UNCOVERING PERSONALITY DIMENSIONS IN ELEVEN DIFFERENT LANGUAGE GROUPS IN SOUTH AFRICA: AN EXPLORATORY STUDY

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COMMENTS

The reader is reminded of the following:

- The references as well as the editorial style as prescribed by the *Publication Manual (5th edition)* of the American Psychological Association (APA) were followed in this thesis. This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University to use APA style in all scientific documents as from January 1999.

- The thesis is submitted in the form of three research articles.

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SUMMARY

Topic: Uncovering the personality dimensions in eleven different language groups in South Africa: An exploratory study.

Keywords: Personality, personality measurement, cross-cultural research, lexical approach, etic approach, emic approach, eleven official language groups.

Personality inventories in South Africa are challenged with many factors restricting unbiased and fair measurement. The Employment Equity Act clearly stipulates that all psychometric measuring instruments should be proven bias free, equivalent, and fair. Most of the current inventories utilised in South Africa are imported from Europe and/or the United States of America, and these instruments are translated into either English or Afrikaans, which restricts the language proficiency factor of respondents from other language groups. There are 11 official language groups in South Africa; people also differ regarding race, culture, socioeconomic status, and educational backgrounds. All of these factors are not always properly accounted for in the standardisation of imported inventories – which limits their appropriate employment in the South African context.

The objective of this study was to uncover the personality structure of each of the 11 language groups in South Africa, and to identify the shared and unique personality dimensions of the different language groups. From this structure, an instrument will be developed to measure personality in such a way that it will meet the Employment Equity Act.

A qualitative research design was used in this study. Quasi-sampling (n=1308) was implemented in order to identify participants from each of the 11 language groups, which differed from each other with regard to age, gender, and socioeconomic status. Following the lexical approach, structured interviews were conducted in the native language of the participants to gather information about personality-descriptive terms. The results of the interviews were transcribed and captured in Excel, and sent to language experts for language editing and translation into English. Ambiguous, superfluous and non-personality terms were removed from the data. Following this process, more than 50 000 personality-descriptive terms were identified. Content analysis was utilised in order to interpret the personality-

descriptive terms to personality dimensions. Language and cultural experts were employed in order to validate the initial interpretations.

The 50 000 descriptive terms were reduced to 190 personality dimensions through the use of cluster analysis. The analysis included the grouping of synonyms and antonyms, together with the use of dictionaries, literature and knowledge about content. The 190 dimensions were also divided into those that are common (shared by all 11 language groups), semi-common (shared by seven to ten of the language groups), semi-specific (shared by two to six of the language groups), and language-specific (unique to a particular language group). It was discovered that 78 dimensions were common, 69 semi-common, 32 semi-specific, and only 11 were language-specific. Most of the personality dimensions seem to be shared by the language groups, rather than to be unique.

These 190 dimensions were clustered further in order to build the indigenous personality structure. Similar methods from the initial clustering phase were implemented. Clustering concluded 37 sub-clusters, which consisted of two to ten dimensions, and nine overall clusters consisting of two to six sub-clusters. These nine clusters are *Extraversion, Soft-heartedness, Conscientiousness, Emotional stability, Intellect, Openness, Integrity, Relationship harmony,* and *Facilitating*. Many indigenous aspects are evident, as well as universal aspects within the structure.

Recommendations for future research were made.

OPSOMMING

Onderwerp: 'n Bepaling van die persoonlikheidsdimensies in elf verskillende taalgroepe in Suid-Afrika: 'n Verkennende studie.

Sleutelterme: Persoonlikheid, persoonlikheidsmeting, kruiskulturele navorsing, leksikale benadering, fonetiese benadering, fonemiese benadering, 11 amptelike taalgroepe.

Persoonlikheidvraelyste in Suid-Afrika kry te make met verskeie faktore wat onbevooroordeelde en regverdige meting beperk. Die Wet op Gelyke Indiensneming bepaal dat alle psigometriese meetinstrumente onpartydig, ekwivalent en regverdig moet wees. Die meeste van die vraelyste wat tans in Suid-Afrika in gebruik is, is afkomstig van Europa en/of die Verenigde State van Amerika, en word óf in Engels óf in Afrikaans vertaal, wat uiteraard beperkings plaas op die taalvaardigheidsfaktor van anderstalige respondente. Suid-Afrika het 11 amptelike taalgroepe; mense verskil ook wat betref ras, kultuur, sosio-ekonomiese status, en opvoedkundige agtergrond. Al hierdie faktore word nie noodwendig in ag geneem met die standaardisering van ingevoerde vraelyste nie – wat lei tot beperkte aanwendings-moontlikhede in die Suid-Afrikaanse konteks.

Die doelstelling van hierdie studie was om die persoonlikheidstruktuur van elk van die 11 taalgroepe in Suid-Afrika te bepaal, asook om die gedeelde en unieke persoonlikheids-dimensies van die verskillende taalgroepe te identifiseer. Vanuit hierdie struktuur sal daar dan 'n instrument ontwikkel word om persoonlikheid op só 'n manier te meet dat dit aan die vereistes van die Wet op Gelyke Indiensneming sal voldoen.

In hierdie studie is daar gebruik gemaak van 'n kwalitatiewe navorsingsontwerp. Kwasi-steekproefneming (n=1308) is geïmplementeer ten einde deelnemers uit elk van die 11 taalgroepe te identifiseer. Hulle het van mekaar verskil ten opsigte van ouderdom, geslag, en sosio-ekonomiese status. In ooreenstemming met die leksikale benadering is gestruktureerde onderhoude in die deelnemers se moedertaal gevoer met die oog op die insameling van inligting oor persoonlikheidsbeskrywende terme. Die resultate van die onderhoude is getranskribeer en vasgelê in Excel, en na taalkundiges toe gestuur vir redigering en vertaling na Engels. Dubbelsinnige, oorbodige en nie-persoonlikheidsverwante terme is uit die data

verwyder. Deur middel van hierdie proses is meer as 50 000 persoonlikheidsbeskrywende terme geïdentifiseer. Daar is gebruik gemaak van inhoudsontleding vir die interpretasie van die persoonlikheidsbeskrywende terme tot persoonlikheidsdimensies. Die aanvanklike interpretasies is deur taal- en kultuurkundiges bekragtig.

Die 50 000 beskrywende terme is deur middel van konstrukontleding verminder tot 190 persoonlikheidsdimensies. Die ontleding het onder meer die groepering van sinonieme en antonieme behels, saam met die gebruik van woordeboeke, literatuur en kennis oor inhoud. Die 190 dimensies is ook onderverdeel in: algemeen (gedeel tussen al 11 taalgroepe), semi-algemeen (gedeel tussen sewe tot tien taalgroepe), semi-spesifiek (gedeel tussen twee tot ses van die taalgroepe), en taalspesifiek (eie aan 'n bepaalde taalgroep). Ons het bevind dat 78 dimensies algemeen was, 69 semi-algemeen, 32 semi-spesifiek, en slegs 11 taalspesifiek. Dit lyk asof die meeste van die persoonlikheidsdimensies deur die taalgroepe gedeel word, d.w.s. nie uniek is nie.

Hierdie 190 dimensies is verder onderverdeel in konstrukte ten einde die inheemse persoonlikheidstruktuur uit te bou. Soortgelyke metodes van die aanvanklike konstrukfase is geïmplementeer. Konstrukvorming het 37 subkonstrukte opgelewer, bestaande uit twee tot tien dimensies, en nege oorhoofse konstrukte bestaande uit twee tot ses subkonstrukte. Hierdie nege konstrukte is *Ekstroversie, Teerhartigheid, Nougesetheid, Emosionele Stabiliteit, Intellek, Openheid, Integriteit, Verhoudingsharmonie,* en *Fasiliterendheid.* Baie inheemse aspekte is klaarblyklik sowel as universele aspekte binne die struktuur.

Aanbevelings is gemaak vir verdere studie.

CHAPTER 1

INTRODUCTION

This thesis explores the indigenous personality structure of 11 different language groups in South Africa.

Chapter 1 focuses on the problem statement, research objectives and research methodology. The chapter starts out with a problem statement, giving an overview of the situation and challenges of personality measurement in South Africa today. The prior research is linked to the research project at hand and its research objectives. A discussion of the research method follows, with an explanation regarding the research design, participants, measuring instrument and data analysis. The chapter concludes with an overview of the chapters comprising this thesis.

1.1 PROBLEM STATEMENT

The importance of personality measurement for the prediction of academic and job performance has grown considerably over the last 10 years (La Grange & Roodt, 2001; Van der Walt, Meiring, Rothmann, & Barrick, 2002). Van der Merwe and Maritz (2002) and Huysamen (2002) stress the importance of the use of personality tests for selection, placement and management of employees in organisations. Many theorists have portrayed personality and job-related performance as intertwined human qualities (Momberg, O'Neil, & Basson, 2005; Staggs, Larson, & Borgen, 2003).

Nadelson (2001) states that personality is not something that a person has. Instead, it describes certain characteristics of an individual's behaviour and it is the distinctive way in which each person thinks, feels, behaves or adapts to various situations. Aiken (1994) argues that personality is a composite of mental abilities, interests, attitudes, temperament, and other individual differences in thoughts, feelings and behaviour. According to Caprara and Cervone (2000), personality is influenced by many levels of experience. They further state that personality results from biochemistry, genetic and cultural factors. McCrae and Costa (1995) argue that personality traits are universal dimensions that transcend time, place, and circumstance. Goals, believes, and plans are intrinsically embedded in historical, cultural and

social contexts. Personality traits are not descriptive summaries of behaviour, but rather dispositions that are inferred from and can predict and account for patterns of thoughts, feelings, and actions (McCrae & Costa, 1995).

Personality traits have also been thoroughly researched to construct personality theory, as well as for assessment purposes in Western psychology (Church, 2000). According to Neil (2003), personality traits are defined as "distinguishing qualities or characteristics of a person". Personality traits refer to a readiness to think or act in similar fashion in response to a variety of different stimuli or situations (Neil, 2003). Wiggens (1997) and Zuroff (1986) point out that personality traits should be used in the study of personality.

Meta-analyses of the role of personality traits in the prediction of job-related outcomes have focused on the so-called Big Five personality factors, namely Extraversion, Neuroticism, Openness to experience, Conscientiousness and Agreeableness (Judge, Heller, & Mount, 2002; Salgado, 2003). In South Africa, Van der Walt et al. (2002) found that Extraversion, Neuroticism and Conscientiousness were valid predictors of success in different occupations. Personality traits are central to personality psychology, focus on stable internal attributes, and provide the basis for the theory of cross-cultural research on personality (Church, 2000).

Van Niekerk (1996) states that personality psychology draws on the developments through a range of factors (biological, affective, cognitive, cultural, interpersonal, psychological and social) and is therefore ideally positioned to serve and give knowledge about diverse psychological functioning of the human mind and should the field of personality be developed as a integrative discipline. Caprara and Cervone (2000) stress two interlocking theoretical assumptions, namely that personality psychology encompasses the study of determinants and dynamic of personality as well as the development of human potential. They highlight the dynamic transactions between the individual and the sociocultural environment as well as the human capacities for self-reflection and self-regulation.

McAdams and Pals (2006) propose five principles for a new integrative science of personality to consolidate the gains personality psychology has made in recent years. These principles are:

- Evolution and human nature. Evolution is the ultimate context for human individuality, suggesting universal design features against which individual adaptations vary. Evolution concepts of personality may also suggest what kinds of basic variations to expect in psychological individuality (Gangestad & Simpson, 1990). Those features that people in many different cultures are most likely to notice, talk about, and base personal decisions on may provide a broad sketch of basic personality differences.

- Dispositional signature. Dispositional traits are those broad, non-conditional, decontextualised, generally linear and bipolar, and implicitly comparative dimensions of human individuality that go by such names as extraversion, dominance, friendliness, dutifulness, depressiveness, and the tendency to feel vulnerable. Dispositional traits are about the person's adjustment to and engagement of the social world. The Big Five personality dimensions offer a comprehensive system of organising basic personality tendencies that have proven to evoke consequential differences in social life. The timing, situations and social roles are also important in the research of basic personality tendencies in different social contexts.

- Characteristic adaptations. Character adaptations include motives, goals, plans, strivings, strategies, values, virtues, schemas, self-images, mental representations of significant others, developmental tasks, and many other aspects of human individuality that speak to motivational, social-cognitive, and developmental concerns. Costa and McCrae (1994) refer to character adaptation as specific patterns of behaviour that are influenced both by dispositional traits and by situational variables. Presently, researchers are looking for a link between dispositional traits and character adaptations, but so far, studies have shown that character adaptations function in different ways than dispositional traits.

- Life narratives and the challenge of modern identity. Narrative approaches to personality suggest that human beings construe their own lives as ongoing stories and that these life stories help to shape behaviour, establish identity, and integrate individuals into modern social life. Personality psychologists conducted research on the narrative approaches which focused on the identification of structural characteristics and content themes in life stories and the examination of their relationships to traits, motives and mental health. A full accounting of a person's life requires an examination of the unique patterning of

dispositional traits, characteristic adaptations and life narratives that characterise that life, all grounded ultimately in the evolutionary demands of the species and, at the same time, complexly influenced by culture.

- The differential role of culture. Personality psychology sees culture as the mixture of meanings, practices and discourses about human life that prevail in a given group or society (Shweder & Sullivan, 1993). It is important to know that the different aspects of personality are impacted in different ways, from a person's immediate social situation to cultural ethos. Dispositional traits were found to be relatively influenced by social and cultural factors, while they depend on a person's culture about the patterns of characteristic adaptations he/she chooses. According to Rosenwald and Ochberg (1992), life stories (narrative) were found to be the centre of culture. McAdams and Pals (2006) state that culture provides each person with an extensive menu of stories about how to live, and each person chooses from the menu. Self and culture come to terms with each other through narrative.

The above-mentioned principles may help to clarify ways in which certain programmes of research in social psychology articulate the dynamics of personality. While these five principles provide one valuable take on personality development, the emphasis should be on the stability of dispositional traits over time (McAdams & Pals, 2006).

The question arises whether personality dimensions are universally defined or culture-specific (Jia-Ling Lin & Church, 2004). According to Triandis (1995), personality is less evident in collective cultures than in individual cultures, because the situation is such a powerful determinant of social behaviour. It becomes more futile attempting to identify, measure and attribute personality traits in non-Western individuals, like Africans with their diverse cultural differences within countries (Church, 2000). Triandis (1995) argues that cultures often differ according to individualistic versus collectivistic values (Triandis, 1995) or in their construal of self as independent versus interdependent with others (Markus & Kitayama, 1991, 1998). Mbigi (2000) found that both collective and individualistic cultural values exist in South African organisations. All of the above have implications for the value and role of traits as units of analysis across cultures, especially within South Africa. According to Jai-Ling Lin and Church (2004), biological and socio-cultural determinants of personality and practices must be well known. It must also be known whether personality

inventories developed for one culture can be validly applied for assessment or prediction purposes to another culture.

Personality measurement methods differ in many ways, but the most frequently used forms are 1) the inventory or structured format (e.g. the Sixteen Personality Factor Questionnaire, the Minnesota Multiphasic Personality Inventory, and the Myers-Briggs-Type Indicator) and 2) the ambiguous format (e.g. the Thematic Apperception Test and the Rorschach Test). An issue for most researchers is whether personality dimensions measured through questionnaires or inventories can predict performance and behaviour in organisations (La Grange & Roodt, 2001). Personality inventories, with their standard format and structured responses provide the client with a relatively more structured questionnaire of sentences; many of which require a true or false response (Butcher, 2000). Because of their utility, most personality assessment inventories are adapted into languages and cultures that are different from those in which they were originally developed. In South Africa, most of these adapted tests are translated into English and Afrikaans. Meiring (2006) states that the absence of construct equivalence across the different cultural groups in South Africa and the use of mostly English questionnaires are problematic. De Bruin, De Bruin, Dercksen, and Cilliers-Hartslief (2005) found that the use of personality tests in South Africa is faced with two challenges. Firstly, it can be expected that some participants will have an indigenous African language as their first language. Very few suitable inventories are available in indigenous African languages. Secondly, many people might have poor English reading and understanding skills.

A number of issues are involved in the adaptation of psychological tests across cultural and language barriers (Butcher, Derksen, Sloore, & Sirigatti, 2003). Determining what is normal or abnormal behaviour is not easy, even within one's own cultural group, and may be more complex when standards are generalised across different societies. According to Meiring et al. (2006), personality is universal, but may be expressed in different ways by individuals from different cultural groups. It is important to define personality in social and behavioural terms in order to derive much of its meaning from the context in which it occurs. Construct equivalence needs to be assured in order to guarantee that the constructs that the test was designated to measure apply in the new setting (Butcher et al., 2003).

Careful translation procedures are important in cross-cultural test adaptation to capture the intended meaning of the items (Butcher et al., 2003). It is also important to make sure that the variables being assessed operate in the same way in all cultures in the study. Individuals from different cultural backgrounds might differ with respect to their experiences and acceptability of a particular psychological test format or content. In order to assure equivalence of psychological tests being adapted into other languages and cultures, the constructs underlying the test need to be equivalent in all cultures, and the means of assessing these constructs needs to be shown to be equivalent.

The five-factor model of personality (NEO-PI-R) has been found to show similar psychometric properties in several countries around the world (McCrae & Costa, 1997). Despite the transformability of a measure across cultural lines, personality may not be different across cultures, but expressions of personality are very likely to differ (Church & Katigbak, 1988). Exported instruments are often changed significantly as they are transported from country to country, leaving one uncertain about the comparability of measures being used across different language versions (Hambleton & Kanjee, 1995).

From a cross-cultural perspective it can be argued that the human mind and its processes are essentially the same everywhere, despite cultural differences in content and context, which in turn leads to optimism about the possibility of identifying universal personality dimensions and processes (Church, 2000). Cross-cultural personality psychologists are often interested in identifying cultural universals, testing the generality of personality theories and constructs, and clarifying the role of cultural influences in personality and behaviour. Schmidt, Kihm, and Robie (2000) set out to develop the Global Personality Inventory (GPI) for all countries and all cultures, in order to gain more insight into the cross-cultural differences between individuals around the world. The combination emic and etic approach were used in order to do more thorough research. Cheung, et al. (1996) also used the emic-etic approach to develop the Chinese Personality Assessment Inventory (CPAI). The etic (imported) approach emphasises 'core similarities' in all human beings, whereas the emic (indigenous) approach utilises a cultural-specific orientation relevant to the local context (Cheung, Cheung, Wada, & Zhang, 2003). Yik and Bond (1993), however, state that the deficiency of the imposed-etic approaches lies in the omission of important cultural-specific or emic personality constructs in the imported instruments (Cheung et al., 2001). Personality constructs of this nature could have provided a fuller understanding of behaviour in a local culture context.

The etic dominance is particularly evident in studies of cross-cultural personality assessment, which has traditionally relied on translating and adapting English-language tests and assumed that the traits these tests measure were adequate and sufficient representatives of the personality dimensions in other cultures (Cheung et al., 2001). Meiring et al. (2005) demonstrated that psychological instruments imported from abroad could have a limited suitability for South Africa. It is evident that the indigenous (emic) approach would be more relevant and suitable in the rich cultural context of South Africa when developing a psychometric test.

Ho (1998) defines indigenous (emic) psychology as 'the study of human behaviour and mental processes within a cultural context' in which cultural 'conceptions and methodologies rooted in that cultural group are employed to generate knowledge'. Kim and Berry (1993) identify a key aspect of indigenous psychologies as the emphasis on contextualised understanding rooted in a particular setting. Many of the indigenous personality constructs reflect the relational nature of human experience, which defines selfhood in a social and interpersonal context (Ho, Peng, Lai, & Chan, 2001). Swartz and Davies (1997) recommend using indigenous cultural practices in order to improve the management of diversity in organisations and effectiveness of transformation in South Africa. It could also be more sufficient to use a combination of emic-etic approaches to develop a suitable psychometric test. Emic approaches could be used to permit the indigenous framework without causing constraints to occur and to identify the indigenous factors of personality description, and then an etic measure can be used to compare these dimensions with ones found in other languages (Saucier & Goldberg, 2001). The cross-cultural generalisability of personality dimensions has most often been researched using imposed-etic approaches (Berry, 1969) in which inventories developed for one culture may be administered in translated versions in other cultural contexts (Jai-Ling Lin & Church, 2004).

According to Foxcroft (1997), South Africa mostly followed international trends, and adapted tests that were developed abroad for use in South Africa. Most of these tests did not take into account the political, social and economic history of South Africa, and had a major impact on fair assessment for all South Africans. The Sixteen Personality Factor Questionnaire (16PF) is an example of a widely used adapted personality test in South Africa which is mostly used for vocational psychology or selection purposes. Abrahams and Mauer (1999) showed that

some individuals found some of the items 'offensive', which had a serious impact on the inter-rater reliability of the test. This is because of the absence of cross-cultural checks, which made some of the items more idiosyncratic and subjective. The qualitative evidence of the validity of the 16PF in South Africa showed that there is a 'language problem', and some people from certain language groups were unable to understand some of the items. Meiring (2006) used commonalities of three personality tests, namely the Fifteen Factor Questionnaire (15FQ), Occupational Personality Profile (OPP) and Basic Traits Inventory (BTI) in order to develop a single personality instrument. He discovered that only three of the Big Five personality dimensions were relevant for all cultures in South Africa, namely emotional stability, extraversion, and openness to experience. These three stable factors were found to have good psychometric properties across all cultures in South Africa, except for the sociability factor in the case of the Setswana-speaking group. Many of the items of the new personality questionnaire were found to be biased, but the influence was minimal on the cross-cultural differences in scale scores when these bias items were removed. Meiring (2006) further states that personality should be studied with different levels of abstraction and conversions, especially within South Africa with its huge collectivism cultural dynamic where interdependence and interpersonal relationships are important.

Heuchert, Parker, Strumf, and Myburg (2000) applied the NEO-Personality Inventory-Revised (NEO-PI-R) to college students. For the African and White groups, a clear five-factor solution was found. However, the translation of the NEO-PI-R into isiXhosa was found to be difficult, as some items could not be translated because of limited vocabulary. When Taylor (2000) did a construct comparability study of the NEO-PI-R in the work setting, he found that it did not work equally well for Africans as for Whites. It is evident that these personality tests used in South Africa are not suitable for the country's multicultural and multilinguistic society. Since the adaptation of tests in South Africa is not without its problems, it makes more sense to develop an own measure for personality for all cultures and languages in South Africa in order to secure fair assessment of traits across cultures and to prevent bias and inequivalence to occur.

According to recent statistics (mid-year population estimates, South Africa, 2005) the population of South Africa is estimated at around 46,9 million. Africans make up 37,2 million (79%), Whites 4,4 million, Coloureds 4,1 million and Indians 1,1 million of the population. Furthermore, 51% of the population is female. There are approximately 15,2

million children in South Africa and 2,6 million people older than 60. The percentages of individuals in the official language groups in South Africa are presented in Table 1.

Table 1

The Official Languages of South Africa

Language	**% of total population**
isiZulu	23,8
isiXhosa	17,6
Afrikaans	13,3
Sepedi	9,4
Setswana	8,2
English	8,2
Sesotho	7,9
Xitsonga	4,4
Siswati	2,7
Tshivenda	2,3
Southern isiNdebele	1,6
Other Languages	0,5

Table 1 shows that isiZulu is the most commonly spoken language (23,8%) in South Africa, while isiNdebele is the least commonly spoken language (1,6%). Afrikaans is spoken by 13,3% people, while 8,2% of the population has English as home language. It is evident from these research statistics that South Africa is a multicultural and multilinguistic society – a fact which has a huge impact on the psychological assessment of people for selection purposes within organisations, especially after the democratic elections in 1994.

South Africa faced numerous problems concerning post-apartheid organisational dynamics, such as heightened ethnic and language diversity, legally sanctioned affirmative action and its consequences, adverse labour relations with the tendency toward open conflict and violence, and the widening gap between the 'haves' and the 'have-nots' in terms of income level, education and opportunities (Roodt, 1997). The workforce had to adapt their way of thinking and doing to the new paradigm and culture of South Africa.

The Afrocentric term 'Ubuntu' is common to most organisations in South Africa because of the shift to 'African Management' after 1994. Ubuntu is a cultural value of communalism,

which supports extensive social community networks characterised by cooperation and solidarity (Mbigi, 1997). Mbigi and Maree (1995) define Ubuntu 'as the sense of solidarity or brotherhood which arises among people within marginalised or disadvantage groups'. Ubuntu is a sharp contrast to the more traditional individualistic values prevalent in South African organisations and affects areas such as cooperative effort and teamwork (Mbigi, 1997). The underlying description of Ubuntu is the existence of the self and the simultaneous existence for others, treating other persons with respects and dignity. There is a humanness factor as well where all individuals are valued as worthy. Louw (2002) and Mbigi (2000) further state that Ubuntu is a continuous state of agreement or reconciliation of different values and an appreciation for differences of individuals.

The shift to diversity management after 1994 makes it all the more vital to develop a new questionnaire inventory for all South African cultural and language groups. This new inventory should be aimed at the development of a single, unified personality inventory for South Africa that takes into consideration both universal and unique personality factors across the various cultural and language groups in South Africa. Taylor and Boeyens (1991) developed the South African Personality Questionnaire (SAPQ) in 1991, but some of the items were tested to be biased and inequivalent, so a need for a new reliable and valid personality measurement is evident. The requirements, according to the Employment Equity Act, 55 of 1998, Section 8 (Government Gazette, 1998), are as follows: Psychometric testing and other similar assessments of an employee are prohibited unless the test or assessment that is being used has been scientifically shown to be valid and reliable, can be applied fairly to all employees, and is not biased against any employee or group.

Given the importance of the use of personality tests, it is vital that such tests should be valid and reliable and applicable for all cultural and language groups (Blinkhorn & Johnson, 1990). Personality tests may fail to select appropriate candidates in South Africa if they fail to reveal true personality differences between candidates (African or White) or if the questionnaire identifies personality differences which do not actually exists (Stanton & Matthews, 1995). The use of different measurements for all cultural groups in South Africa is an option. However, the majority of South Africans regard the use of separate tests for different cultural groups as unacceptable (Maree, 2000). According to post-apartheid policies, fair testing practices entail administering tests in the language in which the test-taker is sufficiently competent (HPCSA, Form 207, Policy on the classification of psychometric measuring

devices, instruments, methods and techniques, 2002). The post-apartheid policies also impacted negatively on the development and use of inventories in South Africa, because only a few tests are available that have been designed and standardised for all South Africans.

It is evident from the problem outlined in the above discussion that South Africa is facing numerous challenges. One major challenge is manifested in currently utilised personality inventories that show high numbers of bias and inequivalent items. This could be the result of previously disadvantage groups that were not adequately represented in the standardisation of these imported inventories. This rendered the current project in which we aim to develop an indigenous personality inventory that includes participants from all eleven official language groups, and that show to be bias free, and equivalent.

From the problem statement above the following research questions emerged:

- Which approaches can be applied to uncover the personality structure of individuals?
- What are the problems regarding personality measurement in South Africa?
- How can personality-descriptive terms be determined for the 11 official language groups in South Africa?
- Do differences exist between personality-descriptive terms used in the 11 official language groups in South Africa?
- Which personality dimensions are common to all language groups, and unique to specific language groups?
- What is the personality structure in the 11 official language groups in South Africa?
- How does personality structure within South African official language groups compare with existing personality models?

1.2 RESEARCH OBJECTIVES

The research objectives consist of general objectives and specific objectives.

1.2.1 General objective

The study aims to discover the personality structure of the 11 official language groups in South Africa, to uncover common and indigenous personality dimensions, and to compare the personality structure in South African language groups with existing personality models.

1.2.2 Specific objectives

The specific objectives of this study are to:

- Identify the approaches which can be applied to uncover personality structure.
- Describe the problems regarding personality measurement in South Africa.
- Identify how personality-descriptive terms can be determined for the 11 official language groups in South Africa.
- Determine whether differences exist between personality-descriptive terms used in the 11 official language groups in South Africa.
- Identify which personality dimensions are common to all language groups, and unique to specific language groups in South Africa.
- Determine the personality structure in the 11 official language groups in South Africa.
- Compare the personality structure within South African official language groups with those reported in existing personality models.

1.3 RESEARCH METHOD

The research method consisted of a literature review and an empirical study (qualitative research).

1.3.1 Literature review

The literature review is conducted by making use of databases such as ERIC, Academic Search Premier, EBSCO Host and Emerald online. The aim of the literature review was to explore and understand current problems of personality measurement in South Africa, and to

motivate why an indigenously developed inventory could be more meaningful for measurement in South Africa.

1.3.2 Empirical study

The empirical study consisted of the research design, the participants, data gathering and data analysis.

1.3.2.1 Research design

A qualitative research design was used for the sampling of information concerning different personality-descriptive terms for each of the 11 official language groups in South Africa. Semi-structured interviews were conducted among male and female participants from a variety of ages, education, urbanisation status and socioeconomic status, which were representative of all cultural and linguistic groups.

1.3.2.2 Participants

A combination of quota and convenience sampling was used to collect data. Semi-structured interviews were conducted with between 95 and 140 persons from each of the 11 official language groups of South Africa (n = 1308). This population included adults from all walks of life, ranging from the unemployed to the professional level. The lowest level people were reported to have a level of literacy adequate for expressing themselves in their home language.

1.3.2.3 Data gathering

Precisely 1 308 semi-structured interviews were done with all 11 language groups in South Africa, using a tape recorder. These interviews were then transcribed and translated. All the translations were checked by language experts to ensure the accuracy of the personality-descriptive terms. These personality-descriptive terms were then captured in Excel spreadsheets, which resulted in 4 000 to 7 000 personality-descriptive terms in each language group.

1.3.2.4 Data analysis

The personality-descriptive terms were first prepared for content analysis using a method of 'cleaning'. All dubious, ambiguous and superfluous words were deleted, as well as all non-personality terms. To make the grouping of similar responses continuous, we used the plural forms of all tenses and verbs.

After the preparation phase, we began with the interpretive phase. Here we categorised all personality-descriptive terms towards personality facets, using external resources (i.e. dictionaries, literature) as guideline. After the categorisation phase, we used cluster analysis in order to group all similar personality facets together in order to develop an indigenous personality structure. In this phase, we also identified which facets were common (shared between all language groups), semi-common (shared between seven and ten of the eleven language groups), semi-specific (specific to only two to six of the 11 language groups), and language-specific (specific to one language group).

1.4 RESEARCH PROCEDURE

A letter requesting participation and motivating the research was included. Ethical aspects regarding the research were discussed with the participants.

1.5 DIVISION OF CHAPTERS

The chapters are presented as follows in this thesis:

Chapter 1	Introduction
Chapter 2	An approach for exploring the personality structure in South Africa
Chapter 3	Identifying common and unique personality aspects in eleven language groups in South Africa
Chapter 4	Uncovering the personality structure for the eleven language groups in South Africa: An exploratory study
Chapter 5	Conclusions, limitations and recommendations

1.6 CHAPTER SUMMARY

Chapter 1 introduces the problems regarding personality measurement in South Africa today, and investigates alternative approaches that could be implemented in order to deal with these problems. An approach is put forward for developing an indigenous measurement for South Africa. This approach is a modified version of the lexical approach. Information is gathered through semi-structured interviews which focus on the everyday conceptualisation of personality in each of the eleven official language groups. Qualitative methods are employed to evaluate the data using content analysis and cluster analysis in order to develop an indigenous personality structure.

Chapter 2 explores the approaches utilised in personality research across regions, focusing on the lexical, etic, and emic approaches. The South African situation regarding personality measurement and research is investigated, and the relevance of implementing the lexical approach for personality research in this context.

Chapter 3 sets out to discover the indigenous personality dimensions for South Africa, using samples from all eleven official language groups. The indigenous and universal dimensions are investigated, as well as the dimensions that are common to the majority of the groups, or unique to particular language groups.

Chapter 4 consists of the indigenous personality structure of South Africa, including all personality dimensions derived. This chapter explores the comparison between the South African personality structure, and personality models found in literature, more specifically the Big Five or Five-Factor Model, Big Seven Model, HEXACO, Eysenck's 'Giant Three', and CPAI. The Ubuntu concept is also explored in this chapter.

Chapter 5 consists of the conclusions drawn from this thesis, as well as recommendations made for the field of study and for future research.

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CHAPTER 2

ARTICLE 1

AN APPROACH FOR EXPLORING PERSONALITY STRUCTURE IN SOUTH AFRICA

ABSTRACT

Most of the personality inventories employed in South Africa are imported from Western countries and are usually administered in English. These measures show important limitations. The use of English-language instruments is problematic for participants with insufficient mastery of English. Furthermore, previous research has shown that inventories such as the Sixteen Personality Factor Questionnaire (16PF) and the Fifteen Factor Questionnaire (15-FQ) are culturally biased. Against the background of the need for unbiased measures of personality, this article describes approaches to the development of culture-informed, psychometric sound questionnaires. Etic measures (which emphasise commonalities across cultures) have to be complemented by emic measures (which attempt to explore culture-specific traits and culture-specific manifestations of general traits). Given the socially diverse environment in South Africa, it is essential to address expressions of personality in all language groups instead of just applying Western instruments.

OPSOMMING

Die meeste van die persoonlikheidsinstrumente wat tans in Suid-Afrika gebruik word, is ingevoer uit Westerse lande, en word in Engels geadministreer. Hierdie meetinstrumente het 'n paar belangrike beperkings. Die gebruik van Engels as voertaal vir instrumente is problematies vir sommige deelnemers wat nie vaardig is in die taal nie. Kultuurvooroordeel word ook in verdere navorsing getoon in instrumente soos die Sestienpersoonlikheidsfaktor-vraelys (16PF) en die Vyftienfaktorvraelys (15-FQ). Die behoefte aan onbevooroordeelde persoonlikheidsinstrumente lei tot die soeke na benaderings wat gevolg kan word vir die ontwikkeling van kultureel en psigometries relevante vraelyste. Fonetiese metings (beklemtoon gedeelde trekke tussen kulture) moet gekomplementeer word met fonemiese metings (beklemtoon inheemse trekke van 'n betrokke kultuurgroep). Gegewe die sosiaal diverse omgewing van Suid-Afrika is dit belangrik om te fokus op die manifestasie van persoonlikheid in alle taalgroepe, in stede daarvan om bloot van ingevoerde Westerse instrumente gebruik te maak.

South Africa's multicultural and multilingual context presents psychologists who wish to measure personality with numerous problems. South Africa has 11 official languages, which presents test constructors with the challenge of developing psychometric instruments that are suitable for all these language groups. Cultures and races are highly diversified in the South African environment and there is an uneven distribution of socioeconomic and educational levels across these groups (Bedell, Van Eeden, & Van Staden, 1999). Although these linguistic and cultural differences are well known, there is a lack of understanding of the impact thereof on psychometric measurement.

Personality inventories are mainly used for diagnosis, counselling and the prediction of behaviour in educational, clinical and industrial settings. According to Retief (1987), personality inventories generally aim to provide an objective and decontextualised picture of individual differences, which limits the chance of identifying the moderating effects of the context in which personality is observed. According to Wallis and Birt (2003), assessment practitioners should be cautious in constructing and using personality inventories, especially within a multicultural and multilingual environment like South Africa. Retief's (1988) views are supported by research which showed that personality inventories in South Africa are not cross-culturally applicable, since previously disadvantage groups were not adequately represented in the adaptation of imported inventories (Meiring, Van de Vijver, & Rothmann, 2006).

There are four related reasons why psychologists should be reluctant to use imported measures and why psychologists should use more culture-informed measures. The first is to meet legal requirements. The Employment Equity Act of 1998 states that all psychological instruments should be unbiased, and applied fairly to all cultural groups in South Africa (Government Gazette, 1998). More specifically, the Employment Equity Act, 55 of 1998, Section 8 (Government Gazette, 1998), stipulates that the use of psychometric inventories in South Africa is prohibited unless the test being used:

- has been scientifically shown to be valid and reliable;
- can be applied fairly to all employees; and
- is not biased against any employee or group.

The second reason for using culture-informed instruments is the aim to achieve high professional standards. The third reason is the ethical requirement we have as professionals to deliver high-quality services to the community. The fourth and last reason is substantive. The most adequate psychometric properties can only be expected for instruments that are sensitive to the respondents' and clients' cultural and linguistic background.

Research indicates that commonly employed personality inventories do not provide unbiased scores across South Africa's cultural and language groups (Abrahams & Mauer, 1996; Foxcroft, 2004; Meiring, Van de Vijver, & Rothmann, 2006). Moreover, it is not clear how to develop a psychometric instrument that is suitable for all cultural groups in South Africa.

In this article, the study focus on the cross-cultural applicability of approaches used in personality research, and on the extent to which these approaches could benefit future personality research in South Africa or would have to be changed. The article begins by discussing the three main approaches in the cross-cultural study of personality: the etic approach, the emic approach and the lexical approach. The main characteristics of the approaches are then described and the findings of international research using these approaches are summarised. The main issues in cross-cultural personality assessment and the main findings of questionnaire research in South Africa are then presented. A discussion of the applicability of the etic, emic, and lexical approaches towards personality research in South Africa follows. Finally, conclusions and recommendations will be presented.

Etic, emic, and lexical approaches

Exploring and developing personality structures, and comparing these cross-culturally have recently become very popular, using a range of different approaches. Some researchers prefer using imposed etic approaches. Such an approach primarily uses one or more inventories that are typically imported from another culture to derive a personality taxonomy of a specific cultural group. It is apparent that most cross-cultural studies of personality use the imported inventory (etic) approach. This approach deals mainly with the cross-cultural relevance and comparability of traits (John & Benet-Martinez, 2000; McCrae & Costa, 1997). Other researchers use more indigenous approaches. Indigenous psychology, as defined by Ho (1998), is the study of human behaviour and mental processes within a cultural context that relies on values, beliefs, concepts, and methodologies that are appropriate for that context.

The emic approach investigates the relevance and meaningfulness of traits in a particular culture (Church & Katigbak, 2000).

Some researchers suggest the lexical approach as a way in which the etic and emic approaches can be combined or applied separately (Saucier & Goldberg, 2001). According to Goldberg (1990), meaningful interaction terms will be encoded in some or all world languages, which, in turn, will describe individual differences or similarities. Universally salient features of individuals can be expected to be reflected in most or all languages, while features that are less shared and are more culture specific will be reflected in a small number of languages. Even in earlier research, personality psychologists such as Klages (1926), Baumgarten (1933) and Allport and Odbert (1936) used the lexical approach to find the implicit theory of personality in a linguistic group and to study cross-cultural similarities with other groups (combined etic-emic approach).

Etic (Imposed-etic) approach versus Emic (Indigenous) approach

The process through which personality inventories are adapted from one context to another is complex. The emic-etic issue is central in cross-cultural psychology and measurement (Cheung, Conger, Hau, Lew, & Lau, 1992). The imposed-etic dominance is particularly evident in studies of cross-cultural personality assessment, which have traditionally relied on translating and adapting English-language tests. This approach is based on the assumption that the traits measured by these tests are adequate and sufficiently representative of the personality dimensions in other cultures (Cheung et al., 2001). The etic approach stresses the fact that there are general and universal comparisons in all human beings, and that most people around the world can be described using these universal personality traits (Cheung, Cheung, Wada, & Zhang, 2003). Yik and Bond (1993), however, state that the inadequacy of the etic approach lies in the oversight of important culture-specific or emic personality constructs in the imported instruments (Cheung, et al., 2001). Relying solely on the etic approach in South Africa for the development of a comprehensive personality measure, i.e. without combining it with other approaches would be problematic.

Some of the problems with the etic approach reside in the participants' language proficiency and understanding of items. Butcher, Derksen, Sloore, and Sirigatti (2003) state that translators should be cautious when translating the inventories for use in another country or

region. Additional complications, i.e. other than the linguistic differences, are cultural factors that could regulate the meaning of psychological test items (Butcher et al., 2003). Determining what is normal and what is abnormal behaviour is not easy, even within one's own cultural group and may be more complex when standards are generalised across different societies. According to Meiring et al. (2006; see also Berry et al., 2002), personality structure is universal, but it may be expressed in different ways by individuals from different cultural groups. It is important to define personality in social and behavioural terms in order to derive much of its meaning from the context in which it occurs. The emic approach seems to be the optimal approach for this. The distinction between the etic and emic approach is outlined in Table 1 (cf. Marsella, Tharp, & Ciborowski (1979).

Table 1

The Characteristics of the Etic and Emic Approach

Etic	***Emic***
The behaviour of individuals in one or more cultures is studied from outside	The behaviour of individuals is studied only from within a culture
Study of as many cultures as possible	Study of only one culture at a given time
A personality structure created by the researcher could be imposed or generalised for other regions (like the Five-Factor Model)	A personality structure is uncovered by researchers when and if the structure manifests itself as important in one culture
Personality dimensions are seen as absolute or universal	Personality dimensions are seen as relevant to only one culture

Inspection of the personality psychology literature shows that there are fewer studies that focus on indigenous traits that are embedded in a specific culture than there are etic studies. Gersen, Gulerce, Lock, and Mirsa (1996) suggest that each culture creates its own personality structure, thus making it more focused on which traits are indigenous to that particular culture. It seems that using only the etic approach could be problematic when indigenous traits are not considered. The combined etic-emic approach is the most popular in current personality research. Cheung and colleagues set out to develop an indigenous personality structure and measurement instrument for the Chinese culture (the Chinese Personality Assessment Inventory – CPAI) using a combined etic-emic approach (Cheung, et al., 1996). The personality constructs included in the CPAI were derived from personality adjectives or person descriptions of everyday life. These constructs were derived from Chinese novels, Chinese proverbs, reviews of Chinese literature, and surveys among professional and

ordinary people where they had to describe themselves and others. Cheung et al. (1996) found indigenous constructs (i.e. Family Orientation, Harmony, Face, Thrift vs. Extravagance, Relationship-Orientation, and Somatisation) that could be construed as typical 'non-Western' traits (Cheung, Cheung, Wada, & Zhang, 2003).

Most of the current personality models are developed from an etic point of view. In the following section, the Five-Factor Model and Eysenck's Giant Three are discussed.

The Five-Factor Model

The most frequently used model in developing inventories is the Five-Factor Model, which was acquired through empirical research (Goldberg, 1993). Norman (1963) is often called the father of the Five-Factor Model, although Fiske (1949) and Tupes and Christal (1992) also contributed toward the establishment of the Five-Factor Model personality structure. The Five-Factor Model was developed from numerous studies, using different factor analytical techniques (Goldberg, 1990) and rating procedures (Botwin & Buss, 1989; McCrae & Costa, 1997). The traits associated with the Five-Factor Model are the following: Extroversion (Surgency), Agreeableness, Conscientiousness, Neuroticism (Emotional Stability), and Openness to Experience. The traits are also referred to as the acronym OCEAN (John & Srivastava, 1999). Although this model is widely used, it has also met with criticism. Block (1995), for instance, argues that five constructs cannot fully explain the dynamics of behaviour in cultural groups, and that personality should be described more in detail than with five global factors.

Frequently employed models in the literature are the Big Five or the Five-Factor Model. The differences between the Big Five and the Five-Factor Model lie in their theoretical basis, labelling of the five factors, measurement of the two models, inventories measuring the two models, and the type of inventory items.

Eysenck's Giant Three

One of the well-established personality structures is Eysenck's hierarchical model of personality (Larsen & Buss, 2005). Eysenck developed a model of personality based on traits that he believed were highly heritable and had a likely psychophysiological foundation. The

three main traits identified by Eysenck were Extroversion vs. Introversion, Neuroticism vs. Emotional Stability, and Psychoticism. The first and second factors, Extroversion vs. Introversion and Neuroticism, are quite similar to the Five-Factor Model's factors, Extroversion and Emotional Stability. The third factor, however, may be seen to include Agreeableness and Conscientiousness (Eysenck, 1992). Eysenck argues that there are shared traits between Agreeableness and Conscientiousness, although research has indicated that there are also salient differences with the factors from the Five-Factor Model (John & Srivastava, 1999).

The Eysenck Personality Questionnaire (EPQ) was developed in 1972 to measure the three constructs, and a fourth, the Lie Scale, which measures social desirability (although it was initially developed to measure fake good and fake bad) (Eysenck & Eysenck, 1975).

Studies on the Five-Factor Model

The popularity of the Five-Factor Model (McCrae & Costa, 2003) is evident in current Western psychology. It has become the dominant theoretical framework for studying personality and has led to the development of various instruments. However, problems still occur when personality is assessed in non-Western contexts. Saucier (2003) states that researchers need an open mind when analysing data derived from non-Western contexts. Numerous inventories have been developed measuring the Five-Factor Model. The most notable inventory, the NEO-PI and its revised version, the NEO-PI-R, are frequently used to find the five-factor structure. The Big Five Inventory (BFI) is also another commonly used inventory.

In most Western and some Non-Western regions, a good replication was found of the Five-Factor Model. Examples are: the USA (Piedmont & Chae, 1997), Japan (Bond, Nakazato, & Shiraishi, 1975), Korea (McCrae & Costa, 1997; Piedmont & Chae, 1997), China (Yik & Bond, 1993), and Hong Kong (Yik & Bond, 1993). Most of these studies used exploratory factor analysis in order to replicate the structures by using the NEO-PI-R. Most other studies which used the lexical hypothesis reported the same five factors (Costa & McCrae, 1990).

There are a few examples of monocultural research in non-Western regions. Studies in Indonesia and Malaysia using the NEO-PI-R, which is a measure of the Five-Factor Model,

found all factors to be well replicated, except for Openness to Experiences (Halim, Derksen, & Van der Staak, 2004). Rodríguez and Church (2003) administered the BFI (Benet & Waller, 1995) in Mexico and found that Agreeableness and Conscientiousness did not replicate well in that region, while Ortiz et al. (2007) found a full correspondence with the Five-Factor Model when using the NEO-PI-R. Ramírez-Esparza, Gosling, Benet-Martínez, Potter, and Pennebaker (2006) compared the mean BFI profiles of large Mexican and American samples. Americans averaged higher than Mexicans in Extraversion, Agreeableness, Conscientiousness, and Openness to Experience, and lower in Emotional Stability (Ortiz et al., 2007).

Studies on the Eysenck's Giant Three

In cross-cultural research, the EPQ has been widely employed to test the applicability of the three constructs across languages and countries. In most of these studies, the EPQ structure of Extroversion (E), Psychoticism (P), Neuroticism (N), and Social Desirability (L) seem to correspond well. Eysenck, Baban, and Derevenco (1989) found that the EPQ constructs replicated well within the Romanian population, and that the Romanian and English factor structures were identical. The same was found in a separate study using samples from Sri Lanka and England (Perera & Eysenck, 1984). A minor difference was found for the Social Desirability scale where the Romanian and Sri Lankan samples seemed to score higher than the English samples. The only difference seemed to be the P scale, which correlated higher than expected with the E or N scale, questioning the adequacy of the P scale (Boyle, 1991). Other research indicated that the P scale did not replicate well in a German sample (Francis, Lewis & Ziebertz, 2006) and in a Hebrew sample (Francis & Katz, 2000. Cross-cultural replications of Eysenck's three-factor model have been studied in 34 countries (Barrett et al., 1998). The researchers demonstrated that on average the factor similarity of countries in their data set with the UK factors was high, at least for Extroversion and Neuroticism. The cross-cultural stability of the Psychoticism and Lie Scales is sometimes lower, though usually still acceptable.

Lexical approach

The lexical hypothesis goes back to the 1930s when Allport (1937) claimed that socially relevant attributes and individual differences have become encoded in the natural language. According to Goldberg (1981), personality traits found in the dictionaries of a natural language provide a widespread, yet finite set of attributes that people speaking that language have found important and useful in their daily interactions. Norman (1963) reported that the individual differences that are among people that are seen as more prominent will be converted to single words to help describe people, and to communicate information about other people. Words like dominance, creative, reliable, cooperative, hot-tempered, or self-centred are invented to describe these differences. The more the words are used, the more common they become encoded in that particular natural language.

Saucier and Goldberg (2001) reported that person descriptions are made by using adjectives, and that the structure of person descriptions in phrases or sentences is closely related to that based on single words. According to Larsen and Buss (2005), the lexical approach uses two clear criteria for identifying important traits, namely synonym frequency and cross-cultural universality. With the first criterion, synonym frequency, it is important that six or more trait adjectives describe one attribute before it can be viewed as an important attribute of individual differences. The following trait adjectives, for instance, describe the attribute of dominance: dominant, bossy, assertive, powerful, pushy, forceful, leaderlike, influential, ascendant, authoritative, and arrogant. Since all these traits are semantically linked, the common denominator, dominance, is seen as describing important individual differences, with different shades which reinforce its abstract meaning. The second criterion, cross-cultural universality, looks at the most important individual differences in human interactions of different language groups and at the terms used to describe these attributes (Goldberg, 1981). According to Larsen and Buss (2005), the logic of this criterion is that "if a trait is sufficiently important in all cultures so that its members have codified terms within their own languages to describe the trait, then the trait must be universally important to all humans around the world" (pp. 35). McCrae and Costa (1997) regard the latter traits as insufficient to be used for a universal taxonomy of personality traits.

Not all researchers in the lexical tradition limit their studies to the use of trait terms. According to De Raad (1992), lexical studies of personality structure occasionally used verbs

or nouns as personality descriptive attributes, but adjectives have been more commonly used. Based on the 18,000 personality traits that were identified by Allport and Odbert (1936) in the English language, Norman (1967) found that 2 800 of those trait names are adjectives. The use of only adjectives could be problematic. Saucier (2003) concluded that the use of only adjectives is probably not comprehensive because type nouns produce dimensions with different content emphases. Complications do arise, since very few studies have been conducted using personality-relevant nouns and verbs (Church & Katigbak, 2005).

Different problems of the lexical approach have been mentioned. Not all important person descriptions may be sufficiently encoded in the natural language because there might not be any behavioural or contextual specification in abstract trait terms. A good example comes from the emotion domain. Breugelmans and Poortinga (2006) studied Rarámuri Indians in Mexico who have the same word for guilt and shame. They found that the Rarámuri nevertheless differentiate between shame and guilt characteristics, similar to cultural populations that use two words for these emotions. Therefore, the absence of a word does not imply that the underlying concept is irrelevant for describing individual differences in the group. The same reasoning may apply to the domain of personality: the absence of a term cannot be interpreted as the irrelevance of the concept. Yet, the absence of terms for traits creates a problem in a cross-cultural study in that translations of instruments can be troublesome when concepts do not exist in the target language. These problems are more likely when single terms are used than when phrases are used. In addition, some terms might also be too ambiguous or difficult to comprehend (Saucier & Goldberg, 1998). Finally, there might also be disagreement about what personality-descriptive terms should be regarded as part of the personality domain.

Monocultural studies

Methods in monocultural studies using the lexical approach are quite similar to one another. The use of dictionaries is the most common method for analysing personality-descriptive terms. The majority of the lexical studies were done in Western communities. In Germany, Angleitner, Ostendorf, and John (1990) identified 5 101 personality-relevant adjectives, 2 212 type nouns, and 3 607 attribute nouns from previous studies. Most recent research discovered a six-factor structure (Ostendorf, Mlacic, Hrebickov, & Szarota, 2004). The factors that were identified through lexical studies corresponded strongly with the Big Five (Ashton, Lee,

Marcus, & De Vries, 2007). The sixth factor, Creativity, was a split of the fifth factor, Intellect. The French-Canadian, Italian, and Hungarian studies revealed factors that showed considerable overlap with the Five-Factor Model, except for an additional sixth factor labelled Honesty (or Integrity) (Boies, Lee, Ashton, Pascal, & Nicol, 2001; Di Blas & Forzi, 1999; De Raad & Szirmak, 1994). Studies in the Netherlands indicated similar findings, although the researchers applied personality type nouns and personality type verbs, since reactions to these stimuli triggered more prominent evaluative connotations than adjectives did (De Raad & Hoskens, 1990; De Raad, Mulder, Kloosterman, & Hofstee, 1988; De Raad & Ostendorf, 1996).

Church, Katigbak, and Reyes (1996) (see also Church, Reyes, Katigbak, & Grimm, 1997 and Avdeyeva & Church, 2005) conducted a study in a non-Western region, namely the Philippines. They found 6 900 adjectives describing personality-type behaviour. It was concluded that most words were indigenous, but 1 300 were borrowed from Spanish and smaller numbers from English and Chinese. The authors found overlap between English and Philippine lexicons and a fair agreement with the Five-Factor Model. However, the order of importance was different; the Philippine sample showed a low importance of Emotional Stability and a high importance of Agreeableness.

Cross-cultural studies

Lexical studies of personality structure have been conducted in many cultures and languages, and many studies found that some personality-descriptive terms (defined as the terms describing the structure of a personality trait by WordWeb, http://wordweb.info/) are universally relevant (Ashton & Lee, 2001). These personality-descriptive terms that are relevant to most cultures and language groups are called lexical universals (Goldberg, 1981). Many researchers have tried to find a personality taxonomy that is relevant and universal for all language and cultural groups around the world. However, Ashton and Lee (2002) concluded that there was still no evidence for such a taxonomy.

In the beginning of the 1980s, lexical studies across multilinguistic groups most often found a personality structure similar to the Five-Factor Model (Extroversion, Agreeable, Conscientiousness, Emotional Stability, and Openness to experience or Intellect), with minor differences within dimensions (Ashton, Lee, Marcus, & De Vries, 2007). Ashton, Lee,

Perugini et al. (2004), however, found that several studies reported a sixth factor (most notably Honesty or Integrity). Self-ratings and peer ratings were the principal techniques used to obtain these structures (Ashton, Lee, Marcus, & De Vries, 2007). The six-factor structure has been found to be replicable across various languages, including Greek (Lee & Ashton, 2006), Croatian (Ashton, Lee, & De Vries, 2005), French (Boies et al., 2001), Italian (Di Blas, 2005), German (Angleitner & Ostendorf, 1989; Ashton, Lee, Marcus, & De Vries, 2007; Ostendorf, Mlacic, Hrebickova, & Szarota, 2004), Korean (Hahn, Lee, & Ashton, 1999) and Turkish (Wasti, Lee, Ashton, & Somer, 2006). In addition, the last factor was also found in a re-analysis of the English lexicon (Ashton, Lee, & Goldberg, 2004). This six-factor structure is known in this research field as the HEXACO model of personality (after the first letters of the six factors).

Personality assessment in South Africa

According to Foxcroft, Patterson, Le Roux, and Herbst (2004), the most frequently employed personality inventories in South Africa are the Sixteen Personality Factor Questionnaire (16PF) (Abrahams & Mauer, 1996; Schepers & Hassett, 2006), the Fifteen Factor Questionnaire Plus (15FQ+) (Psytech, 2002), NEO-PI-R (Zhang & Akande, 2002), the Jung Personality Inventory (JPI) (McGuire & Hull, 1977), the Myers-Briggs-Type Indicator (MBTI) (Coetzee, Martins, Basson, & Muller, 2006), and the Occupational Personality Questionnaire (OPQ) (Saville & Holdsworth, 1993). All of these instruments are imported from Europe or the USA, and adapted for local use.

Abrahams and Mauer (1999) concluded that African, Coloured and Asian groups were not satisfactorily represented when the 16PF (Form SA92) was adapted for use in South Africa. The adapted version, form SA 92, is widely used in South Africa for vocational counselling and selection purposes. Although language aspects were considered during the translation process, other problems remain, such as the use of American slang in the original 16PF. Abrahams and Mauer (1999) and Prinsloo and Ebersohn (2002) reported in their research regarding the 16PF that the understanding of some items for African respondents differed to a great extent from the White respondents, which limits the external validity of their findings. De Bruin, De Bruin, Dercksen, and Cilliers-Hartslief (2005) reported that only a few suitable psychometric inventories were available in indigenous African languages, since the majority of the imported tests are translated into English or Afrikaans. Research done on the most

recent version of the 16PF, namely the 16PF5 (Van Eeden & Mantsha, 2007), also found that the majority of the items showed inadequate inter-item correlations within indigenous African language groups (Van Eeden, Taylor, & Du Toit, 1996). De Bruin, Schepers, and Taylor (2005), however, reported high levels of congruence between the second-order factors of the 16PF5 for Afrikaans, English, and indigenous African languages. These factors also correlated closely with those of the Five-Factor Model (Costa & McCrae, 1992), which was found relevant by Taylor and De Bruin (2005) for the diverse South African population. The main problem with the administration of the 16PF5 proved to be the insufficient language proficiency of indigenous African speakers (Maree, 2002), which was also reported by Abrahams (1996) and Prinsloo and Ebersohn (2002) with the SA92 version of the 16PF.

The adapted versions of the 16PF (form SA92) and 16PF5 were not the only imported personality inventories utilised in South Africa that were identified as problematic. The Occupational Personality Questionnaire (OPQ; Saville & Holdsworth, 1999) is a competency-based questionnaire that is also widely used in South Africa. The OPQ32 model was launched in 1999 after a 20-year period since the development of the first OPQ Concept Model in 1981. The OPQ32n is an even more updated version for proper use in South Africa (Van der Merwe, Coetzee, & De Beer, 2005; Visser & Du Toit, 2004). Most dimensions of the OPQ32N were found to have an alpha coefficient higher than 0,70 in the South African population (Saville & Holdsworth, 2000). The OPQ Concept Model 5.2, British questionnaire, was also used in the South African population. Its reliability was found to be extremely low in a sample of 193 middle-management technical officers in a large South African telecommunications organisation (Saville & Holdsworth, 1997). Language was reported as one of the main problems, which led to the development of the OPQ Concept Model 5.2 SA version.

In another study of personality inventories in South Africa, Meiring, Van de Vijver, and Rothmann (2006) reported low internal consistencies for the adapted version of the 15FQ+, especially among African respondents. It appeared that participants experienced problems with the comprehension of items. It can be concluded that more research is still needed to determine the effect and extent of cultural factors and language barriers on scores on personality inventories used in South Africa (Wallis & Birt, 2003).

Adequate personality assessment in South Africa is hampered by various factors. There is a need for indigenously developed personality inventories. Also, there is a lack of trained and competent personality psychologists and inventory developers in South Africa (Foxcroft, 2004). De Bruin, De Bruin, Dercksen, and Cilliers-Hartslief (2005) reported two main challenges that affect the successful use of personality inventories in South Africa. It can be expected that some participants will have an indigenous African language as their first language. Very few suitable inventories are available in indigenous African languages. Finally, many people might have poor English reading and comprehension skills.

In the 1970s, researchers attempted to develop a personality questionnaire, named the South African Personality Questionnaire (SAPQ) (Steyn, 1974). The major limitation of this questionnaire is that it is only applicable for White South Africans with 12 or more years of formal education. Taylor and Boeyens (1991) examined the applicability of the SAPQ across cultures in South Africa, employing four samples, two African and two White (all males from various universities). Their analyses demonstrated that one of the African groups did not fit in the original factor structure of the SAPQ, and that 53% of the items showed item bias. The authors concluded that the use of the SAPQ was limited, and that a new applicable cross-cultural personality measurement should be developed for use in South Africa.

The Basics Trait Inventory (BTI) is a 173-item inventory that was developed by Taylor and De Bruin (2005), measuring the Five-Factor Model. The psychometric properties of the BTI were found to be satisfactory across all five dimensions in the total group (divided according to gender, race, and language groups). The BTI has a hierarchical structure similar to that of the NEO-PI-R (Costa & McCrae, 1992). The cross-cultural suitability of the BTI were assessed by screening all items for suitability with regard to content and comprehensibility, presenting the items in content blocks, avoiding reverse scored items, and clearly labelling the response categories of the five-point Likert-type response scale. Results showed that the expected Five-Factor Model structure was found and that it replicated well across different cultural groups in South Africa (Taylor & De Bruin, 2005). The reliability coefficients are very similar across different cultural and language groups. It appears that this questionnaire measures the same broad personality dimensions across the different cultural groups in South Africa with similar levels of precision.

It can be concluded that test adapters and test constructers have a daunting task in making sure that psychological instruments could be applied fairly to all cultural and language groups in South Africa. Intensive, large-scale test development, adaptation and revision projects need to be urgently undertaken if South African psychological assessment practitioners are to rise to the challenge of performing ethically and culturally sound assessment.

Application of the Five-Factor Model in South Africa

The Five-Factor Model has been studied widely from a cross-cultural perspective. Meiring, Van de Vijver, Rothmann, and Barrick (2005) reported that only a few studies had been conducted that addressed the suitability of the Five-Factor Model in South Africa. Zhang and Akande (2002) used the NEO-PI-R to study the applicability of the Five-Factor Model personality dimension among South African university students. They found that the personality structure was not the same as in previous studies. Heaven, Connors, and Stone (1994) found support for the Five-Factor Model among White participants, but not among African participants. In the same study they failed to recover the dimensions of Eysenck's Giant Three; the dimensions were not recovered. Zhang and Akande (2002) reported that some items that measure Openness to Experience have low item-total correlations and reliability.

Visser and Du Toit (2004) also wanted to find out if the Five-Factor Model was relevant in South Africa by using the Occupational Personality Questionnaire (OPQ) among telecommunication job applicants and analysing the data using exploratory factor analysis. All five constructs of the Five-Factor Model were obtained, with an additional sixth construct, labelled Interpersonal Relationship Harmony. The cross-cultural equivalence of the findings, however, was not discussed.

Taylor and De Bruin (2005) reported high levels of congruence between the factors of White and African participants on the Basic Trait Inventory (BTI), although the factor structure obtained with the White participants was somewhat more clearly defined. A subsequent multi-group confirmatory factor analysis provided evidence in support of the structural and measurement equivalence of the BTI across cultural groups (Ramsay, Taylor, de Bruin, & Meiring, 2005).

Meiring, Van de Vijver, Rothmann, and de Bruin (2006) examined the commonalities of three personality tests, namely the 15FQ+, Occupational Personality Profile (OPP), and Taylor and de Bruin's (2005) BTI. They found four factors that were common to all three instruments, namely Emotional Stability, Openness to Experience, Dominance, and Sociability. The first two factors correspond with the similarly named factors of the FFM, whereas the last two factors represent a split of the Extroversion factor of the FFM. These four factors were found to have good internal consistencies across all cultures in South Africa, except for the Sociability factor in the Setswana-speaking group. Many of the items that constitute the four factors were found to be biased, but the influence was minimal on the cross-cultural differences in scale scores when these biased items were removed.

Most of the personality instruments developed in South African used an etic approach (e.g. SAPQ and BTI). It is evident that studies of the applicability of the Five-Factor Model in the South African population have yielded ambiguous results. An emic (indigenous) approach has not featured in the development of a personality inventory. To discover the actual personality structure for South Africa, it will be more valuable to uncover the traits that are familiar, inherent and observable in each language group. Then it will be possible to understand how personality traits are encompassed and encoded within each language group.

The population distribution of South Africa

According to recent statistics (mid-year population estimates, South Africa, 2007), the population of South Africa is estimated at around 47,9 million. Africans make up 38,1 million (79,6%), Whites 4,4 million (9,1%), Coloureds 4,3 million (8,9%) and Indians 1,2 million (2,5%) of the population. Fifty-one per cent of the population is female. There are approximately 15,2 million children in South Africa and 2,6 million people older than 60. The percentages of individuals in the official 11 language groups in South Africa are presented in Table 2 (Statistics of South Africa, 2001).

Table 2

The Official Languages of South Africa (Statistics of South Africa, 2001)

Language	**% of total population**
isiZulu	23,8
isiXhosa	17,6
Afrikaans	13,3
Sepedi	9,4
Setswana	8,2
English	8,2
Sesotho	7,9
Xitsonga	4,4
Siswati	2,7
Tshivenda	2,3
isiNdebele	1,6
Other Languages	0,5

Table 1 shows that isiZulu is the most commonly spoken language (23,8%) in South Africa, while isiNdebele is the least commonly spoken official language (1,6%). Afrikaans is spoken by 13,3% people, while 8,2% of the population has English as home language. The indigenous African groups are divided into different cultural groups, i.e. the Nguni group (composed of isiZulu, isiXhosa, Siswati, and isiNdebele), the Sotho group (composed of Sepedi, Sesotho, and Setswana), Tshivenda, Xitsonga, Afrikaans and English.

Language challenges in South Africa

As seen above, the 11 official languages of South Africa are unevenly distributed across different cultural groups. English is widely spoken by most South Africans (especially as a second language), and is the preferred language medium in the world of education, business, politics, and overall in the daily exchange between people who do not share the same home language.

The language diversity creates great challenges for assessment. Differential understanding of English among non-native speakers proved to be a complicating factor in the use of imported inventories, as already discussed. The problem becomes even more salient because of the legal requirement that all psychological instruments should be fair for all cultural groups.

From the above, it can be concluded that it becomes increasingly important to remove language barriers and to find a balance between the first dominant spoken language (English) and the home language of the participant (Terzoli, Dalvit, Murray, Mini, & Zhao, 2005). In education, Dlamini (2001) states that the ideal would be for students to be educated in their home language. However, the use of African indigenous languages in an educational system proved difficult. Terzoli et al. (2005) reported that the absence of technical terms in some language groups, the cost in the development of new educational materials, and the restraining of young students to become more competent in the English language are problems that influence Dlamini's ideal negatively. Since South Africa has 11 official languages, it will be challenging to successfully implement Dlamini's (2001) ideal.

Issues regarding lexicons in South African languages

In South Africa, the Pan South African Language Board (PanSALB) attempts to develop the lexicography of these 11 languages in order to promote and protect these languages for future generations. It is a long process to develop a lexicography for each language group. Van Huyssteen (2003) states that since the abolishment of apartheid most African languages have more resources at their disposal to develop terminologies via dictionaries.

Brand (2004) argues that languages are culturally and epistemologically encumbered, meaning it is difficult to translate certain indigenous African (collective) terms to Eurocentric (individualistic) terms. Some African languages have a limited lexicon to describe psychological terms such as emotions. There is no generally agreed upon practice for the introduction of new terms. Some indigenous African languages adapted English or Afrikaans slang or words to describe certain aspects, but not all of these languages 'Westernised' their descriptive terms.

PanSALB (http://www.pansalb.org.za/) and AFRILEX (http://afrilex.africanlanguages.com/) are organisations that make an effort to address these problems by developing lexicographies

for indigenous African languages. An African lexicography board that attempts to develop lexicography for most African indigenous languages is the African lexicography, or AFRILEX (Alberts, 2005). The organisation tries to identify descriptive terms in indigenous African languages, and develop from that a dictionary for that particular language group, whether bilingual (predominantly with English), or definitional. According to Mphahlele (2004), it is extremely difficult to translate descriptive terms from an indigenous African language into another language. It was found problematic to translate English terms adequately into a non-Western affiliated language group (especially African language groups). English has a very large vocabulary, is widely spoken around the world, and numerous books and magazines are published in English. Therefore, it is evident that more descriptive terms are recognised and found in English than in any other language.

Manyike (2004) states that Xitsonga is still taught in some communities, especially urban areas, with the assistance of old, outdated textbooks. According to Finlayson (2004), it makes the growth of African languages that are the least spoken in South Africa problematic overall. People who speak isiZulu and isiXhosa (the two most frequent spoken African languages in South Africa) are more prone to mix their languages with English. Mathebula (2004) reported that those South African Broadcasting Corporation (SABC) translators who have an indigenous African language as a home language find it more and more difficult to translate English news bulletins into their own languages, since they do not speak it as often as they like. They are also more prone to mix their languages with English than people who live in rural areas who are not exposed to 'Westernised' slang.

It is apparent that finding the right terminologies for English terms, and vice versa, is challenging for lexicographers. To understand how a person describes another in an indigenous African language could also be complex, since they may use descriptions that are complete sentences, as opposed to specific trait names. The development of a personality structure for each of these 11 language groups should therefore be approached with sensitivity.

DISCUSSION

Our review of studies regarding personality and the problems regarding the use of personality inventories suggests that South Africa has a long way to go before adequate psychological

instruments will be available for all cultural groups. The main source of these problems is the application of inventories that are not psychometrically equivalent. The lack of trained personality researchers, skilled inventory developers (Foxcroft, 1997), and language barriers challenge personality research in South Africa. It is necessary to obtain accurate knowledge about research designs, methodology, and statistical programs before they can be optimally used.

The aim of this literature review was to determine the applicability of the lexical, etic and emic approaches in conducting personality research in a multicultural and multilinguistic context like South Africa. In the literature, it was evident that within the lexical approach either the etic or the emic approach is followed (Saucier, 2003). The role of the lexical approach in conducting cross-cultural research in South Africa seems to become essential to accommodate linguistic and cultural differences. Using the lexical approach in personality research includes looking at the total context of each cultural or language group in South Africa, and deriving behaviours, traits, and attributes that could accurately describe that specific group.

In conducting personality research, it may be difficult to identify adequate personality-descriptive terms, since indigenous African languages may not have enough person-descriptive terms to describe certain behaviours, traits, and social interactions (Laka-Mathubula, 2004). Furthermore, translations from indigenous African languages to English present recurring problems such as a lack of certain terminologies, English proficiency, and understanding of slang. In personality measurement, Heuchert, Parker, Strumpf, and Myburgh (2000), who applied the NEO-PI-R to African and White college students, found that the translation of the NEO-PI-R into isiXhosa was difficult, as some items could not be translated due to limited vocabulary. The problem is found in most indigenous African languages that have not had much exposure to certain Western types of mindset and English colloquial speech. European languages (in contrast to African languages) like French, Dutch, German, Spanish, Italian and Greek have large numbers of descriptive terms, which makes it easy to develop lexicons for these regions. However, the characteristics of the lexical approach, mainly classified by Saucier and Goldberg (2001), make the use of the approach more suitable in the multilingual environment of South Africa.

It is evident that personality measurement in South Africa faces many challenges. Most personality inventories in South Africa are imported and the indigenous traits route has never been thoroughly researched. It seems that now with the new Employment Equity legislation in place, researchers need to give more attention to the cross-cultural applicability of tests. The 16PF (form SA92) (Abrahams, 1996; Prinsloo & Ebersohn, 2002), the 15-FQ+ (Meiring et al., 2005) and other personality inventories employed in South Africa were found not to comply with legal requirements of bias-free assessment. Factor analysis that addressed similarities between the American's version of 16PF and the SA92 version concluded that the factor structure found in the White groups in South Africa was comparable to the American structure, but equivalence was not found for the respondents from the African language groups. South Africans differ according to both individualistic and collective forces – which emphasises the cultural differences South Africa harbours. Individualistic cultures give priority to freedom and choice, while collective cultures rank shared personal goals as less important than community goals and interests (Hofstede, 2001).

Most personality models developed from other countries use lexical, etic and emic approaches, and the developed models are compared with other existing personality models (like the Five-Factor Model) (Larsen & Buss, 2005). There are, however, different findings regarding the correspondence of the Five-Factor Model in South Africa. Taylor and De Bruin (2005), using a questionnaire approach, found that all five constructs are applicable in South Africa, while Heaven, Connors, and Stone (1994) using personality-descriptive adjectives, reported weak support for the Big Five factors for African participants. It can be concluded that although there is some evidence of the Big Five structures in South Africa, is it necessary to establish which facets could be found indigenously, and the context thereof.

In South Africa, detecting what is the description or label assigned to certain behaviour or traits can be prudent for future personality research. The use of the lexical and indigenous approach can make it valuable to identify the universal and cultural-specific aspects of personality structure for the 11 language groups in South Africa. Using the combined etic-emic approach in combination with the lexical approach, is it possible to ascertain what are universal-specific facets (facets that are common to all the groups in South Africa), and cultural-specific facets (facets that are intrinsic to a specific cultural group).

RECOMMENDATIONS

Adapting imported measures for fair use and developing indigenous measures seems a daunting task in South Africa. The restrictions of the Employment Equity Act make it clear that it is important that all psychological inventories should be fair and unbiased in their measurement. For future research, is it imperative to adhere to the Employment Equity Act in order to ensure equality when using inventories in a multicultural and multilinguistic nation like South Africa.

Research currently concentrates more on the sufficient adaptations of imported tests for usage in South Africa. Development of a new measure for all cultural groups never materialised, if looking at the history of the SAPQ. The diversity of cultures, racial groups, languages, socioeconomic differences, educational levels, and backgrounds make it appear too huge to undertake.

Foxcroft (2004) mentioned the lack of the efficient test developers in South Africa, although there is a clear need for such competencies. Curricula in universities could be revised in order to ensure that future researchers are adequately trained to undertake such a task. The in-depth training of researchers should include psychometric techniques as well as up-to-date knowledge of statistical and database software. Many researchers have a general comprehension of how to work with these programs, but there is a lack of specialised training in certain statistical fields (for instance in meta-analytical research, factor analysis, regression analysis, and basic psychometric analysis) and research fields (developing a new indigenous inventory, adapting imported inventories, personality overall). The language translators found problems translating some terms from Western languages like English to an indigenous African language, and vice versa. A combination of cultural and linguistic knowledge is indispensable in the development of adequate questionnaires. It is important to develop questionnaires in teams in which both types of expertise are represented.

Personality research in South Africa, however, is still in a process of growth. For more effective personality theory research in South Africa, more expertise, skills and knowledge are required.

There is a need for personality studies that combine the emic and etic approach. This recommendation fuelled a new project, the South African Personality Inventory (SAPI). The SAPI is a project that aims to discover the universal and culture-specific personality traits for all 11 language groups in South Africa. This project's overall purpose is to derive authentic, relevant, and accurate personality-descriptive terms from each of the 11 official languages in South Africa. These descriptive terms are derived using information collected from semi-structured interviews that were conducted in the native language of each participant. Each participant was asked to describe himself or herself, another person opposite than him or her, a parent, a grandparent, a person from another ethnical group, a friend, a child (or a sibling), a neighbour, a teacher he or she liked, and a teacher he or she did not like. The participant was asked to give a description of a particular person in behavioural or trait terms. These descriptive terms were analysed in order to understand the inherent labels associated with certain behaviour and traits in a specific language group. This gave us more insight in how personality is structured in each language group, and how similar and different the groups are from one another. The next phase of the project is to develop a unified personality inventory that could be applied fairly towards all 11 official language groups in South Africa. This inventory will be developed by identifying the universal-specific personality traits that were derived from the content analysis of the descriptive terms in the previous phase. Similar projects, possibly at a smaller scale, are needed to advance personality assessment in South Africa.

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CHAPTER 3

ARTICLE 2

IDENTIFYING COMMON AND UNIQUE PERSONALITY ASPECTS IN ELEVEN LANGUAGE GROUPS OF SOUTH AFRICA

ABSTRACT

The present article, part of the development process of the South African Personality Inventory (SAPI), explores the indigenous personality facets for all 11 official language groups in South Africa using qualitative research methodologies. Semi-structured interviews were conducted with 1 308 participants from all 11 official language groups. A total of about 52 239 personality-descriptive terms were derived, which were preprocessed (e.g. synonyms and antonyms were taken together), categorised and clustered in iterative steps involving group discussions and contacts with language and cultural experts. The 190 facets that were identified could be split up in four groups: common to all language groups (78), semi-common (69), semi-specific (32), and language-specific (11). It was concluded that both shared and unique personality facets were found, with common facets outweighing the unique facets.

OPSOMMING

As deel van die ontwikkelingproses van die South African Personality Inventory (SAPI) stel hierdie artikel ondersoek in na die inheemse persoonlikheidstruktuur van al 11 amptelike taalgroepe in Suid-Afrika deur gebruik te maak van kwalitatiewe navorsingsmetodologieë. Semigestruktureerde onderhoude is gevoer met 1 308 deelnemers van al elf amptelike taalgroepe. 'n Totaal van 52 239 persoonlikheidsbeskrywende terme is ingesamel, geprosesseer, gekategoriseer, en gegroepeer met behulp van die insette van taal- en kultuurkundiges. Daar is 190 dimensies geïdentifiseer, wat verder onderverdeel is in vier groepe, naamlik: gemeenskaplike fasette (78), gedeeltelik gemeenskaplike fasette (69), gedeeltelik gesentreerde fasette (32), en taalgesentreerde fasette (11). Dit was duidelik dat beide gedeelde en spesifieke dimensies gevind is, en dat meer gedeelde dimensies gevind is as spesifieke dimensies.

Keywords: Personality measurement, personality structure, cross-cultural psychology, lexical approach, indigenous approach, etic-emic approach, South Africa

The present article describes an indigenous, comparative study of personality in all 11 (official) language groups in South Africa. Uncovering a personality structure for one cultural group is already a challenging undertaking. Attempting to uncover the personality structure for various cultural groups and comparing the structure of these cultures is even more daunting. Personality research employs different approaches in exploring the indigenous personality structure of a region (Van de Vijver & Leung, 2001). The approach adopted in the present study uses free descriptions of personality which is derived from the lexical approach that is often used in understanding labels in natural language given to certain behaviours in a cultural group (Saucier & Goldberg, 2001).

Cross-cultural lexical research aims at identifying similarities and differences in personality across cultural groups (Van de Vijver & Leung, 2001). The etic approach compares lexical findings across languages (Matthews, Deary, & Whiteman, 2002). This approach is based on the assumption that there are at least some universal traits that can be found in all humans (Cheung, Cheung, Wada, & Zhang, 2003). The emic (indigenous) approach focuses on the identification of culture-specific personality traits that are relevant to the local context studied (Cheung et al., 2003). Within the lexical methodology, the combined etic-emic approach is particularly promising for cross-cultural studies because of its compatibility with a contemporary view on universal and culture-specific features of psychological functioning in cross-cultural psychology (Berry, Poortinga, Segall, & Dasen, 2002). This view, called universalism, maintains that basic features of psychological functioning are identical across cultures (e.g. basic personality traits such as extroversion are common), but that manifestations of these traits may show cultural specificity (e.g. some behaviours associated with extroversion may be particular for a specific culture).

As is the case in most developing and emerging countries (Lin & Church, 2004), personality instruments that are used in South Africa were developed in the USA or Europe and are often applied without any adaptation (Meiring, Van de Vijver, & Rothmann, 2006). This etic approach is inadequate for our purposes, because it presumes that all traits are shared, and it disregards indigenous, culture-specific traits. It seems more prudent to develop measures for the multicultural environment of South Africa that combine universal and indigenous approaches, which, as outlined below, can be achieved in a lexical approach.

First, we describe the theoretical background of the study and its legal, cultural, and linguistic context, followed by a description of the methodological issues of this qualitative, comparative project.

The lexical approach

The lexical method is a widely employed approach for indigenous research in personality (Saucier & Goldberg, 2001). The lexical approach is based on the assumption that salient individual differences in psychological functioning are embedded or encoded in the natural language (Goldberg, 1981). Individual differences that are seen as more prominent are more likely to have been converted to single words to help describe people and communicate about people.

In personality studies, researchers want to identify the exact personality structure of specific cultural groups. The lexical approach is widely used for this purpose. Most of the structures derived from lexical studies support the Big Five constructs (Goldberg, 1990; Larsen & Buss, 2005). These five constructs are: Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect. Through empirical research, Costa and McCrae (1992) also identified the Five-Factor Model with dimensions which are similar to the lexical Big Five. They used a different methodology (i.e. a personality inventory) in accumulating the structure and the content of factors is consequently somewhat different. The most notable difference is the fifth factor, Intellect, which is known as Openness to Experience in Costa and McCrae's Five-Factor Model.

The universality of the Big Five was researched across numerous countries (Pervin, Cervone, & John, 2005). Only the first three factors (Extraversion, Agreeableness, and Conscientiousness) were found to be universal in lexical studies (De Raad & Peabody, 2005; De Raad, Perugini, Hrebickova, & Szarota, 1998; De Raad, Perugini, & Szirmák, 1997; Di Blas & Forzi, 1998; Saucier, 1997), while studies using inventory approaches yielded similar findings. Various studies have examined the applicability of the Big Five Model in South Africa, predominantly using the inventory approach (Meiring, Van de Vijver, & Rothmann, 2006; Taylor & De Bruin, 2005). Ashton and Lee (2001) found support for a sixth factor, called Honesty-Humility, in studies conducted in France, Italy, the Netherlands, Poland, Hungary, the Philippines, and Korea (Ashton et al., 2004; Ashton & Lee, 2007). The new

structure was called the HEXACO model (after the first letters of the traits present in the model).

Cheung, Leung, Fan, Song, Zhang, and Zhang (1996) developed an indigenous instrument for China, the Chinese Personality Assessment Inventory (CPAI), using a combined etic-emic approach. The CPAI structure showed good correspondence with the Five-Factor Model of Costa and McCrae (1992), although the last construct, Openness to Experience, was found to have the least relevant representation in the Chinese culture (Cheung, 2006). Interpersonal Relatedness is the sixth factor that came out in the CPAI, and conveys the importance of social values in the Chinese collectivistic culture. As an indigenous factor, Interpersonal Relatedness showed little correspondence with the Big Five factors, making the assumption of the cultural-specific saliency in the Chinese culture. However, in a study done by Lin and Church (2004), the Interpersonal Relatedness factor was well represented in the Chinese American and European American groups, making the factor less indigenous and culture-specific for the Chinese cultures.

Context of personality assessment in South Africa

Cultural and linguistic context. In South Africa, there are several cultural and language groups (Claassen, 1997). After the first democratic elections in 1994, 11 official national languages were recognised (in alphabetical order): Afrikaans, English, isiNdebele, isiXhosa, isiZulu, Sepedi, Sesotho, Setswana, Siswati, Tshivenda, and Xitsonga. This number may seem large, but is an underestimation of the actual linguistic diversity. Firstly, some languages spoken by small groups are not on the list (e.g. the language of the Khoi and San Bushmen) and secondly, each official language harbours a variety of cultures (e.g. Afrikaans is the first language of Afrikaners as well as of most Coloureds), ethnolects/dialects, socioeconomic and educational levels (Claassen, 1997).

A concept that is widely used in, and fairly unique to, South Africa is Ubuntu. Ubuntu reinforces interpersonal and interdependence between people, and is related to Hofstede's collectivism dimension. According to Louw (2002), Ubuntu means that the individual is "defined" by his or her relations and psychologically constituted by his or her multiple relationships (with family members, friends, people in the same community, and various other people) and the multitude of personality characteristics (notably reverence, respect,

sympathy, tolerance, loyalty, courtesy, patience, generosity, hospitality and cooperativeness) that are enacted in these relationships. Ubuntu as it manifests within the individual is characterised by an integrity and wholeness of character that is present in one's judgments, decisions and feelings, and provides one with a sense of confidence, value, and dignity (Schutte, 2001).

Legal context. The Employment Equity Act, 55 of 1998, Section 8 (Government Gazette, 1998), puts restrictions on the use of psychometric inventories in South Africa. According to this act, all only those psychometric instruments should be used that are shown to be valid and reliable, fairly applicable to all groups, and unbiased. Research done by Abrahams (1996), Prinsloo, and Ebersohn (2002), and Meiring, Van de Vijver, Rothmann, and Barrick (2005) on two frequently used inventories in South Africa – the Sixteen Personality Factor Questionnaire (16PF) and the Fifteen Factor Questionnaire (15FQ) – found that neither of these inventories complied with the Employment Equity Act. Not only were these instruments found to be cross-culturally non-equivalent and biased, but the items were difficult to understand for people with a first language other than English.

Personality assessment in South Africa

Currently the most frequent employed personality inventories used in South Africa are the Sixteen Personality Factor Questionnaire (16PF) (Abrahams & Mauer, 1996; Schepers & Hassett, 2006), the Fifteen Factor Questionnaire Plus (15FQ+) (Psytech (2002), NEO-PI-R (Zhang & Akande, 2002), the Jung Personality Inventory (JPI), the Myers-Briggs-Type Indicator (MBTI) (Coetzee, Martins, Basson, & Muller, 2006), and the Occupational Personality Questionnaire (OPQ) (Visser & Du Toit, 2004). The Big Five dimensions were found to be more salient among the White population than the indigenous African groups (Heaven & Pretorius, 1998; Heuchert, Parker, & Strumpf, 2000; Taylor, 2000). Heaven and Pretorius (1998) found that, within the Sotho group, the Big Five did not replicate well. Both Taylor (2000) and Matsimbi (1997) found that Openness to Experience and Emotional Stability were not clearly discernible among the African population, which has also been found elsewhere. It can be concluded that the cross-cultural applicability of various imported inventories is problematic (Abrahams, 1996; Meiring, Van de Vijver, & Rothmann, 2006; Meiring, Van de Vijver, Rothmann, & Barrick, 2005).

Efficiency in English (which is the lingua franca in South Africa), translations of words from indigenous Bantu languages into English, a lack of certain terms in indigenous Bantu languages, difficulty of understanding certain slang adapted from overseas are all factors that complicate the adaptation of imported inventories and effective translation into indigenous Bantu languages (De Bruin, De Bruin, Dercksen, & Cilliers-Hartslief, 2005). Heuchert, Parker, Strumf, and Myburgh (2000), who applied the NEO-Personality Inventory-Revised (NEO-PI-R) to African and White college students, found that the NEO-PI-R was difficult to translate into isiXhosa. Some items could not be translated as a result of the language's limited vocabulary in the personality domain. Similar difficulties were found in the translation of the Sixteen Personality Factor Questionnaire (16PF) from English to Tshivenda (Van Eeden & Mantsha, 2007). The problem is found in most Bantu languages (Grieve, 2005; Van den Berg, 1996). In general, the use of imported inventories in South Africa (imposed-etic approach, Berry, 1989) is beset with problems of equivalence and translatability.

According to most research on the personality inventories employed in South Africa (Abrahams & Mauer, 1999; Meiring, Van de Vijver & Rothmann, 2006; Taylor & Boeyens, 1991; Van Eeden & Mantsha, 2007; Van Eeden & Prinsloo, 1997), the language proficiency, culture, education, socioeconomic status, home environment, urbanisation, and test wiseness (Grieve, 2005) should all be considered when adapting and standardising imported inventories.

Abrahams (1996), Abrahams and Mauer (1999), and Meiring, Van de Vijver, and Rothmann (2006) state that previously disadvantaged groups in South Africa (i.e. Africans, Indians, and Coloureds) were not adequately represented in studies of imported inventories. According to Laher (2007), African and Asian perspectives vary a great deal from Western perspectives. These non-Western perspectives were not included in personality studies in South Africa, implying that indigenous personality dimensions were never accounted for in adapting tests. For instance, Spirituality is an important dimension in African and Asian cultures (Mbigi, 2005; Van Eeden & Mantsha, 2007) and could be expected to result in a separate dimension when the entire personality domain is sampled for a personality inventory.

The present study

The South African Personality Inventory (SAPI) is a project that was initiated to overcome current problems facing personality measurement in South Africa. The overall aim of the SAPI is to develop a comprehensive inventory to assess personality in all official South African language groups. Comprehensiveness of the measure should be interpreted as covering all major aspects of personality deemed relevant in a South African context. Practically speaking, this means that the project does not start from well-known conceptualisations of personality such as Costa and McCrae's Big Five (Conscientiousness, Agreeableness, Neuroticism, Extraversion, and Openness) or Eysenck's "Giant Three" (Extraversion, Neuroticism, and Psychoticism); rather, as done in the lexical approach, the project started from everyday conceptualisations of personality as found in South African language groups. The study strived to find what is common about personality traits in South Africa as well as what is specific to certain language groups.

Traditionally, the lexical approach starts from an analysis of entries in dictionaries from which the words dealing with personality descriptions are collected. For practical reasons, this study could not adopt this approach: (1) dictionaries of a sufficient quality for our purposes are not available in all languages; (2) some languages do not have many personality-descriptive terms, which would have led to a potential underrepresentation of relevant concepts; (3) there is a lack of psychologists in various language groups who could conduct a lexical study. Therefore, the study adopted another approach and collected information in interviews in which participants were asked to describe themselves and particular people they knew well.

Although the lexical approach and our approach have the same goals (i.e. to identify relevant personality descriptors used in a language), both have their own strengths. The main strength of the lexical approach is its exhaustiveness; a list of personality descriptors based on a dictionary search finds all relevant terms. The main strength of our approach is ecological validity; words found in free descriptions are actually used in that particular language.

The SAPI project has two stages. Broadly speaking, the first stage is conceptual and attempts to unravel the implicit personality structure as reflected in natural language in speakers of all 11 official language groups in South Africa. Here we used a qualitative, comparative research

design in which the personality structure is derived from interviews in all groups, after which the structures were compared across the languages so as to identify common and language-specific aspects. The second part of the study is quantitative and aims at developing and testing instruments in each of the language groups based on taxonomy derived in the first stage for the 11 groups. The present article describes the methodology and procedures used in the first part of the study, as well as the results pertaining to common, semi-common, semi-specific, and language-specific facets.

METHOD

Participants

Interviews were conducted among male and female participants from a variety of ages, and education, urbanisation status and socioeconomic status of all cultural and linguistic groups. In Table 1, the composition of the samples is outlined. A combination of quota and convenience sampling was used to collect data. Criteria were sex, urban/rural, education/socioeconomic status and age. However, quota sampling could not be used in all cases. For example, some language groups live mainly in rural areas. We used such a broad sampling scheme to ensure sufficient variability in presumably relevant background characteristics. As can be seen in Table 1, the distribution of participants over various categories is complex and varies across the different language groups. Sample size in qualitative research is often determined by the question to what extent new participants add information not yet covered (Lincoln & Guba, 1985). Initially, we set out to conduct about 200 interviews per cultural group. It became clear during the interviews that a sample size of 100-120 per language group was enough to reach saturation. The target total of participants was 120 per language group, but in some instances the frequencies were somewhat higher (122 for Setswana and 140 for isiZulu), or lower (95 for isiXhosa, 98 for Afrikaans, and 107 for isiNdebele). In the case of isiXhosa, Afrikaans and isiNdebele, the total number of interviews was equal to 120, but the data collected from certain participants were deemed unusable at a later stage. Thus, the total number of respondents in Table 1 is the number of participants that gave adequate information for analysis.

Table 1

Characteristics of Participants (N = 1308)

Status		Afrikaans	English	Tshivenda	Xitsonga	Sesotho	Sepedi	Setswana	isiNdebele	Siswati	isiXhosa	isiZulu
Gender	Male	29	44	68	60	78	60	58	46	51	40	69
	Female	69	76	52	60	42	60	64	61	69	55	72
Ethnic	White	69	61	0	0	0	0	0	0	0	0	0
	African	0	0	120	120	120	120	122	107	120	95	141
	Coloured	29	0	0	0	0	0	0	0	0	0	0
	Indian	0	59	0	0	0	0	0	0	0	0	0
Age	18-25	32	43	33		31	39	43	15	42	19	46
	26-35	18	38	49		8	21	20	31	26	33	34
	36-45	13	13	32		20	30	54	27	22	31	49
	46-	10	16	6		3	30	5	19	11	12	11
Environment	Urban	54	120	0	0	114	53	113	17	36	95	34
	Rural	22	0	120	120	6	67	9	90	79	0	107

* In Afrikaans, 22 participants did not include their environment, and 25 not their ages

* In English, 10 participants did not include their ages

* In Xitsonga, none of the participants indicated their ages

* In Sesotho, 58 participants did not include their ages

* In isiNdebele, none of the participants marked their environment, although the study was done for the most part in rural areas, and 15 participants did not include their ages

* In Siswati, 5 participants did not include their environment, and 19 did not include their ages. All Siswati participants are from Swaziland

* In isiZulu, one participant did not include his or her age

Also evident in Table 1 is the distribution of males and females in the language groups. Aside from Xitsonga, Sepedi and isiZulu, distributions are uneven. The availability, as well as the tolerance level of the respondents to be interviewed contributed to this unevenness. The Table also shows dissimilar totals of residence (rural vs. urban), provinces, and age groups.

A point to note is the ethnic distribution of the language groups. Afrikaans and English speakers from different ethnic groups (White, Coloured and Indian) were targeted, while with the other language groups only the Africans are targeted. According to SA Statistics (2001), native language speakers are distributed as follows: Afrikaans (13,3%), English (8,2%), Tshivenda (2,3%), Xitsonga (4,4%), Sesotho (7,9%), Sepedi (9, 4%), Setswana (8,2%), Siswati (2,7%), isiXhosa (17,6%), isiZulu (23,8%), and isiNdebele (1,6%). Africans make up the vast majority of the South African population. Whites, Coloureds and Indians together form about 20% of the population. Africans spoke mostly one of the nine Bantu languages found in South Africa as their mother tongue. Whites usually have either Afrikaans or English as home language. Coloureds generally speak Afrikaans as their home language, whereas Indians tend to speak English. In our division, 29 of the Afrikaans respondents were Coloured, and 69 were White, while in the English group, 61 were White and 59 Indian (the latter being a more even distribution).

The Bantu languages in South Africa form part of the 1 436 Bantu languages spoken in Africa. In South Africa, nine of the 11 official languages are Bantu languages (Williamson & Blench, 2000), Afrikaans and English being the exceptions. Approximately 78% of the total population of South Africa speaks a Bantu language as their mother tongue.

Instrument

The purpose was to collect as many personality-descriptive terms as possible. Fieldworker(s) conducted interviews using tape recorders, and transcribed the recordings to an answer sheet. The answer sheet consisted of demographic questions (province, municipality, cultural group, and native language) and an instruction section, followed by ten questions.

The interview started with an introduction, the rationale of the research, and instructions regarding the responsibilities of the respondent in order to receive adequate information. In the instruction section, the fieldworker first informed the participant of what was expected

from him/her, and of the most appropriate way of answering the ten questions. The purpose of the instructions was to ensure that relevant personality-descriptive terms were given with each question. The instructions included the following:

- Please describe the following people to me by telling me what kind of person he or she is/was.
- Can you describe typical aspects of this person?
- Can you describe the behaviour or habits that are characteristic of this person?
- How would you describe this person to someone who does not know him/her?

When the fieldworker confirmed that the participant understood the task, the ten questions to solicit personality-descriptive terms were asked. The participant was asked to describe his own personality, a best friend of the same sex, a best friend of the opposite sex, a parent, an eldest child (if not present, eldest brother or sister), a grandparent, a colleague or friend from another ethnic group, a person who is psychologically very different from the participant, a teacher the participant liked (if schooled, otherwise a person from the participant's village or town whom he/she liked), and a teacher the participant did not like (if schooled, otherwise a person from the participants village or town whom he/she did not like).

Procedure

Preliminary stage. Master's students and between one and four fieldworkers were recruited for each of the 11 official language groups. The fieldworkers were native speakers of the specific language. The fieldworkers were trained in conducting semi-structured interviews. The interviews were conducted and transcribed in the native language of the participant. The interviews were tape recorded, transcribed, and translated into English by the fieldworker. Transcriptions were entered in Excel worksheets. Language experts checked the accuracy of the initial translations from the native language to English made by the fieldworker, and the overall content of the data gathered. Overall, there was an average of 4 749 responses per language group; the total number of responses came to 52 239 (see Table 3).

Preparation of data for content analysis. The preparation of the data composed of different stages. Firstly, all verbs and tenses were made singular; for instance, "do" was converted to

"does", "like" to "likes" and "love" to "loves". Past and present tense were not changed. The reason for modifying the data was to ensure that after the data were sorted, all homogeneous terms were grouped together. This also guaranteed that content analysis was more accurate and effective in the categorisation of the personality-descriptive terms. Secondly, all superfluous words were deleted; for example, the sentence "he was always punctual" was coded as "punctual". Thirdly, all ambiguous terms were deleted (between 50 and 150 per cultural group); for example, "Unlike other girls" was not coded given the semantic ambiguity. Fourthly, all non-personality terms were deleted (between 50 and 150 per cultural group); examples are physical characteristics such as "he was tall" or "she was my sister". Two other widely used categories that were deleted referred to personal interests (for example, "he likes sports") and the use of substances like tobacco and alcohol. Fifthly, composite responses were split up (between 50 and 200 responses per cultural group); for example, "She is punctual and outgoing" was coded as two separate responses, "punctual" and "outgoing". After all these modifications, 53 306 descriptive terms were available in the data matrix.

Categorisation stage. The previous, more mechanical stage was followed by a more interpretive stage. Content analysis was applied in order to categorise the personality-descriptive terms as facets. Resources that were often used in this stage were dictionaries, thesauruses, and literature. Moreover, the adequacy of each clustering was checked by comparing the verbalisations provided by the participants in order to ensure that the process of clustering did not lead to shifts in meaning. Personality-descriptive terms were intensely discussed in frequent group meetings between the collaborators of this project (some meetings were held in South Africa and in the Netherlands, and others were conducted by telephone meetings over the internet). This stage was regarded as the most important and sensitive in this qualitative study.

In many cases, persons were described by characteristic behaviours. These descriptions (frequent in the Bantu languages) were then categorised under the English term deemed most appropriate. For example, "He was angered easily" was classified as *short-tempered*, "She was never on time for meetings" was classified as *punctual*, and "She was always there for you when you need her" was classified as *supportive*.

Examples of personality-descriptive terms that were difficult to categorise were found throughout the 11 language groups. They were not many (±15% of each language dataset), but they were important to keep in order not to lose data unnecessary. For example, when a person is described as a "good person" (which is a broad term), it is sometimes difficult to understand what the respondent means. Is the person kind, loving, and caring or is the person morally conscious and honest? Might it be a combination of those facets, or is the reason for the person to be a good person because of one of those facets? Does the person understand what is meant by being an good person or is an entirely different meaning attached to the concept in that particular language group, i.e. different from what we as researchers perceive as being a good person. In the end, the term "good person" was disregarded for further analysis, since the meaning was ambiguous within and between the 11 language groups. This was confirmed with the quality insurance conducted with language and cultural experts.

Another semantically challenging term was the personality-descriptive term "snake". The term was only found in the English and isiZulu groups. It is widely believe that being a snake means that the person is a backstabber and talks bad about you behind you back. Since the meaning could be dubious, we consulted with cultural experts. In discussion with the cultural experts, the consensus was that the connotation of the term was negative, and in the end clustered with *trustworthy*, since it was seen as the opposite.

When words did not make sense in a certain context, the whole idea of analysing the personality-descriptive term became more challenging. It was obvious in this line of research, since we worked with 11 different language groups which consisted of different culturally motivated values. An example of a problematic response was "She loves her own body" found in the Sepedi-speaking group. Understanding the semantic meaning is problematic, since the implication and context of the response are unclear. Is this person vain, self-centred, or self-respectful? For us as researchers it was important to validate the categorisation so that the correct meaning could be attached to specific responses. In further collaboration with cultural experts, the latter was assigned as the most applicable connotation for the response.

After the categorisation of the personality-descriptive terms in facets, the data were sorted alphabetically. The worksheet consisting of the categorised descriptive terms, preparation of personality-descriptive terms, translated English responses, and the original responses were all sorted together in order to keep track of the various stages. After the data were sorted, the

frequencies of the descriptive terms that made up a certain facet were summated. At this stage, the total number of 53 306 personality descriptions derived from the first stage were reduced to between 244 and 550 personality facets per cultural group and 942 overall personality facets (see Table 3).

Clustering of the facets. The following stage of the analysis was the clustering of the categorised personality-descriptive terms (facets). Resources used in this stage were again dictionaries, thesauruses, and literature. The contents of the descriptive terms were also acknowledged in clustering the data. The further reduction of the 244 to 550 facets per language group was based on two grounds: (1) we wanted to reduce the number of facets to a more manageable number that would lend itself to further analyses; and (2) we wanted to make the facets comparable across the language groups. The more concrete the facets are, the more likely it is that language-specific aspects are mentioned (Berry et al., 2002). The use of more abstract categories such as adjectives and nouns has the advantage that it is easier to establish similarity of meaning across languages. An additional advantage of a more abstract clustering is that we could avoid an abundance of language-specific facets.

In this stage, we distinguished between High Frequency Facets and Low Frequency Facets (cf. Saucier & Goldberg, 2003). The former were defined as facets with five or more personality-descriptive terms. The assumption is that these facets are sufficiently salient in the language group concerned. Low Frequency Facets are facets with lower frequencies that are assumed to be less salient in this group. One of the purposes of the clustering stage was to further analyse these Low Frequency Facets. Using the same resources again, Low Frequency Facets were either grouped together in order to form a new High Frequency Facet or grouped under an existing High Frequency Facet. The obvious way to do this was by clustering synonyms, antonyms and other closely related terms together.

After the Low Frequency Facets had been classified the facets were re-analysed, and some of the High Frequency Facets were clustered under another High Frequency Facet in order to form a new facet. For example, "Compassionate", "Empathy" and "Sympathy" formed *compassionate*; "Talkative" and "Quiet" were merged into *talkative*. The new clustering of the data reduced the number of facets to between 114 and 174 per language group, and 190 facets across all language groups.

Quality control

This section describes the steps we have taken in order to ensure the validity and reliability of our findings. There are no generally agreed upon procedures for qualitative, comparative studies, and there is no methodological literature regarding the derivation and interpretation of indigenous data. Therefore, we have designed our own checks and procedures to certify our research. Our quality assurance system is based on the sources described in the next paragraphs.

SAPI collaborators' input. The process of cleaning, categorisation and clustering was conducted mainly by myself, but closely monitored and discussed in several meetings with my supervisors and other collaborators on this project.

Workshop and consultations. In between the categorisation and clustering phase, we conducted a two-day workshop with language and cultural experts from each of the 11 language groups. They had expert knowledge about the culture, beliefs, history (background), typical behaviour styles, and personality traits of the languages they represented. The central question of the workshop was: "How accurate do the 114-174 facets per language group reflect the way in which persons from that group think and talk about personality? Do you recognise aspects of personality in the facets we distinguished for a specific cultural group?" The specific aims of this workshop were to inform and present our findings (common, semi-common, semi-specific and language-specific facets); to discuss problems that could have occurred during the translation of responses, the categorisation of responses and clustering of facets; and how to address them. We also discussed the findings with language experts to identify possible gaps between our findings and their views; to collaborate with them in the development of a more cultural accurate model for a particular language group. The workshop led to the confirmation of the accuracy of our clustering as well as to various modifications of the data matrix.

Individual consultations with culture experts. After the data were re-analysed and adapted, individual discussions were held with culture experts on the final outcomes. The common facets and their applicability for each particular language group were discussed. Ultimately, the common facets will be used to develop an indigenous personality inventory for South Africa, so it was important to validate the common facets with culture experts.

RESULTS

Table 2 demonstrates the total number of words used per language group, as well as the average number of words per cell. As can be seen in Table 2, respondents from the English group used the most words to describe a person (2 820 words), while respondents from Sesotho were inclined to use a smaller number of words to describe themselves or others (611 words). It must be emphasised that the least responses were accumulated from the Sesotho language group, which could relate to the total number of words used. Column 2 of Table 2 shows the average total number of words used in each response per respondent per language group. The most words per response were accumulated from the Sepedi group (12,56 words per cell), while Sesotho again showed the least total number of utterances per cell (2,42 words per cell).

Table 2

Total of Words and Words per Cell per Language Group

Language group	Total number of different words used	Average number of utterances per cell
Afrikaans	1727	3,10
English	2820	4,53
Tshivenda	1090	3,31
Xitsonga	1381	4,68
Sesotho	611	2,42
Sepedi	1512	12,56
Setswana	1302	5,06
Siswati	1528	6,75
isiXhosa	1872	3,29
isiZulu	2056	4,58
isiNdebele	1575	6,74
Total	Average: 1588,55	Average: 5,18

Table 3 shows the average number of descriptive terms per respondent after cleaning per language group, as well as the total number of facets per language group after categorisation and clustering. As can be seen in Table 3, respondents from the English, isiXhosa, and

Siswati groups accumulated the most descriptive terms after cleaning, while the least descriptive terms after cleaning of respondents were derived from isiNdebele, Setswana, and Sesotho. After categorisation, the most facets were identified in the English (551), isiXhosa (503), and isiZulu (389) groups, while the Sesotho (251), Setswana, (244), and isiNdebele (234) groups accumulated the smallest number of facets after categorisation. When further clustering was employed, English (174), isiXhosa (164), and Afrikaans (163) amounted to the most facets, and Xitsonga (138), Siswati (136), and Sesotho (114) with the smallest number of facets. The total of 190 facets will be used in order to develop a unified personality structure.

From the 190 facets, we also identified which facets were common, semi-common, semi-specific and language-specific. Facets are called common when they are found in all 11 language groups. Semi-common facets are shared by seven to ten of the 11 groups, but missing in one to four language groups. Semi-specific facets are only shared by two to six groups. Finally, language-specific facets were identified. Language-specific facets are facets that are only found in one specific language group.

Table 3

The Total Responses, Personality-descriptive Terms, Facets after Categorisation, and Final Facets

Language Group	Average number of personality-descriptive terms after cleaning	Number of facets after categorisation	Number of facets after clustering
Afrikaans	42,61	271 (28,77 %)	163 (85,34%)
English	61,24	551 (58,49%)	174 (91,10%)
Tshivenda	39,94	338 (35,88%)	149 (78,01%)
Xitsonga	44,79	262 (27,81%)	138 (72,25%)
Sesotho	18,63	251 (26,65%)	114 (59,69%)
Sepedi	44,30	284 (30,15%)	146 (76,44%)
Setswana	31,56	244 (25,90%)	146 (76,44%)
Siswati	51,13	265 (28,13%)	136 (71,20%)
isiXhosa	55,72	503 (53,40%)	164 (85,86%)
isiZulu	36,27	389 (41,30%)	153 (80,10%)
isiNdebele	34, 29	234 (24,84%)	147 (76,96%)
Total	41, 86 (Average)	942	190

Facets Missing in Language Groups

We identified 78 common, 69 semi-common, 32 semi-specific, and 11 language-specific facets. So, there is a positive link between the frequency and level of sharing of facets. Large numbers of shared facets have also been found in lexical studies (Peabody & De Raad, 2002). The large number found in the present study may be a valid reflection of many

commonalities across languages. However, the number may have become so large because of other factors. Our analyses were aimed at developing a unified personality structure that would encompass the structure of all groups. This goal inevitably leads to a search for common facets. The use of adjectives at facet level may also have boosted the number of common facets.

An analysis of the differences between facets on common, semi-common, semi-specific, and language-specific level does not show salient dissimilarities in the global structure of the personality facets (i.e. intrapersonal vs. interpersonal traits, values, and dispositions). On common level, facets like *approachable, caring, friendly,* and *loving* correspond with the semi-common facets *agreeable, considerate, forgiving, playful*, and *pleasant*, and also with the semi-specific facets, *accommodating,* and *humane.* All of these facets could be clustered Agreeableness, one of the Big Five constructs. Self-driven facets like *aggressive, determined, eager to learn,* and *hard-working* are on common level, but as many facets could be found on semi-common level, i.e. *competitive, dedicated, passionate,* and *performance-oriented*, and a few on semi-specific level – like *adventurous, career-oriented,* and *purposeful.* The examples give no indication that facets that are more self-driven are found on a more specific level, and that more interpersonally-driven facets are more common (or the other way around).

An interesting question regarding the facets that was not shared by all groups (semi-common, semi-shared, and language-specific aspects) involves their patterning. The semi-common facets (total of 69) showed various dissimilarities between the language groups. It is important to note that Sesotho made up 56% of the missing semi-common facets, and that 21,43% of the facets are missing in this language group, even though the facet might obtain super-high frequencies in other language groups. It is important to report that Sesotho speakers generated the smallest number of personality-descriptive terms in comparison with other groups. Although the reason for this is not known, the small number may have had various consequences, such as the small number of semi-common and low frequency facets in Sesotho. For example, in all language groups, having *good relations with others* is mentioned, while in Sesotho the facet did not feature at all. *Intelligent,* a vital aspect for all other language groups, was missing in the Sesotho group. All language groups reported *tidiness*, while this facet was also missing in the Sesotho group. Since these facets were important in all language groups, but not observed in the Sesotho group, future studies will

need to determine to what extent these facets are not salient in a Sesotho definition of personality, or whether their absence is due to methodological reasons.

Looking closely at the semi-common facets, the language groups in which the facet seems to be missing are not concentrated in accordance with individualistic vs. collectivistic orientation, collective group distribution or other factors. When evaluating the semi-common facets further, it is important to consider the possible link with language clusters. Our group of 11 languages consists of four subgroups: Germanic languages, Sotho languages, Nguni languages, and finally the other Bantu languages that do not form part of a more specific cluster. For example, *cooperative* was found in eight languages, but the presence of the facet was unrelated to linguistic grouping. The facet was missing in Afrikaans, Sesotho, and Siswati. Afrikaans is a Germanic language (like English), while Sesotho forms part of the Sotho languages, and Siswati forms part of the Nguni languages. *Open for others* (accepting others) is missing in Afrikaans, Xitsonga, and Siswati, and Xitsonga (which does not form part of a collective group).

Leading did not feature in three of four Nguni groups (Siswati, isiXhosa, and isiZulu), while low frequency personality-descriptive terms were derived from isiNdebele. Although *leading* did not feature a great deal in the Nguni group, *guiding* was evident in Siswati, isiZulu, and isiNdebele, and missing in isiXhosa, while *advising* and *encouraging* (both common facets) were found in all four groups. *Leading* or taking lead might not be an important aspect in the Nguni group, but to guide, advise and motivate others (mostly youngsters) is an important feature for this collective group. There is another facet, *performance-oriented* (a person who wants to achieve goals) that did not feature at all in the Nguni group, but it should be stressed that the facet showed low frequencies in all of the other groups, except for English.

When looking at the three Sotho collective language groups, as with the Nguni group, no clear arrangement could be recognised. *Reserved* was missing in all three Sotho groups. However, when looking at inter-relationships with other facets (as in the case with *leading*), no clear pattern could be identified. The Sotho group seems to have the same facets related to extroversion and introversion as the other languages. *Tolerant* was also missing in the three Sotho groups (and isiZulu), but, like *performance-oriented,* the other groups also reported low frequencies. In conclusion, we do not find any support for the view that facets in

Afrikaans and English groups are significantly different from the facets found in the Bantu languages, or that Nguni and Sotho groups differ from each other on similar grounds.

Looking more specifically at the semi-specific facets, it was obvious that most semi-specific and language-specific facets were found in Afrikaans and English. *Spontaneous* and *adventurous* featured only in Afrikaans and English. *Spontaneous* is seen as a characteristic of Liveliness in the 16PF (Prinsloo & Van Eeden, 2002), with *cheerful* (common), *vivacious* (semi-common), and *impulsive* (semi-common), so the inter-relationship is already clear. When looking at *adventurous*, we looked at alternative reasons for the lack of this facet in all of the Bantu languages. *Like to travel* (a semi-common facet) previously formed part of the *adventurous* facet, but was extracted because of the huge amount of responses that pertained to *like travelling,* and *traveller.* The question was then asked if there was a correlation between these two facets. When Bantu language groups described persons that *like to travel,* did they mean that the persons were *adventurous*? In discussing this with cultural experts, it was evident that most Bantu language groups meant with *like to travel* to be exposed to new things, and to be *adventurous.* Because of the double meaning given to the facet *like to travel,* we kept it apart from *adventurous.*

From the 11 language-specific facets identified, eight were observed in the Afrikaans and English language groups: *consistent, dutiful, investigative,* and *timeous* in Afrikaans; *motive, obsessive/compulsive, prim and proper*, and *thought-provoking* in English. This brings back the question of terminology and translation obstruction that could have pertained to the missing facets in the Bantu language groups. When analysing these eight facets, it was clear that they could not be clustered any further because of in-correspondence or multi-correspondence with other more common facets.

The facet *consistent,* which emerged only in Afrikaans, was found to be different from the common facet, *even-tempered. Even-tempered* is defined in this context as being *calm*, and *emotionally well-balanced*, whereas *consistent* is defined as being *unswerving, firm*, and *not easy to sway.* The connotation could be made that *consistent* relates to being *stubborn* or *strict*, but the difference is evident in the inclusion of responses like *steadfast, will make a decision and stick to it*, and *is constant in his decisions*, which make the clear distinction from being unwilling to yield to direct demands. *Dutiful* as a language-specific term of Afrikaans

was found to be different from the common facet *obedient* and the opposite of *rebellious*, since it is more task-orientated than being obedient towards a parent or teacher.

Looking more on the domain level of language-specific facets, it was apparent that *satisfying others* (in isiXhosa) was the only facet that corresponded with the interpersonal relatedness concept, while the other facets seemed to be more on an intrapersonal level. As said before, most of the interpersonal relatedness concepts were observed on a more common level than on specific level. *Shamed* identified in isiNdebele, and *wrathful* in Siswati were other language-specific facets extracted. Like *consistent* and *dutiful* in Afrikaans, further clustering was not possible for these two facets. *Shamed* encompasses feelings of embarrassment, which could correspond with the *self-confidence* semi-common facet, but further analysis showed that the facet is broader than only in this level, since responses also suggested that feelings of dishonour and indignity could be included. Feelings of dishonour could pertain to feeling insulted by the actions of others in accordance with one's own perception of right and wrong. *Wrathful* relates with being *short-tempered* and in some instances *abusive*. The dictionary definition of wrathful refers to being in rage or angered. The action of being in rage could be caused by any external or internal stimuli, which makes the facet more complex, and the results could also be indefinite. From responses derived it is evident that most of the actions involve being *abusive*, but other results like *verbally aggressive* were also evident. Thus, when the person is angered, he will either beat others physically, or shout aggressively towards others. The ambiguous meaning motivated us to keep this facet separate, and since further analysis showed that the facet was not replicated in the other language groups, we kept it as a language-specific facet.

South African Indigenous Facets

Lexical studies have revealed many universal facets. Our analyses may have been influenced by these labels. We used many well known facet labels given to personality-descriptive terms. The common facet *aggressive* could be regarded as a universal term, but also an ambiguous term. *Aggressive* could be seen as a form of *assertiveness* or *competitiveness* (Block, 1995), which does not specify specific behaviour. In our data, the term *aggressive* is more closely related to being *physically hostile* towards others since most responses i.e. *likes to fight,* and *he fights others* accumulated to being *aggressive*. The concept of *aggressive* is also found in Eysenck's psychotism scale, which is associated with being hostile, inhumane,

and lack of feelings of empathy (Francis, Craig, & Robbins, 2007), and neuroticism of the Big Five (Gill & Hodgkinson, 2007).

Looking closely at the Big Five, many more facets could be recognised as universal concepts, since the Big Five are well replicated around the world (McCrae & Terracciano, 2005). As it is not impossible to recognise the universality of facets, even if slight label modifications were made, it is more imperative to look closely at indigenous concepts that will not be as universally well known or replicated.

It was already mentioned that the majority of facets derived are more interpersonal than intrapersonal; the same is evident in the indigenous concepts identified. On common facet level, *community involvement* possibly qualifies as indigenous to South Africa. Looking at this facet in conjunction with other similar 'behaviour-related' facets, being *helpful, generous,* and *kind* could construe being involved and to assist your immediate community in times of need, which makes the concept common in South Africa, although the concepts of *helpful*, *generous*, and *kind* are known in the Big Five under the construct *agreeableness*. However, *community involvement* is a unique label for this study since is not found in the majority of personality studies conducted.

The common facets of *advising, encouraging,* and *role-model*; and semi-common facets of *aspirations for others, didactic, guiding, leading*, and *uplifting* show the importance of direction and supervision given by persons to others (in most cases elders to youngsters). Being a good example seems also to be extremely important in all language groups. These types of facets are not well represented in literature.

Maintaining good and healthy relationships also seems to be an indigenous concept of South Africa. Semi-common facets like *good relations with others*, *peacekeeping,* and *forgiving* and the semi-specific facet *constructive* seems to be pertaining to upholding relationship harmony between people, and to give importance to social identification with others. *Open for others* seems to have a close relation to the *agreeableness* construct of the Big Five, but in our data the meaning of the facet is more based on accepting others as they are than on being agreeable. *Individualism* is not something that came out prominently in the data, except as a semi-specific facet in Afrikaans and English, and in very low frequency in isiXhosa. The meaning of the facet shows the distinction between people and the uniqueness of people.

Being individualistic also means that a person has strong opinions which in some instances could create conflict between people when the opinions clash. The facet *open for others* means that people will accept the differences in others, and respect the opinion of others, without disputing, thus maintaining good relations. All of these mentioned facets are significant, since they lack wide representation in other cross-cultural studies of personality structures.

DISCUSSION

The aim of the present study was to uncover the indigenous personality facets for the 11 official language groups in South Africa. This study was based on the use of interviews for obtaining data. In order to understand the semantic meaning of responses, the lexical approach was used, and further evaluation of data was done with a combined etic-emic approach. The use of these approaches allowed us to analyse the data without the restraints that come with any single approach. In this manner, the minimum of significant information was lost in the analysis. The analysis identified 190 facets. These 190 facets went through a process of transformation during the various stages of the analysis. It was necessary to find the 'right' and 'most applicable' explanation for each of the responses, and to assign a 'correct' label. Frequencies were added up to establish the amount of responses that made up a single facet within a language group. Frequencies were important as they embodied the importance of the facet in a particular language group. From the visible facets and their frequencies we identified the common (total of 78 that were shared in all language groups), semi-common (total of 69 that were shared in seven to ten of the 11 language groups), semi-specific (total of 32 that were shared in two to six of the 11 language groups), and language-specific (11 facets that were common in only one of the 11 language groups). Thus, we found more common than unique facets. This decrease in the number of facets with increasing cultural specificity may be a consequence of our way of analysing data in which we did not use specific verbs at facet level but focused on more abstract and broader, more widely shared facet names. However, this finding is also in line with results of comparative lexical studies in which more overlap in trait and facet names across languages than uniqueness has been observed (De Raad & Perugini, 2002). The finding is also in line with the so-called universalism view in cross-cultural psychology according to which basic aspects of psychological functioning such as personality structure are universal, whereas specific manifestations (e.g. behaviours) tend to show more cross-cultural variation.

The total number of facets that we extracted is relatively small compared to other lexical studies, in particular when the large number of languages of the present study is taken into account. In a Polish study, 290 personality adjectives were used as the final number (Szarota, Ashton, & Lee, 2007). Church, Katigbak, and Reyes (1998) used 682 personality adjectives in their factor analysis. In our study, only 190 facets did go through further cluster analysis. The main reason for the small number was the relatively high level of abstraction of our facets. We chose to use facet names of which we could be reasonably sure that they were comparable across languages. More concrete names of facets are more likely to run into comparability problems.

When analysing the common, semi-common, semi-specific, and language-specific facets, it is important to note that the facets that are divided in all four levels are not different in the total moods (temperament), ability terms, attitude terms, and social evaluative terms identified (see Saucier, 1997). Of course, the total number of facets on the four levels is widely dissimilar, so it will be problematic to compare these differences. When looking at differences between language groups, there is no evidence to suggest that one group is more different than another on grounds of these differences. However, it is evident that there is a lack of many ability terms on common facet level, although there are quite a few observable on semi-common level, i.e. *creative, competent*, and *intelligent*. There are many common facets that were related to temperament (*fearful, jealous, short-tempered*), attitudes (*traditional, arrogant, authoritative)* and even more facets that associate with social evaluation/relatedness facets (*captivating, role-model, caring*). It is significant to note that more social evaluative facets are on common level than on any other domain, and that the social evaluative facets decrease in frequency as they become less common in the language groups (in relation with the decrease of total non-common facets).

However, we do not say that the facets that are semi-common, semi-specific or language-specific are entirely missing in other groups. There could be many reasons for the fact that the respondents failed to identify the appropriate facet. In the case of the respondent, it could have been due to a lack of understanding the correct label or facet to describe another person, or a lack of terminology or a wrong translation or understanding of the original response; in the case of the researcher, it could have been the misjudgement of the underlying meaning of responses.

The results revealed three further interesting issues discussed below: (1) differences in the number of words used to describe personality in the 11 languages; (2) social roles in the groups; (3) the concept of individualism-collectivism and Ubuntu.

Number of words found in descriptions/absence of abstract terms

Table 3, Column 1 indicates the total responses per language group that were used in the interviews. On further inspection of the personality-descriptive terms obtained, it was evident that the structuring and content differed between language groups. In all the Bantu languages tentatively more than 60% personality-descriptive terms were descriptive of acts of behaviour (what the person does), rather than of specific trait names. Responses like *he greets others, he acts respectively,* and *she is a person who shows respect* were classified as *respectful. You can rely on him, he keeps your secrets,* and *you can trust him,* were classified as *trustworthy.* Apart from these typical responses in the Bantu language groups, there were instances where a trait was elaborated. *Arrogant because he is always insulting (Tshivenda), arrogant because he despises others (Xitsonga),* and *he is not arrogant because he does not think highly of himself (Setswana).* When looking closely at the Afrikaans and English groups, the same tendencies were found, although the latter languages tended to refer directly to the traits of a person (60% of responses) without any further elaboration.

Reasons for the differences in the number of words are hard to identify, since many factors could have played a role. One possible reason could be unfamiliarity with certain terms (although it is hard to imagine given our broad sampling of participants in terms of education and socioeconomic status); another could be the lack of applicable terms in the Bantu language groups, as mentioned before. Previous research has indicated that it is problematic for language experts to translate terms between indigenous Bantu languages and English (Mphahlele 2004). The main reason is that indigenous Bantu languages lack certain terms for describing personality constructs.

Social roles in the different groups

All language groups were also inclined to use descriptive terms reflecting a person's social role in the family. It seems that social roles are an important part of how a person is viewed. These social roles also led to some distinctions between genders. A mother is generally

viewed as *tidy, caring,* and *loving*. Responses that could substantiate this claim are, for instance in the Sepedi group: *She has motherly love; My mother is very neat and tidy; My mother cares about us*. When describing a mother, most responses also indicated aspirations mothers have for their children. *My mother wants me to be educated (Setswana);* and *My mother encouraged us to be educated (Tshivenda)* are responses that were found in most of the language groups. When describing a father, the responses centred more on the actions that he generated which render him to be a good or a poor father. *He did not abandon us (Xitsonga); My father is a good person even though he does not stay with us (isiNdebele);* and *My father used to beat us (Sesotho).* While mothers were described as the nurturer and caretaker of the children, fathers were more frequently labelled as either reliable or unreliable. Fathers were also described to a lesser extent than mothers, who are prominent in most African cultures, where mothers and grandmothers are mainly responsible for the upbringing of children. *My grandmother took care of me* (Sepedi); *She acted like a parent to us while my grandmother was not there* (isiXhosa); and *She was a strict grandmother (Xitsonga)* are examples of this. Children are also abiding to certain behaviour according to the family hierarchy. *He is a child who always listens (isiNdebele); My child obeys (Setswana); and She is a good child because she listens (Tshivenda).* Children are generally viewed as rebellious (they do not obey their parents' orders), or obedient (they adhere to their parents' orders). Elders also play an important role by teaching younger children the ways of life, and to give advice and guidance to the younger generations. This was found in most of the Bantu language groups. *He likes to advise us about life issues (Sepedi), Gives guidance about life (Siswati),* and *He teaches us about life (Xitsonga).*

All of the above responses are also found in the Afrikaans- or English-speaking samples, but were more prominent in the Bantu language groups. Some personality-descriptive terms from the Afrikaans and English samples also signify that social roles are imperative in relationships. It should be mentioned that Afrikaans is spoken as a first language by Whites and Coloureds, and that the English sample consisted of both White and Indian groups. Although it is argued that Afrikaans and English groups are more individualistically oriented than the Bantu language groups (who are more collectivistic), there is variation within each language group.

Individualism – collectivism and Ubuntu

A collectivistic orientation in the sense of Hofstede (1980) was also strongly observable in the personality-descriptive terms obtained. *Good relations with others* was very important. How the person is viewed by others appears to be important, and it is necessary to abide to certain behaviours in order not to get ousted from the community. A good person is generally labelled as a *respectful, not gossiping, kind, helpful, generous, unselfish,* and *not pretentious* type of person. This was found in most of the language groups. In Ubuntu, a person is regarded as a person through others (Louw, 2002), which could explain why a good person is conceptualised across the language groups in social terms. *Humaneness, compassion, community involvement,* and *helpfulness* are some of the traits associated with Ubuntu, and all of these traits were observable in the responses obtained. Most of the responses also contained terms like *We, They, Each other,* and *Us*, which correspond with the meaning of Ubuntu in that a person will regard himself or herself as part of a collective group, and not as a singular person. Examples of typical responses that in our view could correspond with the meaning of Ubuntu are: *He cares about people, She likes to give advice to others,* and *He likes to help others*. The *others* often could be anyone who forms part of the targeted person's life. In some cases, responses are specific, basically meaning such responses are for instance centred directly to certain 'others'. For example: *He cares about his learners and wants them to succeed, She loves her grandchildren,* and *He advises his children about life*. The context for this plural form is the type of role the targeted person (teacher, parent, grandparent) plays in the lives of the receptive persons (learners, children, grandchildren).

Another vast difference was expressing personality-descriptive terms in a plural manner. This was more common in the Bantu languages than in Afrikaans and English, although the latter two did indicate responses pertaining in the plural form. Respondents were inclined to include terms like 'we', 'they', 'children', 'people', and 'others' when describing self or others. These findings correlate with the collective vs. individualistic viewpoints. According to Kashima and Hardie (2000), Kreitner and Kinicki (2004) and Triandis (1995), collective cultures are known as the 'we' and 'us' groups, while individualistic cultures are also known as the 'I' and 'me' cultures. Kashima and Hardie (2000) state that collective groups evaluate themselves regarding specific others, the quality of relationships and regarding interpersonal roles.

Green, Deschamps, and Paez (2005) further state that collectivistic characteristics are generally focused on non-Western societies (Asian, South American, African) when describing a person, while individualistic characteristics are predominantly used to describe Western societies (Western European, North American, Australian). Rhee, Uleman, Lee, and Roman (1995) and Ip and Bond (1995) (see also Larsen & Buss, 2005, pp. 545) made the distinction when using the Twenty Statements Test on North American and Chinese participants. North Americans tended to describe themselves in conceptualised terms, like being *smart, dependable,* and *open-minded,* while the Chinese used social roles as a way to describe themselves, such as *I am a daughter,* and *I am Jane's friend.* These findings correlate with our results when our respondents described others. In English, a person will describe others as *patient, caring,* or *respectful,* whereas in Siswati personality-descriptive terms were more often given in the following way: *she is patient with her husband, my grandmother cares for her family,* and *he always greets elderly people.* With the Siswati language group, a person will act out a certain facet according the respondent's role in the family or community. However, our results do not indicate that all Bantu language groups are necessarily collectivistically oriented and that all persons from the Afrikaans and English groups are individualistically oriented. Although there is some indication for that, we cannot state that all Afrikaans and English people are predominantly motivated by individualistic values, as opposed to collectivistic values. That would be a generalisation. In Afrikaans and English, some collectivistic values were identified, as well as individualistic values in the Bantu language groups. The finding is in line with Oyserman, Coon, and Kemmelmeier's (2002) suggestion that cultural differences are not as significant when doing research within individualistic vs. collectivistic regions. This makes it even more complex, since people in South Africa function in individualistic as well as in collectivistic environments (Booysen, 2001), and will take on different qualities of the paradigm to function effectively in the mixed environment. The origins of the personality makeup of people in South Africa should therefore be further researched in order to understand the adaptable nature of people in South Africa to a multicultural environment. While the Afrikaans and English respondents described persons in fewer interdependence terms than did the Bantu language groups, salient important differences should be acknowledged.

The concept of *Ubuntu* is popular in South Africa today, and it was not surprising to find facets that corresponded with the overall concept of *Ubuntu.* Nyembezi (1977) describes *Ubuntu* as 'to live and care for others, to act kindly towards others, to be hospitable, to be just

and fair, to be compassionate, to assist those in distress, to be dependable and honest, to have good morals'. Ubuntu is associated with respect for others and their belongings; to have tolerance, compassion and sensitivity towards the elders, the handicapped and the less privileged; to be obedient towards adults, parents, seniors, and authority; to have courtesy and loyalty for others; to be welcoming, warm, generous, trustworthy and honest. All these aspects assist in building and maintaining relationships (Battle, 1997; Mfutso-Bengo, 2001; Nolte-Schamm, 2006).

In the Bantu language groups, more interdependence-motivated personality-descriptive terms were identified than intra-dependent. What is remarkable is that Afrikaans and English also had a strong indication of interdependence terms, although more intra-dependent terms were identified in these two groups than in the Bantu language groups. In analysing the concept of *Ubuntu* on facet level, it is evident that most facets that relate to *Ubuntu* are common in all language groups. As said before, collectivistic- as well as individualistic-orientated terms are found in all language groups. The concept of social relatedness was very important in all of the language groups, but especially concentrated in the Bantu language groups. The common facets of *caring, compassionate, kind, loving,* and *respectful* show the strong inclination of all South Africans to be sensitive towards others, while the facets *community involvement, heedful, helpful, supportive,* and *solve problems of others* show the contribution of people towards others in order to build and maintain communities. Common facets like *honest* and *truthful* show the maintaining of healthy and open relationships between people. When we look at the definition of Nyembezi (1977), there is a strong equivalence between our findings and the concept of *Ubuntu.*

In order to understand the uniqueness of the concept to South Africa, we evaluated the international articles. The CPAI (Cheung, 2006) found indications of interpersonal relatedness in the Chinese cultures, although it was later found to be replicated among Chinese American and European Americans. The subfacets under Interpersonal Relatedness that correspond strongly with the *Ubuntu* concept in our view are *harmony* and *relationship orientation.* The sixth factor of the HEXACO model, *honesty-humility,* which emerged strongly across languages in Europe and Asia (see Ashton et al., 2004), is associated closely with the definition of being honest and fair which are also included in the concept of *Ubuntu.* Therefore, analysis of international articles on personality research concluded that the concept of *Ubuntu* was less unique to South Africa than initially anticipated.

CONCLUSIONS AND LIMITATIONS

In South Africa, many personality aspects derived from each of the 11 language groups seem to be more common than specific. Through the methodology we employed in evaluating the huge amount of responses accumulated, we discovered that there are many universal facets (facets that are also reported in the international literature based on studies conducted in other countries), and indigenous concepts (facets that are unique to the South African environment). On a common level, many facets seem to be both universal and indigenous. Personality seems to encompass many interpersonally-driven, relational-orientated values and evaluated terms among South Africans. Also, the concept of Ubuntu seems to be prevalent and well represented in our data, which reinforces the overall consensus of the collective environment in which people function.

The approach we employed in uncovering the personality composition of South Africa has certain limitations. Conceptualisation of everyday personality was the overall goal of this approach, but the evaluation of descriptive terms in one language group was in most cases relative to the evaluation in other groups, which is why the number of common facets are so high. Another limitation is the evidence of frequencies per language group, which in most cases was the result of the previous limitation stated. Frequencies of facets, in this sense, cannot be seen as the ultimate, real number of importance of the facet per language group, which is why it is not justified to use the frequencies to map the saliency of the facet in that particular language group. Another limitation lies in the translation of terms to English. As previously mentioned, many Bantu language groups have less terminology than English and Afrikaans, which made the correct and valid translation of terms challenging and difficult.

The next step for the present study would be to come up with a unified and reliable personality structure encompassing all 190 facets derived. After the structure is validated the development of the inventory will commence.

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Appendix A

Frequencies per language groups in accordance with common, semi-common, semi-specific, and language-specific facets

Common facets (total 78)

All Facets	Afr	Eng	Ven	Tson	Sesth	Seped	Setsw	Swati	Xhosa	Zulu	Ndeb
abusive	3	14	58	46	13	28	8	7	33	49	34
academically-oriented	3	29	22	46	2	18	19	6	30	44	27
advising	35	38	88	104	19	228	50	55	58	138	62
aggressive	15	35	19	78	2	78	89	92	41	136	24
approachable	21	103	29	1	14	11	13	25	70	16	7
arrogant	38	86	28	18	21	23	15	44	31	25	11
articulate	23	36	28	11	5	13	11	3	33	20	16
assertive	19	77	13	5	12	6	25	3	28	21	29
authoritative	69	92	7	8	5	41	30	23	43	17	16
captivating	21	112	2	12	3	2	13	5	17	5	4
caring	93	206	152	171	66	118	125	170	283	72	154
cheerful	31	118	42	75	52	109	168	32	43	82	58
communicative	17	25	3	7	4	8	7	6	20	24	34
community involvement	2	8	4	15	3	19	5	40	13	28	7
compassionate	4	27	14	49	73	70	10	102	50	38	14
cruel	24	27	10	39	16	19	4	184	52	70	47
delinquent	12	6	43	64	7	27	27	205	23	65	65
determined	31	25	11	10	7	57	8	7	16	7	13
disciplining	18	34	30	49	10	61	16	73	71	84	53
discriminative	20	37	71	31	15	122	26	48	69	30	75
eager to learn	1	8	27	29	3	20	10	38	20	22	31
emotional sharing	8	52	20	11	7	105	27	8	22	37	50
encouraging	13	42	138	129	26	48	116	25	98	40	28
enterprising	3	14	12	12	2	10	8	1	47	21	12
even-tempered	47	49	40	6	6	15	10	4	19	34	13
fashion conscious	5	43	27	40	6	20	19	43	26	54	1
fearful	8	62	11	3	20	3	15	13	10	10	12
friendly	216	156	100	36	7	82	26	73	27	13	4
future-oriented	27	26	10	8	2	26	11	10	9	6	9
generous	64	131	116	168	34	70	29	310	199	51	16
gossiping	13	10	92	54	16	64	42	127	28	58	43
grateful	5	16	1	6	5	4	4	6	5	4	3
hard-working	82	122	131	150	45	139	57	367	94	89	94
helpful	145	199	116	119	22	159	188	178	241	115	79
honest	132	94	11	1	46	68	7	6	33	21	1
humble	14	24	30	8	16	19	23	28	21	32	27
humorous	113	131	41	94	26	44	53	33	83	61	28
independent	38	41	8	5	11	24	11	6	45	73	36
inquisitive	18	19	5	3	7	15	11	24	24	7	19
interfering	4	14	5	7	27	17	8	14	4	16	5
intimidating	11	17	4	1	6	12	2	2	3	6	1
jealous	11	14	25	18	8	49	26	63	28	38	26

kind	86	114	132	57	69	58	53	217	214	90	100
knowledgeable	12	38	8	4	1	9	7	9	11	3	5
heedful	40	66	17	9	52	44	30	14	44	24	40
loving	180	281	247	375	164	456	370	95	217	257	306
materialistic	8	14	9	12	2	4	6	4	4	8	15
mature	13	28	3	3	1	7	12	2	21	10	7
obedient	10	14	29	21	5	28	21	20	3	25	12
organised	25	41	9	14	4	4	9	1	16	11	21
patient	89	73	34	61	5	127	60	20	17	37	24
peaceful	22	15	66	75	7	76	23	14	64	35	65
pretending	13	12	13	6	18	16	13	36	16	11	6
proud	2	12	19	5	5	27	7	16	8	17	8
punctual	12	17	9	9	5	10	13	3	13	13	6
religiosity	44	82	190	294	33	69	74	226	117	124	131
respectful	28	46	30	83	33	217	62	369	88	92	75
responsible	20	35	28	65	12	34	75	26	38	43	26
role-model	32	41	22	19	6	17	10	5	20	12	11
selfish	38	79	38	17	18	52	21	57	36	23	18
self-respectful	4	19	12	10	4	23	12	54	5	38	16
sensitive	24	91	2	2	1	1	3	2	24	11	14
short-tempered	38	45	114	98	18	86	44	65	23	89	42
shy	19	26	9	9	7	8	6	76	14	6	10
sociable	129	204	116	190	92	137	159	51	166	168	101
solving problems of others	8	23	15	23	5	13	7	4	15	25	25
story-teller	2	7	10	39	3	12	8	6	8	13	7
straight-forward	28	37	5	2	10	1	10	7	35	19	1
strict	68	71	22	16	57	34	97	6	57	5	46
stubborn	51	54	53	17	30	32	11	27	32	13	11
supportive	73	142	44	32	22	47	52	12	151	24	19
talkative	88	105	88	100	117	89	183	95	116	126	132
temperamental	12	57	39	7	8	20	15	75	24	13	3
traditional	2	22	29	170	4	41	18	28	20	67	68
troublesome	17	44	9	26	5	65	32	21	26	63	25
trustworthy	86	121	96	40	29	146	63	209	86	49	38
Truthful	12	48	84	67	12	42	43	100	52	78	51
verbally aggressive	15	30	29	39	16	73	39	80	36	90	15
well-mannered	35	63	47	86	27	66	81	67	64	52	24

Semi-common facets (total 69)

All Facets	Afr	Eng	Ven	Tson	Sesth	Seped	Setsw	Swati	Xhosa	Zulu	Ndeb
Agreeable		9		2		1	1	3		2	3
Appeasing	2	1	2	2		9	4		9	1	7
Appreciative		5	7	17	6	4	1	2	14	34	23
argumentative	1	7	9	25	2	33		9	9	6	1
aspirations for others		6	13	15	1	24	22	1	15	19	15
attention-seeking	27	8		1	4	1	3	5	8	4	3
Competent	3	24	2		8	11	14	2	17	8	15
Competitive	2	8	3	1		1	3		5		2
Complaining	8	6	8	1		12	1	7		1	1
concrete work	4	8	10	83		11	8	34	34	50	23
Considerate	20	63	6			22	10	22	18	10	
cooperative		6	18	13		9	39		10	3	18

courageous	2	18	6	1		2	1	63	25	5	4
creative	4	23	2	7			3	1	17	17	2
critical	17	45	38	12		1	2	1	24	15	4
dedicated	50	33	78			1	5	82	6	5	16
demanding	20	26	9	1	14	1	3	5	12	18	
denigrating	28	57	41	34		5	3	70	27	25	25
Didactic	1	69	10	62		24	23	3	48	46	60
disciplined	19	10	6	7			7	1	6	6	2
emotional	9	25	7		7	7	14	11	37	7	2
Exploiting	1	11	1	4		4	15	3	2	31	3
extrovert/introvert	85	59	15		38		5	17	14		12
fair	49	39	6	2	5	6	13	6	12	2	
flexible	26	26	7		8	15	2		12		
forgiving	6	17	24	21		30	4	21	11	17	8
good relations with another	21	17	231	42		46	16	24	6	59	26
Greedy	6		1		5			11	1	2	1
guiding	3	12	20	15	10	3	12	38		43	31
Impulsive	8	9	2		5	2	2		3	4	1
intelligent	92	130	43	8		18	42	33	23	36	20
Irritating	6	23			33		7	2	6	12	
Leading	20	7	21	4	1	5	5				4
like to travel			3	5		13	1	17	2	7	13
Likeable	25	60	9	6	29	5		2	13	25	6
Logical	9	28	2			3		3	1		1
Meticulous	20	48	4	3		5	6		6	3	6
morally conscious	17	69		10		47	32	139	63	73	8
Needy	5	12	13	8		9	5	8	6	6	2
Noisy	13	29	12	18	12			3	12	4	6
open for others		16	17		5	5	4		3	4	8
open-minded	15	36	8	15	2	24	6		2	9	8
Optimistic	11	50	6	3		2	3		10	1	3
Outspoken	6	25	4	2	1			3	15	5	
Passionate		17		1	13	15	10		15	7	9
peacekeeping	9	20	3	7	9	74	10		18	34	2
Perceptive	11	37		3		5	17	7	7	25	6
Performance-oriented	2	10	4	3	2	3	3				
perseverant	6	62	27	11		36	12	1	30	16	37
playful	7	17	15	4		7	6	22	7	34	18
pleasant	27	51	2	70			10	1	21	12	9
pleasure-seeking		31	2	3			5	3	18	3	3
progressive	17	50	5	15			12	5	11	24	12
protective	7	13	5	1		1	1		10	5	3
rebellious	6	11	6	4		4		3	2		3
reckless	4	14	5			2	6	13	3	3	6
reserved	15	36	20	2				31	32	3	1
secretive		7	35	31	3	12	4	28	16	6	
self-centred	16	17	7		21	1		3	4	1	1
self-confidence	53	57	5	2		15	8	2	9	12	3
serious	8	17	6		17	1	1		5	2	2
talented		4	1		1	2	5	1	1	6	
tidiness	20	25	36	32		52	9	462	27	27	23
tolerant	5	10	5	1				1	10		2
trusting	27	21	8		2	8	9		11	10	2
understanding	10	91	96	7	69	80	64	3	35	11	

uplifting	8	13	7	2		11	5			7	4
vivacious	37	50	3	1	7		25	1	17	31	4
welcoming	7	2	23	7		2	3	32	18	19	8

Semi-specific facets (total 32)

All Facets	Afr	Eng	Ven	Tson	Sesth	Seped	Setsw	Swati	Xhosa	Zulu	Ndeb
absent-minded	8	13	2			2			3	6	
accommodating		4	4				1		15		2
adventurous	14	18									
artistic	3	10				3			2		
balancing life		11							2		
Career-oriented	1	10		6		2				7	1
constructive		1	4	1	8				13	5	
content		9				3	5		1	2	5
coping	1	6							1		
depressive	5	8								1	
dreamer	2						1		5		2
exaggerate	1	7		3		3	2		1		
follow-up				1							3
humane	3	1						7	47	2	18
individualism	6	13							1		
influential	3	14				7	10		4	12	
integrity	7	8								2	
loyal	47	47				2			5	8	
musical	1			4				6	1	3	
neurotic		3				1					
respectable	5	21	6		4			15		7	
provoking	3		5		1			38			3
purposeful	37	12	3						9	5	
respectable	5	21	6		4			15		7	
self-insight		1			3	1	3				4
social intelligent	5	8			1	1			2	3	
spontaneous	50	17									
tensed	6	8					1		2		
thorough		11	2						8		
undermining							12		3		
useless				1		1			3		
visionary	1						3		2		

Language-specific facets (total 11)

All Facets	Afr	Eng	Ven	Tson	Sesth	Seped	Setsw	Swati	Xhosa	Zulu	Ndeb
consistent	33										
dutiful	4										
investigative	2										
motive		4									
obsessive/compulsive		5									
satisfying others									5		


prim and proper
3
shamed
6
thought-provoking
3
timeous
9
wrathful
11

Chapter 4

Article 3

UNCOVERING THE PERSONALITY STRUCTURE FOR THE ELEVEN LANGUAGE GROUPS IN SOUTH AFRICA: AN EXPLORATORY STUDY

ABSTRACT

The present article, as part of the development process of the South African Personality Inventory (SAPI), explores the indigenous personality structure for all the 11 official language groups in South Africa using qualitative research methodologies. Semi-structured interviews were conducted with 1 308 participants from all 11 official language groups. After the personality-descriptive terms were derived, they were prepared, categorised and clustered in iterative steps involving group discussions and contacts with language and cultural experts. In the end, a total of 190 facets were divided in four groups: common to all language groups (78), semi-common (69), semi-specific (32), and language-specific (11). These facets formed part of the development of the personality structure, which consist of 37 sub-clusters and nine overall clusters. The nine clusters are labelled Extraversion, Soft-Heartedness, Conscientiousness, Emotional Stability, Intellect, Openness, Integrity, Relationship Harmony, and Facilitating, with the first six labels more closely related to the lexical Big Five and Five-Factor Model, and with the latter three regarded as indigenous concepts.

OPSOMMING

As deel van die groter projek, die sogenaamde South African Personality Inventory (SAPI), stel hierdie artikel ondersoek in na die inheemse persoonlikheidstruktuur van al 11 amptelike taalgroepe in Suid-Afrika deur gebruik te maak van kwalitatiewe navorsingsmetodologieë. Semigestruktureerde onderhoude is gevoer met 1 308 deelnemers van al 11amptelike taalgroepe. Die persoonlikheidsbeskrywende terme is geprosesseer, gekategoriseer, en gegroepeer met behulp van die insette van taal- en kultuurkundiges. Daar is 190 fasette geïdentifiseer, wat verder onderverdeel is in vier groepe, naamlik: gemeenskaplike fasette (78), gedeeltelik gemeenskaplike fasette (69), gedeeltelik gesentreerde fasette (32), en taalgesentreerde fasette (11). Al hierdie fasette vorm deel van die ontwikkeling van die algehele persoonlikheidstruktuur wat uit 37 subkonstrukte, en nege oorhoofse konstrukte bestaan. Die nege konstrukte word geklassifiseer as Ekstroversie, Teerhartigheid, Nougesetheid, Emosionele Stabiliteit, Intellek, Openheid, Integriteit, Verhoudingsharmonie, en Fasiliterendheid. Die laaste drie konstrukte word gesien as inheemse trekke, terwyl die eerste ses sterk korreleer met die Groot Vyf oorhoofse dimensies.

Cross-cultural psychology is a challenging field of study in South Africa, especially given the variety and wide distribution of ethnic, cultural and linguistic groups (Claassen, 1997). In 1994, South Africa moved from oppression to a democratic nation, ending years of inequality. This transformation made way for previously disadvantaged ethnic groups (African, Coloureds, and Indians) to actively participate in the labour market. The labour market became more heterogeneous since more people from various educational, socioeconomic, and cultural backgrounds entered the labour market. The changes made fair usage of questionnaires in South Africa quite challenging. The legal requirement for the use of questionnaires according to the Employment Equity Act, 55 of 1998, Section 8 (Government Gazette, 1998) is that all utilised questionnaires should be valid, reliable, and bias-free across all ethnic, cultural and language groups.

Personality measurement in South Africa predominantly makes use of imported questionnaires, usually from the USA or Europe, which were standardised for fair employment. However, previously disadvantage groups (Africans, Coloured, and Indians) were not evenly represented in the standardisation of these questionnaires (Abrahams & Mauer, 1999; Retief, 1988). Not all cultural groups in South Africa are equally exposed to similar stimuli or materials, as initial standardisation tended to focus on the middle-class White ethnic group (Abrahams & Mauer, 1999). Wallis and Birt (2003) state that assessment practitioners should be cautious in constructing and using personality questionnaires, especially within a multicultural and multilinguistic environment like South Africa. According to Foxcroft, Paterson, Le Roux, and Herbst (2004), one of the challenges is that culturally appropriate tests, which meet stringent psychometric standards, are needed for all age groups in our multicultural society. Linked to this is the challenge of having various language versions of tests so that test-takers in the multilingual South African society can be assessed in the language in which they are most proficient. Intensive, large-scale test development, adaptation and revision projects need to be urgently undertaken if South African psychological assessment practitioners are to rise to the challenge of performing ethically and culturally sound assessment.

Personality inventories are mostly developed from existing personality models (most of which were developed in Western regions). Personality structured models that were mostly derived from previous studies in Northern Europe are primarily used to develop personality taxonomies for a region (Saucier, 2003). Researchers use a variety of models to establish a

suitable personality structure in a certain context. Saucier (2003) argues that if more models were used, comparisons and testing would be more reliable, and taxonomies would be more transparent and evident in that particular region. Most models, however, are developed from an etic viewpoint.

Exploring and developing personality structures, and comparing these across cultures, have recently become very popular, and a range of different approaches are used. Some researchers prefer using imposed-etic approaches, while others are inclined to use more indigenous approaches. Indigenous psychology, as defined by Ho (1998), is the study of human behaviour and mental processes within a cultural context that relies on values, beliefs, concepts, and methodologies that are appropriate for that context. The inventory approach predominantly uses one or more inventories to derive a personality taxonomy from a specific cultural group. This approach focuses on the cross-cultural relevance of traits (McCrae & Costa, 1997; John & Benet-Martinez, 2000), though the emic approach investigates the relevance and meaningfulness of traits in a particular culture (Church, 2001). The emic (indigenous) approach could overcome the deficiencies of the etic approach in non-Western communities when conducting monocultural studies. Bias and inequivalence could be minimised, and information could be derived which is more representative of the cultural group on which the research is conducted. Most researchers suggest the lexical approach, which combines the etic and emic approaches (Saucier & Goldberg, 2001). The lexical approach is described as dealing with 'those individual differences that are of most importance in the daily interactions'. Even in earlier research, many personality psychologists (e.g. Klages, 1926; Baumgarten, 1933; Allport & Odbert, 1936) used the lexical approach to find the 'right' scientific taxonomy of a natural language, and to study cross-cultural similarities with other groups (etic-emic approach).

In this paper, we will discuss the development of the indigenous South African personality structure using the lexical approach, and how the structure compares with other major models such as the Big Five (Goldberg, 1981; Costa & McCrae, 1992), the Big Seven, the Honesty-Humility, Extraversion, Emotionality, Agreeableness vs. Anger, Conscientiousness, and Openness (which make up the acronym HEXACO) model (Ashton, Lee, Perugini, Szarota, De Vries, Di Blas, Boies, & De Raad, 2004), Eysenck's 'Giant Three' (Eysenck & Eysenck, 1975), the indigenously developed inventory of Fanny Cheung et al. (1996), the Chinese Personality Assessment Inventory (CPAI). Furthermore, we address the relevance of the

concept of Ubuntu (Mbigi & Maree, 1995), which seems to be very important today in South Africa for the study of personality. We begin with the literature review of each of these models and then continue with a short discussion of the overall project. We will then briefly describe the procedure used that was already discussed in Chapter 3, followed by a discussion of the structure and how it compares with the other structures. Finally, conclusions and implications for future research will be described.

Lexical approach

The lexical method is a widely employed approach for indigenous research in personality (Saucier, & Goldberg, 2001). The lexical approach is based on the assumption that salient individual differences in psychological functioning are embedded or encoded in the natural language (Goldberg, 1981). Individual differences that are seen as more prominent are more likely to have been converted to single words to help describe people and communicate about people (Goldberg, 1981). These words are usually included in dictionaries of that particular natural language.

Saucier and Goldberg (2001) concluded that personality language comprises compositions derived from genetic and environmental influences, which then become encoded in the natural language. They also reported that person descriptions are made by using adjectives, and that the structure of person descriptions in phrases or sentences is closely related to that based on single words. However, it is also possible that not all important person descriptions are sufficiently encoded in the natural language because there might not be any behavioural or contextual specification in abstract trait terms. Some terms might also be ambiguous or difficult to comprehend. Terms like *clavering*, *davering*, *gnathonic*, and *theromorphic* should be excluded from universal taxonomies, since most people do not know their meaning (Saucier & Goldberg, 1998). It is viewed as more difficult to translate single terms than phrases; there might also be disagreement about which personality-descriptive terms should be regarded as part of the personality domain.

Although the lexical approach has certain limitations, it is regarded as the best approach to identify important individual differences; yet, most researchers do not use it exclusively, but rather in combination with other indigenous approaches (Larson & Buss, 2005). Ten Berge and De Raad (2001) deem it wiser to follow an alternative approach to represent the lexical

approach, namely by tapping into the repository of situations as they are accumulated in the heads of language users. Some words may be encoded into sentences, and not into single words. Then an empirical definition of the situation (which can be identified as explicit as opposed to implicit) can be used to identify attributes.

Lexical studies have been conducted since the 1930s, predominantly using dictionaries (De Raad, 2000). The lexical approach functions on an indigenous (emic) basis (Saucier, & Goldberg, 2001), since research focuses on the native descriptors found in each language. Through the etic approach, cross-cultural or cross-linguistic comparisons could be made, predominantly using existing questionnaires or developed personality models. The etic approach is employed to identify the shared or specific dimensions found in various cultural or language groups. Personality models that were developed via the lexical approach will be discussed (the Big Five, Eysenck's 'Giant' Three, the Big Seven, HEXACO, CPAI), as well as the concept of Ubuntu, which encompasses major elements of our model).

The Big Five and five-factor model

In personality studies, researchers want to identify the exact personality structure of specific cultural groups. The lexical approach is widely used for this purpose. Most of the structures derived from lexical studies support the Big Five constructs (Goldberg, 1990; Larsen & Buss, 2005). Since the early 1990s, most researchers agree that personality features could be summarised in the Big Five constructs (Ashton & Lee, 2007). The debate about its applicability cross-culturally, its methodology and its independent dimensions is ongoing among researchers. These five constructs are Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect.

Through empirical research, Costa and McCrae (1992) also identified the Five-Factor Model (FFM) with dimensions which are similar to the lexical Big Five (B5). They used a different methodology (i.e. a personality inventory) in accumulating the structure, and the content of factors is consequently somewhat different. The most notable difference is the fifth factor, Intellect, which is known as Openness to Experience in Costa and McCrae's Five-Factor Model. The FFM excludes any intellectual ability dimensions, while it is included in the B5's Intellect/Imagination construct. Another difference between the two Big Fives is that the

biological basis of the FFM and its constructs are emphasised in its research, as well as the causal influence on other major life outcomes (McCrae & Costa, 2003).

Looking at the history of the development of the B5/FFM, it is evident that numerous researchers have tried to replicate the structure across countries. B5 was developed by Allport and Odbert (1936) using a lengthy English dictionary. These authors identified 18 000 descriptive terms that could account for the description of behaviour. These 18 000 terms were later reduced to 4 500 terms and still later to 35 variables by Cattell (1943) by using semantic and empirical clustering, and reviewing the current personality literature (cf. John & Srivastava, 1999). Cattell went on to develop the Sixteen Personality Factor Questionnaire, with the second-order factors having a close resemblance to the B5/FFM. The B5/FFM were later replicated with the use of Cattell's 35 variables by Norman (1963), Borgatta (1964), and Digman and Takemoto-Chock (1981). Norman identified them as Extroversion or Surgency (talkative, assertive, energetic), Agreeableness (good-natured, cooperative, dependable), Conscientiousness (orderly, responsible, dependable), Emotional Stability versus Neuroticism (calm, not neurotic, not easily upset), and Culture (intellectual, polished, independent-minded).

The popularity of the B5/FFM (Costa & McCrae, 2002) is evident in current Western psychology. It has become the dominant theoretical framework for studying personality and has led to the development of various instruments. However, problems still occur when personality is assessed in non-Western contexts. Saucier (2003) state that researchers need an open mind when analysing data derived from non-Western contexts. Numerous inventories have been developed measuring the B5/FFM. The most notable inventory, the NEO-PI and its revised version, the NEO-PI-R, are frequently used to find the five-factor structure. The Big Five Inventory (BFI) is also another commonly used inventory.

In most Western and some non-Western regions, a good replication was found of the B5/FFM. Examples are: the USA (Piedmont & Chae, 1997), Japan (Bond, Nakazato, & Shiraishi, 1975), Korea (McCrae & Costa, 1997; Piedmont & Chae, 1997), China (Yik & Bond, 1993), and Hong Kong (Yik & Bond, 1993). Most of these studies used exploratory factor analysis in order to replicate the structures by using the NEO-PI-R. Most other studies which used the lexical hypothesis reported the same five factors (Costa & McCrae, 1990).

There are a few examples of research in non-Western regions. Studies in Indonesia and Malaysia using the NEO-PI-R, which is a measure of the Five-Factor Model, found all factors to be well replicated, except for Openness to Experiences (Halim, Derksen, & Van der Staak, 2004). Rodríguez and Church (2003) administered the BFI (Benet & Waller, 1995) in Mexico and found that Agreeableness and Conscientiousness did not replicate well in that region, while Ortiz et al. (2007) found a full correspondence with the Five-Factor Model when using the NEO-PI-R. Ramírez-Esparza, Gosling, Benet-Martínez, Potter, and Pennebaker (2006) compared the mean BFI profiles of large Mexican and American samples. Americans averaged higher than Mexicans in Extraversion, Agreeableness, Conscientiousness, and Openness to Experience, and lower in Emotional Stability (Ortiz et al., 2007). Various studies have examined the applicability of the B5/FFM in South Africa, predominantly using the inventory approach (Meiring, 2006; Taylor & De Bruin, 2005).

The Big Seven

Despite the evidence that the B5/FFM is universally well replicated, the model has its critics. Some researchers argue that not enough terms were included from dictionaries with the initial development of the model (Benet & Waller, 1995; Block, 1995). Researchers have also stated that more dimensions should be included to obtain a more relevant and effective model. Tellegen and Waller (1987) argue that the B5/FFM excluded important evaluative and state terms.

In the 1980s, Tellegen and Waller (1987) took 400 personality descriptors from the 1985 edition of the *American Heritage Dictionary of the English Language*. They used self-ratings, from which they derived a seven-construct solution, with the first five labels closely related to the B5/FFM. Initially, the labels were Positive Emotionality (similar to the Big Five's Extraversion), Negative Emotionality (similar to the Big Five's Neuroticism), Dependability (which was later changed to Conscientiousness; Simms, 2007), Agreeableness, and Unconventionality (which was close to the Openness factor of the Big Five). They identified two additional constructs which were predominantly self-evaluative, namely Positive Valence (describing and evaluating oneself in positive terms) and Negative Valence (describing and evaluating oneself in negative terms) (Benet-Martinez & Waller, 1997).

Many researchers have had similar findings, although some variations were found with the fifth factor, Unconventionality, which did not seem to replicate well across cultures (see Simms, 2007). This was found in a study among Hebrews by Almagor, Tellegen, and Waller (1995). Among Spanish speakers, Benet-Martinez and Waller (1997) also found a seven-factor solution which corresponded well with the Big Seven Model, although some variations were found in the Emotionality and Unconventionality factors. The last two factors, Positive Valence and Negative Valence were replicated well across regions, although not as identical as the composition given by Tellegan and Waller (1987) initially. McCrae and Costa (1995) tested the last two factors from the perspective of the Big Five. They concluded that Positive Valence and Negative Valence were substantive descriptors that relate well with other dimensions of the B5/FFM.

The HEXACO Personality Structure

A most recently developed personality structure, the HEXACO model of personality, was discovered through further lexical studies, with researchers arguing that this model could be a feasible alternative for the widely studied B5/FFM (Ashton & Lee, 2007), and that personality is better explained through six factors than five (Ashton & Lee, 2001; Ashton, Lee, Perugini, Szarota, De Vries, Di Blas, Boies, & De Raad, 2004).

Three of the six factors, however, correspond closely with the B5/FFM model of personality (Ashton & Lee, 2007). These three dimensions are Extraversion, Conscientiousness, and Openness to Experience. As with the FFM, all intellectual abilities were excluded from the Openness to Experience construct, with authors arguing that their model was based on behavioural inclinations, rather than on abilities, which do not fit into the overall personality domain (Ashton & Lee, 2007). The last three personality dimensions are less related to the other two factors of the B5/FFM, although some correspondence could be identified. The fourth factor is known as Emotionality, the fifth factor as Agreeableness vs. Anger, which is different from the B5/FFM's Agreeableness construct, and the last construct is Honesty-Humility. The factors Extraversion, Conscientiousness, and Openness to Experience are based on being engaged and enterprising in different aspects (people, tasks, or ideas), while the other three factors, Emotionality, Agreeableness vs. Anger, and Honesty-Humility, encompass reciprocal and kin altruism.

Ashton and Lee (2001) found support for the sixth factor, Honesty-Humility, in studies conducted in France, Italy, the Netherlands, Poland, Hungary, the Philippines, and Korea (Ashton et al., 2004; Ashton & Lee, 2007). In correspondence with the B5 and FFM models, Ashton and Lee (2005) found that Humility-Honesty was not closely related to any of the other factors, although correspondence was found with FFM's Agreeableness. Ashton and Lee (2005) argue that Honesty-Humility should be kept separate from the Agreeableness factor in order to predict personality variables more efficiently. When looking on a lower level, all sympathy-related facets seem to load more strongly on the Honesty-Humility factor than the preconceived Agreeableness factor, which makes it different from the B5/FFM composition of Agreeableness. However, in further lexical studies, some terms expressing sympathy seem to load on the Emotionality factor as well (Ashton, Lee & Goldberg, 2004), making the overall composition of all sympathetic related terms central to the last three factors of the HEXACO model.

Eysenck's Giant Three Personality Structure

Eysenck and Eysenck (1975) identified only three broad personality dimensions to measure personality in regions. According to Larsen and Buss (2005), Eysenck developed a model of personality based on traits that he believed were highly heritable and had a likely psychophysiological foundation. The three main traits identified by Eysenck were Extroversion vs. Introversion (E), Neuroticism vs. Emotional Stability (N), and Psychoticism (P). The first and second factors, Extroversion vs. Introversion and Neuroticism are quite similar to the B5/FFM factors, Extraversion and Emotional Stability. The third factor, however, may be seen to include Agreeableness and Conscientiousness (Eysenck, 1992). Eysenck argues that traits are shared between these two factors, although B5/FFM research has indicated that there is a vast difference and saliency between the five factors from the B5/FFM model (John & Srivastava, 1999). Different inventories were developed to measure the 'Giant Three' or conduct personality research. The Eysenck Personality Questionnaire (EPQ), Eysenck Personality Inventory (EPI), and the Eysenck Personality Profiler (EPP) are more frequently used for research purposes.

In cross-cultural research, the EPQ has been widely employed to test the applicability of the three constructs across languages and countries. In most of these studies, the EPQ structure of Extroversion (E), Psychoticism (P), Neuroticism (N), and Social Desirability (L) seem to

correspond well. Eysenck, Baban, and Derevenco (1989) found that the EPQ constructs replicated well within the Romanian population, and that the Romanian and English factor structures were identical. The same was found in a separate study using samples from Sri Lanka and England (Perera & Eysenck, 1984). A minor difference was found for the Social Desirability scale where the Romanian and Sri Lankan samples seemed to score higher than the English samples. The only difference seemed to be the P scale, which correlated higher than expected with the E or N scale, questioning the adequacy of the P scale (Boyle, 1989). Other research indicated that the P scale did not replicate well in a German sample (Francis, Lewis & Ziebertz, 2006) and in a Hebrew sample (Francis & Katz, 2000). Cross-cultural replications of Eysenck's three-factor model have been studied in 34 countries (Barrett, Petrides, Eysenck, & Eysenck, 1998). The researchers demonstrated that on average the factor similarity of countries in their data set with the UK factors was high, at least for Extroversion and Neuroticism. However, the cross-cultural stability of the Psychoticism and Lie Scales is sometimes lower, though usually still acceptable.

The Chinese Personality Assessment Inventory (CPAI)

Cheung and colleagues set out to develop an indigenous personality structure and measurement instrument for the Chinese culture (the Chinese Personality Assessment Inventory – CPAI) using a combined etic-emic approach (Cheung, Leung, Fan, Song, Zhang, & Zhang, 1996). The personality constructs included in the CPAI were derived from personality adjectives or person descriptions of everyday life. These constructs were derived from Chinese novels, Chinese proverbs, reviews of Chinese literature, and surveys among professional and ordinary people where they had to describe themselves and others.

The main constructs were Dependability, Interpersonal Relatedness, Social Potency, and Individualism. Cheung et al. (1996) found indigenous sub-constructs (i.e. Family Orientation, Harmony, Face, Thrift vs. Extravagance, Relationship-Orientation, and Somatisation), clustered under the label Interpersonal Relatedness, that could be construed as typical 'non-Western' traits (Cheung, Cheung, Wada, & Zhang, 2003). This construct conveys the importance of social values in the Chinese, collectivistic culture. Cheung, Cheung, Wada, and Zhang (2003) revised the initial CPAI, with the first three constructs still being Dependability, Interpersonal Relatedness, and Social Potency, but with the last construct known as Accommodation. The revised version was known as the CPAI-2. The CPAI was

revised to increase the clinical applicability of the scale (Van de Vijver & Van Hemert, 2008), and aesthetics was added in order to represent the Openness scales. Clinical factors were divided according to emotional problems and behavioural problems.

The CPAI structure showed good correspondence with the FFM of Costa and McCrae (1992), with Dependability, Social Potency, and Accommodation overlapping strongly with Extraversion, Agreeableness, Conscientiousness, and Neuroticism, although the last construct, Openness to Experience was found to have the least representation in the Chinese culture (Cheung, 2006). As an indigenous factor, Interpersonal Relatedness showed little correspondence with the B5/FFM, making the assumption of the cultural-specific saliency in the Chinese culture. However, in a study done by Lin and Church (2004), the Interpersonal Relatedness factor was well represented in the Chinese American and European American groups, making the factor less indigenous and culture-specific for the Chinese cultures.

Ubuntu

Many people have explored the importance of the concept of Ubuntu, which is a traditional and collective everyday notion in South Africa today, especially among African South Africans (Laden, 2003). Laden (2003) described the concept of Ubuntu that a person will perceive him- or herself through the perception of others. Mbigi and Maree (1995, p.1) define Ubuntu as 'a metaphor that describes the significance of group solidarity on survival issues that are central to the survival of the African communities'.

Ubuntu is associated with social relatedness, social analysis, social peace, and social kindness in a collective and community-based environment (Nolte-Schamm, 2006). Nyembezi (1977) further states that Ubuntu in a broader sense means 'to live and care for others, to act kindly towards others, to be hospitable, to be just and fair, to be compassionate, to assist those in distress, to be dependable and honest, to have good morals'. Ubuntu is associated with respect for others and their belongings, to have tolerance, compassion and sensitivity towards the elders, the handicapped and the less privileged; to be obedient towards adults, parents, seniors, and authority; to have courtesy and loyalty for others; to be welcoming, warm, generous, trustworthy and honest. It all helps in building and maintaining relationships (Battle, 1997; Mfutso-Bengo, 2001; Nolte-Schamm, 2006).

Ubuntu is more closely related to the collectivistic perspective of Hofstede (1980). According to Mabelebele (2006), Ubuntu tries to bring together communities to discuss issues that affect everyone, in order to come up with collective solutions that would be better for the community overall. This principle is closely interrelated with the collective unity proposed by Hofstede (1980). According to Hofstede (1980), collectivistic cultures feel a strong loyalty and unity within their group and will strive to achieve collective goals, while individualistic cultures are more prone to strive for own personal goals.

Present Study: The South African Personality Inventory (SAPI)

The development of the South African personality structure forms part of a bigger project, creating an indigenous South African Personality Inventory (SAPI) to overcome current problems facing personality measurement in South Africa. The general goal of this project is to develop a unified and valid personality inventory for all major language and cultural groups in South Africa. This project does not start from well-known conceptualisations of personality such as the B5/FFM, or Eysenck's "Giant Three"; rather, the project started from everyday conceptualisations of personality as found in South African language groups. Although the lexical approach was used in analysing the semantics of data derived, it was not the approach used in collecting the data – for three practical reasons. Firstly, dictionaries of a sufficient quality for our purposes are not available in all languages. Secondly, some languages do not have many personality-descriptive terms, which would have led to a potential underrepresentation of relevant concepts. Thirdly, there is a lack of psychologists in various language groups who could conduct a lexical study. Therefore, we adopted another approach and collected information in interviews in which participants were asked to describe themselves and particular people they knew well.

Although the lexical approach and our approach have the same goals (i.e. to identify relevant personality descriptors used in a language), both have their own strengths. The main strength of the lexical approach is its exhaustiveness; a list of personality descriptors based on a dictionary search finds all relevant terms. The main strength of our approach is ecological validity; words found in free descriptions are actually used in that particular language.
The SAPI project has two stages. Broadly speaking, the first stage is conceptual and attempts to unravel the implicit personality structure as reflected in natural language in speakers of all 11 official language groups in South Africa. Here we used a qualitative, comparative research

design in which the personality structure is derived from interviews in all groups, after which the structures were compared across the languages so as to identify common and language-specific aspects. The second part of the study is quantitative and aims at developing and testing instruments in each of the language groups based on taxonomy derived in the first stage for the 11 groups. The present paper describes the methodology and procedures used in the first part of the study, as well as the results pertaining to common, semi-common, semi-specific, and language-specific facets.

METHOD

Participants

Interviews were conducted among male and female participants from a variety of ages, education, urbanisation status and socioeconomic status of all cultural and linguistic groups. In Table 1, the composition of the samples is outlined. A combination of quota and convenience sampling was used to collect data. Quota sampling was defined on the basis of gender, urban/rural, education/socioeconomic status and age group. However, quota sampling could not be used in all cases. For example, some language groups live mainly in rural areas. We used such a broad sampling scheme to ensure sufficient variability in presumably relevant background characteristics. As can be seen in Table 1, the distribution of participants over various categories is complex and varies across the different language groups. Sample size in qualitative research is often determined by the question to what extent new participants add information not yet covered (Lincoln & Guba, 1985). Initially, we set out to conduct about 200 interviews per cultural group. It became clear during the interviews that a sample size of 100-120 per language group was enough to reach saturation. The target total of participants was 120 per language group, but in some instances the frequencies were somewhat higher (122 for Setswana and 140 for isiZulu) or lower (95 for isiXhosa, 98 for Afrikaans, and 107 for isiNdebele). In the case of isiXhosa, Afrikaans and isiNdebele, the total number of interviews was equal to 120, but the data collected from certain participants were deemed unusable at a later stage. Thus, the total number of respondents in Table 1 is the number of participants that gave adequate information for analysis.

Table 1

Characteristics of Participants (N=1308)

Status		Afrikaans	English	Tshivenda	Xitsonga	Sesotho	Sepedi	Setswana	isiNdebele	Siswati	isiXhosa	isiZulu
Gender	Male	29	44	68	60	78	60	58	46	51	40	69
	Female	69	76	52	60	42	60	64	61	69	55	72
Ethnic	White	69	61	0	0	0	0	0	0	0	0	0
	African	0	0	120	120	120	120	122	107	120	95	141
	Coloured	29	0	0	0	0	0	0	0	0	0	0
	Indian	0	59	0	0	0	0	0	0	0	0	0
Age	18-25	32	43	33		31	39	43	15	42	19	46
	26-35	18	38	49		8	21	20	31	26	33	34
	36-45	13	13	32		20	30	54	27	22	31	49
	46-	10	16	6		3	30	5	19	11	12	11
Environment	Urban	54	120	0	0	114	53	113	17	36	95	34
	Rural	22	0	120	120	6	67	9	90	79	0	107

* In Afrikaans, 22 participants did not include their environment, and 25 not their ages

* In English, 10 participants did not include their ages

* In Xitsonga, none of the participants indicated their ages

* In Sesotho, 58 participants did not include their ages

* In isiNdebele, none of the participants marked their environment, although the study was done for the most part in rural areas, and 15 participants did not include their ages

* In Siswati, 5 participants did not include their environment, and 19 did not include their ages. All Siswati participants are from Swaziland

* In isiZulu, one participant did not include his or her age

Also evident in Table 1 is the distribution of males and females in the language groups. Aside from Xitsonga, Sepedi and isiZulu, distributions are uneven. The availability, as well as the tolerance level of the respondents to be interviewed contributed to this unevenness. The Table also shows dissimilar totals of residence (rural vs. urban), provinces, and age groups.

A point to note is the ethnic distribution of the language groups. Afrikaans and English speakers from different ethnic groups (White, Coloured and Indian) were targeted, while with the other language groups only the Africans are targeted. According to SA Statistics (2001), native language speakers are distributed as follows: Afrikaans (13,3%), English (8,2%), Tshivenda (2,3%), Xitsonga (4,4%), Sesotho (7,9%), Sepedi (9,4%), Setswana (8,2%), Siswati (2,7%), isiXhosa (17,6%), isiZulu (23,8%), and isiNdebele (1,6%). Africans make up the vast majority of the South African population. Whites, Coloureds, and Indians together form about 20% of the population. Africans mostly speak one of the nine Bantu languages found in South Africa as their mother tongue. Whites usually have either Afrikaans or English as home language. Coloureds generally speak Afrikaans as their home language, whereas Indians tend to use English. In our division, 29 of the Afrikaans respondents were Coloured, and 69 were White, while in the English group, 61 were White and 59 Indian (the latter being a more even distribution).

The Bantu languages in South Africa form part of the 1 436 Bantu languages spoken in Africa. In South Africa, nine of the 11 official languages are Bantu languages (Williamson & Blench, 2000), Afrikaans and English being the exceptions. Approximately 78% of the total population of South Africa speaks a Bantu language as their mother tongue.

Instrument

The purpose was to collect as many personality-descriptive terms as possible. Fieldworker(s) conducted interviews using tape recorders, and transcribed the recordings to an answer sheet. The answer sheet consisted of demographic questions (province, municipality, cultural group, and native language) and an instruction section, followed by ten questions.

The interview started with an introduction, the rationale of the research, and instructions regarding the responsibilities of the respondent in order to receive adequate information to analyse. In the instruction section, the fieldworker first informed the participant of what was

expected from him/her, and of the most appropriate way of answering the ten questions. The purpose of the instructions was to ensure that relevant personality-descriptive terms were given with each question. The instructions included the following:

- Please describe the following people to me by telling me what kind of person he or she is/was.
- Can you describe typical aspects of this person?
- Can you describe the behaviour or habits that are characteristic of this person?
- How would you describe this person to someone who does not know him/her?

When the fieldworker confirmed that the participant understood the task, the ten questions to solicit personality-descriptive terms were asked. The participant was asked to describe his own personality, a best friend of the same sex, a best friend of the opposite sex, a parent, an eldest child (if not present, eldest brother or sister), a grandparent, a colleague or friend from another ethnic group, a person who is psychologically very different from the participant, a teacher the participant liked (if schooled, otherwise a person from the participant's village or town whom he/she liked), and a teacher the participant did not like (if schooled, otherwise a person from the participants village or town whom he/she did not like).

Procedure

Preparatory stage. Master's students and one to four native speakers who acted as fieldworkers for each of the 11 official language groups were recruited. The fieldworkers were trained in conducting semi-structured interviews. The interviews were tape recorded, transcribed, and translated into English by the fieldworker as the interviews were conducted in the native language of the participants. Transcriptions were entered in Excel worksheets. Language experts checked the accuracy of the initial translations from the native language to English made by the fieldworker, and the overall content of the data gathered.

The preparation of the data for analysis commenced after the data were transcribed to Excel. Preparation included that all English translated responses were 'cleaned'. For instance, all verbs and tenses were made singular, and past and present tense were not changed. The reason for modifying the data was to ensure that after the data were sorted, all homogeneous terms were grouped together. This also guaranteed that content analysis was more accurate

and effective in the categorisation of the personality-descriptive terms. After that step, all superfluous words, ambiguous terms and non-personality terms were deleted, and all composite responses (cells with more than one personality-descriptive term) were split up.

Interpretive stage. Content analysis was applied in order to categorise the personality-descriptive terms as facets. Resources that were often used in this stage were dictionaries, thesauruses, and literature. Moreover, the adequacy of each clustering was checked by comparing the verbalisations provided by the participants in order to ensure that the process of clustering did not lead to shifts in meaning. Personality-descriptive terms were intensely discussed in frequent group meetings between the collaborators of this project (some meetings were held in South Africa and in the Netherlands, and most other meetings were telephone meetings over the internet). This stage was regarded as the most important and sensitive in this qualitative study.

After the categorisation of the personality-descriptive terms in facets, the data were sorted alphabetically. The worksheet consisting of the categorised descriptive terms, preparation of personality-descriptive terms, translated English responses, and the original responses were all sorted together in order to keep track of the various stages. After the data were sorted, the frequencies of the descriptive terms that made up a certain facet were summated.

The following step of the analysis was the clustering of the categorised person-descriptive terms (now known as facets). Resources used in this stage were again dictionaries, thesauruses, and literature. The contents of the descriptive terms were also acknowledged in clustering the data. The reason we further clustered the facets per language group was based on two grounds: (1) we wanted to reduce the number of facets to a more manageable number for further analysis; (2) and we wanted to make the facets equivalent across the 11 language groups. The more concrete the facets are, the more likely it is that language-specific aspects are mentioned (Berry, Poortinga, Segall, & Dasen, 2002). With the clustering, we identified High Frequency Facets (frequency of five and more person-descriptive terms) and Low Frequency Facets (frequency and four and less person-descriptive terms). One of the purposes of the clustering stage was to further analyse these Low Frequency Facets. Using the same resources again, Low Frequency Facets were either grouped together in order to form a new High Frequency Facet or grouped under an existing High Frequency Facet. The obvious way to do this was by clustering synonyms and other closely related terms together.

The facets were then divided on to four levels, namely common (facets that are found in all language groups), semi-common (facets that are found in seven to ten of the 11 language groups), semi-specific (facets that are found in two to six of the language groups), and language-specific (facets that are unique to only one language group).

Development of Indigenous Personality Structure. Semantic cluster analysis was used to arrive at the final structure. The aim of the semantic cluster analysis was to come up with applicable and broad clusters that validly encompass the facets. In this stage, various resources were used, but statistical factor analysis was not conducted during this stage of the project. Literature regarding personality models like the Big Five Model (Botwin & Buss, 1989; Goldberg, 1981; Costa & McCrae, 1992), Eysenck's Giant Three (Eysenck, 1992), HEXACO (Ashton et al., 2004), and the Big Seven Model (Tellegen & Waller, 1987) were reviewed in order to come up with an adequate personality structure. The main constructs which are measured by the Chinese Personality Assessment Inventory (CPAI) (Cheung, Leung, Fan, Song, Zhang, & Zhang, 1996) and studies conducted by De Raad and Peabody (2005) within the non-Western community of the Philippines (Church & Katigbak, 2000) were also examined in conjunction with other literature. The facets were clustered in sub-constructs according to shared behavioural styles or shared content (e.g. Humane, Caring, and Compassionate). The sub-constructs were given collective labels (e.g. Helpfulness to Helpful, Supportive, and Community involvement). After the initial clustering, the sub-constructs were further analysed and clustered according to similarities or shared inherent behavioural styles. The 37 sub-constructs were reduced to nine main constructs after this process. The main constructs consist of one to five sub-constructs and within it two to fifteen facets.

Quality control

This section describes the steps we have taken in order to ensure the validity and reliability of our findings. There are no generally agreed upon procedures for qualitative, comparative studies, and there is no methodological literature regarding the derivation and interpretation of indigenous data. Therefore, we have designed our own checks and procedures to certify our research. Our quality assurance system is based on the sources described in the next paragraphs.

SAPI collaborators' input. The process of cleaning, categorisation and clustering was conducted mainly by the principal author, but closely monitored and discussed with the other authors in several meetings.

Workshop and consultations. In between the categorisation and clustering phase, we conducted a two-day workshop with language and cultural experts from each of the 11 language groups. They had expert knowledge about the culture, beliefs, history (background), typical behaviour styles, and personality traits of the languages they represented. The central question of the workshop was: "How accurate do the initial 114-174 facets per language group reflect the way in which persons from that group think and talk about personality? Do you recognise aspects of personality in the facets we distinguished for a specific cultural group?" The specific aims of this workshop were to inform and present our findings (common, semi-common, semi-specific and language-specific facets); to discuss problems that could have occurred during the translation of responses, the categorisation of responses and clustering of facets; and how to address them. We also discussed the findings with language experts to identify possible gaps between our findings and their views; to collaborate with them in the development of a more cultural accurate model for a particular language group. The workshop led to the confirmation of the accuracy of our clustering as well as to various modifications of the data matrix.

Individual consultations with culture experts. After the data were re-analysed and adapted, individual discussions were held with culture experts on the final outcomes. The common facets and their applicability for each particular language group were discussed. Ultimately, the common facets will be used to develop an indigenous personality inventory for South Africa, so it was important to validate the common facets with culture experts.

RESULTS

The results section includes the discussion of the major clusters, as well as the sub-clusters derived from the structuring phase. The personality structure is presented in Appendix B, while Appendix A includes all the facets divided in accordance with common, semi-common, semi-specific, and language-specific facets, and the cluster and sub-cluster they are allocated to. Two examples of responses per facet are also included in Appendix A. A more in-depth discussion on the facets on this level can be found in Chapter 3.

Structuring

The facets were concatenated into clusters with sub-clusters. They are listed in Appendix A. In the representation of the overall personality structure, nine clusters with 37 sub-clusters were identified. Each cluster consists of one to six sub-clusters, and each sub-cluster consists of two to nine facets. The final nine clusters and their sub-clusters with a description of each of the sub-clusters are presented in Table 2.

Table 2

Clusters, Sub-clusters, and their Descriptions

Cluster	Sub-cluster	Description
Extraversion	Dominance	The tendency of a person to control others forcefully, to be overbearing, strict, and dictatorial
	Expressiveness	The inclination to share one's feelings or problems with others as a way to share a burden, and to be frank and forthright about one's feelings in a non-threatening manner
	Positive Emotionality	Characteristic of a lively, positive person who likes to laugh and joke, who sees the positive side of life, enjoys playing with others and having fun
	Sociability	The tendency to be outgoing and spontaneous, to enjoy having people around oneself and communicating with people
Soft-Heartedness	Amiability	The quality of being pleasant, kind, trusting, and not irritating
	Egoism	The quality of being greedy, jealous, and selfish, focusing exclusively on one's own needs and desires
	Gratefulness	The tendency to express gratitude and appreciation for others or for life in general
	Hostility	The inclination to be physically, psychologically or emotionally aggressive, to enjoy beating or fighting with others, and to degrade others by fighting or verbally assaulting them

	Empathy	The quality of having compassion, considering other people's needs and feelings, and caring for them
	Active Support	The quality of being generous and actively involved with the well-being of one's peers and broader community; lending a helping hand when needed, and supporting the less-fortunate
Conscientiousness	Achievement-oriented	An orientation towards achieving things in life, by working hard and being directed towards whatever one wants to obtain
	Dedication	The quality of having passion, determination and perseverance in whatever goals one sets for oneself
	Orderliness	The characteristic of being precise and thorough in what one does; being tidy, punctual, and well-organised
	Self-disciplined	The ability to comply with social norms and expectations and keep one's urges under control
	Thoughtless	Being forgetful about trivial things and clueless about what to do; lacking clear-cut strategies in place, and being often reckless
Emotional Stability	Ego Strength	The quality of being independent, relying on one's own abilities and having a positive view of oneself (vs. constantly needing others' attention or assistance)
	Emotional Sensitivity	The tendency to be sensitive and vulnerable in different situations
	Emotional Control	The ability to control one's emotions and their expression; to be calm and patient vs. succumbing to one's emotions, and losing one's temper
	Neuroticism	The tendency to be dissatisfied with things in life and to complain; proneness to depressive moods and stress
	Courage	The disposition to be brave, courageous and relaxed, and not to experience fear and anxiety in

		different situations
	Balance	The ability to manage and control own life and emotions
Intellect	Aesthetics	The quality of being artistic, creative and talented, and the tendency to engage in practical work
	Reasoning	The ability to attain insight in things in general and oneself in particular; having knowledge and sharing it with others
	Skilfulness	The ability to do things well, specifically having a high level of competence in work situations and/or adequate communication skills in contact with others
	Social Intellect	The ability to understand others and social situations and to react appropriately
Openness	Broad-Mindedness	The quality of being flexible at the face of changes in life, receptive of different ideas, and appreciating progress, vs. being traditional
	Epistemic Curiosity	The quality of being eager to learn new things or skills
	Materialism	The fondness of material possessions, money, fancy and expensive things
	Openness to Experience	The inclination towards travelling, seeing and experiencing new things
Integrity	Integrity	The moral soundness of a person; the tendency to be trustworthy and to act in an honest, pure, and responsible manner
	Fairness	The inclination to accept and treat all people equally, rather than discriminate and favour some people over others
Relationship Harmony	Approachability	Being approachable and accessible for others on an interpersonal level, vs. placing oneself above others
	Conflict-seeking	Being disruptive, causing (and enjoying) conflicts, and provoking others
	Interpersonal Relatedness	The ability of a person to be constructive in one's relationships,

		to actively maintain them by being forgiving, peaceful, and cooperative
	Meddlesome	Interfering in others' lives by gossiping or actively meddling
Facilitating	Guidance	The ability to guide others through life by giving advice, teaching about right and wrong, and providing personal example as a role model
	Encouraging Others	The ability to motivate others, build them up, and encourage them to think about their own destinies; having dreams for others, and hoping they will realise their potential in life

The clusters and their sub-clusters are as follows:

Extraversion consists of *Dominance, Expressiveness, Positive Emotionality,* and *Sociability.* Extraversion is described as the act, state, or habit of being predominantly concerned with, and obtaining gratification from, what is outside the self; the power or right to give orders or make decisions, to be open to share or communicate with other people, being energetic and upbeat, and having the relative tendency or disposition to be sociable or to associate with one's fellows.

Soft-Heartedness consists of *Amiability, Egoism, Gratefulness, Hostility, Empathy,* and *Active Support.* Soft-Heartedness is defined as a feeling of concern for the welfare of someone else (especially someone defenceless), low concern for own interests and welfare, being thankful for others or overall life being, an actively expressed feeling of dislike of aggressive behaviour, a compassionate type of person who is understanding and sensitive towards others' feelings, and a concept of community from sub-Saharan Africa, often summarised as *humanity towards others.*

Conscientiousness consists of *Achievement-oriented, Dedication, Orderliness, Self-disciplined,* and *Thoughtless.* Conscientiousness is described as being painstaking and careful, or the quality of acting according to the demands of one's conscience, to accomplish something through great effort or inner drive, the opposite of being reckless and uncaring with own or others' safety, behaving according to certain social standards, attitudes, and

practices, being devoted to reach certain goals, arranged or disposed in a neat and tidy manner or in a regular sequence.

Emotional Stability consists of *Balance, Courage, Ego Strength, Emotional Control, Emotional Sensitivity,* and *Neuroticism.* Emotional Stability, in this context, means that a person is emotionally either well or unwell, possesses an inner confidence and respect, is sensitive towards outward events or people, has the ability to control and manage own emotions or actions, and is emotionally sound, or capable of handling life issues or stimuli.

Intellect consists of *Aesthetics, Reasoning, Skilfulness,* and *Social Intellect.* Intellect is thus described as the capacity for thinking and acquiring knowledge, having a special natural ability or aptitude, being knowledgeable and observant of outward and inward things, having a degree of efficiency in certain issues, and having insight in emotions and internal disturbances of others.

Openness consists of *Broad-Mindedness, Epistemic Curiosity, Materialism* and *Openness to Experience.* Openness is defined as being receptive to new and different ideas or things or to the opinions of others; it refers to a person who is open or receptive to others or ideas, and a person who wants to learn new things.

Integrity consists of *Integrity* and *Fairness.* It is described as the moral consciousness of a human being, characterised by being honest, loyal and dependable.

Relationship Harmony consists of *Approachability, Conflict-seeking, Interpersonal Relatedness,* and *Meddlesome.* Relationship Harmony, in this context, means a state in which a person believes in keeping good relationships with others, keeping the peace, maintaining relationships on good terms, and being open to understanding and tolerance.

Facilitating consists of *Guidance* and *Encouraging Others. Facilitating* could be described as directing people according to one's own experiences, guiding others through example and advice, and proactively encouraging people by one's own behaviour.

Relation of derived structure with other well-known personality models

Table 3 shows the relations of our indigenous structure with all mentioned personality models discussed in the literature review.

Table 3

Comparative Model of the Indigenous South African Personality Structure with Widely Studied Personality Models

	Clusters of South African Personality structure								
	Extra-version	Soft-heartedness	Conscientiousness	Emotional stability	Intellect	Openness	Integrity	Relationship harmony	Facilitating
Lexical Big 5/Five-Factor Model									
Extraversion	**								
Agreeableness		**						**	
Conscientiousness			**						
Neuroticism				**					
Openness to Experience					*	**			
Intellect					**	*			
Eysenck 'Giant Three'									
Extraversion	**	*	*	*				*	
Psychoticism		*	*		*	*		*	
Neuroticism				**					
Big Seven									
Positive Emotionality	**								
Agreeableness								**	
Conscientiousness			**						
Negative Emotionality				*					
Unconventionality						**			
Positive valence					*				
Negative valence		*					*		
HEXACO personality model									
Extraversion	**								
Agreeableness vs. Anger		**		*				**	
Conscientiousness			**				*		
Emotionality				**					
Openness to Experience					**	*			
Honesty-Humility		*					**	*	
Chinese Personality structure (CPAI-2)									
Dependability	*	*	*	*			*		
Interpersonal Relatedness		*	*			*		*	
Social Potency	**				*	*			*
Accommodation	*	*					*	*	

Note. Values in cell: blank: no agreement. *: minor to moderate agreement. **: major agreement.

It is quite clear that the first six clusters correspond well with the main factors found in literature (i.e. B5/FFM, Eysenck's 'Giant Three', the Big Seven, and the HEXACO personality model). Although labels that are allocated to the content of the grouped sub-constructs relate strongly with the first four models, the difference of the dimensions underneath each construct are in most cases somewhat different from the facets traditionally found underneath each of these factors.

It is quite clear that *Extraversion* is moderately or highly related with all the major personality model's Extraversion factors, and CPAI'S Social Potency, while *Soft-heartedness* share many dimensions of the Agreeableness construct from the majority of the models. However, there is a variation from the HEXACO model, where not all sympathy-related terms were included in their Agreeableness vs. Anger construct, which was found prominent in the sub-construct of *empathy* under *Soft-heartedness*. There is also a moderate correlation between *Soft-heartedness* and Psychoticism of Eysenck, and the constructs of Dependability and Individualism of CPAI. *Conscientiousness* seems to correlate well with B5/FFM, Big Seven, and HEXACO, although it moderately correlates with Psychoticism of Eysenck and Dependability of CPAI. *Emotional stability* includes most important dimensions found under the Neuroticism construct of all major models, while it relates moderately with HEXACO's Emotionality construct. There seem to be no clear correspondence with any of the CPAI constructs and this construct. *Intellect* is more compatible with the Intellect construct of B5, and correlates in some instances with the Openness to Experience construct of FFM, and the Unconventionality and Positive Valence constructs of the Big Seven. However, there does not seem to be an obvious relation with the models of Eysenck, HEXACO (who excluded all intellectual ability terms), and CPAI. *Openness*, however, corresponds more clearly with all the models.

The last three constructs (*Integrity, Relationship harmony,* and *Facilitating*) seem to be less related to any of the models, unlike the first six constructs, although *Integrity* correlates well with the sixth factor of HEXACO, Honesty-Humility, and *Relationship harmony* seems to have a strong relation with the Interpersonal Relatedness construct of the CPAI. Also, some of the sub-constructs under *Relationship harmony* correspond in some sense with all the Agreeableness factors of all major models, as well as with Psychoticism of Eysenck. The last factor of *Facilitating* seems to be not as important in international research, since such items are more prone to be included in other constructs than to be kept apart.

Composition of the nine overall clusters explained

Our nine-cluster structure was built through cluster analysis and consultation of much literature and various dictionaries. Although the first six clusters seem to be well recognisable, it is evident that not all clusters correspond with existing structures, as discussed in the previous sub-heading.

The first cluster, *Extraversion*, was created since many personality-descriptive terms seem to correspond with the overall definition of extraversion, as well as the dimensions found in literature underneath this cluster. Facets like *reserved* and *shy* seem to be the opposite of being extraverted (thus introverted), while numerous facets, like *humorous, vivacious, outspoken, talkative,* and *sociable,* pertain to the definition of extraversion. *Extraversion* consists of both interpersonal and intrapersonal sub-clusters. The sub-cluster *Positive Emotionality* encompasses most of the intrapersonal dimensions, while interpersonal dimensions are divided into the other sub-clusters. *Soft-heartedness* is recognised as the biggest cluster in our structure, with a strong correspondence with the Agreeableness factors of most of the other personality models. The cluster consists of facets that pertain to being good, kind, and tender vs. being ruthless, unkind, and abusive towards others. *Soft-heartedness* shows the gentle side of people caring about the welfare of others, either actively or passively. This cluster also comprises many aspects that relate to Ubuntu (Louw, 2002).

Conscientiousness predominantly consists of the organisationally desirable and undesirable facets. The sub-clusters of *Achievement-oriented, Dedication, Orderliness,* and *Self-disciplined* comprise most of the desirable attributes, because these refer to the facets that are needed to perform and attain job or organisational goals. The last sub-cluster, *Thoughtless*, corresponds more with the undesirable attributes needed when making important decisions, or attaining organisational goals. *Emotional stability* is a cluster that consists of all the emotional well-being or ill-being attributes or states. Being emotionally sound, thus *Even-tempered*, or unstable, thus *Temperamental*, leads to the overall make-up of a person's mental and emotional well-being. Many of the facets underneath this cluster show the sensitive inclination of people towards outward or inward stimuli. *Intellect* and *Openness* as the fifth and sixth cluster respectively correspond closely with most of the existing models. In the B5 (Goldberg, 1981), both clusters are merged, while all intellectual abilities are excluded from the FFM (Costa & McCrae, 1992). The two factors were kept separate here. This decision to

keep them separate was made because behaviours associated with these dimensions did not co-occur in responses and because these dimensions did not correspond with each other on the grounds of shared meaning, outcome-based impulses or fixed attributes. For instance, if a person scores high on being *Religious* or *Traditional,* it does not mean that the person is not intelligent, artistic, or socially perceptive. Being Traditional or Religious is a personal choice, while being intelligent, artistic or socially perceptive involves attributes the person already has.

From our data, the construct of *Integrity* was created on the basis that moral consciousness and honour seem to be extremely important. This construct consists of both intrinsic and extrinsic values, with the intrinsic values influencing how a person will show integrity in relationships. In relationships, it is important to show loyalty and to always tell the truth. On a more internal sense, it is important to embed some kind of moral consciousness and sense of responsibility, which in the end lead a person to act out the external values (being loyal and telling the truth). *Relationship harmony* is very closely related to *Soft-heartedness*, but there is also a clear difference. *Soft-heartedness* consists of sub-constructs and facets that describe the interpersonal understanding and consideration of a person towards others, while *Relationship harmony* solely involves the building and maintaining of healthy and constructive relationships with others. The significance of the last construct of *Facilitating* is that a huge amount of facets were extracted that dealt with actively or inactively guiding, leading, or advising others through life challenges, and to encourage and uplift others to improve themselves. This prompted us to keep this construct separate from the other constructs.

DISCUSSION

The aim of the present study was to discover the indigenous personality structure of speakers of the 11 official language groups in South Africa. More than 50 000 personality-descriptive terms were gathered from 1 308 participants through semi-structured interviews, which were prepared, interpreted, and clustered in 190 facets through the use of content analysis and other external resources (dictionaries, and literature). The 190 facets were further grouped together in 37 sub-constructs, and then in nine overall constructs, by evaluating the accumulation of each facet, shared meaning between facets, and literature on all major personality models. The aim of the lexical approach was used as guideline, meaning that the

focus was on understanding the semantics of the personality-descriptive terms derived from everyday conceptualisation of personality in each language group. However, it is important to note the differences between our study and conventional lexical studies in the overall methodology used in accumulating the information. Traditionally, the lexical approach relies on dictionaries from which personality terms (usually adjectives) are extracted and factor analysed to come up with an adequate personality structure for a region. Our approach is a modification of the lexical approach, in that the terms are derived from actual everyday usage of personality terms, and clustered through content analysis.

The facets that were derived consist of many universal as well as indigenous concepts. Universal concepts are those facets that could easily be recognised in studies conducted in other regions, while indigenous concepts are facets found to be unique in South Africa.

Universal personality facets vs. indigenous personality facets

Many researchers will recognise some of the facets as well-known terms that are widely studied or included in existing personality models. The recognisability of the facets comes from two sources. Firstly, international literature and dictionaries were studied in order to assign the most applicable labels for the personality-descriptive terms in the initial analyses. In the end, the resources utilised could have influenced the outcome. Secondly, some of the facets identified were assigned in accordance with direct labels derived in the semi-structured interview, thus, some labels of the overall nine clusters (or 37 sub-clusters) can be identified on a response level. Examples are *Extraversion, Conscientiousness, Emotional stability,* and *Integrity.* Responses that corresponded with these broad terms were classified as such, which also leads to the widely familiar attributes derived.

The acknowledgement of so many universal facets in our data is quite apparent, but the prevalence of common labels found in our study does not differ much from other studies. Rieman, Angleitner, and Strelau (1997) state that universal or shared facets between cultural groups and regions are usually more numerous than dissimilarities. For instance, McCrae, Costa, Ostendorf, Angleitner, Hrebickova et al. (2000) state that universal facets do exist because most of the personality facets that a person possess of are developed through biological compositions of a person (Maccoby, 2000). Even though many cross-cultural personality researchers (Lee & Ashton, 2004; Saucier, 2003; Triandis & Suh, 2002) argue

that personality is the result of both biological and cultural influences, factors like Extraversion, Agreeableness, Conscientiousness, Emotional stability, Intellect or Openness to Experience (all well-known B5/FFM factors) are still well replicated in most regions across the world (Lee & Ashton, 2005), as in the case of our study, although the overall composition of each of these factors may differ.

Apart from the many universal facets derived, it is evident that some indigenous facets were identified. Indigenous, in this context, means that some of our facets are to some extend unique for our society, and may be difficult to replicate elsewhere. This contention has to be confirmed in a later stage. Cheung et al. (1996) initially regarded their Interpersonal Relatedness dimension to be unique to the Chinese culture, but the dimension was later replicated well among European and Chinese Americans (Lin & Church, 2004). Nevertheless, while many clusters so far identified corresponded well with other personality models identified in literature, additional clusters were incorporated which demonstrate the uniqueness of our structure. This uniqueness could be a consequence of the cultural composition of our different language groups. For instance, the *Facilitating* cluster was developed since it seemed different from the *Dominance* sub-cluster of *Extraversion. Dominance* is understood, in this sense, to be socially assertive and forceful, thus using intimidation or tyrannical tactics to acquire the compliance of others', while *Facilitating* refers more to the consenting influence of a person towards others; this person is usually well respected and seen as a positive exemplary of the community.

Correspondence with major personality structures, and rationale of each cluster

In assessing our personality structure with the other major personality models already extracted from numerous regions, we draw a general conclusion of the correspondence between the different models and our structure. However, it should be noted that the comparison is solely based on literature assessment and our own judgment, and not on empirical findings. The exact equivalence between our structure and the other structures is difficult to ascertain on face value effect, as it is the case of this comparison. Since the lexical approach was in some sense employed in this study, we evaluated the lexical data derived from each of structures used in this comparative discussion.

It is clear that there is a moderate to high correspondence of our structure and the major personality models found in literature, especially with the first six clusters of *Extraversion, Soft-heartedness, Conscientiousness, Emotional Stability, Intellect,* and *Openness.* Nonetheless, in looking closely at the general make-up of each of the clusters, one could also ascertain that there is some dissimilarity between the composition of our clusters and the overall clusters of each of the other models. The B5/FFM consists of the Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience (or Intellect) factors (Costa & McCrae, 1992). The Big Seven additionally has the self-evaluative Positive Valence and Negative Valence factors (Tellegen & Waller, 1987), while the HEXACO model consists of the Big Five factors (Ashton et al., 2004), as well as the additional Honesty-Humility factor. The Eysenck 'Giant Three' excluded the fifth factor of the B5/FFM, and merged the Agreeableness and Conscientiousness factors to create the Psychoticism factor (Eysenck & Eysenck, 1975). The indigenously created personality model for China, made up in the questionnaire CPAI (more specifically CPAI-2; Cheung & Cheung, 2003), identified four overall dimensions, namely Dependability, Interpersonal Relatedness, Social Potency, and Accommodation. As the history of these models has already been discussed in the literature review, the overall comparison could be made between our structure and these personality models that have been widely studied throughout the world.

Correspondence with the B5/FFM

This model has been researched for decades, and although the overall five factors in most cases stayed constant, the composition of each of these seems to differ across lexical studies. The correspondence of our structure with the B5/FFM will therefore focus on the general make-up of each of the factors from several studies.

When examining the first six clusters of our structure, one could easily observe several broad and familiar dimensions (i.e. sub-clusters or facets) that are found in the overall make-up of the B5/FFM. For instance, *Dominance* as sub-cluster of *Extraversion* seems to be well-replicated in the B5/FFM (Bozionelis, 2003; John & Srivastava, 1999; Roberts, Walton, & Viechtbauer, 2006) and in most cases the content of the cluster seems to be quite similar to our composition of *Dominance*. Being *assertive*, *authoritative* and *strict* are included in most definitions of dominance given in literature, while *disciplining* seems to be a more indigenous concept. *Disciplining,* in this context, refers to a parent disciplining a child, or a teacher

disciplining a student, so relationships are in accordance with hierarchical role or distinctions made, and not with implemented self-authority. It also corresponds with the facet *strict*, which in some sense explains the person's ability to stand his or her ground when his or her authority is questioned. When looking at the other sub-clusters, many associations could be observed, especially within the last two sub-clusters of *Positive Emotionality* and *Sociability,* which consist of many of the Extraversion facets identified in research across regions (e.g. Schmitt, Allik, McCrae, & Benet-Martinez, 2007). The sub-cluster of *Expressiveness* seems to correspond in some way with the B5/FFM, although some of its compositions seem to deviate from the traditional Extraversion composition of the B5/FFM. The reason for that is the inclusion of indigenous concepts, like *emotional sharing*, and facets that would normally be incorporated with other clusters, like *straightforward* (NEO-PI-R: Costa & McCrae, 1992), which is found underneath the Agreeableness cluster of the B5/FFM. As the meaning of the Agreeableness factor seems to differ from our understanding of the next cluster, *Soft-heartedness*, *straightforward* did not fit underneath it. In examining literature further, Goldberg (1990) included the trait *forward* in the Extraversion factor of the B5/FFM. Being *straightforward,* in our context, is understood as a way of communicating with others in a forward or direct manner, which was found to be more closely related to the overall composition of *Expressiveness*, and was different from the understanding and meaning of the *Soft-heartedness* cluster. Overall, there seems to be a great correspondence between our *Extraversion* cluster and the Extraversion cluster of B5/FFM.

When examining the next cluster, *Soft-heartedness*, one could observe many sub-clusters and facets that seem to relate highly with the Agreeableness factor. The sub-clusters of *Amiability* and *Empathy* include many facets that are observed in B5/FFM lexical studies (e.g. Larsen & Buss, 2005). The only deviance seems to be inclusion of the indigenous attribute of *satisfying others*. It is noteworthy that this cluster's rationale differs from the understanding of Agreeableness of the B5/FFM. Overall, Agreeableness is characterised as being friendly compliant vs. hostility compliant (Digman & Inouye, 1986), while our structure indicates a mix between actively or inactively demonstrating kindness or support towards others. Although correspondence is high with Digman and Inouye's (1986) definition, especially regarding the inclusion of the sub-cluster, *Hostility*, which corresponds well with B5/FFM, the overall meaning and description of the *Soft-heartedness* seem to show a discrepancy of the meaning and description of Agreeableness. When examining other descriptions of Agreeableness, our *Soft-heartedness* cluster seems to be closer to the definition of Goldberg

(1990), which includes many of the facets found in our data, e.g. sympathetic, kind, warm, understanding, harsh and cruel.

One should also include the cluster of *Relationship harmony* in the discussion of the Agreeableness factor. As is the case with *Soft-heartedness, Relationship harmony* comprises many facets commonly associated with Agreeableness dimensions. While quarrelsome was seen in most cases as a dimension of Agreeableness in the literature (Goldberg & Somer, 2000; Lorr & Knight, 1987; Saucier & Goldberg, 1996), it was included in the *Relationship harmony cluster* (categorised as *argumentative*) under the sub-cluster of *Conflict-seeking.* The *Conflict-seeking* sub-cluster also encompasses two additional facets, *provoking* and *troublesome,* which in most cases suggest lack of harmony and social conflict. This sub-cluster's rationale is related to the additional sub-cluster of *Meddlesome*, which consists of *gossiping* and *interfering*, and some aspects of the *Approachability* sub-cluster (being *arrogant* and *stubborn*). These two sub-clusters (as well as some aspects of *Approachability*) are opposed to the sub-clusters of *Approachability* and *Interpersonal relatedness*, which proposes that people prefer to uphold good relationships with others. Getting back at the relation with Agreeableness, Graziano and Tobin (2002) argue that people who score high on Agreeableness would try to resolve conflicts, and prefer to avoid conflict situations, which relates to the *Approachability* and *Interpersonal relatedness* sub-clusters. The difference between *Soft-heartedness* and *Relationship harmony* is set more clearly. Where a person scoring high on *Soft-heartedness* might be described as *kind, generous*, *helpful* and *supportive*, people scoring high on *Relationship harmony* tend to keep relationships as peaceful as possible through modifying own actions (by being *accommodating* and *tolerant*) or the actions of others (being *appeasing* and by *peacekeeping*).

The correspondence of the *Conscientiousness* and *Emotional stability* clusters of our structure and the Conscientiousness and Neuroticism factors of the B5/FFM is as clear-cut as the *Extraversion* clusters' relation with the Extraversion factor. Hard work, punctuality, and reliable behaviour (Langford, 2003) are the overall characteristics of the Conscientiousness factor, which was clearly found in our data, together with being dutiful, responsible, and thorough (Costa & McCrae, 1992, p. 49). According to Goldberg (1990), being organised, neat, and meticulous are the desirable traits when scoring high on Conscientiousness, while less desirable traits are associated with being careless and sloppy. The latter were also well represented in our *Conscientiousness* cluster, especially in the sub-clusters of *Orderliness* and

Thoughtlessness. Although there is a strong correspondence, some deviations could also be identified. For instance, the inclination of *competitive* underneath this cluster (more specifically sub-cluster *Achievement-oriented*) might be debatable, since it was traditionally a label of Extraversion (Goldberg, 1990; De Raad & Peabody, 2005). The reason for this inclusion was the development of the sub-cluster of *Achievement-oriented,* which prompted us to add *competitive,* since it corresponded well with the other compositions of this sub-cluster (particularly *career-oriented, hard-working,* and *performance-oriented*).

The description of the Neuroticism factor given by Goldberg (1990) says that a person is either calm, relaxed, and emotionally stable or moody, anxious, and insecure, which relates well with the meaning of our *Emotional stability* cluster. Like the *Conscientiousness* cluster, there is some digression. Some indigenous concepts and other modifications enrich the overall cluster and make the composition slightly different. For example, the facet *shamed* encompasses feelings of disgrace or shame. This concept is not found in other literature. Also, the sub-cluster of *Courage* consists of the facet *courageous*, which is traditionally included in the Extraversion factor of the B5/FFM. The choice for the incorporation of the *courageous* facet in the *Emotional stability* cluster was made based on how it related to the facet *fearful*, which was included in the *Courage* sub-cluster. *Fearful,* in this context, means that a person might be anxious in certain situations, and show fear when confronted with something he or she wants to avoid. The last description relates well with the meaning of *courageous*, which is the opposite of showing fear.

The fifth and sixth clusters, *Intellect* and *Openness*, show agreement with the fifth factor of the B5/FFM, which in literature is labelled as Intellect (Goldberg, 1992), Openness to Experience (Costa & McCrae, 1992), Creativity and Imagination (Saucier, 1992) and, more recently, as Autonomy (Rodriquez-Fornells, Lorenzo-Seva, & Andres-Pueyo, 2001). Goldberg's (1990) definition of Intellect includes concepts such as *creative, imaginative*, and *intelligent,* which are found in our *Intellect* cluster as well. What makes our cluster different is the inclusion of both skills or abilities and social intellectual concepts. Being *perceptive, socially intelligent* and *understanding* were clustered underneath the sub-cluster of *Social Intellect. Perceptive* has already been found to be a dimension of Intellect or Openness (John & Srivastava, 1999), while *understanding* was found to be associated with Agreeableness (Goldberg, 1990). The inclusion of the *understanding* facet under *Intellect* was done in accordance with the analysis of the composition of responses that made up this facet. Most

responses referred to people who are objective about others, and grasp situations and others completely, pointing to a person's social abilities. This prompted us to cluster the facet *understanding* in conjunction with *perceptive* and *socially intelligent* under the sub-cluster *Social intellect.*

Openness showed a reasonable correspondence with Costa and McCrae's (1992) Openness to Experience factor, although the inclusion of some indigenous concepts created an incomplete correspondence. Facets like *traditional* are included, which makes the overall meaning of *Openness* different from the concept described in literature. The facet of *religiosity*, which was found to load onto both Agreeableness and Conscientiousness (Katigbak, Church, Guanzon-Lapena, Carlota, & del Pilar, 2002) in a study in the Philippines is still debated; there is discussions as to whether religiosity is a personality dimension or personal outlook (Church & Katigbak, 2005). Facets like *dreamer, prim and proper, progressive, visionary, fashion conscious,* and *like to travel* also give a new definition to the overall concept of *Openness. Visionary,* for example, demonstrates a person's ability to see into the future, or to dream about things that are going to happen. According to Watson (2003), a person scoring high on Openness might be open-minded enough to have prophetic dreams. The inclusion of the other facets were also done on the basis of Buss (1993), who states that an open person likes to experiment with new things, and likes novel experiences, which explains why *adventurous* was also included in this cluster. Also, *Openness* consists of many expressive aspects (Peabody & Goldberg, 1989), like *eager to learn, inquisitive,* and *open-minded,* which also emphasise its difference.

Integrity was also very evident in our analysis of the data. The seventh, and last, cluster, *Integrity* and *Facilitating*, does not appear in the B5/FFM. However, when the B5/FFM was researched in Hungary, the fifth factor of Intellect or Openness did not replicate well, while Integrity came out as the fifth factor (Szirmak & De Raad, 1994). Furthermore, no evidence for the *Facilitating* cluster has been found in any research regarding the B5/FFM. However, we could extract some facets from *Integrity* and *Facilitating* that could correspond with this model, for instance *responsible* and *trustworthy* from cluster *Integrity,* which could relate to the Conscientiousness factor (Costa & McCrae, 1992; Goldberg, 1990), or *leadership* of *Facilitating* to the Extraversion factor of the B5/FFM (John & Srivastava, 1999). Nonetheless, the overall correspondence is weak and no evidence suggested that aspects of *Integrity* and *Facilitating* are included in the overall make-up of the B5/FFM.

Correspondence with the Big Seven

The correspondence of our structure with the Big Seven (Tellegen & Waller, 1987) seems slightly less than with the B5/FFM. Positive Emotionality is the label for the first factor, although it closely resembles our *Extraversion* cluster. Looking closely at the relation, it was evident that none of the facets underneath the sub-cluster of *Dominance* correspond with any of the factors of this model. Positive Emotionality of the Big Seven also included *impulsive* in their cluster, whereas *impulsive* is included in our *Emotional stability* cluster. Other than these differences, most of the dimensions that loaded onto Positive Emotionality of the Big Seven corresponded better with the sub-clusters of *Positive Emotionality* and *Sociability* (Benet-Martinez & Waller, 1997).

What is striking is the strong correspondence between the Agreeableness factor of the Big Seven (Benet & Waller, 1995) and the *Relationship harmony* cluster. Agreeableness consists mostly of traits (i.e. *quarrelsome, stubborn, put up fight, try avoiding differences and conflict*, and *lenient*), that relate to facets clustered underneath our eighth cluster. It is clear that Agreeableness of the Big Seven focuses on maintaining healthy and good relations, or the opposite, which is how *Relationship harmony* is described as well. There is no clear correspondence between *Soft-heartedness* and Agreeableness of the Big Seven.

Conscientiousness corresponds well with the Conscientiousness factor of the Big Seven, which also included tidy, organised, orderliness, punctual, and cautious behavioural traits. However, Conscientiousness of the Big Seven does not include facets that have to do with achievement and dedication, unlike our *Conscientiousness* cluster. *Emotional stability* corresponded moderately low with the Negative Emotionality factor of the Big Seven. Most of the dimension clustered underneath the Negative Emotionality factor pertains to being tensed, stressed, and edgy, which corresponds with our facets of *fearful* and *tensed*, which is not the main feature of our cluster. Negative Emotionality also included feelings of guilt, and hurt or feeling sorry about something done, which also corresponds with facets like *self-confidence, shamed* and *sensitive* in our *Emotional stability* cluster. However, the factor of Negative Emotionality excluded many other important dimensions which were prevalent in our data.

Unconventionality, as the fifth factor of the Big Seven, shows a very close correspondence with the *Openness* cluster, with its inclusion of facets like traditional, progressive, and old-fashioned. However, Unconventionality does not include expressive attributes like *open-minded, eager to learn* and *inquisitive,* which were prevalent in our data. It appears that there is little correspondence between our clusters of *Intellect, Integrity* and *Facilitating* and the factors of the Big Seven. There is some correspondence between Positive Valence and *Intellect*, since Positive Valence consists of many intellectual-related dimensions (Saucier, 2003). It is important to note that most of the dimensions of Positive Valence are evaluative terms, and not actual abilities. There is some correspondence between *Integrity* and Negative Valence, since Negative Valence comprises some facets that have to do with a person not having *Integrity* (i.e. treacherous) (Benet-Martinez & Waller, 1997). Also, since *Soft-heartedness* did not correspond well with the Agreeableness factor, there is some relation with the factor of Negative Valence. Negative Valence contains facets like vicious, wicked, and cruel, which are found to correspond well with the sub-cluster of *Hostility* from cluster *Soft-heartedness*.

Correspondence with the HEXACO

The HEXACO shares many labels with the B5/FFM and the Big Seven Model, except for the inclusion of the sixth factor, the Honesty-Humility (Ashton & Lee, 2007). The *Extraversion* cluster of our study represents most of the elements found in the HEXACO Personality Inventory (Lee & Ashton, 2005) and common adjectives found in lexical studies (Ashton & Lee, 2007). However, these studies exclude most of the *Dominance* sub-clusters' facets, except for *assertive* which could be associated with the HEXACO's social boldness. Both *Soft-heartedness* and *Relationship harmony* seem to correspond with the Agreeableness factor of the HEXACO. HEXACO includes gentleness, which corresponds with the overall definition of *Soft-heartedness* (see Results description and Table 2), while *Relationship harmony* consists of most of the facets that underlie this factor of the HEXACO. Also noteworthy is a study by Ashton, Lee, and Goldberg (2004) that showed that some traditional Agreeableness features, most predominantly sympathy-related terms, loaded in some instances onto the Honesty-Humility and to a lesser extent onto the Emotionality factors, which shows the shared values between these three factors of the HEXACO model.

The HEXACO's Agreeableness consists additionally of some features of *Emotional stability.* It appears that patient and ill-tempered loaded on Agreeableness (Ashton et al., 2004) in some lexical studies and these are also included in the HEXACO questionnaire (Lee & Ashton, 2004). In our analysis, *patient* could be described as how a person keeps control of his or her emotions or feelings in situations which could challenge the person's emotional management. Therefore, *patient* is clustered underneath the sub-cluster of *Emotional control. Emotional stability* shows a clearer correspondence with Emotionality of the HEXACO model. The facets under the sub-clusters of *Ego strength, Emotional sensitivity* and *Courage* are well represented in the lexical findings (Ashton et al., 2004) and HEXACO (Lee & Ashton, 2004). The inclusion of independent under Emotionality makes the correspondence less definite. *Independent* is a feature that was clustered underneath *Openness* in our structure. *Independent,* in this sense, means that a person is willing to work or do things on his or her own, and is thus open for that possibility vs. a person who is not willing to work or do things on his or her own.

There is a very good fit between our *Conscientiousness* cluster and the Conscientiousness factor of the HEXACO. The Conscientiousness factor of HEXACO consists of all the facets that are included in our cluster, except for the sub-cluster *Dedication.* Also, within the Conscientiousness factor of HEXACO the irresponsible facet loads onto this factor in lexical studies (Ashton et al., 2004). Irresponsible behaviour, in this context, is the opposite of being careful and disciplined. In our structure, *responsible* features in the *Integrity* cluster. The overall arrangement of *Integrity* pertains to the inclusion of the *responsible* facet in this cluster. We argue that the moral composition of a person will modify the resultant outcome (i.e. responsible vs. irresponsible behaviour). There appears to be an overlap in correspondence of the fifth factor of the HEXACO, Openness to Experience, and our clusters of *Intellect* and *Openness*. Openness to Experience comprises intellectual abilities and openness, expressive attributes which are distributed in both the *Intellect* and *Openness* clusters. Lexical studies (Ashton et al., 2004) identified intellectual, creative, and innovative facets in their study of the HEXACO model, and included aesthetic appreciation and creativity in their Openness to Experience factor of HEXACO-PI (Lee & Ashton, 2004). However, the social intellect component, which is prevalent in our *Intellect* cluster, does not feature in the HEXACO model. The Openness to Experience of HEXACO consists mostly of cognitive intellectual abilities, which reduces the overall correspondence. The *Openness* cluster features two dimensions of the HEXACO's Openness to Experience factor (Lee &

Ashton, 2004), namely inquisitiveness (*inquisitive* is included in the sub-cluster *Epistemic Curiosity*) and unconventionality (which has a connotation with the *traditional* and *open-minded* facets). It seems that Openness to Experience corresponds in this case more with the *Intellect* cluster than the *Openness* cluster, since many important features of *Openness* are missing from the Openness to Experience factor.

The correspondence of our *Integrity* cluster with the sixth factor of the HEXACO, Honesty-Humility, is very good. Honesty-Humility encompasses all of the facets that are clustered underneath the *Integrity* cluster. The only difference is the inclusion of greedy, boastful and pompous in the Honestly-Humility cluster (Ashton & Lee, 2007). *Greedy* is clustered in the sub-cluster of *Egoism* of *Soft-heartedness* (in conjunction of *self-centred* and *selfish*). Boastful and pompous are included in the *arrogant* facet (which is found under the *Relationship harmony*'s sub-cluster of *Approachability*). Honesty-Humility differs from *Integrity* in that *Integrity* puts emphasis on the moral soundness of a person, and correct conduct according to certain values that modify behaviour, whereas Honesty-Humility additionally incorporates the social conduct according to own set impulses or drives (being greedy or boastful about own things or accomplishments). While there seems to be a good fit overall between our structure and the HEXACO model, no evidence suggests that the last cluster of *Facilitating* could be incorporated anywhere in the HEXACO model.

Correspondence with the Eysenck's 'Giant Three'

The fit with Eysenck's 'Giant Three' is less significant than with the models already discussed. Eysenck's 'Giant Three' (Eysenck & Eysenck, 1975) consists of only the Extraversion, Neuroticism, and Psychoticism factors, which is much less than the total of overall factors found in B5/FFM, Big Seven and HEXACO. The correspondence of the first factor, Extraversion, with our *Extraversion* is moderate. In accordance with Eysenck and Wilson's (1991) Eysenck Personality Profiler (EPP), Extraversion consists of activity (which corresponds strongly with facets in our sub-cluster, *Positive Emotionality*), sociability (which corresponds with our sub-cluster, *Sociability*), expressiveness (closely related to our *Expressiveness* sub-cluster), and assertiveness (which corresponds with our *Dominance* sub-cluster). However, Extraversion of the EPP also includes being ambitious, dogmatic, and aggressive, which deviates from our *Extraversion* cluster. Ambition was observed in our data, but classified as *future-oriented*, which was included in the *Conscientiousness* sub-cluster,

Dedication. Ambition was also included in some studies of the B5/FFM in the Extraversion factor (Judge, Higgins, Thoresen, & Barrick, 1999). However, in studies conducted by Roberts, Bogg, Walton, Chernyshenko, and Stark (2004), the Ambition dimension loaded on the Conscientiousness factor, which corresponds with our cluster. Evidence for a dogmatic type of behaviour seems absent from our data, although some support could be found in the *Ego strength* sub-cluster of *Emotional stability*, but could only be conjectured from our side. Support of aggression, however, is clearer; it was situated in the sub-cluster *Hostility* of *Soft-heartedness*. Aggression is described in the EPP as 'the direct or indirect expression of aggression through temper tantrums, fighting, violent argument and sarcasm'. There is some indication that particular facets found under *Relationship harmony* correspond with the description given (more specifically *argumentative,* and not *peaceful*).

Neuroticism of Extraversion corresponds very well with the *Emotional stability* cluster of our structure. However, there is a slight deviation from our data with the inclusion of psychosomatic symptoms to the Neuroticism factor of Eysenck, which does not feature in our data. Hypochondria features in the EPP (Eysenck & Wilson, 1991) and refers to 'the chronic and abnormal anxiety about imaginary symptoms and ailments' (WordWeb), but was not found in any way in our data.

The last factor of Psychoticism corresponds in some manner with our structure, but is not centred on one specific cluster. For instance, some of the facets identified with the EPP are distributed in various clusters, i.e. risk-taking, impulsiveness, irresponsibility, manipulativeness, sensation-seeking, tough-mindedness, and practical. Risk-taking corresponds with both *reckless* of *Conscientiousness* and *adventurous* of *Openness*. The meaning of risk-taking leans more towards the *reckless* facet, since risk-taking is described as 'reward-seeking and like to live dangerously with little concern for the possible adverse consequences' (Jackson, Furnham, Forde, & Cotter, 2000), which is how *reckless* is described in our data. Impulsiveness is a facet found in our *Emotional stability* cluster, more specifically the sub-cluster of *Emotional control*, which description is very close to our definition of *impulsive*. Sensation-seeking corresponds better with the *adventurous* facet of *Openness* than risk-taking. *Adventurous* and *like to travel* constitute the sub-cluster of *Openness to experience,* which is described as 'like to experience new things' (Table 2). Tough-minded is a better match for the *Soft-heartedness* cluster. Tough-minded encompasses facets opposite of being kind and gentle (Jackson et al., 2000), whereas *Soft-heartedness'*

main definition encompasses these facets. *Relationship harmony* corresponds with the definition given for tough-minded. Tough-minded is described as 'tolerant of and probably enjoy violence, obscenity and swearing' (Jackson et al., 2000). The sub-cluster of *Hostility* of *Soft-heartedness* (more specifically *aggressive, abusive, cruel* and *verbally aggressive*) and the sub-clusters of *Approachability* and *Conflict-seeking* of *Relationship harmony* correspond well with the underlying meaning of the definition of tough-minded. Practical, the last facet of Psychoticism, seems to have no relevance to our structure. Some indication of *Intellect* is given in the description, although the overall correspondence seems too weak to be noteworthy. It is quite clear that the composition of clusters *Integrity* and *Facilitating* fails to correspond with any of the contents of the EPP.

Correspondence with the CPAI

The relation of our structure and the CPAI seems to be arbitrary. The CPAI-2 (Cheung et al., 2003) consists of four main factors, namely Dependability, Interpersonal Relatedness, Social Potency, and Accommodation, and also divided clinical factors into two dimensions, Emotional Problems and Behavioural Problems. In our comparison with the CPAI-2, we focus on the scales identified by Cheung and Cheung (2003), and an additional comparison will be made with a more recent study conducted by Cheung (2006). The first factor, Dependability seems to encompass facets that are widespread throughout our structure. Cheung and Cheung (2003) state that Dependability consists of responsibility, emotionality, inferiority vs. self-acceptance, practical-mindedness, optimism vs. pessimism, meticulousness, face, internal vs. external locus of control, and family orientation. Responsibility seems to correspond with the cluster of *Integrity* which mostly consists of facets like being *trustworthy, honest,* and *morally conscious. Integrity* consists also of *truthful* and *responsible* as facets which reinforce the correspondence between Dependability and *Integrity.* The inclusion of Emotionality and Meticulousness demonstrates the correspondence of Dependability with our *Emotional stability* and *Conscientiousness* clusters, albeit in a trivial manner. The inferiority vs. self-acceptance seems to relate to the *Ego strength* sub-cluster of our *Emotional stability* cluster, which reinforces the relationship. Furthermore, our *Emotional control* sub-cluster of *Emotional stability* includes some facets, more particularly *coping* and *impulsive*, which corresponds with the internal vs. external locus of control facet of Dependability. Optimism vs. pessimism corresponds somewhat with our *Positive emotionality* sub-cluster of *Extraversion*, more specifically with our own

optimistic facet. Family orientation is not a feature in our structure. Overall, it seems that the relationship between Dependability is widespread, although most commonalities were identified with the *Emotional stability* cluster. These findings are in line with a recent study done by Cheung (2006) using factor analysis in comparing the scales of CPAI-2 and the NEO-FFI (measuring the B5/FFM, Costa & McCrae, 1992), where most of the scales of Dependability loaded on the Neuroticism factor, and the scales of Responsibility and Meticulous loaded onto Conscientiousness.

Interpersonal Relatedness consists of the traditionalism vs. modernity, reng qing (relationship orientation), social sensitivity, discipline, harmony, and thrift vs. extravagance facets (Cheung & Cheung, 2003; Cheung, 2006). The relation with our clusters of *Soft-heartedness, Conscientiousness, Openness,* and *Relationship harmony* is evident. Traditionalism vs. modernity seems to describe similar characteristics as *traditional,* and *fashion conscious* in the *Openness* cluster. It should be noted that traditionalism is concentrated on the Chinese culture (Cheung et al., 1996), and more specifically the attitudes towards Chinese culture and traditions (Jia-Ling Lin, & Church, 2004), whereas *traditional* in our structure pertains to collective traditions and how it is conducted in each of the 11 language groups. Therefore, the exact correspondence could only be established at face value. The relation between relationship orientation and harmony with aspects of our cluster, *Relationship harmony,* seems arbitrary. Social exchange or favour that people use in their relationships with others is described in Relationship orientation. Combined with the facet harmony of the CPAI and the correspondence could be more emphasised with the *Approachability* and *Interpersonal relatedness* sub-clusters of *Relationship harmony. Approachability* is described as being approachable and accessible for others on an interpersonal level, vs. placing oneself above others (Table 2). *Interpersonal relatedness* is described as the ability of a person to be constructive in relationships, to actively maintain them by being forgiving, peaceful, and cooperative (Table 2). These definitions in some way relate to the meaning of relationship orientation and harmony. Social sensitivity seems to encompass the meaning of the *Emotional sensitivity* sub-cluster of *Emotional stability*, which consists of facets like *sensitive*, and *shamed.* However, these facets are more internally driven. *Approachability* of the *Relationship harmony* cluster comprises many facets that indicate socially responsive and sensitive behaviour (i.e. being *approachable, humble, open for others, tolerant*, etc.). *Social intellect* of *Intellect* could also correspond in some way with this attribute of social sensitivity, more specifically being *perceptive, social intelligent,* and having *understanding*

for others. Discipline seems to be a component that relates to the *Conscientiousness* cluster of our structure. Finding an exact fit might be problematic. Discipline could pertain to *dutiful* of the *Achievement-oriented* sub-cluster, or to aspects of the *Orderliness* sub-cluster (being *disciplined, organised, punctual*) or to the sub-cluster of *Self-disciplined* (being *obedient*). Nonetheless, no clear relation could be given. Thrifty vs. extravagance seems to correspond more clearly, and in this instance with the *Egoism* sub-cluster of *Soft-heartedness. Egoism* includes the facets of *generous* (which is the opposite of thrifty), *self-centred,* and *selfish.* In our dataset, *generous* also encompasses thrifty behaviour, being stingy with money, and giving away things, which could pertain to a close correspondence. However, the sub-cluster of *Materialism* under *Openness* could also share some characteristics with thrifty vs. extravagance of the CPAI-2. In the study done by Cheung (2006), Interpersonal Relatedness seems to be different from the factors of the B5/FFM's questionnaire, NEO-FFI (Costa & McCrae, 1992), although social sensitivity seemed to load onto the Extraversion scale, which is quite different from the original understanding of the social sensitivity scale, and its correspondence with our *Extraversion* cluster.

The third factor of the CPAI-2 of Social Potency also corresponds with different clusters of our structure. Social Potency consists of novelty, diversity, divergent thinking, leadership, logical vs. affective orientation, aesthetics, extraversion vs. introversion, and enterprise (Cheung & Cheung, 2003). Both novelty and divergent thinking seem to fit well with the *Openness* cluster of our structure. Novelty particularly with facets like *inquisitive, investigative, adventurous,* and *like to travel* which also encompass some meaning of searching for something new or exciting, and divergent thinking with *open-minded* (as in thinking 'out-of-the-box', e.g. WordWeb). Divergent thinking, however, also includes some *Intellect*-type facet, more specifically being *creative.* Additional facets of Social Potency that correspond with *Intellect* are aesthetics (which is also a sub-cluster of *Intellect*), and enterprise. Logical vs. affective orientation corresponds less significantly with the *logical* facet of *Intellect*, since the emotional aspect is also involved. However, it is quite clear that there is a strong correspondence with extraversion vs. introversion of our *Extraversion* cluster, which is also in line with the study of Cheung (2006) where the extraversion vs. introversion scale loaded onto the Extraversion factor of the NEO-FFI. Furthermore, our general analysis is congruent with the study conducted by Cheung (2006), where most of the Social Potency scales loaded onto the Openness factor of the NEO-FFI (except for some scales that seem to correspond better with our *Intellect* cluster). However, the main

dissimilarity between Cheung's (2006) study and our structure is the inclusion of enterprise in the Neuroticism factor of the NEO-FFI, whereas we included the *enterprising* facet into our *Intellect* cluster. Another difference is also leadership that loaded onto Extraversion of the NEO-FFI, where as *leading* is clustered underneath the *Facilitating* cluster of our structure.

It is not surprising that the fourth factor of Accommodation also corresponds with more than one cluster of our structure. According to Cheung and Cheung (2003), Accommodation consists of defensiveness, graciousness vs. meanness, interpersonal tolerance, self vs. social orientation, and veraciousness vs. slickness. Defensiveness seems to have no correspondence with any of our clusters, which is not the case for Graciousness vs. meanness. Graciousness towards others could easily be incorporated in the facet *well-mannered* of our structure. *Well-mannered* (clustered under *Relationship harmony*) encompasses some, though not many, references to dignified behaviour (i.e. 'she was always polite', 'she was dignified') which could pertain to the meaning of graciousness. Meanness seems to correspond with aspects of the *Hostility* sub-cluster of our structure and is regarded as the opposite of being *Soft-hearted.* Interpersonal tolerance corresponds with the *Relationship harmony* cluster, which encompasses elements that apply in being *tolerant*, and *open for others*. When looking within other clusters, interpersonal tolerance could also correspond with *Soft-heartedness*, more specifically to aspects of the sub-cluster *Empathy*. Veraciousness vs. slickness corresponds with *Integrity*, which encompasses the moral soundness of a person. Being honest and truthful seems to be the main meaning of veraciousness, whereas slickness leans more towards an unmoral type of undertone, which could be interpreted as a person misrepresenting information towards others in order to get something in return. That person will in the end be seen as un*trustworthy* and *pretending*, which are also parts of *Integrity*. However, in the Cheung (2006) study, all of the Accommodation scales loaded onto the Agreeableness factor of the NEO-FFI, which disregard a separate composition of the *Integrity* scale in that particular study, and put more emphasis on the correspondence with the *Soft-heartedness* and *Relationship harmony* clusters of our structure.

When looking at the clinical factors included in the CPAI-2 one could also recognise some factors that relate to certain facets in our structure. The clinical factors are divided into emotional problems and behavioural problems (Cheung & Cheung, 2003). The emotional problems consist of anxiety, depression, physical symptoms, somatisation, and sexual maladjustment. The only clear relation seems to be with anxiety and depression, which

corresponds with the *Emotional stability* cluster, while the others seem not to be related to any of other aspects of our cluster. However, Behavioural problems consist of pathological dependence, hypomania, anti-social behaviour, need for attention, distortion of reality, and paranoia, which are related to some aspects of our structure. For instance, anti-social behaviour is a dimension of the sub-cluster of *Hostility* of *Soft-heartedness*, classified as *delinquent*. Anti-social behaviours that were included in the overall make-up of this facet were rape, murder, theft, etc., which were extracted from most of our language groups. *Attention-seeking* (a facet from sub-cluster *Ego strength*, underneath *Emotional stability*) corresponds with the facet of need for attention, while *obsessive/compulsive* (from *Emotional stability,* sub-cluster *Emotional control*) could relate to paranoia. Overall, it was found that emotional and behavioural problems of the CPAI-2 are mainly related to the *Emotional stability* cluster of our structure.

Ubuntu: Indigenous concepts

Ubuntu is a way of thinking that is much talked about in South Africa today. Mbiti (1970: 108) describes the philosophy of Ubuntu as 'whatever happens to the individual happens to the whole group, and whatever happens to the whole group happens to the individual. The individual can only say 'I am', because we are; and since we are, therefore I am.' The interpersonal element is clear in the overall understanding of Ubuntu. It is understood that collective collaboration is important when problems arise and collective solutions are needed. The collectivistic environment in South Africa today is reinforced in the overall understanding of the Ubuntu spirit.

In our structure, indication for the spirit of Ubuntu is evident, though not exclusive. When evaluating facets that could pertain to the concept of Ubuntu, many could be identified, although when we analyse international literature, many terms could also be recognisable as Ubuntu 'compositions'. Therefore it would be presumptuous to state that Ubuntu is only prevalent in and unique to South Africa. In our personality structure, the clusters of *Soft-heartedness, Integrity* and *Relationship harmony* correspond the strongest with the description and meaning of Ubuntu, especially looking at definitions provided by Battle (1997), Mfutso-Bengo (2001), Nyembezi (1977), and Nolte-Schamm (2006) (more detailed information can be found in the literature review). In all of the groups, the personality facets

that correspond with the concept of Ubuntu emerge clearly, and it could not be concluded that the spirit of Ubuntu is more clearly present in one language group than in another.

From the cluster *Soft-heartedness,* sub-clusters *Empathy* and *Active Support* comprise most personality facets that are related to the spirit of Ubuntu: *caring* and *loving* (showing and having care and love/affection for others), *compassionate* (having empathy or sympathy for others), *considerate* (respect others' feelings and believes), *satisfying others* (making sure others are happy and content before attending to own problems), *community involvement* (either actively involved in the community by giving support and assistance where needed, in educating youngsters, building houses for community members, or being a leader, or passively involved by caring for the community), *generous* (by giving food, shelter or money to others who are less privileged), *helpful* and *supportive* (giving support by helping with building and maintaining the community, or supportive in the sense of being there as a friend through a crisis), to *solve problems of others* (helping others through advice or actively solving a problem or crisis), and *heedful* (to lend an ear to others as a way of giving support and assistance). All of these facets seem to contain some of the meaning given to the overall description and understanding of the concept of Ubuntu.

Integrity also seems to encompass some elements of the spirit of Ubuntu. For instance the facets of *honest* and *truthful* (by being truthful about intentions and feelings, and not pretending), *morally conscious* (by having morals and values, and acting accordingly), and *trustworthy* (by being reliable, and dependable), which are closely related to Nyembezi's (1977) description of Ubuntu. The cluster of *Relationship harmony* also consists of some of the terms recognisable as Ubuntu related: having *good relations with others,* maintaining *constructive* relations, and being *peaceful,* and if differences arise being the *peacekeeper* in order to build and sustain good relationships with others.

CONCLUSION

We set out to explore the personality structure of South Africa with the aim of developing a unified structure that encompasses all 11 language groups' everyday personality conceptualisations. This structure will be used in developing a personality inventory certifiable for use in the whole of South Africa. In the development of this personality

structure we applied numerous external resources in coming up with categories and clusters (apart from our own interpretations) which reinforced the qualitative nature of this research. The correspondence of our structure with existing personality models is obvious for some aspects, but clearly absent for other aspects. In the analysis of the structure, it was evident that the contents of various clusters and sub-clusters are unique, though admittedly in some ways still arbitrary, given the absence of quantitative data to cross-validate the structure postulated here. For that reason, the personality structure we came up with in this exploratory phase of the project will go through further changes in years to come, since further validation is needed. Therefore, we do not claim that the structure presented here is final. However, we do believe that we have made important steps towards such a final structure.

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Appendix A

South African personality structure

EXTROVERSION (4)	SOFT-HEARTEDNESS (6)	CONSCIENTIOUSNESS (5)	EMOTIONAL STABILITY (6)	INTELLECT (4)	OPENNESS (4)	INTEGRITY (2)	RELATIONSHIP HARMONY (4)	FACILITATING (2)
Dominance	**Amiability**	**Achievement-oriented**	**Ego Strength**	**Aesthetics**	**Broad-Mindedness**	**Integrity**	**Approachability**	**Guidance**
Assertive	Friendly	Career-oriented	Attention-seeking	Artistic	Dreamer	Honest	Accommodating	Advising
Authoritative	Irritating	Competitive	Demanding	Concrete Work	Independent	Integrity	Approachable	Didactic
Disciplining	Kind	Dutiful	Needy	Creative	Individualism	Loyal	Arrogant	Guiding
Strict	Likeable	Hard-working	Self-Confidence	Musical	Open-Minded	Morally conscious	Flexible	Influential
Expressiveness	Pleasant	Performance-oriented	Self-Respectful	Talented	Prim and proper	Pretending	Humble	Leading
Captivating	Serious	Timeous	**Emotional Sensitivity**	**Reasoning**	Progressive	Responsible	Open for Others	Respectable
Emotional Sharing	**Egoism**	**Dedication**	Emotional	Intelligent	Religiosity	Trustworthy	Proud	Role Model
Noisy	Generous	Dedicated	Exaggerate	Knowledgeable	Traditional	Truthful	Stubborn	**Encouraging others**
Outspoken	Greedy	Determined	Sensitive	Logical	Visionary	**Fairness**	Tolerant	Aspirations for others
Secretive	Jealous	Future oriented	Shamed	Self-Insight	**Epistemic Curiosity**	Discriminative	Welcoming	Encouraging
Straightforward	Self-centred	Passionate	**Emotional Control**	**Skilfulness**	Academically-oriented	Fair	**Conflict-seeking**	Thought-provoking
Positive Emotionality	Selfish	Perseverant	Coping	Articulate	Eager to Learn		Argumentative	Uplifting
Cheerful	**Gratefulness**	Purposeful	Impulsive	Competent	Inquisitive		Provoking	
Humorous	Appreciative	**Orderliness**	Obsessive/Compulsive	Enterprising	Investigative		Troublesome	
Optimistic	Grateful	Consistent	Patient	Useless	**Materialism**		**Interpersonal Relatedness**	
Playful	**Hostility**	Disciplined	Temperamental	**Social Intellect**	Fashion Conscious		Appeasing	
Pleasure-seeking	Abusive	Follow-up	**Neuroticism**	Perceptive	Materialistic		Constructive	
Vivacious	Aggressive	Meticulous	Complaining	Social Intelligent	**Openness to Experience**		Cooperative	
Sociability	Critical	Organised	Content	Understanding	Adventurous		Forgiving	
Communicative	Cruel	Punctual	Depressive		Like to Travel		Good Relations with Another	
Extrovert/Introvert	Delinquent	Thorough	Neurotic				Peaceful	
Reserved	Denigrating	Tidiness	Tensed				Peacekeeping	
Shy	Exploiting	**Self-disciplined**	**Courage**				Well-mannered	
Sociable	Intimidating	Obedient	Courageous				**Meddlesome**	
Spontaneous	Trusting	Rebellious	Fearful				Gossiping	
Story-teller	Undermining	**Thoughtless**	**Balance**				Interfering	
Talkative	Verbally aggressive	Absent-minded	Balancing Life					
	Wrathful	Reckless	Even-Tempered					
	Empathy		Mature					
	Agreeable		Short-Tempered					
	Caring							
	Compassionate							
	Considerate							
	Humane							
	Loving							
	Respectful							
	Satisfying others							
	Active Support							
	Community Involvement							
	Heedful							
	Helpful							
	Protective							
	Solving problems of others							
	Supportive							

Appendix B

Clusters, sub-clusters, facets, and responses in accordance to common, semi-common, semi-specific, and language-specific level

Common facets

Common Facet	*Cluster*	*Sub-cluster*	*Responses*
Abusive	Soft-heartedness	Hostility	He beats little children for no reason
			He is abusive
Academically-oriented	Openness	Epistemic curiosity	Likes school; wants to achieve the highest education
			Wants to achieve the highest education
Advising	Facilitating	Guidance	Is an advisor
			Gives advice when you have a problem
Aggressive	Soft-heartedness	Hostility	He fights with people
			She is very aggressive towards others
Approachable	Relationship harmony	Approachability	You can easily go to him for anything
			Approachable for help
Arrogant	Relationship harmony	Approachability	He boast about all his winnings
			She looks down on others
Articulate	Intellect	Skilfulness	She has good communication skills
			He is understandable
Assertive	Extraversion	Dominance	Never takes 'no' for an answer
			Takes over easily
Authoritative	Extraversion	Dominance	He domineers a person
			He wants me to do whatever he wants to be done
Captivating	Extraversion	Expressiveness	He very interesting
			She is entertaining
Caring	Soft-heartedness	Empathy	She cares about her family
			He is caring
Cheerful	Extraversion	Positive emotionality	He is always happy
			She laughs a lot
Communicative	Extraversion	Sociability	He likes to engage in discussions
			She likes to communicate with people
Community involvement	Soft-heartedness	Active support	Always helping build the community
			Dedicated to his community
Compassionate	Soft-heartedness	Empathy	One who is sympathetic
			Has compassion for other people
Cruel	Soft-heartedness	Hostility	She is evil-hearted
			He is cruel
Delinquent	Soft-heartedness	Hostility	He kills people
			She steals
Determined	Conscientiousness	Dedication	He is very determined
			Wants to succeed
Disciplining	Extraversion	Dominance	She beats you when you are naughty
			Reprimand when naughty
Discriminative	Integrity	Fairness	Discriminates against other people
			Treat people not equal
Eager to learn	Openness	Epistemic curiosity	He likes to learn

			She is eager to learn
Emotional sharing	Extraversion	Expressiveness	She shares her feelings with me
			I tell him about my problems
Encouraging	Facilitating	Encouraging others	He motivates me to succeed
			She encourages her children to get an education
Enterprising	Intellect	Skilfulness	He is good at selling
			He is a good businessman
Even-tempered	Emotional stability	Balance	He is calm
			She does not get angry quickly
Fashion conscious	Openness	Materialism	Always wears expensive clothes
			She loves beautiful clothes
Fearful	Emotional stability	Courage	Afraid of people
			He is easily scared
Friendly	Soft-heartedness	Amiability	She is very friendly
			Always friendly towards others
Future-oriented	Conscientiousness	Dedication	Have a vision in life
			He has goals in life
Generous	Soft-heartedness	Egoism	He share his things with others
			She gives away her food
Gossiping	Relationship harmony	Meddlesome	She gossips a lot
			He likes to gossip
Grateful	Soft-heartedness	Gratefulness	She is thankful
			She appreciates people's givings
Hard-working	Conscientiousness	Achievement-oriented	She is not lazy
			He is a hard worker
Heedful	Soft-heartedness	Active support	She listens when you talk to her
			He is a good listener
Helpful	Soft-heartedness	Active support	She is very helpful
			He helps where he can
Honest	Integrity	Integrity	She is honest
			He is always honest with me
Humble	Relationship harmony	Approachability	He is humble
			She does everything in a humble manner
Humorous	Extraversion	Positive emotionality	He is always making jokes
			She has a good sense of humour
Independent	Openness	Broad-mindedness	She likes to work on her own
			He is an independent person
Inquisitive	Openness	Epistemic curiosity	She is a very curious person
			He likes to ask questions
Interfering	Relationship harmony	Meddlesome	He likes to meddle in otber's affairs
			He likes to impose himself on others
Intimidating	Soft-heartedness	Hostility	He intimidates people
			We are afraid of him
Jealous	Soft-heartedness	Egoism	She is a very jealous person
			He is envious of others
Kind	Soft-heartedness	Amiability	She is a kind person
			He treats other people well
Knowledgeable	Intellect	Reasoning	She has knowledge about everything
			He seems to know anything you ask him
Loving	Soft-heartedness	Empathy	Sbe loves her family

			He loves people
Materialistic	Openness	Materialism	He loves money
			She is materialistic
Mature	Emotional stability	Balance	She is mature for her age
			He has maturity
Obedient	Conscientiousness	Self-disciplined	He listens when his parents talk to him
			Follow his elders' advice
Organised	Conscientiousness	Orderliness	Always prepared
			A person who not disorderly
Patient	Emotional stability	Emotional control	He does not get impatient with people
			She is a very patient person
Peaceful	Relationship harmony	Interpersonal relatedness	Likes peace among people
			She is a peaceful person
Pretending	Integrity	Integrity	He pretends well
			She pretends to be someone she is not
Proud	Relationship harmony	Approachability	He is a very proud person
			She has pride
Punctual	Conscientiousness	Orderliness	He is always on time
			She is never late
Religiosity	Openness	Broad-mindedness	He is a religious person
			She prays when she has a problem
Respectful	Soft-heartedness	Empathy	He is respectful towards others
			She respects other people
Responsible	Integrity	Integrity	He is always absent from school
			She is responsible
Role-model	Facilitating	Guidance	He is exemplary in the community
			She sets a good example
Selfish	Soft-heartedness	Egoism	A person who only thinks of himself
			She does not think about other people
Self-respectful	Emotional stability	Ego strength	He respects himself
			She takes care of herself
Sensitive	Emotional stability	Emotional sensitivity	She cares a lot about what people say about her
			He is sensitive
Short-tempered	Emotional stability	Balance	He is easily angered
			She is short-tempered
Shy	Extraversion	Sociability	He is a shy person
			She is very shy with people
Sociable	Extraversion	Sociability	She is very outgoing
			He likes to go to parties
Solving problems of others	Soft-heartedness	Active support	He always helps me short out my problems
			She is able to solve problems of others
Story-teller	Extraversion	Sociability	He likes to tell stories of past lives
			She loves telling traditional stories
Straight-forward	Extraversion	Expressiveness	She is straightforward
			He is always to the point
Strict	Extraversion	Dominance	He is very strict
			She is a strict person
Stubborn	Relationship harmony	Approachability	He is stubborn person
			She does not want advice

Supportive	Soft-heartedness	Active support	He supports me in every decision I make
			She is supportive of my choices
Talkative	Extraversion	Sociability	He talks a lot
			She is talkative
Temperamental	Emotional stability	Emotional control	He is moody
			She is temperamental
Traditional	Openness	Broad-mindedness	He likes doing the traditional dances
			She is very traditional in her thoughts
Troublesome	Relationship harmony	Conflict-seeking	He is very disruptive
			She is a difficult person
Trustworthy	Integrity	Integrity	He is a reliable person
			You can trust her
Truthful	Integrity	Integrity	She is open about her feelings
			He never lies
Verbally aggressive	Soft-heartedness	Hostility	He swears a lot
			She is always scolding and screaming
Well-mannered	Relationship harmony	Interpersonal relatedness	He is very polite
			She has very good manners

Semi-common facets

Semi-common facet	*Cluster*	*Sub-cluster*	*Response*
Agreeable	Soft-heartedness	Empathy	He always agrees
			They agree on everything
Appeasing	Relationship harmony	Interpersonal relatedness	She asks for forgiveness
			He always apologises
Appreciative	Soft-heartedness	Gratefulness	He loves delicious food
			She appreciates my language
Argumentative	Relationship harmony	Conflict-seeking	He is quarrelsome
			She likes arguments
Aspirations for others	Facilitating	Encouraging others	She wants us to succeed
			He wants us to progress
Attention-seeking	Emotional stability	Ego strength	She likes to have all the attention
			He likes to be listened too
Competent	Intellect	Skilfulness	She does not teach very well
			He is competent in his work
Competitive	Conscientiousness	Achievement-oriented	He is a competitive person
			Competition between us
Complaining	Emotional stability	Neuroticism	He moans a lot
			She is always complaining
Concrete work	Intellect	Aesthetics	She likes ploughing the fields
			He is a builder
Considerate	Soft-heartedness	Empathy	She will never say heartbreaking things
			He considers my feelings
Cooperative	Relationship harmony	Interpersonal relatedness	He works well with others
			She is cooperative

Courageous	Emotional stability	Courage	He is very brave
			She has courage
Creative	Intellect	Aesthetics	She does craft work
			He is creative
Critical	Soft-heartedness	Hostility	He is judgemental
			She criticises others
Dedicated	Conscientiousness	Dedication	He is dedicated towards his family
			She is motivated
Demanding	Emotional stability	Ego strength	Demands to be obeyed
			She is very demanding
Denigrating	Soft-heartedness	Hostility	He insults me
			She likes to humiliate people
Didactic	Facilitating	Guidance	He teaches us things in the community
			She teaches us about life
Disciplined	Conscientiousness	Orderliness	He is disciplined
			She is a disciplined person
Emotional	Emotional stability	Emotional sensitivity	She is very emotional
			She cries easily
Exploiting	Soft-heartedness	Hostility	He uses people
			She misuses others
Extrovert/introvert	Extraversion	Sociability	He is a extrovert
			She is a introvert
Fair	Integrity	Fairness	He is a fair person
			She will treat me fairly
Flexible	Relationship harmony	Approachability	Flexible to the situation
			He adapts to the culture easy
Forgiving	Relationship harmony	Interpersonal relatedness	She does not hold grudges
			He is forgiving
Good relations with another	Relationship harmony	Interpersonal relatedness	We have a good relationship
			We are in good terms
Greedy	Soft-heartedness	Egoism	She is greedy
			He is a greedy person
Guiding	Facilitating	Guidance	She is able to guide others
			A person who show us the way
Impulsive	Emotional stability	Emotional control	He did not think before he talked
			He does things without thinking
Intelligent	Intellect	Reasoning	He is smart
			She is very clever
Irritating	Soft-heartedness	Amiability	He is annoying
			Irritates me a lot
Leading	Facilitating	Guidance	He is a leader
			I like to lead
Like to travel	Openness	Openness to experience	He likes to travel
			He is a traveller
Likeable	Soft-heartedness	Amiability	People like him
			She is loved by everyone
Logical	Intellect	Reasoning	He is rational

			She has logic
Meticulous	Conscientiousness	Orderliness	She is particular
			He is precise
Morally conscious	Integrity	Integrity	He has morals and values
			She is principled
Needy	Emotional stability	Ego strength	She relies on other people
			He is needy
Noisy	Extraversion	Expressiveness	He makes a lot of noise
			She is loud
Open for others	Relationship harmony	Approachability	He is accepting of others
			She is accepting
Open-minded	Openness	Broad-mindedness	Wants to learn another language
			She is open-minded
Optimistic	Extraversion	Positive emotionality	He is a positive person
			She is very optimistic
Outspoken	Extraversion	Expressiveness	He is outspoken
			She would say when does not like something
Passionate	Conscientiousness	Dedication	He has a passion for his subject
			She is passionate
Peacekeeping	Relationship harmony	Interpersonal relatedness	He likes to keep the peace
			She is the mediator when there's fighting
Perceptive	Intellect	Social intellect	Understand other people's ways
			Knows when I'm happy or upset
Performance-oriented	Conscientiousness	Achievement-oriented	Want to achieve something in life
			She wants to do well
Perseverant	Conscientiousness	Dedication	He has perseverance
			She has perseverance to do something
Playful	Extraversion	Positive emotionality	He plays with the children
			A playful person
Pleasant	Soft-heartedness	Amiability	He is a pleasant person
			She is always nice to me
Pleasure-seeking	Extraversion	Positive emotionality	She enjoys herself
			He likes to play games
Progressive	Openness	Broad-mindedness	He is progressive
			She is a progressive person
Protective	Soft-heartedness	Active support	He is always protective
			Protective of her family
Rebellious	Conscientiousness	Self-disciplined	He does not listen to you
			She is against everything
Reckless	Conscientiousness	Thoughtless	He is very careless
			She is not careful
Reserved	Extraversion	Sociability	She is a reserved person
			I dislike many people
Secretive	Extraversion	Expressiveness	She is secretive
			He is self-concealed
Self-centred	Soft-heartedness	Egoism	Her life resolves around her
			She cares only of herself
Self-confidence	Emotional stability	Ego strength	He has self-confidence
			She has confidence in herself

Serious	Soft-heartedness	Amiability	He is very serious
			He is serious - does not easily laugh
Talented	Intellect	Aesthetics	He has many talents
			A gifted person
Tidiness	Conscientiousness	Orderliness	He not a dirty person
			She is very neat
Tolerant	Relationship harmony	Approachability	He does not tolerate unruly behaviour
			Tolerating
Trusting	Soft-heartedness	Hostility	He is very naïve
			She is not suspicious
Understanding	Intellect	Social intellect	He understands me
			She is very understanding
Uplifting	Facilitating	Encouraging others	He builds you up when your down
			She uplifts you
Vivacious	Extraversion	Positive emotionality	He is very energetic
			She is enthusiastic
Welcoming	Relationship harmony	Approachability	She is welcoming
			He is hospitable

Semi-specific facets

Semi-specific facets	*Cluster*	*Sub-cluster*	*Responses*
Absent-minded	Conscientiousness	Thoughtless	He is forgetful
			She is absent-minded
Accommodating	Relationship harmony	Approachability	Accommodating everyone
			Very accommodative
Adventurous	Openness	Openness to experience	He is adventurous
			She is a adventurous person
Artistic	Intellect	Aesthetics	He is a artist
			She is artistic
Balancing life	Emotional stability	Balance	Balance her family life and studies
			He is extremely well balanced
Career-oriented	Conscientiousness	Achievement-oriented	He is business-minded
			She is a corporate woman
Constructive	Relationship harmony	Interpersonal relatedness	He deals with things in a good way
			He is always constructive
Content	Emotional stability	Neuroticism	He is satisfied
			She is content with her life
Coping	Emotional stability	Emotional control	She cope well
			She has strong coping mechanisms
Depressive	Emotional stability	Neuroticism	He never gets down
			He is depressive
Dreamer	Openness	Broad-mindedness	He is a big dreamer
			She likes to dream
Exaggerate	Emotional stability	Emotional sensitivity	She is exasperated
			Like to exasperate things
Follow-up	Conscientiousness	Orderliness	He likes to make follow-ups

			She follow-up
Humane	Soft-heartedness	Empathy	He is humane
			She is a humane person
Individualism	Openness	Broad-mindedness	Individualistic
			She is her own person
Influential	Facilitating	Guidance	He influences people
			She influences your choices
Integrity	Integrity	Integrity	A person of integrity
			She was a woman of integrity
Loyal	Integrity	Integrity	Loyal
			He can die for me
Musical	Intellect	Aesthetics	She sings very well
			He is good in his music
Neurotic	Emotional stability	Neuroticism	She is neurotic
			He is neurotic about women
Provoking	Relationship harmony	Conflict-seeking	She provokes other people
			He provokes people
Purposeful	Conscientiousness	Dedication	Has very high intentions and goals
			He has direction
Respectable	Facilitating	Guidance	People respect him
			He is a respectable person
Self-insight	Intellect	Reasoning	They do not know themselves
			She does not know herself
Social intelligent	Intellect	Social intellect	He know show to deal with people
			He has good people skills
Spontaneous	Extraversion	Sociability	She is spontaneous
			He loves to do things spontaneously
Tensed	Emotional stability	Neuroticism	She does not stress to much
			She is a nervous person
Thorough	Conscientiousness	Orderliness	He is a conscientiousness worker
			He correct mistakes
Undermining	Soft-heartedness	Hostility	He undermines pupils
			He undermines others
Useless	Intellect	Skilfulness	She is useless
			He is useless because he is unemployed
Visionary	Openness	Broad-mindedness	She has visions
			He is visionary

Language-specific facets

Language-specific facets	*Cluster*	*Sub-cluster*	*Responses*
Consistent	Conscientiousness	Orderliness	He is not consequent
			She is consistent
Dutiful	Conscientiousness	Achievement-oriented	He is dutiful
			He is dutiful
Investigative	Openness	Epistemic curiosity	He is investigative
			He is investigative

Obsessive/compulsive	Emotional stability	Emotional control	He is obsessive
			He has obsessive behaviour
Prim and proper	Openness	Broad-mindedness	She is prim and proper
			A proper lady. She is elegant and sophisticated
Satisfying others	Soft-heartedness	Empathy	She like to satisfy others
			Make people happy all the time
Shamed	Emotional stability	Emotional sensitivity	He is shameful
			He is an embarrassment
Thought-provoking	Facilitating	Encouraging others	He is challenging your thoughts
			He came up with solutions that make you think
Timeous	Conscientiousness	Achievement-oriented	He is timeous
			He is timeous
Wrathful	Soft-heartedness	Hostility	He is wrathful
			He is wrathful, beats without reason

CHAPTER 5

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The purpose of this chapter is to draw conclusions from the three articles that formed part of this study. Conclusions are drawn in accordance with the research objectives. Furthermore, limitations of this study are discussed and recommendations for the organisation are made. Finally, research opportunities that emanate from this research are presented.

5.1 CONCLUSIONS

Next, the conclusions of the literature review and exploratory studies are made.

Article 1: *Exploring the Personality Structure in South Africa*

The objective of Article 1 was to explore the possibility of an indigenous developed personality structure in South Africa. The overall aim was to investigate the approaches utilised in current cross-cultural personality research, and how these might be applicable for personality research in South Africa.

Approaches which can be applied to uncover personality structure

Approaches predominantly used in personality research are the emic, etic, and lexical approaches. According to Saucier and Goldberg (2001), etic and emic approaches could be used either jointly or separately in lexical studies. The lexical approach is described as important interaction terms that become encoded in some or all world languages, which, in turn, will describe individual differences or similarities (Goldberg, 1990). Most of these terms are recorded in dictionaries (Goldberg, 1981). The etic approach identifies similarities between cultural or language groups (McCrae & Costa, 1997), while the emic approach focuses on the indigenous, evident dimensions of a specific culture (Church & Katigbak, 2000).

Most personality structures are derived from lexical studies. The Big Five (Goldberg, 1981) or Five-Factor Model (Costa & McCrae, 1992) was obtained through the lexical approach,

and many subsequent personality models were accumulated through the use of this approach (e.g. Big Seven (Tellegen & Waller, 1987), HEXACO (Ashton et al., 2004)). However, many personality researchers also apply imported inventory approaches in order to understand the personality arrangement of a region (John & Benet-Martinez, 2000), usually through factor-analysis, and to conduct cross-cultural analyses. The imposed etic approach contributes to all sorts of problems. The main issue with this approach is the use of inventories that are developed and applied for one region, and then are applied in other regions where the inventory is not standardised (Cheung et al., 2001). The use of this approach disregards important culture-specific or emic personality constructs in the imported instruments (Cheung, Leung, Zhang, Sun, Gun, Song, & Xie, 2001). Additionally, when utilising imported personality inventories, participants' language proficiency and understanding of items could be problematic.

Problems regarding personality measurement in South Africa

According to Foxcroft, Patterson, Le Roux, and Herbst (2004), the most frequently employed personality inventories in South Africa are the Sixteen Personality Factor Questionnaire (16PF) (Abrahams & Mauer, 1999; Schepers & Hassett, 2006), the Fifteen Factor Questionnaire Plus (15FQ+) (Psytech, 2002), NEO-PI-R (Costa & McCrae, 1992), the Jung Personality Inventory (JPI) (McGuire & Hull, 1977), Myers-Briggs-Type Indicator (MBTI) (Coetzee, Martins, Basson, & Muller, 2006), and the Occupational Personality Questionnaire (OPQ) (Saville, Cramp, & Henley, 1995). All of these instruments are imported from Europe or the USA, and adapted for local use. With the new Employment Equity legislation in South Africa, it became apparent that the 16PF (form SA92) (Abrahams, 1996; Prinsloo & Ebersohn, 2002), the 15-FQ+ (Meiring, Van de Vijver, & Rothmann, 2006) and other personality inventories employed do not comply with legal requirements of bias-free assessment. Language barriers also proved problematic, especially in translating certain English terms into indigenous languages. According to Laka-Mathubula (2004), indigenous languages in South Africa may not have sufficient person-descriptive terms. In personality measurement, Heuchert, Parker, Strumpf, and Myburgh (2000), who applied the NEO-PI-R to African and White college students, found that the translation of the NEO-PI-R into isiXhosa was difficult, as some items could not be translated due to limited vocabulary. The problem is found in most indigenous languages that have not had much exposure to certain Western types of mindset and English colloquial speech. European languages like French,

Dutch, German, Spanish, Italian and Greek (in contrast to Bantu languages), have large numbers of descriptive terms, which makes it easy to develop lexicons for these regions.

From the above it seems sensible to explore other ways of understanding the personality arrangement in the multilingual society of South Africa, excluding the imposed etic approach. Considering challenges, e.g. problems in translation of items, test bias, and unstandardised measures, it seem important to direct personality research towards a reliable approach. It can be concluded that the characteristics of the lexical approach (Saucier & Goldberg, 2001) seem worthwhile to explore in personality research in South Africa. Although the lexical approach traditionally relies on dictionaries when finding a suitable personality structure for a region (Goldberg, 1981), it would be undesirable in South Africa with the lack of indigenous dictionaries in all language groups. A variation of the lexical approach could therefore be explored and employed, in combination with the etic-emic approach in order to identify commonalities between language groups in South Africa, as well as specific terms indigenously represented in a particular language group.

Article 2: *Identifying Common and Unique Personality Aspects in Eleven Language Groups of South Africa*

The objective of Article 2 was to discover the indigenous personality dimensions for each of the 11 language groups in South Africa, and to identify the common (shared by all language groups), semi-common (shared by seven to ten of the language groups), semi-specific (shared by two to six of the language groups) and language-specific (unique to a particular language group) facets.

Identification of personality-descriptive terms for the 11 official language groups in South Africa

The study was explorative, using qualitative methodology in order to come up with the 190 identified facets accumulated from the 11 official language groups in South Africa. In order to understand the meaning of responses, the lexical approach was employed, and further evaluation of data was done using a combined etic-emic approach. Traditionally, the lexical approach starts from an analysis of entries in dictionaries, from which the words dealing with personality descriptions are collected (Goldberg, 1981). For practical reasons, we could not

adopt this approach: (1) dictionaries of a sufficient quality for our purposes are not available in all languages; (2) some languages do not have many personality-descriptive terms, which would have led to a potential under-representation of relevant concepts; (3) there is a lack of psychologists in various language groups who could conduct a lexical study. Therefore, we adopted another approach and collected information in interviews in which participants were asked to describe themselves and particular people they knew well.

Differences between personality-descriptive terms used in the 11 official language groups in South Africa

More than 50 000 personality-descriptive terms were accumulated from the semi-structured interviews. In our inspection of these descriptive terms, it was evident that the types of responses differed between language groups. For example, the Bantu language groups were inclined to describe acts of behaviour (what the person does), rather than specific trait names. In other instances, traits were mentioned but elaborated where the typical behaviour is described. When looking closely at the Afrikaans and English groups, the same tendencies were found, although these languages tended to refer directly to the traits of a person without further elaboration. Reasons for the differences in the number of words are hard to identify, since many factors could have played a role. One possible reason could be unfamiliarity with certain terms (although it is hard to imagine given our broad sampling of participants in terms of education and socioeconomic status); another could be the lack of applicable terms in the Bantu language groups, as mentioned before. Previous research has indicated that it is problematic for language experts to translate terms between indigenous Bantu languages and English (Mphahlele, 2004). The main reason is that indigenous Bantu languages lack certain terms for describing personality constructs.

The social role of a person in a family or community seems also very important in most language groups. The importance of these social roles seems to manifest in close-knit families or communities, since it seems that social roles are an important part of how a person is viewed. Characteristics are generally assigned towards a specific person in accordance with the stance of the person in a family setting, and seem continuous across language groups. The differences between how mothers, fathers, children, grandmothers, and elders are described are evident in our data. This was not only found in the Bantu language groups, but also in the Afrikaans and English groups.

A collectivistic orientation in the sense of Hofstede (1980) was also strongly observable in the personality-descriptive terms obtained. The spirit of Ubuntu seems closely related to this collectivistic orientation. In Ubuntu, a person is regarded as a person through others (Louw, 2002), which could explain why a good person is conceptualised across the language groups in social terms. *Humaneness, compassion, community involvement,* and *helpfulness* are some of the traits associated with Ubuntu, and all of these traits were observable in the responses obtained. Most of the responses also contained terms like *We, They, Each other,* and *Us*, which correspond with the meaning of Ubuntu in that a person will regard himself or herself as part of a collective group, and not as a singular person. This was more common in the Bantu languages than in Afrikaans and English, although the latter two did indicate some responses in plural form.

However, our results do not indicate that all Bantu language groups are collectivistically oriented and that all persons from the Afrikaans and English groups are necessarily individualistically oriented. Although there is some indication for that, we cannot state that all Afrikaans and English people are predominantly motivated by individualistic values, as opposed to collectivistic values. That would be a generalisation. In Afrikaans and English, some collectivistic values were identified, as well as individualistic values in the Bantu language groups. The finding is in line with Oyserman, Coon, and Kemmelmeier's (2002) suggestion that cultural differences are not as significant when doing research within claimed individualistic vs. collectivistic environment. This makes it even more complex, since people in South Africa function in individualistic as well as in collectivistic environments (Booysen, 2001), and will take on different qualities of the paradigm to function effectively in the mixed environment.

It is evident that the derived personality-descriptive terms account for interesting information from the different language groups. After the personality-descriptive terms were accumulated and analysed, they were categorised and clustered into applicable facet labels. External resources (i.e. dictionaries, literature) were employed in the categorisation and clustering stages, while inputs from all collaborators on the SAPI project, language and cultural experts, and the use of expertise consultations with personality psychologists were utilised in order to validate the final outcome. The total number of facets that we extracted is relatively small compared to other lexical studies, in particular when the large number of languages of the present study is taken into account. In Polish studies, 290 personality adjectives were used as

the final number when factor analysed in order to come up with an indigenous personality model (Szarota, Ashton, & Lee, 2007). Church, Katigbak, and Reyes (1998) used 682 personality adjectives in their factor analysis. In our study, only 190 facets went through further cluster analysis. The main reason for the small number was the relatively high level of abstraction of our facets. We chose to use facet names of which we could be reasonably sure that they were comparable across languages. More concrete names of facets are more likely to run into comparability problems.

Common and unique personality dimensions

Nonetheless, the 190 facets were further divided into four levels, namely all facets found to be shared by all or the majority of the language groups (common (78) or semi-common (69)), or found to be less shared (semi-specific (32) and language-specific (11)). However, we do not say that the facets that are semi-common, semi-specific or language-specific are entirely missing in other language groups. There could be many reasons for the fact that the respondents failed to identify the appropriate facet. In the case of the respondent, it could have been due to a lack of understanding of the correct label or facet to describe another person, or a lack of terminology or a wrong translation or understanding of the original response; in the case of the researcher, it could have been the misjudgement of the underlying meaning of responses.

It is evident that more facets are on common level than on specific level. This finding is in keeping with most lexical studies where large numbers of shared facets have also been found (see Peabody & De Raad, 2002). The large number found in the present study may be a valid reflection of many commonalities across languages. However, the number may have become so large because of other factors. Our analyses were aimed at developing a unified personality structure that would encompass the structure of all groups. This goal inevitably leads to a search for common facets. The use of adjectives at facet level may also have boosted the number of common facets.

In further examination of common, semi-common, semi-specific, and language-specific facets, it is important to note that the facets that are divided in all four levels are not different in the total moods (temperament), ability terms, attitude terms, and social evaluative terms identified (see Saucier, 1997). Of course, the total number of facets on the four levels were

widely dissimilar, so it would have been problematic to compare these differences. When looking at differences between language groups, there is no evidence that one group is more different than another on grounds of these differences, except the lack of many ability terms on common facet level, although there are quite a few observable on semi-common level, i.e. *creative, competent*, and *intelligent*. There are many common facets that were related to temperament (*fearful, jealous, short-tempered*), attitudes (*traditional, arrogant, authoritative)* and even more facets that associate with social evaluation/relatedness facets (*captivating, role-model, caring*). It is significant to note that more social evaluative facets are on common level than on any other domain, and that the social evaluative facets decrease in frequency as they become less common in the language groups (in relation with the decrease of total non-common facets).

When looking closely, particularly at the semi-common facets, the language groups in which the facet seems to be missing are not concentrated in accordance with individualistic vs. collectivistic orientation, collective group distribution or other factors. When evaluating the semi-common facets further, it is important to consider the possible link with language clusters. Our group of 11 languages consists of four groups: Germanic languages (Afrikaans and English), Sotho languages (Sesotho, Sepedi, and Setswana), Nguni languages (Siswati, isiXhosa, isiZulu, and isiNdebele), and finally the other Bantu languages that do not form part of a more specific cluster (Tshivenda and Xitsonga). For example, *cooperative* was found in eight languages, but the presence of the facet was unrelated to linguistic grouping. The facet was missing in Afrikaans, Sesotho, and Siswati. *Open for others* (accepting others) was missing in Afrikaans, Xitsonga, and Siswati. *Leading* did not feature in three of four Nguni groups (Siswati, isiXhosa, and isiZulu), while low frequency personality-descriptive terms were derived from isiNdebele. Although *leading* did not feature a great deal in the Nguni group, *guiding* was evident in Siswati, isiZulu, and isiNdebele, and missing in isiXhosa, while *advising* and *encouraging* (both common facets) were found in all four groups. *Leading* or taking lead might not be an important aspect in the Nguni group, but to guide, advise and motivate others (mostly youngsters) is an important feature for this collective group. There is another facet, *performance-oriented* (a person who wants to achieve goals) that did not feature at all in the Nguni group, but it should be stressed that the facet showed low frequencies in all of the other groups, except for English.

When looking at the three Sotho collective language groups, as with the Nguni group, no clear arrangement could be recognised. *Reserved* was missing in all three Sotho groups. However, when looking at inter-relationships with other facets (as in the case with *leading*), no clear pattern could be identified. The Sotho group seems to have the same facets related to extroversion and introversion as the other languages. *Tolerant* was also missing in the three Sotho groups (and isiZulu), but, like *performance-oriented,* the other groups also reported low frequencies. In conclusion, we do not find any support for the view that facets in Afrikaans and English groups are significantly different from the facets found in the Bantu languages, or that Nguni and Sotho groups differ from each other on similar grounds.

Looking more specifically at the semi-specific facets, it was obvious that most semi-specific and language-specific facets were found in Afrikaans and English. *Spontaneous* and *adventurous* featured only in Afrikaans and English. *Spontaneous* is seen as a characteristic of Liveliness in the 16PF (Prinsloo & Ebersohn, 2002), with *cheerful* (common), *vivacious* (semi-common), and *impulsive* (semi-common), so the inter-relationship is already clear. When looking at *adventurous*, we looked at alternative reasons for the lack of this facet in all of the Bantu languages. *Like to travel* (a semi-common facet) previously formed part of the *adventurous* facet, but was extracted because of the huge amount of responses that pertained to *like travelling,* and *traveller.* The question was then asked if there was a correlation between these two facets. When Bantu language groups described persons that *like to travel,* did they mean that the persons were *adventurous*? In discussing this with cultural experts, it was evident that most Bantu language groups meant with *like to travel* to be exposed to new things, and to be *adventurous*. Because of the double meaning given to the facet *like to travel,* we kept it apart from *adventurous*.

From the 11 language-specific facets identified, eight were observed in the Afrikaans and English language groups: *consistent, dutiful, investigative,* and *timeous* in Afrikaans; *motive, obsessive/compulsive, prim and proper*, and *thought-provoking* in English. This brings back the question of terminology and translation obstruction that could have pertained to the missing facets in the Bantu language groups. When analysing these eight facets, it was clear that they could not be clustered any further because of in-correspondence or multi-correspondence with other more common facets. The facet *consistent,* which emerged only in Afrikaans was found to be different from the common facet, *even-tempered. Even-tempered* is defined in this context as being *calm*, and *emotionally well-balanced*, whereas *consistent* is

defined as being *unswerving, firm*, and *not easy to sway*. The connotation could be made that *consistent* relates to being *stubborn* or *strict*, but the difference is evident in the inclusion of responses like *steadfast, will make a decision and stick to it*, and *is constant in his decisions*, which make the clear distinction from being unwilling to yield to direct demands. *Dutiful* as a language-specific term of Afrikaans was found to be different from the common facet *obedient* and the opposite of *rebellious*, since it is more task-orientated than being obedient towards a parent or teacher. All these evaluations of the language-specific facets could be construed towards the other language-specific facets identified, since further clustering was impossible on similar basis.

Looking more on the domain level of language-specific facets, it was apparent that s*atisfying others* (in isiXhosa) was the only facet that corresponded with the interpersonal relatedness concept, while the other facets seemed to be more on an intrapersonal level. As said before, most of the interpersonal relatedness concepts were observed on a more common level than on specific level. *Shamed* identified in isiNdebele, and *wrathful* in Siswati were other language-specific facets extracted. Like *consistent* and *dutiful* in Afrikaans, further clustering was not possible for these two facets. *Shamed* encompasses feelings of embarrassment, which could correspond with the *self-confidence* semi-common facet, but further analysis showed that the facet is broader than only in this level, since responses also suggested that feelings of dishonour and indignity could be included. Feelings of dishonour could pertain to feeling insulted by the actions of others in accordance with one's own perception of right and wrong. *Wrathful* relates to being *short-tempered* and in some instances *abusive*. The dictionary definition of wrathful refers to being in rage or angered. The action of being in rage could be caused by any external or internal stimuli, which makes the facet more complex, and the results could also be indefinite. From responses derived it is evident that most of the actions involve being *abusive*, but other results like *verbally aggressive* were also evident. Thus, when the person is angered, he will either beat someone physically, or shout aggressively towards others. The ambiguous meaning motivated us to keep this facet separate, and since further analysis showed that the facet was not replicated in the other language groups, we kept it as a language-specific facet.

It is also apparent from our study that many universal facets could be identified. Facets are universal when they are familiar in others studies as well. Over the past few years, lexical studies have revealed many universal facets. With the use of dictionaries and international

literature, it was not surprising that our analyses revealed so many universal terms, and these external resources may have been influenced by these labels. We must clarify that we also used many well-known facet-labels given to personality-descriptive terms. Furthermore, while many universal facets are identified, the fundamental meaning might be different from how it is defined or comprised in literature. For instance, the common facet *aggressive* could be regarded as a universal term, but also an ambiguous term. *Aggressive* could be seen as a form of *assertiveness* or *competitiveness* (Block, 1995), which does not specify specific behaviour. In our data, the term *aggressive* is more closely related to being *physically hostile* towards others since most responses i.e. *likes to fight,* and *he fights others* accumulated to being *aggressive*. The concept of *aggressive* is also found in Eysenck's psychotism scale, which is associated with being hostile, inhumane, and lack of feelings of empathy (Francis, Craig, & Robbins, 2007), and neuroticism of the Big Five (Gill & Hodgkinson, 2007). Looking closely at the Big Five, many more facets could be recognised as universal concepts since the Big Five are well replicated around the world (McCrae & Terracciano, 2005). As it is not impossible to recognise the universality of facets, even if slight label modifications were made, it is more imperative to look closely at indigenous concepts that will not be as universally well known or replicated.

Indigenous concepts are facets that do not seem recognisable in most literature, while they do seem important in the South African context. With this notion in mind, it should also be stressed that most indigenous concepts could be seen as composition of another universal facet. On common facet level, *community involvement* possibly qualifies as indigenous to South Africa. Looking at this facet in conjunction with other similar 'behaviour-related' facets, being *helpful, generous,* and *kind* could construe being involved and to assist your immediate community in times of need, which makes the concept common in South Africa, although the concepts of *helpful, generous*, and *kind* are known in the Big Five under the construct *agreeableness*. However, it seems that the facet of *community involvement* does not feature in any of the personality studies.

In analysing the concept of *Ubuntu* on facet level, it is evident that most facets that relate to *Ubuntu* are common in all language groups. As said before, collectivistic- as well as individualistic-orientated terms are found in all language groups. The concept of social relatedness was very important in all of the language groups, but especially concentrated in the Bantu language groups. The common facets of *caring, compassionate, kind, loving,* and

respectful show the strong inclination of all South Africans to be sensitive towards others, while the facets *community involvement, heedful, helpful, supportive,* and *solve problems of others* show the contribution of people towards others in order to build and maintain communities. Common facets like *honest* and *truthful* show the maintaining of healthy and open relationships between people.

The evidence of the concept of Ubuntu in our data was explored on both personality-descriptive term and facet level. The congruence of this concept with our findings seems conclusive. However, in order to understand the uniqueness of the concept to South Africa, we must evaluate international articles. The CPAI (Cheung, 2006) found indications of interpersonal relatedness in the Chinese cultures, although it was later found to be replicated among Chinese American and European Americans. The subfacets under Interpersonal Relatedness that correspond strongly with the *Ubuntu* concept in our view are *harmony* and *relationship orientation.* The sixth factor of the HEXACO model, *honesty-humility,* which emerged strongly across languages in Europe and Asia (see Ashton et al., 2004), is associated closely with the definition of being honest, and fair of *Ubuntu.* Therefore, analysis of international articles on personality research concluded that the concept of *Ubuntu* was less unique to South Africa than initially anticipated.

Article 3: *Uncovering the personality structure for the eleven language groups in South Africa: An exploratory study*

The last objective of the study was to discover and develop a unified personality structure for South Africa. The development of the structure was an exploratory study which included the evaluation of each of the 190 facets and their semantic accumulation, the different personality models currently studied in international literature, and the contributions of all collaborators and experts in personality research.

The personality structure in the 11 official language groups in South Africa

The 190 facets were first reduced to 37 sub-clusters. These facets were grouped together in accordance with shared meaning and overall manifestation of facets. After this cluster analysis, the 37 sub-clusters were further assembled towards nine overall clusters. The nine clusters are known as *Extraversion, Soft-heartedness, Conscientiousness, Emotional stability,*

Intellect, Openness, Integrity, Relationship harmony, and *Facilitating*. Each cluster consists of two to six sub-clusters, which form an integral part of the cluster in which they are added.

The first cluster is labelled as *Extraversion*, with *Dominance, Expressiveness, Positive Emotionality,* and *Sociability* as its sub-clusters. Extraversion is described as the act, state, or habit of being predominantly concerned with, and obtaining gratification from, what is outside the self: the power or right to give orders or make decisions, to be open to share or communicate with other people, being energetic and upbeat, and having the relative tendency or disposition to be sociable or to associate with one's fellows. This cluster was created since many personality-descriptive terms seem to correspond with the overall definition of extraversion, as well as the dimensions found in literature underneath this cluster. Facets like *reserved* and *shy* seem to be the opposite of being extraverted (thus introverted), while numerous facets, like *humorous, vivacious, outspoken, talkative,* and *sociable,* pertain to the definition of extraversion. *Extraversion* consists of both interpersonal and intrapersonal sub-clusters. The sub-cluster *Positive Emotionality* encompasses most of the intrapersonal dimensions, while interpersonal dimensions are divided into the other sub-clusters.

The second cluster, *Soft-heartedness*, is recognised as the biggest cluster in our structure, and consists of *Amiability, Egoism, Gratefulness, Hostility, Empathy,* and *Active Support* as its sub-clusters. *Soft-Heartedness,* in this context, is defined as a feeling of concern for the welfare of someone else (especially someone defenceless), low concern for own interests and welfare, being thankful for others or overall life being, an actively expressed feeling of dislike of aggressive behaviour, a compassionate type of person who is understanding and sensitive towards others' feelings, and a concept of community from sub-Saharan Africa, often summarised as *humanity towards others.* It is apparent to note that this cluster consists of facets that pertain to being good, kind, and tender vs. being ruthless, unkind, and abusive towards others. *Soft-heartedness* shows the gentle side of people caring about the welfare of others, either actively or passively. This cluster also comprises many aspects that relate to Ubuntu (Louw, 2002).

Conscientiousness predominantly consists of the organisationally desirable and undesirable facets. The sub-clusters underneath this cluster are *Achievement-oriented, Dedication, Orderliness, Self-disciplined,* and *Thoughtless. Conscientiousness* is described as being painstaking and careful, or the quality of acting according to the demands of one's

conscience, to accomplish something through great effort or inner drive, the opposite of being reckless and uncaring with own or others' safety, behaving according to certain social standards, attitudes, and practices, being devoted to reach certain goals, arranged or disposed in a neat and tidy manner or in a regular sequence. It is evident that the sub-clusters of *Achievement-oriented, Dedication, Orderliness,* and *Self-disciplined* comprise most of the desirable attributes, because these refer to the facets that are needed to perform and attain job or organisational goals. The last sub-cluster, *Thoughtless*, corresponds more with the undesirable attributes needed when making important decisions, or attaining organisational goals.

Emotional stability is a cluster that consists of all the emotional well-being or ill-being attributes or states. *Emotional Stability* consists of the sub-clusters of *Balance, Courage, Ego Strength, Emotional Control, Emotional Sensitivity,* and *Neuroticism. Emotional Stability,* in this context, means that a person is emotionally either well or unwell, possesses an inner confidence and respect, is sensitive towards outward events or people, has the ability to control and manage own emotions or actions, and is emotionally sound, or capable of handling life issues or stimuli. Being emotionally sound, thus *Even-tempered*, or unstable, thus *Temperamental*, leads to the overall make-up of a person's mental and emotional well-being. Many of the facets underneath this cluster show the sensitive inclination of people towards outward or inward stimuli.

The cluster of *Intellect* comprises all the intellectual or social abilities of a person. *Intellect* comprises the *Aesthetics, Reasoning, Skilfulness,* and *Social Intellect* sub-clusters. This cluster is described as the capacity for thinking and acquiring knowledge, having a special natural ability or aptitude, being knowledgeable and observant of outward and inward things, having a degree of efficiency in certain issues, and having insight in emotions and internal disturbances of others. In reviewing literature, it is apparent that aspects associated with the *Intellect* cluster is in some way related to the sixth cluster of *Openness,* which consists of the *Broad-Mindedness, Epistemic Curiosity, Materialism* and *Openness to Experience* sub-clusters. Openness in our structure is defined as being receptive to new and different ideas or things or to the opinions of others; it refers to a person who is open or receptive to others or ideas, and a person who wants to learn new things. In the Big Five (Goldberg, 1981), both clusters are merged, while all intellectual abilities are excluded from the Five-Factor Model (Costa & McCrae, 1992). The two factors were kept separate here. This decision to keep

them separate was made because behaviours associated with these dimensions did not co-occur in responses and because these dimensions did not correspond with each other on the grounds of shared meaning, outcome-based impulses or fixed attributes. For instance, if a person scores high on being *Religious* or *Traditional,* it does not mean that the person is not intelligent, artistic, or socially perceptive. Being Traditional or Religious is a personal choice, while being intelligent, artistic or socially perceptive involves attributes the person already has.

Also evident from our data was the inclusion of many responses that pertained to the meaning of *Integrity*, which is our seventh cluster. *Integrity* consists only of two clusters, namely *Integrity* and *Fairness,* and is described as the moral consciousness of a person, characterised by being honest, loyal and dependable. Important to note is that *Integrity* consists of both intrinsic and extrinsic values, with the intrinsic values influencing how a person will show integrity in relationships. In relationships, it is important to show loyalty and to always tell the truth. On a more internal sense, it is important to embed some kind of moral consciousness and sense of responsibility, which in the end lead a person to act out the external values (being loyal and telling the truth).

The eighth cluster is known as *Relationship harmony. Relationship harmony* is somewhat related to *Soft-heartedness*, although there is also a clear difference. *Relationship Harmony,* in this context, means a state in which a person believes in keeping good relationships with others, keeping the peace, maintaining relationships on good terms, and being open to understanding and tolerance. This cluster consists of *Approachability, Conflict-seeking, Interpersonal Relatedness,* and *Meddlesome* as sub-clusters. While *Soft-heartedness* consists of sub-constructs and facets that describe the interpersonal understanding and consideration of a person towards others, *Relationship harmony* solely involves the building and maintaining of healthy and constructive relationships with others, which marks the major difference between these two clusters.

The last cluster, known as *Facilitating*, consists of many facets that deal with actively or inactively guiding, leading, or advising others through life challenges, and encouraging and uplifting others to improve themselves. This prompted us to keep this construct separate from the other constructs. The sub-clusters associated with this cluster are *Guidance* and *Encouraging Others,* and this cluster is described as directing people according to one's own

experiences, guiding others through example and advice, and proactively encouraging people by one's own behaviour. It is important to note that there are differences between *Facilitating* and *Extraversion,* and more specifically with the *Extraversion*'s sub-cluster, *Dominance. Dominance* is understood, in this sense, to be socially assertive and forceful, thus using intimidation or tyrannical tactics to acquire the compliance of others', while *Facilitating* refers more to the consenting influence of a person towards others; this person is usually well respected and seen as a positive exemplary of the community.

Comparison of the personality structure within South African official language groups with those reported in existing personality models

It is clear that there is a moderate to high correspondence of our structure and the major personality models found in literature, especially with the first six clusters of *Extraversion, Soft-heartedness, Conscientiousness, Emotional Stability, Intellect,* and *Openness.* Nonetheless, in looking closely at the general make-up of each of the clusters, one could also ascertain that there is some dissimilarity between the composition of our clusters and the overall clusters of each of the other models. The Big Five (B5) or Five-Factor Model (FFM) consists of the Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience (or Intellect) factors (Costa & McCrae, 1992).

In our evaluation, the fit between our structure and the B5/FFM seems to be inconclusive. Our *Extraversion* cluster seems to fit nicely with the Extraversion factor of the B5/FFM, although the inclusion of some indigenous aspects like *disciplining* and *emotional sharing* in our cluster seems to make the fit less definite. Also, some aspects that seem to fit better with other factors of the B5/FFM, for example *straightforward* (NEO-PI-R: Costa & McCrae, 1992) which is clustered underneath the Agreeableness factor, while it is found underneath the *Extraversion* cluster of our structure. Apart from these differences, there seems to be a good, although less significant correspondence. When examining the second cluster of *Soft-heartedness*, as well as aspects from the *Relationship harmony* cluster, one could observe many sub-clusters and facets that seem to relate highly with the Agreeableness factor of the B5/FFM. For instance, the sub-clusters of *Amiability* and *Empathy* of *Soft-heartedness* include many facets that are observed in B5/FFM lexical studies (e.g. Larsen & Buss, 2005). Despite these similarities, there are still many differences which make the correspondence between these two factors moderate. As with *Soft-heartedness, Relationship harmony*

comprises many facets commonly associated with Agreeableness dimensions. While quarrelsome was in most cases seen as a dimension of Agreeableness in the literature (Goldberg & Somer, 2000; Lorr & Knight, 1987; Saucier & Goldberg, 1996), it was included in the *Relationship harmony* cluster (categorised as *argumentative*) under the sub-cluster of *Conflict-seeking*. Graziano and Tobin (2002) also argue that people who score high on Agreeableness would try to resolve conflicts, and prefer to avoid conflict situations, which relates to the *Approachability* and *Interpersonal relatedness* sub-clusters of *Relationship harmony*. This makes the correspondence between these two factors also moderately high.

The correspondence of the *Conscientiousness* and *Emotional stability* clusters of the structure and the Conscientiousness and Neuroticism factors of the B5/FFM appears to be as definite as the relation of our *Extraversion* cluster with the Extraversion factor. Hard work, punctuality, and reliable behaviour (Langford, 2003) are the overall characteristics of the Conscientiousness factor, which was clearly found in our data, together with being dutiful, responsible, and thorough (Costa & McCrae, 1992, p. 49). However, differences are evident, but these differences are as remarkable as the dissimilarities detected in the previous clusters already compared. Like *Conscientiousness,* our *Emotionality stability* cluster included some indigenous concepts and other modifications which enriched the overall cluster and make the composition slightly different from the description of the Neuroticism factor. Goldberg (1990) describes a person who scores high on Neuroticism as either calm, relaxed, and emotionally stable or moody, anxious, and insecure, which relates well with the meaning of our *Emotional stability* cluster.

The fifth and sixth clusters, *Intellect* and *Openness*, show agreement with the fifth factor of the B5/FFM, which in literature is labelled as Intellect (Goldberg, 1992), Openness to Experience (Costa & McCrae, 1992), Creativity and Imagination (Saucier, 1992) and, more recently, as Autonomy (Rodriquez-Fornells, Lorenzo-Seva, & Andres-Pueyo, 2001). Goldberg's (1990) definition of Intellect includes concepts such as *creative, imaginative*, and *intelligent,* which are found in our *Intellect* cluster as well. What makes our cluster different is the inclusion of both skills or abilities and social intellectual concepts. *Openness* showed a reasonable correspondence with Costa and McCrae's (1992) Openness to Experience factor, although the inclusion of some indigenous concepts (*religiosity, dreamer, visionary,* etc.) and expressive aspects (*eager to learn, inquisitive, open-minded*) (Peabody & Goldberg, 1989) created a moderately low correspondence.

The seventh and also last cluster, *Integrity* and *Facilitating*, does not appear in the B5/FFM. However, when the B5/FFM was researched in Hungary, the fifth factor of Intellect or Openness did not replicate well, while Integrity came out as the fifth factor (Szirmak & De Raad, 1994). Furthermore, no evidence for the *Facilitating* cluster has been found in any research regarding the B5/FFM. However, we could extract some facets from *Integrity* and *Facilitating* that could correspond with this model, for instance *responsible* and *trustworthy* from the cluster of *Integrity,* which could relate to the Conscientiousness factor (Costa & McCrae, 1992; Goldberg, 1990), or *leadership* of *Facilitating* to the Extraversion factor of the B5/FFM (John & Srivastava, 1999). Nonetheless, the overall correspondence is weak and no evidence suggested that aspects of *Integrity* and *Facilitating* are included in the overall make-up of the B5/FFM.

The structure's correspondence with The Big Seven Model appears to show similar results as with the relation with the B5/FFM. The Big Seven includes similar aspects of the B5/FFM, although it additionally comprises the self-evaluative Positive Valence and Negative Valence factors (Tellegen & Waller, 1987). Also, the first factor is known as Positive Emotionality, which includes most aspects of the Extraversion factor of the B5/FFM, while the Openness to Experience factor of the B5/FFM is labelled as Unconventionality in this model.

Positive Emotionality closely resembles the *Extraversion* cluster. When looking closely at the relation, it was evident that none of the facets underneath the sub-cluster of *Dominance* correspond with any of the factors of this model. Positive Emotionality of the Big Seven also included *impulsive* in their cluster, whereas *impulsive* is included in our *Emotional stability* cluster. Other than these differences, most of the dimensions that loaded onto Positive Emotionality of the Big Seven corresponded better with the sub-clusters of *Positive Emotionality* and *Sociability* (Benet-Martinez & Waller, 1997). What is striking is the strong correspondence between the Agreeableness factor of the Big Seven (Benet & Waller, 1995) and the *Relationship harmony* cluster. Agreeableness consists mostly of traits (i.e. *quarrelsome, stubborn, put up fight, try avoiding differences and conflict*, and *lenient*) that relate to facets clustered underneath our eighth cluster. It is clear that Agreeableness of the Big Seven focuses on maintaining healthy and good relations, or the opposite, which is how *Relationship harmony* is described as well. There is no clear correspondence between *Soft-heartedness* and Agreeableness of the Big Seven.

Conscientiousness corresponds well with the Conscientiousness factor of the Big Seven, which also included tidy, organised, orderliness, punctual, and cautious behavioural traits. However, Conscientiousness of the Big Seven does not include facets that have to do with achievement and dedication, unlike our *Conscientiousness* cluster. *Emotional stability* corresponded moderately low with the Negative Emotionality factor of the Big Seven. Most of the dimensions clustered underneath the Negative Emotionality factor pertains to being tensed, stressed, and edgy, which corresponds with our facets of *fearful* and *tensed*, which is, however, not the main feature of our cluster. Negative Emotionality also included feelings of guilt, and hurt or feeling sorry about something done, which also corresponds with facets like *self-confidence, shamed* and *sensitive* in our *Emotional stability* cluster. However, the factor of Negative Emotionality excluded many other important dimensions which were prevalent in our data.

Unconventionality, as the fifth factor of the Big Seven, shows a very close correspondence with the *Openness* cluster, with its inclusion of facets like traditional, progressive, and old-fashioned. However, Unconventionality does not include expressive attributes like *open-minded, eager to learn* and *inquisitive,* which were prevalent in our data. It appears that there is little correspondence between our clusters of *Intellect, Integrity* and *Facilitating* and the factors of the Big Seven. There is some correspondence between Positive Valence and *Intellect*, since Positive Valence consists of many intellectual-related dimensions (Saucier, 2003). It is important to note that most of the dimensions of Positive Valence are evaluative terms, and not actual abilities. There is some correspondence between *Integrity* and Negative Valence, since Negative Valence comprises some facets that have to do with a person not having *Integrity* (i.e. treacherous) (Benet-Martinez & Waller, 1997). Also, since *Soft-heartedness* did not correspond well with the Agreeableness factor, there is some relation with the factor of Negative Valence. Negative Valence contains facets like vicious, wicked, and cruel which are found to correspond well with the sub-cluster of *Hostility* within the cluster of *Soft-heartedness*.

The correspondence of the structure with the HEXACO also seems to be on moderate to high level. The *Extraversion* cluster found in this study represents most of the elements found in the HEXACO Personality Inventory (Lee & Ashton, 2004) and common adjectives found in lexical studies (Ashton & Lee, 2007). However, these studies exclude most of the *Dominance* sub-clusters' facets, except for *assertive* which could be associated with the HEXACO's

social boldness. Both *Soft-heartedness* and *Relationship harmony* seem to correspond with the Agreeableness factor of the HEXACO. HEXACO includes gentleness which corresponds with the overall definition of *Soft-heartedness* (see Results description and Table 2), while *Relationship harmony* consists of most of the facets that underlie this factor of the HEXACO. Also noteworthy is a study by Ashton, Lee, and Goldberg (2004) that showed that some traditional Agreeableness features, most predominantly sympathy-related terms, loaded in some instances onto the Honesty-Humility and to a lesser extent onto the Emotionality factors, which shows the shared values between these three factors of the HEXACO model.

The HEXACO's Agreeableness consists additionally of some features of *Emotional stability.* It appears that patient and ill-tempered loaded on Agreeableness (Ashton et al., 2004) in some lexical studies and these are also included in the HEXACO questionnaire (Lee & Ashton, 2004). *Patient* is clustered underneath the sub-cluster of *Emotional control. Emotional stability* shows a clearer correspondence with Emotionality of the HEXACO model. The facets under the sub-clusters of *Ego strength, Emotional sensitivity* and *Courage* are well represented in the lexical findings (Ashton et al., 2004) and HEXACO (Lee & Ashton, 2004). The inclusion of independent under Emotionality makes the correspondence less definite. *Independent* is a feature that was clustered underneath *Openness* in our structure.

There is a very good fit between our *Conscientiousness* cluster and the Conscientiousness factor of the HEXACO. The Conscientiousness factor of HEXACO consists of all the facets that are included in our cluster, except for the sub-cluster *Dedication.* Also, within the Conscientiousness factor of HEXACO the irresponsible facet loads onto this factor in lexical studies (Ashton et al., 2004). Irresponsible behaviour, in this context, is the opposite of being careful and disciplined. In our structure, *responsible* features in the *Integrity* cluster. The overall arrangement of *Integrity* pertains to the inclusion of the *responsible* facet in this cluster. We argue that the moral composition of a person will modify the resultant outcome (i.e. responsible vs. irresponsible behaviour). There appears to be an overlap in correspondence of the fifth factor of the HEXACO, Openness to Experience, and our clusters of *Intellect* and *Openness.* Openness to Experience comprises intellectual abilities and openness, expressive attributes that are distributed in both the *Intellect* and *Openness* clusters. Lexical studies (Ashton et al., 2004) identified intellectual, creative, and innovative facets in their study of the HEXACO model, and included aesthetic appreciation and creativity in their Openness to Experience factor of HEXACO-PI (Lee & Ashton, 2004). However, the social

intellect component, which is prevalent in our *Intellect* cluster, does not feature in the HEXACO model. The Openness to Experience of HEXACO consists mostly of cognitive intellectual abilities, which reduces the overall correspondence. The *Openness* cluster features two dimensions of the HEXACO's Openness to Experience factor (Lee & Ashton, 2004), namely inquisitiveness (*inquisitive* is included in the sub-cluster *Epistemic Curiosity*) and unconventionality (which has a connotation with the *traditional* and *open-minded* facets). It seems that Openness to Experience corresponds in this case more with the *Intellect* cluster than the *Openness* cluster, since many important features of *Openness* are missing from the Openness to Experience factor.

The correspondence of the *Integrity* cluster with the sixth factor of the HEXACO, Honesty-Humility, is very good. Honesty-Humility encompasses all of the facets that are clustered underneath the *Integrity* cluster. The only difference is the inclusion of greedy, boastful and pompous in the Honestly-Humility cluster (Ashton & Lee, 2007). *Greedy* is clustered in the sub-cluster of *Egoism* of *Soft-heartedness* (in conjunction of *self-centred* and *selfish*). Boastful and pompous are included in the *arrogant* facet (which is found under the *Relationship harmony*'s sub-cluster of *Approachability*). Honesty-Humility differs from *Integrity* in that *Integrity* puts emphasis on the moral soundness of a person, and correct conduct according to certain values that modify behaviour, whereas Honesty-Humility additionally incorporates the social conduct according to own set impulses or drives (being greedy or boastful about own things or accomplishments). While there seems to be a good fit overall between the structure found in this study and the HEXACO model, no evidence suggests that the last cluster of *Facilitating* could be incorporated anywhere in the HEXACO model.

The study also compared our structure with the Eysenck's 'Giant Three' personality model. The fit with Eysenck's 'Giant Three' is less significant than with the models already discussed. Eysenck's 'Giant Three' (Eysenck & Eysenck, 1975) consists of only the Extraversion, Neuroticism, and Psychoticism factors, which is much less than the total of overall factors of the B5/FFM, Big Seven and HEXACO. The correspondence of the first factor, Extraversion, with our *Extraversion* is moderate. In accordance with Eysenck and Wilson's (1991) Eysenck Personality Profiler (EPP), Extraversion consists of activity (which corresponds strongly with facets in our sub-cluster, *Positive Emotionality*), sociability (which corresponds with our sub-cluster, *Sociability*), expressiveness (closely related to our

Expressiveness sub-cluster), and assertiveness (which corresponds with our *Dominance* sub-cluster). However, Extraversion of the EPP also includes being ambitious, dogmatic, and aggressive, which deviates from our *Extraversion* cluster. Ambition was observed in our data, but classified as *future-oriented*, which was included in the *Conscientiousness* sub-cluster, *Dedication*. Ambition was also included in some studies of the B5/FFM in the Extraversion factor (Judge, Higgins, Tharesen, & Barrick, 1999). However, in studies conducted by Roberts, Bogg, Walton, Chernyshenko, and Stark (2004), the Ambition dimension loaded on the Conscientiousness factor, which corresponds with our cluster. Evidence for a dogmatic type of behaviour seems absent from our data, although some support could be found in the *Ego strength* sub-cluster of *Emotional stability*, but could only be conjectured from our side. Support of aggression, however, is clearer; it was situated in the sub-cluster *Hostility* of *Soft-heartedness*. Aggression is described in the EPP as 'the direct or indirect expression of aggression through temper tantrums, fighting, violent argument and sarcasm'. There is some indication that particular facets found under *Relationship harmony* correspond with the description given (more specifically *argumentative,* and not *peaceful*).

Neuroticism of Extraversion corresponds very well with the *Emotional stability* cluster of our structure. However, the inclusion of psychosomatic symptoms to the Neuroticism factor of Eysenck makes the correspondence less significant since our data does not feature psychosomatic symptoms. Hypochondria features in the EPP (Eysenck & Wilson, 1991) and refers to 'the chronic and abnormal anxiety about imaginary symptoms and ailments' (WordWeb), but was not found in any way in our data.

The last factor of Psychoticism corresponds in some manner with the structure found in this study, but is not centred on one specific cluster. For instance, some of the facets identified with the EPP are distributed in various clusters, i.e. risk-taking, impulsiveness, irresponsibility, manipulativeness, sensation-seeking, tough-mindedness, and practical. Risk-taking corresponds with both *reckless* of *Conscientiousness* and *adventurous* of *Openness*. The meaning of risk-taking leans more towards the *reckless* facet, since risk-taking is described as 'reward-seeking and like to live dangerously with little concern for the possible adverse consequences' (Jackson, Furnham, Forde, & Cotter, 2000), which is how *reckless* is described in our data. Impulsiveness is a facet found in our *Emotional stability* cluster, more specifically the sub-cluster of *Emotional control*, which description is very close to the definition of *impulsive* in this study Sensation-seeking corresponds better with the

adventurous facet of *Openness* than risk-taking. *Adventurous* and *like to travel* constitute the sub-cluster of *Openness to experience,* which is described as 'like to experience new things' (Table 2). Tough-minded is a better match for the *Soft-heartedness* cluster. Tough-minded encompasses facets opposite of being kind and gentle (Jackson et al., 2000), whereas *Soft-heartedness'* main definition encompasses these facets. *Relationship harmony* corresponds with the definition given for tough-minded. Tough-minded is described as 'tolerant of and probably enjoy violence, obscenity and swearing' (Jackson et al., 2000). The sub-cluster of *Hostility* of *Soft-heartedness* (more specifically *aggressive, abusive, cruel* and *verbally aggressive*) and the sub-clusters of *Approachability* and *Conflict-seeking* of *Relationship harmony* correspond well with the underlying meaning of the definition of tough-minded. Practical, the last facet of Psychoticism, seems to have no relevance to our structure. Some indication of *Intellect* is given in the description, although the overall correspondence seems too weak to be noteworthy. It is quite clear that the composition of clusters *Integrity* and *Facilitating* fails to correspond with any of the contents of the EPP.

The personality model that was used to compare the structure found in this study with was the CPAI, which was developed by Cheung et al. (1996). The relation of the structure found in this study and the CPAI seems to be arbitrary. The CPAI-2 (Cheung et al., 2003) consists of four main factors, namely Dependability, Interpersonal Relatedness, Social Potency, and Accommodation, and also divided clinical factors into two dimensions, Emotional Problems and Behavioural Problems. In comparison with the CPAI-2, we focus on the scales identified by Cheung and Cheung (2003), and an additional comparison will be made with a more recent study conducted by Cheung (2006). The first factor, Dependability seems to encompass facets that are widespread throughout our structure. Cheung and Cheung (2003) state that Dependability consists of responsibility, emotionality, inferiority vs. self-acceptance, practical-mindedness, optimism vs. pessimism, meticulousness, face, internal vs. external locus of control, and family orientation. Responsibility seems to correspond with the cluster of *Integrity* while the facets of Emotionality and Meticulousness demonstrate the correspondence of Dependability with our *Emotional stability* and *Conscientiousness* clusters, albeit in a trivial manner. *Emotional stability* also include facets that correspond with the facets of inferiority vs. self-acceptance and internal vs. external locus of control from Dependability. Optimism vs. pessimism corresponds somewhat with our *Positive emotionality* sub-cluster of *Extraversion,* more specifically with our own *optimistic* facet. Family orientation is not a feature in our structure. Overall, it seems that the relationship

between Dependability is widespread, although most commonalities were identified with the *Emotional stability* cluster. These findings is in line with a recent study done by Cheung (2006) using factor analysis in comparing the scales of CPAI-2 and the NEO-FFI (measuring the B5/FFM, Costa & McCrae, 1992), where most of the scales of Dependability loaded on the Neuroticism factor, and the scales of Responsibility and Meticulous loaded onto Conscientiousness.

Interpersonal Relatedness consists of the traditionalism vs. modernity, reng qing (relationship orientation), social sensitivity, discipline, harmony, and thrift vs. extravagance facets (Cheung & Cheung, 2003; Cheung, 2006). The relation with our clusters of *Soft-heartedness, Conscientiousness, Openness,* and *Relationship harmony* is evident. Traditionalism vs. modernity seems to describe similar characteristics as *traditional,* and *fashion conscious* in the *Openness* cluster. The relation between relationship orientation and harmony with aspects of our cluster, *Relationship harmony,* seems arbitrary. Social exchange or favour that people use in their relationships with others is described in Relationship orientation. Combined with the facet harmony of the CPAI and the correspondence could be more emphasised with the *Approachability* and *Interpersonal relatedness* sub-clusters of *Relationship harmony.* These definitions in some way relate to the meaning of relationship orientation and harmony. Social sensitivity seems to encompass the meaning of the *Emotional sensitivity* sub-cluster of *Emotional stability*, however, the facets in our sub-cluster are more internally driven. *Social intellect* of *Intellect* could also correspond in some way with this attribute of social sensitivity, more specifically being *perceptive, social intelligent,* and having *understanding* for others. In our Conscientiousness cluster, Discipline could pertain to *dutiful* of the *Achievement-oriented* sub-cluster, or to aspects of the *Orderliness* sub-cluster (being *disciplined, organised, punctual*) or to the sub-cluster of *Self-disciplined* (being *obedient*). Thrifty vs. extravagance seems to correspond more clearly, and in this instance with the *Egoism* sub-cluster of *Soft-heartedness.* In our dataset, *generous* also encompasses thrifty behaviour, being stingy with money, and giving away things, which could pertain to a close correspondence. However, the sub-cluster of *Materialism* under *Openness* could also share some characteristics with thrifty vs. extravagance of the CPAI-2. In the study done by Cheung (2006), Interpersonal Relatedness seems to be different from the factors of the B5/FFM's questionnaire, NEO-FFI (Costa & McCrae, 1992), although social sensitivity seemed to load onto the Extraversion scale, which is quite different from the original

understanding of the social sensitivity scale, and its correspondence with our *Extraversion* cluster.

The third factor of the CPAI-2 of Social Potency also corresponds with different clusters of the structure found in this study. Social Potency consists of novelty, diversity, divergent thinking, leadership, logical vs. affective orientation, aesthetics, extraversion vs. introversion, and enterprise (Cheung & Cheung, 2003). Both novelty and divergent thinking seem to fit well with the *Openness* cluster of our structure. Divergent thinking also includes some *Intellect*-type facet, more specifically being *creative*. Additional facets of Social Potency that correspond with *Intellect* are aesthetics (which is also a sub-cluster of *Intellect*), and enterprise. Logical vs. affective orientation corresponds less significantly with the *logical* facet of *Intellect*, since the emotional aspect is also involved. However, it is quite clear that there is a strong correspondence with extraversion vs. introversion of our *Extraversion* cluster, which is also in line with the study of Cheung (2006) where the extraversion vs. introversion scale loaded onto the Extraversion factor of the NEO-FFI. Furthermore, our general analysis is congruent with the study conducted by Cheung (2006), where most of the Social Potency scales loaded onto the Openness factor of the NEO-FFI (except for some scales that seem to correspond better with our *Intellect* cluster). However, the main dissimilarity between Cheung's (2006) study and our structure is the inclusion of enterprise in the Neuroticism factor of the NEO-FFI, whereas we included the *enterprising* facet into our *Intellect* cluster. Another difference is also leadership that loaded onto Extraversion of the NEO-FFI, where as *leading* is clustered underneath the *Facilitating* cluster of our structure.

It is not surprising that the fourth factor of Accommodation also corresponds with more than one cluster of the structure found in this study. According to Cheung and Cheung (2003), Accommodation consists of defensiveness, graciousness vs. meanness, interpersonal tolerance, self vs. social orientation, and veraciousness vs. slickness. Defensiveness seems to have no correspondence with any of our clusters, which is not the case for Graciousness vs. meanness. Graciousness towards others could easily be incorporated in the facet *well-mannered* of our structure. Meanness seems to correspond with aspects of the *Hostility* sub-cluster of our structure and is regarded as the opposite of being *Soft-hearted.* Interpersonal tolerance corresponds with the *Relationship harmony* cluster, which encompasses elements that apply in being *tolerant*, and *open for others*. When looking within other clusters, interpersonal tolerance could also correspond with *Soft-heartedness*, more specifically to

aspects of the sub-cluster *Empathy*. Veraciousness vs. slickness corresponds with *Integrity*, which encompasses the moral soundness of a person. Being honest and truthful seems to be the main meaning of veraciousness, whereas slickness leans more towards an unmoral type of undertone, which could be interpreted as a person misrepresenting information towards others in order to get something in return. That person will in the end be seen as un*trustworthy* and *pretending*, which are also parts of *Integrity*. However, in the Cheung (2006) study, all of the Accommodation scales loaded onto the Agreeableness factor of the NEO-FFI, which disregard a separate composition of the *Integrity* scale in that particular study, and put more emphasis on the correspondence with the *Soft-heartedness* and *Relationship harmony* clusters of our structure.

When looking at the clinical factors included in the CPAI-2 one could also recognise some factors that relate to certain facets in the structure found in this study. The clinical factors are divided into emotional problems and behavioural problems (Cheung & Cheung, 2003). The emotional problems consist of anxiety, depression, physical symptoms, somatisation, and sexual maladjustment. The only clear relation seems to be with anxiety and depression, which corresponds with the *Emotional stability* cluster, while the others seem not to be related to any of other aspects of our cluster. However, Behavioural problems consist of pathological dependence, hypomania, anti-social behaviour, need for attention, distortion of reality, and paranoia, which are related to some aspects of our structure. For instance, anti-social behaviour is a dimension of the sub-cluster of *Hostility* of *Soft-heartedness*, classified as *delinquent*. Anti-social behaviours that were included in the overall make-up of this facet were rape, murder, theft, etc., which were extracted from most of our language groups. *Attention-seeking* (a facet from sub-cluster *Ego strength*, underneath *Emotional stability*) corresponds with the facet of need for attention, while *obsessive/compulsive* (from *Emotional stability,* sub-cluster *Emotional control*) could relate to paranoia. Overall it was found that emotional and behavioural problems of the CPAI-2 are mainly related to the *Emotional stability* cluster of our structure.

The final analysis was on the spirit of Ubuntu, and how the obtained structure corresponded with this Africentric concept. Ubuntu is a way of thinking that is much talked about in South Africa today. Mbiti (1970, p. 108) describes the philosophy of Ubuntu as 'whatever happens to the individual happens to the whole group, and whatever happens to the whole group happens to the individual. The individual can only say 'I am', because we are; and since we

are, therefore I am.' The interpersonal element is clear in the overall understanding of Ubuntu. It is understood that collective collaboration is important when problems arise and collective solutions are needed. The collectivistic environment in South Africa today is reinforced in the overall understanding of the Ubuntu spirit.

In the structure found in this study, indication for the spirit of Ubuntu is evident, though not exclusive. When evaluating facets that could pertain to the concept of Ubuntu, many could be identified, although when we analyse international literature, many terms could also be recognisable as Ubuntu 'compositions'. Therefore it would be presumptuous to state that Ubuntu is only prevalent in and unique to South Africa. The clusters of *Soft-heartedness, Integrity* and *Relationship harmony* correspond strongest with the description and meaning of Ubuntu, especially looking at definitions provided by Battle (1997), Mfutso-Bengo (2001), Nyembezi (1977), and Nolte-Schamm (2006) (more detailed information can be found in the literature review). In all of the groups, the personality facets that correspond with the concept of Ubuntu emerge clearly, and it could not be concluded that the spirit of Ubuntu is more clearly present in one language group than in another.

From the cluster *Soft-heartedness,* sub-clusters *Empathy* and *Active Support* comprise most personality facets that are related to the spirit of Ubuntu: *caring* and *loving* (showing and having care and love/affection for others), *compassionate* (having empathy or sympathy for others), *considerate* (respect others' feelings and believes), *satisfying others* (making sure others are happy and content before attending to own problems), *community involvement* (either actively involved in the community by giving support and assistance where needed, in educating youngsters, building houses for community members, or being a leader, or passively involved by caring for the community), *generous* (by giving food, shelter or money to others who are less privileged), *helpful* and *supportive* (giving support by helping with building and maintaining the community, or supportive in the sense of being there as a friend through a crisis), to *solve problems of others* (helping others through advice or actively solving a problem or crisis), and *heedful* (to lend an ear to others as a way of giving support and assistance). All of these facets seem to contain some of the meaning given to the overall description and understanding of the concept of Ubuntu.

Integrity also seems to encompass some elements of the spirit of Ubuntu. By being *honest* and *truthful* (by being truthful about intentions and feelings, and not pretending), *morally*

conscious (by having morals and values, and acting accordingly), and *trustworthy* (by being reliable, and dependable), which is closely related to Nyembezi's (1977) description of Ubuntu. The cluster of *Relationship harmony* also consists of some of the terms recognisable as Ubuntu related: having *good relations with others,* maintaining *constructive* relations, and being *peaceful,* and if differences arise being the *peacekeeper* in order to build and sustain good relationships with others.

5.2 LIMITATIONS

Limitations of this study are very arbitrarily based. Firstly, there are some limitations regarding the approach utilised in this study. Our approach was an adaptation of the traditional lexical approach, except that we analysed typical, everyday personality descriptions of people, and did not implement dictionaries, as is customary when utilising the lexical approach. A limitation of our approach could be directed towards the translation of personality-descriptive terms of ten of the eleven language groups we conducted the research on. As discussed in Chapter 2, most Bantu language groups have limited vocabulary, and accurate translation into English could have be found challenging for the language experts. Another limitation is the accuracy of the categorisation of personality-descriptive terms toward personality facets. We included cultural experts as a way so minimise categorisation mistakes; however, some interpretations could still have been partial.

Secondly, limitations regarding the clustering phase (including the development of the indigenous structure) of the project were solely manually based. Dictionaries, literature, and collaborative efforts from the project team were employed to cluster personality facets. In most lexical studies, statistical investigation is done through factor analysis, while the approach in this study was based only on cluster analysis. This limitation could have been prevented if both analysis types were employed, in order to compare and validate the initial clustering phase. Also, employing dictionaries and literature as a guideline in order to come up with the final indigenous structure could have clouded the initial interpretation and development of this structure, which, as a result, included many universal concepts.

Another limitation is that the general goal of this study was used in order to interpret the personality-descriptive terms derived from the initial interviews. Since we opted to explore and develop a unified personality structure, we analysed the data in accordance with this

goal; therefore, analysis was solely incorporated-based (meaning all 11 language groups' data were analysed using similar interpretations for each response) and not individually-based (meaning each language group were not analysed separately).

5.3 RECOMMENDATIONS

5.3.1 Recommendations to solve research problems

Translation restrictions were evident, though minimised by having discussions with language experts in order to resolve some of the issues. Although lacking terminology will always remain a problem, the development of advanced dictionaries for each official language group could resolve some of the problems with translations. Another way to sort out this problem, in particular our research, will be to check and re-check translations of data as a collaborative effort to reduce inaccurate translations, since a huge amount of data was translated per language group.

Interpretation problems could also be reduced by employing different approaches. More efficient and accurate interpretations could be implemented by the inclusion of psychologists from all language groups. Psychologists should already possess great insight in (and expert knowledge about) that particular language group. Initial interpretation could be targeted towards individual groups, and in its targeted language, thus excluding the incorporated effort when evaluating all language groups together. Practical implications could hinder this ideal. Currently, there is a lack of trained industrial psychologists from all cultural and language groups in South Africa (Foxcroft et al., 2004), which could hinder the implementation of such an ideal. However, personality research in South Africa is still in a process of growth. For more effective personality theory research in South Africa, more expertise, skills and knowledge are required.

Furthermore, it would be sensible to employ additional measures when conducting indigenous research of this scope. The validation process of our study was solely based on recommendations and collaborative efforts from the project team, as well as from language and cultural experts, and cross-cultural psychologists. As quality control is an important aspect of research, it seems imperative to implement other effective means to validate the study outcomes. A recommendation could be directed towards statistical validation, meaning

that cluster analysis should be conducted in cooperation with factor analysis of programs from SPSS or AMOS.

5.3.2 Recommendations for future research on personality in South Africa

Recommendations could be made for the future of this study. Steps have already been taken to validate the proposed personality structure (see Chapter 4) by involving students from Universities in Tilburg (the Netherlands), Potchefstroom, Johannesburg, and Stellenbosch. The rationale of this validation is to ensure there is a reliable correspondence between the 37 sub-clusters and 9 overall clusters. It will also give us an opportunity to increase our understanding of people's conceptualisation of personality traits. The outcome could be used to build a more reliable and applicable personality structure.

With this validated structure, the next stage of the project could commence, namely the development of the questionnaire. Different issues should, however, be kept in mind in this stage, since we work with a variety of language groups. The overall aim was to develop a single, unified questionnaire that is applicable, and reliable for use on all eleven official language groups in South Africa. Research has shown that people in South Africa find it unacceptable for cultural groups to have separate questionnaires (Maree, 2000), which makes it not worthwhile in the long run to develop a questionnaire for each language group. However, for research purposes it is imperative to adhere to the guidelines stipulated in the Employment Equity Act, 55 of 1998, Section 8 (Government Gazette, 1998), which states that questionnaires must be scientifically shown to be valid and reliable, equivalent, and unbiased. In order to comply with this Act, we as researchers face many challenges. Apart from the translation issues, an acceptable approach should be implemented in order to develop a valid and reliable questionnaire.

In developing the items for the questionnaire, it could be worthwhile to backtrack to the initial responses accumulated from the eleven language groups, since they will encompass the understanding and meaning of each of the personality-descriptive terms. Since some consensus exists between the language groups in the composition of each facet, it could be optimal to use these responses as guidelines to come up with equivalent items between the groups. The practical implication in the development could also construe some finer points. An 'item pool' consisting of more than 1 000 items could for instance be created, from where

applicable items could be extracted to measure a particular facet. Also, the different response styles that were identified in our data could make the development of items difficult. One could therefore experiment with the different response styles (i.e. sentence description, or one-word descriptors) during the validation process of the questionnaire. A lot of emphasis is put on the development of social desirability scales, which in the end could eliminate method bias. Method bias is described as a cross-cultural score difference resulting from aspects of the questionnaire or respondent (Van de Vijver & Leung, 2001). Language proficiency could be a limitation, since the respondent of the South African Personality Inventory (SAPI) must be proficient in English (the targeted language for the questionnaire), which could heighten the bias component. However, another goal of the SAPI is not only to measure personality but to predict job performance in a professional setting.

Since inaccurate translations could lead to bias items (Maree, 2002), steps should be taken to subdue language problems. This problem is also explored with the question if more than one questionnaire should be developed to measure personality. Van de Vijver and Tanzer (1997) identified three ways of translating and adapting (in our case developing) questionnaires from one cultural or language group to another. Firstly, the assumption is that all underlying factors are applicable for each language group; therefore, translation of items into another language could be efficiently done. It is clear from our analysis that the many common and semi-common personality dimensions (as opposed to the total of semi-specific and language-specific dimensions) correspond with this approach. However, the lack of certain terminology could be a limitation in the accurate translation from English into some of the Bantu language groups. This could be avoided by excluding problematic items that appear to be difficult to translate, therefore it also prohibits the bias component when items are inaccurately translated (Maree, 2002). Statistical analysis could be implemented to identify such problematic items. These problematic items could be altered to be more cross-culturally applicable, or excluded from the questionnaire. The second option might also prove to be adequate, for it involves altering items in order to translate items more accurately from one language to another. It implies item alterations that seem more relevant to a certain language group, and less relevant to the other groups. However, this option would involve some practical issues. A number of items might be included in questionnaires of some language groups, and missing in others, which could deem these items unusable for the unified questionnaire that will be developed. This assumption corresponds with the first option proposed by Van de Vijver and Tanzer (1997). For practical reasons, the first option seems more relevant, since problematic items

could easily be identified and excluded from the questionnaire. The third option proposed by Van de Vijver and Tanzer (1997) seems not applicable in this context, since it involves the development of different questionnaires, which would include different items and content per language group.

The questionnaire will go through many changes in the years to come before it could be deemed cross-culturally appropriate. Earlier versions will be tested and retested, and collaborations from experts will be sought out throughout the process. Participants from each of the language groups will be used for these purposes, and items will be translated into the different language groups from English. The questionnaire will then be tested in that particular language, translated back into English, and then administrated again in all eleven language groups.

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