeper

understanding of ethical climate will emerge from analysing informal systems

through triangulation as well (Webber, 2007). Lastly, the

ECQ is based on self-reporting that

may lead to method bias which might still be a reality, even with the assurance provided to participants during the briefing regarding anonymity as well confidentiality. Social desirability and subsequent response bias will always remain a concern and a limitation in studies like this (Fritzsche, 2000). The results of this study should be further analysed with the possible addition of the effect of membership to specific demographic groups, the determination of the consequences of the ethical climate types on organisational and individual behaviour and the determination of possible antecedents to ethical climate. Construct validity could also be analysed, by comparing the ECQ, and specifically this newly developed typology with other ethical climate instruments. The ECQ opens up possibilities for ethical climate research in Africa to establish a continental typology of

ethical climate.

35In conclusion, this study could serve as a

reference for the state of

the perceived ethical climates in South African organisations, from

79both the private and

the public sector. This is seen as the

major contribution of the study.

6Based on the

results obtained in this study, it seems as if the

ECQ is a suitable instrument for

measuring ethical climates

95within the South African context. It might even be

considered to be administered on a frequent basis and the scientific and diagnostic feedback be provided to, for instance, the ethics committees of organisations. The importance of the

measurement and management

85of ethical climate is accentuated by Victor and Cullen

(1987:

67) who argue that "even the phenomenon of corporate crime may

13be viewed

as a function of the ethical climate in the

firm". REFERENCES Arnaud, A. 2010.

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