THE RELATIONSHIP BETWEEN NATIONAL WELL-BEING AND XENOPHOBIA IN A DIVIDED SOCIETY: THE CASE OF SOUTH AFRICA

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ABSTRACT

Personal well-being surveys have increased their coverage on the African continent in recent years, but detailed research on subjective national well-being is less common. The link between national well-being and xenophobic sentiments has not been adequately tested in an African context. In order to better understand (and correspondingly counter) xenophobic sentiments in sub-Saharan Africa, this article tests the correlation of National Well-being Index (NWI) with attitudes towards immigrants in a sub-Saharan country. South Africa was chosen as the research site for this study and data were used from the 2012 South African Social Attitudes Survey (SASAS), a nationally representative opinion poll of 2 521 respondents. In 2012 the six items that constitute the NWI were included in this survey, measuring public evaluations of the country's economic, natural, governmental, social and security environment. This allowed the construction of the NWI, a composite score that provides a more precise measurement of sociotropic concerns. The findings of this study show that, even when controlling for individual well-being and socio-economic status, the NWI had a statistically significant relationship with attitudes towards immigrants. The lower the reported NWI, the more likely an individual will be to believe negative stereotypes about immigrants. This suggests the importance of studying and measuring subjective national well-being on the African continent.

Keywords: Immigration, national well-being, National Well-being Index, South Africa, xenophobia

INTRODUCTION

Sub-Saharan Africa is home to a substantial immigrant population, numbering 17 million in 2013. This number has been growing over the last decade – at 1.3 per cent per annum between 2003 and 2013, according to the UNDP (2013). Recent xenophobic violence on the continent has highlighted the importance of a better understanding of anti-immigrant sentiment[1] in sub-Saharan Africa. Civil wars from Côte d'Ivoire to the Democratic Republic of Congo have been informed by xenophobic political discourses. In other countries, like South Africa, violence directed at foreigners has emerged as part of rioting and general civic unrest. Often local leaders in these conflicts, emphasising their own autochthonous status, portray immigrant communities as 'threats' to locals, aliens seeking to grab power and land. In this way violence directed at these groups is rationalised. Such violence points to the need to study the extent of anti-immigrant sentiment on the continent and better understand what factors are driving such sentiments.

During incidents of anti-immigrant violence in sub-Saharan Africa, local autochthons tend to link the presence of immigrants with the national well-being, blaming immigrants for a variety of national ills. In Côte d'Ivoire, President Laurent Gbagbo, for instance, linked immigrant communities to the economic woes of the country, branding them 'enemies' of the state. In South Africa, in a less coordinated May 2008 anti-foreigner campaign,[2] a number of community-level leaders lashed out at immigrants for their alleged role in fuelling unemployment and crime. The political discourses of these conflicts suggest that individual concern with national well-being is central to understanding the formation of anti-immigrant stereotypes on the continent. However, the relationship between subjective national well-being and anti-immigrant sentiments has not been adequately tested using quantitative public opinion data in an African context.

Anti-immigrant sentiment can fuel violence and discrimination against foreigners, and should be countered. This is especially important in a society like South Africa, which is committed to constitutionalism and multiculturalism. Any attempt to counter or reverse anti-immigrant stereotypes requires a good understanding of such stereotypes and their determinants. Indicators of subjective national well-being may have an important relationship with anti-immigrant stereotypes. The present study will focus on this relationship using South Africa as a case study. The article will investigate subjective national well-being using a multidimensional measure, the National Well-Being Index. The aim is to contribute to the literature on intergroup relations in sub-Saharan Africa.

XENOPHOBIA IN TIMES OF NATIONAL CRISIS

When nations are perceived to be in decline, anti-immigrant sentiments tend to flare. Wimmer (1997) argues that xenophobia should be seen as part of appeals to national

unity and, as such, xenophobia becomes more prominent during periods when the collective well-being of the state seems fragile and imperilled. Public opinion researchers have contended that an ingroup's[3] evaluations of their environment is related to their perceptions of the threat presented by an outgroup (Pettigrew *et al.*, 1997; Hainmueller and Hopkins, 2014). The existing research suggests that collective concerns at the country level – regularly termed 'sociotropic' evaluations in public opinion literature – will have an impact on public opinion towards immigration.[4] Perceived consequences of immigration should, therefore, vary as economic and other circumstances at the national level change (see also Pichler, 2010). The multidimensional character of 'sociotropic' evaluations is often ignored and, as a result, their relationship with anti-immigrant sentiment has been inadequately investigated. There is a knowledge gap in our understanding of the relationship between anti-immigrant sentiments and 'sociotropic' evaluations.

The predictive power attributed to perceived threats in the public opinion literature on prejudice formation, and the importance of identifying determinants of such perceptions, become evident. Perceived threat (whether unequivocal or not) from an outgroup to the ingroup's socio-economic (or socio-cultural) position, argues Blumer (1958), is the catalyst for the formation of prejudice. The perception of threat rationalises the exclusion of outgroups from equal access to societal and material goods. Perceived threats have been shown to influence both discriminatory attitudes and prejudices against outgroups in a divided society (see, e.g., Raijman *et al.*, 2008; Gorodzeisky, 2013). The central tenet of these studies is that attitudes towards outgroups are shaped by the ingroup's identifications and the struggle between groups for economic and social resources (also see Pichler, 2010). Attitudes towards an outgroup are, therefore, the product of a zero-sum view of politics.

Social identity theorists, including those examining xenophobia in South Africa (Dodson, 2010), suggest that a strong national identity will also influence attitudes towards outgroups. As such, nationalism and national identity often feature in studies of exclusionary attitudes, particularly in divided societies (see, e.g., Raijman *et al.*, 2008; Gorodzeisky, 2013). Since the early 20th century, social psychologists have found that contact between groups reduces intergroup prejudice. Over the last 50 years, scholars have tested numerous mediators of contact and have argued that intergroup contact would reduce prejudice when the situation fosters personal, intimate intergroup contact (Pettigrew *et al.*, 1997; Pettigrew *et al.*, 2011). In other words, when intergroup contact is characterised by cooperative equality, it is often associated with friendship. Given this research, any investigation of anti-immigrant sentiment should account for nationalism and intergroup contact.

In an analysis of xenophobia in South Africa, Dodson (2010) argues for the importance of examining the opinions and attitudes of xenophobic individuals, contending that such a strategy is necessary to understand the mechanisms behind the 'othering' of immigrants in a sub-Saharan African context. Much of the public opinion research on xenophobia, however, is concentrated on research sites in the

Global North (Hainmueller and Hopkins, 2014) and studies on attitudes towards immigrants on the African continent, relative to what has been done in other regions of the world, are scarce. There is a need, therefore, for a greater examination of anti-immigrant stereotypes in an African context, as this will allow for a better understanding of the 'othering' of immigrants on the continent.

THE INTERNATIONAL WELL-BEING INDEX

The concept of subjective well-being gained prominence in the 1960s as social scientists became increasingly dissatisfied with macroeconomic indicators of human welfare. Diener and Diener (1995, p. 653) define subjective well-being as 'a person's evaluative reaction to his or her life – either in terms of life satisfaction (cognitive evaluations) or affect (on-going emotional reactions)'. Developed by Robert Cummins, the International Well-Being Index (IWI) was designed as a domain-level representation of life satisfaction (Cummins *et al.*, 2003). The aim of the IWI is to provide a theoretically sound tool to investigate subjective well-being in a country, it being a comprehensive instrument capturing a holistic picture. The IWI comprises two sub-scales (the Personal Well-Being Index and the National Well-Being Index), and has been identified as one of the most comprehensive multidimensional subjective well-being measures.

Since the 1980s there has been a considerable expansion in scholarship on subjective well-being in Africa. This mirrors a global trend in comparative survey research and a commitment by international survey series to increase their presence in sub-Saharan African countries (Roberts *et al.*, 2015). South Africa is at the forefront of this trend, due in large part to the work of the South African Quality of Life Trends Project (Møller, 1999, 2007, 2013). South Africa is the only sub-Saharan African country where the IWI has been included in a nationally representative survey. The Personal Well-Being Index (PWI) has been in use in the country since 2009 and using this PWI data researchers have identified important issues of relevance to people living on the continent. The National Well-Being Index (NWI), on the other hand, was not used in sub-Saharan Africa until 2012.

The PWI questions fielded in South Africa are: How satisfied are you with (1) your standard of living; (2) your health; (3) what you are achieving in life; (4) your personal relationships; (5) how safe you feel; (6) feeling part of your community; (7) your future security; and (8) spirituality or religion. In contrast to the PWI, the NWI consists of only six questions: How satisfied are you with (1) the economic situation; (2) the state of the natural environment; (3) social conditions; (4) how the country's affairs are managed; (5) business; and (6) national security.[5] To construct each index or sub-scale, the relevant items are often converted into a 0–100 score and then combined (as suggested by Cummins *et al.*, 2003). The final range on each index is 0–100, with higher values indicating higher levels of self-reported life satisfaction.

The IWI has most often been applied by researchers in the Global North (also see Davey and Rato [2011], who note the applicability of the IWI in China), but recent research in Algeria has provided insight into the applicability of this measure in an African environment. According to Tiliouine *et al.* (2006), the psychometric performance of the IWI was proven to be very high in terms of validity, reliability and sensitivity in Algeria (see also Tiliouine, 2009) indicating that the index is a valuable tool for the measurement of subjective well-being in Africa. Later work by Tiliouine (2009) suggests that, in post-transition countries like Algeria, responses to questions used to construct the NWI are not only a matter of personality, but a reflection of the perceived reality of external conditions of living for the population as a whole (also see Tiliouine *et al.*, 2006). Poor provision for the basic needs of the population should have a negative relationship with the NWI according to Tiliouine (2009). This should be particularly true of those who are more aware of their socio-economic reality – perhaps through the utilisation of diverse information sources – and less influenced by government propaganda.

THE SOUTH AFRICAN CONTEXT

South Africa was chosen as the research site for this study, as the country is one of the largest recipients of international migrants on the African continent, hosting a population which exceeded two million in 2013 (UNDP, 2013). In 1994, South Africa underwent a historic transition from an authoritarian minority government to a democratic majoritarian regime. Researchers working on South Africa note that individual subjective satisfaction with life peaked during the 1994 period. The 'transition event' acted as a great leveller of life satisfaction, with both rich and poor South Africans reporting equal levels of well-being for the first time (Møller, 1999). This subjective well-being equality was short-lived and overall individual well-being declined sharply in 1995 (see also Møller, 2007, 2013). In preceding years, subjective well-being surveys in the country found significant differences in life satisfaction between different economic groups, with the most disadvantaged and marginal groups in society reporting much lower levels of life satisfaction (Møller, 1999, 2007, 2013).

In the current period, many economic and social problems (such as crime and unemployment) confront South Africa – a fact acknowledged by the country's National Planning Commission (2012). Public opinion surveys, such as the Southern African Migration Project (SAMP), have found widespread xenophobia[6] in the country and show that many blame immigrants for these problems (Crush *et al.*, 2013). Large-scale anti-immigrant rioting in 2008, and documented and continued low-level anti-immigrant violence in the country, highlight how the livelihoods of foreign communities are negatively affected by populist anti-immigrant sentiments (also see Dodson, 2010; Landau, 2010). This article will investigate four types of threat allegedly posed by immigrants in the country, namely threats to security,

economic position, health and social entitlements. The context of each of these threat types in South Africa will be discussed below.

During the political transition towards democracy, South Africa experienced a considerable increase in reported crime. Part of this upsurge may be a reflection of increased reporting by victims and better data collection on the part of the police (Møller, 2005). As the country's National Planning Commission (2012) recognises, current rates (particularly of violent types) of crime are high (also see Institute for Security Studies, 2014).[7] The impacts of crime – in terms of victimisation and financial well-being – on South African society are extensive. According to a study by Roberts (2012), between 50 and 60 per cent of adults reported some level of dysfunctional or damaging fear of crime, and he concluded that South Africans are more fearful than people in many other parts of the world (see also Møller, 2005). Foreigners are often blamed for the high rate of crime, particularly for more violent crime such as murder, robbery and drug trafficking (Misago *et al.*, 2008; Dodson, 2010). Police targeting of undocumented immigrants, according to Landau (2010), has only encouraged the public in this view.

Unemployment is high in the country[8] and many poor communities are reliant on social grants to survive (Statistics South Africa, 2014c). In survey after survey, joblessness in particular has been spontaneously mentioned as one of the country's top problems (Møller, 2007). The 2008/2009 global financial crisis only worsened the unemployment problem, and the economic recovery has seen limited job creation marred by widespread labour unrest over wages (National Planning Commission, 2012; Alexander, 2013). In response to high unemployment, the South African social welfare net has expanded significantly, particularly in the last decade (Statistics South Africa, 2014c). Foreigners are seen to compete with citizens for employment because they will allegedly work for lower wages under poorer working conditions (Misago *et al.*, 2008; Landau, 2010). In some communities, immigrants are accused of using magic (sometimes called *umuthi*) to amass illicit wealth and bring misfortune to their economic rivals (Hickel, 2014). SAMP research shows that many South Africans also see migrants as using up resources (e.g., water, electricity, housing, etc.) meant for citizens (Crush *et al.*, 2013, pp. 22–24). In this way, foreigners are seen as burdening the state, and endangering social and economic development in the country.

To South Africans, immigrants present not only an economic threat but a health one as well. Findings from a 2010 SAMP survey found that many believe that international immigrants spread disease in South Africa, and foreigners are seen as carriers of a number of deadly viruses (Crush *et al.*, 2013). Concerns about the spread of the Ebola virus by foreigners can only have exacerbated the view of immigrants as carriers of disease. One of the most serious diseases affecting South Africa – and many other sub-Saharan African nations – in the last three decades has been the HIV/AIDS virus (National Planning Commission, 2012). By 2006, the majority of households in the country had had a personal experience of the disease, and a

considerable number had experienced the death of a family member[9] (Møller, 2007). Stories of how immigrants spread disease often intersect with other narratives about how foreigners treat South African women (Dodson, 2010). Immigrants are often accused of 'stealing women' and impregnating or marrying locals without paying bridewealth or cleansing fines (also see Hickel, 2014).

The various types of perceived threat – unemployment, crime or disease, for example – may stem from different factors. South Africa remains 'a divided society', as even the country's own National Planning Commission (2012, p. 35) acknowledges. Nothing highlights this divide more starkly than research conducted by Møller (1999, 2013) in 1997 and then repeated in 2010. Asking a national representative sample of South Africans 'what would make ordinary South Africans happy?', Møller (2013) found that differences in response between economic classes were stark. Wealthier South Africans were more concerned about safety and macro-economic issues (i.e., economic growth) than their poorer counterparts. The poor, in turn, were more likely to be worried about 'bread and butter' issues such as access to jobs, housing and basic service delivery than the wealthly (also see Møller, 2007). Given the high disparity observed, it may be that perceptions of threat by immigrants will be affected by socioeconomic status, with the privileged more concerned about the security threat presented by immigrants, while those in lower-income households may be more likely to see immigrants as a threat to employment opportunities or social entitlements.

DATA USED

Unlike in other African countries, data collection on attitudes towards migrants in South Africa began to expand during the late 1990s – much of the early data collected by SAMP. However, SAMP research did not include a focus on (or measure of) national well-being and its relationship with xenophobia in South Africa has not been quantitatively investigated. To examine the relationship between national well-being and anti-immigrant stereotypes, use is made of the South African Social Attitudes Survey (SASAS), which is conducted on an annual basis by the Human Sciences Research Council (HSRC). This nationally representative survey has included questions on attitudes towards immigration since it was first fielded in South Africa in 2003. The full IWI was included in SASAS for the first time in 2012. The inclusion of the IWI was part of a collaborative programme of work between the HSRC in South Africa and the Algerian *Direction Générale de la Recherche Scientifique et du Développement Technologique*.

SASAS was designed to yield a representative sample of adults aged 16 and older in South Africa, regardless of their nationality or citizenship, with no upper age limit. The sample was chosen from the 2011 census sample frame, and 2 521 households were visited in 2012. This sample was stratified by the socio-demographic domains of province, geographical sub-type and the four major race groups. The primary

sampling unit consisted of 500 census enumerator areas (EAs), stratified by province, geography type and majority population group. Within these EAs seven household visiting points were randomly selected to provide a nationally representative sample. The survey instrument was translated into six major languages, to ensure ease of interpretation for respondents. Responses to the survey were voluntary and confidential, collected by face-to-face interview.

As already indicated, SASAS 2012 included the standard PWI and NWI items (for the wording, see Section 3). Following the example of Cummins *et al.* (2003), the relevant items were combined and converted into 0–100 scales – the higher the value, the higher the level of well-being. To measure perceived threat from immigration, SASAS 2012 included four questions on the threats associated with foreigners in the country. Respondents were asked if they agreed or disagreed that immigrants (1) increase crime rates; (2) take jobs away from people who were born in South Africa; (3) bring disease to South Africa and (4) use up our country's resources. Responses were measured on a five-point scale (from 1 'strongly disagree' to 5 'strongly agree').

A number of independent variables were also created for the subgroup analysis in this study. Standard age (in completed years at time of interview) cohorts were constructed. Self-reported educational attainment and labour market status were employed to control for economic status. Educational attainment was measured using dummy variables (primary education and below; incomplete secondary education; completed secondary; and tertiary) as was employment status (unemployed, full-time employed, part-time employed and labour inactive). In order to adequately gauge attitudinal differences between the country's many different racial groups, four dummy variables were created to control for racial group status (white, coloured, Indian, and black African).

Descriptive results from the NWI

The introduction of the PWI allowed for a more comprehensive examination of well-being in the country than was offered in previous studies on subjective well-being in South Africa. Protocols for establishing the psychometric properties of these sub-scales have been suggested by Cummins *et al.* (2003) and Tiliouine *et al.* (2006). Using these protocols, these individual sub-scales were tested, and found to be valid and reliable (for more detail, see Appendix A). In South Africa the weighted NWI mean score was 49.6 (out of 100). To put this into perspective, this score can be contrasted with a reported NWI of 61.1 in Australia in 2007 (Cummins *et al.*, 2009) and in Algeria of 46.5 in 2005 (Tiliouine, 2009). The distribution of the NWI across the adult population of the country is shown in Figure 1, displaying a kernel density plot (which approximates the probability density of the NWI). The results of the histogram do not indicate a highly skewed NWI distribution. In South Africa,

the weighted PWI mean score was 62.6 in 2012 – more than 13 points above the observed NWI.
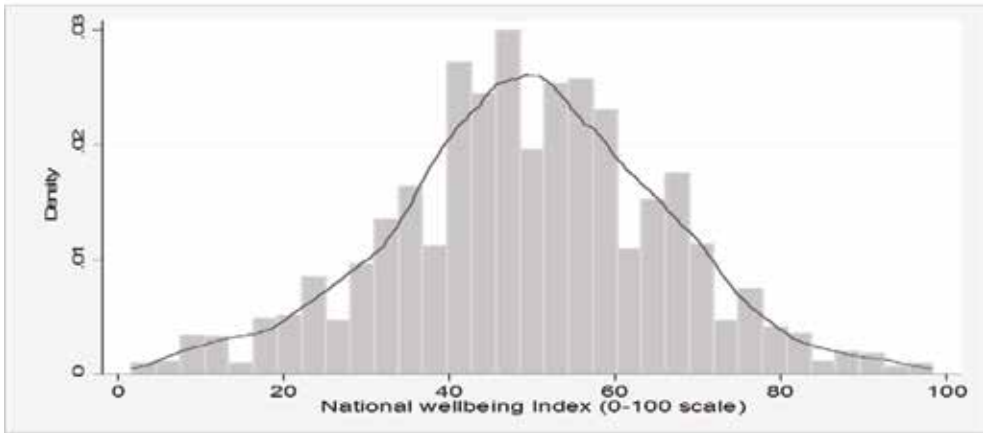

Figure 1:   Histogram of the National Well-Being Index, South Africa, 2012

The theory of Subjective Well-Being Homeostasis states that individuals actively control and maintain their subjective well-being, preventing it from fluctuating to extremes for prolonged periods (see Cummins and Nistico [2002] for an extended description). When answering survey questions on subjective well-being, individuals sometimes overestimate their life satisfaction because of their need to perceive or present their lives in ways which are predominantly good (Cummins and Nistico, 2002; Cummins *et al.*, 2003). This is called positive cognitive bias. Homeostasis theory predicts that the mean of the NWI will be less than that of the PWI, and work by Cummins *et al.* (2009) from Australia has shown this to be the case. As it is more personal, the PWI is held under firmer homeostatic control. Furthermore, the PWI should be more affected by this positive cognitive bias (informed by homeostasis) than the NWI. This is one of the main reasons, according to Cummins *et al.* (2009), for frequent disparities between the NWI and the PWI (also see Tiliouine *et al.*, 2006; Tiliouine, 2009).

Homeostasis theory predicts that the NWI will be more influenced by external events than the PWI (Cummins *et al.*, 2009; Tiliouine, 2009; Davey and Rato, 2011). In South Africa, the NWI could have been impacted by large-scale labour unrest in 2012 that had a significant effect on the economy. A pivotal moment in this labour unrest was the Marikana Massacre – on August 16, 2012, more than 30 striking platinum miners were shot down by police outside the small town of Marikana and scores more were injured – a turning point in the country's history, according to Alexander (2013). The incident sparked solidarity strikes in other sectors of the economy. According to data gathered by Alexander (2013), 2012 saw 50 per cent more social protests than the previous year, demonstrating greater volatility.

Economic growth for the period was stagnant and the national economy narrowly avoided slipping into recession (Statistics South Africa, 2014b, 2014c).

As shown in Table 1, younger respondents were found to report higher NWI scores, on average, than older respondents. Members of the white minority reported, on average, a lower NWI score (42.5 out of 100) than black Africans (50.8), coloureds (49.3) and Indians (49.7). Academic interest in race relations in South Africa has tended to obscure the rich cultural diversity of the national landscape, which includes numerous black African linguistic subgroups. Within the black African majority, NWI mean scores were relatively similar. Members of the Setswana (47.9) and isiXhosa (47.6) language groups reporting the lowest NWI mean scores of all the black African subgroups, while members of the African minority[10] (55.2) reported the highest. More research is required to better understand observed NWI mean score differences among the black African majority.

Table 1:   NWI scores across selected socio-demographic subgroups

		NWI			
		Mean	Std. Err.	[95% Conf. interval]	
National average		49.6	0.45	48.72	50.49
Age cohort	16–24	52.62	0.8	51.05	54.19
	25–34	49.22	0.97	47.32	51.11
	35–49	49.11	0.88	47.39	50.82
	50+	47.1	0.94	45.25	48.95
Population group	White	42.49	1.42	39.71	45.28
	Coloured	49.34	1.09	47.21	51.48
	Indian	49.70	1.49	46.77	52.62
	Black African	50.84	0.53	49.80	51.88
Employment status	Unemployed	49.1	0.77	47.59	50.61
	Employed	50.36	0.89	48.62	52.11
	Part-time employed	48.8	1.53	45.8	51.8
	Labour inactive	50.51	0.75	49.03	51.98
Education status	Primary and Below	49.86	0.98	47.94	51.78
	Incomplete Second.	50.2	0.77	48.68	51.72
	Completed Second.	50.05	0.79	48.5	51.59
	Tertiary	48.31	1.31	45.73	50.89

Notes: A mean score was calculated for the NWI and ranged from 0 to 100 with the higher value corresponding to a higher sense of satisfaction with the state of the nation. The data is weighted to be nationally representative.

Because of their greater awareness of the societal problems outlined above, Tiliouine (2009) suggests that better-educated respondents in a developing country

will score low on the NWI. As can be observed in Table 1, those with a tertiary education had moderately lower NWI mean scores than the less educated. Bivariate analysis, however, found that the NWI did not differ significantly across educational attainment groups and a statistically significant relationship was not found between the NWI and educational attainment.[11] These results suggest, therefore, that differing levels of educational attainment cannot explain differences in the NWI scores across population groups, as observed in Table 1. Differences in population group scores could reflect ethnic divisions related to the country's apartheid legacy (evident in subjective well-being research in the country conducted by Møller [1999, 2007, 2013]). More analysis is required to better understand the observed NWI differences in Table 1.

Descriptive results on perceived threats

Approximately two-thirds of the adult public were found to agree that migrants used up state resources, committed crimes and took jobs from South Africans, while half thought that foreigners spread disease. It is clear from these results that a majority of South Africans feel threatened by international migrants. The findings observed in this study were in line with what has been found by other survey series, notably the SAMP series. According to Crush *et al.* (2013), who analysed the SAMP data between 1999 and 2010, there was a modest decline in such stereotypes among the public between 2006 and 2010. Examining how perceived threat is distributed across the major subgroups in the country (Table 2), relatively little variation in attitudes was observed.

The low levels of variance in Table 2 are not too surprising, given that Crush *et al.* (2013) noted remarkable consistency in xenophobic sentiments between different socio-economic subgroups in South African society. Patterns, however, are apparent in Table 2 and certain subgroups perceived greater levels of perceived threat from immigrants than others. Older individuals, for example, tended to be more likely to view immigrants as threats than their younger counterparts. The unemployed were moderately more likely to see foreigners as causing unemployment, spreading disease and burdening the state than the employed or those outside the labour market. Those with tertiary education were less likely, on average, to view immigrants as spreading disease and causing unemployment, compared to less educated South Africans. Interestingly, those with tertiary education were moderately more likely than the less educated to perceive foreigners as responsible for increasing crime rates.

Ethnic divisions within South Africa often interest academics and researchers. Given this level of interest, it is worthwhile to discuss observed variations between ethnic groups in the country on attitudes towards immigration. Compared with other racial groups, white South Africans were, on average, moderately less likely to see immigrants as spreaders of disease or as a burden on the state. Indians had higher mean perceived threat scores, on average, than other population subgroups on

health, crime and resource threat types in Table 2. Attitudinal differences were noted between black African language groups, with members of the isiXhosa language group holding the most negative attitudes towards immigrants of all such groups.

Table 2:   Mean evaluations of perceived threat from immigration

		Crime	Unemployment	Disease burden	State burden
National average		3.85	3.79	3.47	3.79
Gender	Male	3.79	3.75	3.42	3.75
	Female	3.85	3.76	3.46	3.79
Age cohort	16–24	3.73	3.66	3.46	3.73
	25–34	3.71	3.66	3.27	3.68
	35–49	3.91	3.89	3.5	3.84
	50+	3.95	3.84	3.56	3.84
Population group	White	3.91	3.90	3.17	3.69
	Coloured	3.81	3.95	3.43	3.80
	Indian	3.98	3.81	3.50	3.86
	Black African	3.81	3.71	3.48	3.78
Employment status	Unemployed	3.85	3.83	3.53	3.8
	Employed	3.79	3.68	3.29	3.7
	Part-time employed	3.73	3.74	3.32	3.77
	Labour inactive	3.82	3.75	3.45	3.77
Education status	Junior Primary and below	3.73	3.61	3.39	3.61
	Senior Primary	3.74	3.88	3.71	3.89
	Incomplete Secondary	3.83	3.79	3.48	3.81
	Completed Secondary	3.85	3.72	3.37	3.73
	Tertiary	3.86	3.57	3.09	3.65

Notes: A mean score was calculated for the different types of threat and ranged from 1 to 5 with the higher value corresponding to the higher sense of threat. All mean scores are weighted to be nationally representative. The data is weighted.

MULTIVARIATE RESULTS ON PERCEIVED THREATS

To discern whether the threat types identified here are influenced differently by the chosen independent variables, multivariate regression analysis was employed. Given the size of the sample under investigation it was decided that logistic regression,

rather than a probit technique, would be suitable. The four dependent variables selected were the four perceived threat from immigration measures. Given that these dependent variables were ordinal, ordered logistic regression was considered the most appropriate technique. This method, which is an extension of the binary logistic regression technique, allows the model to compare the odds of two or more potential (but ordered) outcomes.

Regression construction

In each model, the relationship between subjective national well-being (measured using the NWI) was tested. In addition to the NWI, the PWI as well as a set of additional independent variables was included in each regression model. The construction of these variables and their descriptive statistics are shown in Table 3 and are discussed below.

Standard demographic information using dummy variables was included as follows: marital status, province of residence, geographic type, population group and gender. Here educational attainment and age were included as a continuous variable (completed years of schooling at time of the interview). Political affiliation was captured using a question on who the respondents would vote for if there was a general election tomorrow. A categorical variable was created based on responses to this question, the categories are: ruling party (African National Congress), main opposition (Democratic Alliance), other opposition and undeclared/refused. An intergroup contact variable was included that distinguishes between intimate contact (friendship) and more casual contact. Citizens' contact with immigrants was accounted for using a categorical variable: no contact; casual contact (foreign acquaintances but no foreign friends); a few foreign friends; and some or many foreign friends.[12] National pride was controlled for by using the question: 'Do you agree or disagree with the statement: Generally speaking, South Africa is a better country than most other countries?' A five-point nationalism scale (where 1 meant 'strongly disagree', 5 'strongly agree') was created based on responses to this question.

In addition to the objective measures of socio-economic status (e.g., labour market status, educational attainment, etc.), a more subjective indicator was also employed. In SASAS respondents were asked whether the following were inadequate, adequate or more than adequate for the household's needs: (1) housing, (2) transport, (3) health care, (4) food and (5) clothing. Answering a question on household needs required respondents to evaluate their perceived position in society and may speak to perceived societal status. To measure subjective deprivation, the Basic Needs Index was constructed from the five items (Cronbach alpha 0.764) and then converted to an 11-point scale. A low score indicates the inability of the respondents to meet their need basic needs in terms of the five items listed above.[13]

Table 3: Descriptive statistics

	N	Mean	Std. dev.	Min.	Max
Age	2515	41.64	17.1	16	95
Female	1527	0.61	0.49	0	1
Married	888	0.35	0.48	0	1
Coloured	450	0.18	0.38	0	1
Indian	217	0.09	0.28	0	1
Black African	1022	0.59	0.49	0	1
Urban informal	221	0.16	0.37	0	1
Rural, traditional authority areas	549	0.10	0.30	0	1
Commercial rural farms	221	0.30	0.46	0	1
Main opposition	435	0.09	0.28	0	1
Other opposition	217	0.22	0.41	0	1
Uncertain/refused	652	0.09	0.28	0	1
Part-time	192	0.26	0.44	0	1
Unemployed	746	0.08	0.27	0	1
Labour inactive	887	0.36	0.48	0	1
Casual [a]	450	0.18	0.38	0	1
Few friends [a]	555	0.22	0.41	0	1
Some or many friends [a]	306	0.12	0.33	0	1
Years of education	2347	9.58	3.71	0	16
Basic Needs Index	2472	4.50	2.75	0	10
Nationalism	2501	3.93	1.03	1	5
Personal Well-Being Index	2469	62.96	15.44	5	99
National Well-Being Index	2371	49.51	16.59	2	98

[a] *These variables are part of the intergroup contact variable.*

Regression results

Four models – one for each perceived threat type – were constructed (see Table 4). A series of ordered logit regressions are extracted that include all five responses to the dependent variables in this study. The dependent variable(s) (DEP_VAR_i) in the equation(s) is an ordered categorical variable described in Section 3. The ordered logistic regression can be represented in the following equation:

$$DEP\_VAR_i^* = \alpha_1 + \alpha_2\,X_i + \alpha_3 Y_i + \alpha_4 Z_i + \epsilon_i$$

X_i is a vector for individual level characteristics (gender, marital status, educational attainment, employment status, race of the respondent and whether the respondent

lives in an urban or rural area); Y_i is a vector that captures the different factors associated with attitudes towards immigrants; i is the vector the control variable capturing provincial fixed effects. The α_is are vectors of the respective coefficients and ε_i is the error term. Examining the likelihood ratio chi-square of each model in Table 4, with a p-value of 0.000, indicates that each model as a whole is statistically significant as compared to a null model.

In all four models the relationship between subjective national well-being – measured using the NWI – and perceived threat can be observed. Even after controlling for a range of socio-economic variables the NWI was significantly associated with all types of perceived threat. The NWI was a more salient correlate than the PWI in all four models. Sociotropic concerns, rather than personal well-being, i.e., have a positive and significant relationship with anti-immigrant stereotypes in South Africa. The lower the reported NWI, the more likely an individual will be to believe negative stereotypes about immigrants. The NWI was found to have the highest correlation with the stereotype that immigrants are a burden to the state (Model IV) and the lowest with the stereotype that foreigners spread disease (Model III). It was interesting to note, however, the consistency of the negative correlation the NWI had with the dependents in all four models.

As may have been expected, given the results evident in Table 2, educational attainment was an important predictor of attitudes towards disease. The results evident when considering correlates with attitudes towards disease are not surprising, given that the attitudinal research literature often finds a positive association between education and tolerance judgements (see, e.g., Pettigrew *et al.*, 1997; Pichler, 2010; Gorodzeisky, 2013). On the other types of perceived threat (unemployment and state burden), educational attainment was not found to be a significant determinant. In all models except Model I (disease) the NWI had a stronger observed correlation than educational attainment. Surprisingly, more educated South Africans are more likely to blame immigrants for crime than their less educated counterparts. Members of the coloured population group were, compared to white individuals, found to be less likely to view immigrants as a threat in terms of unemployment. Other significant population group differences were not noted in this model or the other models in Table 4.

Perceived deprivation has been called the 'feeling that one has been unjustly deprived of some desired thing' by Crosby (1976, p. 88). Feelings of deprivation, as Pettigrew *et al.* (1997) argue, have been shown to relate to prejudice. In South Africa, Misago *et al.* (2008) identified deprivation indicators – such as high unemployment and poor service delivery – as one of the drivers of conflict between foreigners and locals. However, Fauvelle-Aymar and Segatti (2012) found that ward-level absolute poverty was not correlated with outbreaks (at ward-level) of 2008 anti-immigrant violence, suggesting that subjective deprivation may be a more important indicator than objective deprivation. One of the most important predictors of negative stereotypes of foreigners, as shown in Table 4, was the Basic Needs Index. A positive

relationship between this indicator and the perceived consequences of immigration was found in all four models.

Table 4:   Ordered logistic regression models

Do agree immigrants cause…								
	Crime		Unemployment		Disease		State burden	
	Model I		Model II		Model III		Model IV	
Female (ref. male)	1.009		1.002		1.003		1.005	
Age	1.040	**	0.942		0.907		0.946	
Married (ref. not married)	1.019		0.894		0.902		0.873	
Population group (ref. white)								
Coloured	1.203		0.695	*	1.303		1.344	
Indian	1.065		0.799		1.234		1.122	
Black African	1.442		0.814		1.347		1.225	
Geographic type (ref. urban formal)								
Urban informal	1.175		1.042		0.843		0.870	
Rural, traditional authority areas	0.896		0.985		0.934		0.762	*
Commercial rural farms	0.830		0.962		0.828		0.732	
Party support (ref. ruling party)								
Main opposition	1.545	**	1.239		0.926		1.169	
Other opposition	1.084		0.937		0.917		0.966	
Uncertain/refused	1.072		0.929		0.990		0.886	
Employment status (ref. full-time employed)								
Part-time	1.081		0.914		0.913		1.193	
Unemployed	0.859		0.846		0.723	*	1.018	
Labour inactive	1.021		0.915		0.895		1.046	
Nationalism	1.057		1.065		1.072		0.968	
Years of education	1.028	*	0.985		0.968	**	1.005	
Basic Needs Index	0.936	***	0.909	***	0.947	***	0.917	***
Foreign contact (ref. no contact)								
Casual	1.269	*	1.624	***	0.920		1.035	
Few friends	0.583	***	0.768	*	0.631	***	0.780	*
Some or many friends	0.540	***	0.544	***	0.394	***	0.576	***

Personal Well-Being Index	0.997		1.002		0.999		1.002	
National Well-Being Index	0.989	***	0.988	***	0.992	**	0.984	***
N	2113		2120		2113		2116	
Likelihood Ratio Chi² (35)	159.62		177.77		191.3		165.61	
Prob > Chi²	0.000		0.000		0.000		0.000	
/cut1	-3.806		-4.769		-3.429		-4.354	
/cut2	-1.770		-3.064		-1.838		-2.942	
/cut3	-1.065		-2.509		-0.888		-1.949	
/cut4	0.642		-0.919		0.429		-0.011	

*** $p<0.001$, **$p<0.01$,* $p<0.05$
Notes: The regressions also control for province of residence; the data is weighted; odd ratios presented for ease of interpretation, and all individuals who reported they were not citizens of South Africa were excluded.

Compared to African National Congress voters, supporters of the main opposition (Democratic Alliance) were more likely to believe immigrants increased crime rates. Political affiliation was not a significant determinant in the other models. The NWI was found to be a better predictor than the national pride measure. The single-item measure of national pride may, however, be an inadequate indicator of patriotism in South Africa. Raijman *et al.* (2008) argue that, when examining public attitudes towards immigrants, a multidimensional measure of patriotism is required to capture the difference between positive and negative types of national pride. However, due to data limitations, it was not possible to make such a distinction. The failure to find a significant association may thus be a result of the inability (due to data limitations) to distinguish between different types of national attachments as scholars such as Raijman *et al.* (2008) recommend.

Individual friendships with foreigners had a strong correlation with anti-immigrant stereotypes, with the extent of intimate contact positively correlated with all dependent variables. In line with the expectations of scholars (Pettigrew *et al.*, 2011), casual contact had an insignificant relationship on perceived threat in Models III and IV (disease and state burden) while having a positive correlation in the other two models. In other words, casual or non-intimate contact has been shown to fuel negative stereotypes about foreigners increasing crime rates and causing unemployment. Interestingly, contact between foreigners and locals has been growing, according to SAMP researchers (see Crush *et al.* [2013] for trend data on reported intergroup contact). However, intimate contact remains low – less than two-fifths (36%) of the adult public reported having an immigrant friend in 2012.

DISCUSSION

When the public perceives the nation to be in decline, the evidence presented in the previous section suggests that individuals are more likely to view immigrants as threats. The association identified in this study should contribute to future research on why xenophobic sentiments in a society are subject to cyclic fluctuations. Threat type may vary over time and in response to changing national well-being. Pichler (2010), for instance, found that during periods of economic contraction in Europe the perceived economic threat attributed to immigrants grew, while in more prosperous periods perceived cultural threat increased. Given that many sub-Saharan African countries have experienced (and may continue to experience) significant levels of social and economic change in the 21st century, adequately understanding the role played by multidimensional indicators of subjective national well-being (measured using instruments like the NWI) in predicting intergroup hostility is essential.

The results presented in the previous section provoke the question of why there is a significant relationship between the NWI and anti-immigrant stereotyping in South Africa. What can explain why the lower the reported NWI, the more likely an individual will be to believe negative stereotypes about immigrants? A possible reason could be, as Wimmer (1997) argues, the relationship between subjective national well-being and identity. When nationalistic self-images run into crisis, this may lead to a crisis of collective identity, which may cause individuals to turn to a xenophobic discourse to reassure their sense of national 'self'. The post-transition anti-immigrant rhetoric by politicians in South Africa may also have assisted in linking public attitudes towards immigrants and public evaluations of national well-being. According to Landau (2010), the past 20 years have seen politicians and government agents blame immigrants for social ills and promote the notion that immigrant communities undermine the welfare of the country at an economic and a social level. South African politicians are not unique in their use of such rhetoric. As Wimmer (1997) argues, many states have political systems in which politicians adopted – at one time or another –similar strategies.

This is the first study, to the knowledge of the author, to investigate the relationship between the NWI and perceived group threat. Previous studies have applied the NWI to investigate subjective well-being (Cummins *et al*., 2003; Tiliouine *et al.*, 2006; Tiliouine, 2009; Davey and Rato, 2011), but this is the first to demonstrate a relationship between subjective national well-being and attitudes towards immigrants. But what is driving subjective national well-being in an African context? More research on subjective national well-being using multidimensional indicators (like the NWI) in South Africa and on the continent is required to better understand the determinants of NWI. To accomplish this in an African context, greater efforts must be made to field the full IWI in more sub-Saharan African countries – an exercise which will involve significant methodological challenges related to construct validation and cross-cultural comparability.

CONCLUSION

This study found that anti-immigrant stereotypes were widespread in South Africa in 2012. Given the level of observed anti-immigrant sentiment, it is apparent that there is a need for a concerted effort on the part of civil society and government to reduce negative stereotypes about immigrants. This article has not attempted to provide a holistic answer to how this may be achieved. The main aim here was to test whether the NWI had a significant relationship with anti-immigrant sentiments in a divided society. Multivariate testing showed that public concerns about the welfare of the nation have a salient relationship with perceived threat from immigrants in South Africa. The observed relationship with the National Well-being Index was stronger than with the more individual Personal Well-being Index. Those who had low subjective national well-being were found to have a tendency to see immigrants as the cause of rising crime rates, increasing unemployment, the spread of disease and the depletion of the country's resources. Reducing prejudice towards immigrants may, therefore, involve improving subjective national well-being among South African citizens.[14] Addressing corruption, social inequality, crime and unemployment may be the key. Future studies should explore the determinants of subjective national well-being in other sub-Saharan countries in Africa.

BIOGRAPHICAL NOTE

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ENDNOTES

1. In this study, anti-immigrant sentiment refers to prejudicial attitudes towards foreigners or international migrants. Prejudice here is defined as negative feelings towards an individual (or group of individuals) based solely on that individual's association with a group.

2. In May 2008, mass riots struck the nations townships, lasting more than two weeks and making international headlines. During this period, violence in South African urban areas left more than 60 murdered, 700 wounded and over '100 000 displaced. Misago *et al.* (2008) provide a description of these events and a comprehensive discussion of the causes of this period of mass anti-immigrant violence (see also Landau, 2010; Fauvelle-Aymar and Segatti, 2012).

3. In this study an ingroup is defined as a social group with which an individual psychologically identifies, while an outgroup, by contrast, is a group with which the individual does not.

4. Sociotropic assessments of national economic performance have been shown to be influential in attitudinal research on immigration. A recent review of the existing literature on immigration attitudinal research by Hainmueller and Hopkins (2014) noted that when analysing attitudes toward immigrants, economic and cultural sociotropic considerations often prove more influential than the effect attributed to personal economic circumstances.

5. In line with the standard methodology on the IWI (Cummins *et al.*, 2003), each item on both the NWI and the PWI was measured on a single 11-point scale ranging from 'completely dissatisfied' to 'completely satisfied'.

6. In 1997, the Southern African Migration Project conducted attitudinal surveys on immigrants and immigration policy among the citizens of southern Africa. Subsequent national attitudinal surveys were conducted by SAMP in South Africa in 1999, 2006 and 2010, which supported earlier results (Crush *et al.*, 2013). Data from the World Values, an international survey series, reinforced these findings and indicated that South Africans were very hostile in their attitudes towards immigrants, compared to other countries (Facchini *et al.*, 2013).

7. A 2014 countrywide analysis by the Institute for Security Studies (2014) revealed that incidents of crime were increasing. The aggravated robbery rate, for instance, grew from 202.6 per 100 000 people in 2012/13 to 225.3 per 100 000 in 2013/14. The poor, the majority of whom are black and living in urban areas, are most at risk of being victims of crimes, including violent property crimes.

8. Unemployment in the country has remained high since the 1980s and current trends show that the labour market continues to be characterised by high levels of long-term unemployment. The South African Quarterly Labour Force Survey for the second quarter of 2014 puts unemployment at over a quarter (25.5%) of the economically active population – a share that has grown 0.3 per cent from the first quarter (Statistics South Africa, 2014a). However, if discouraged job seekers are included in the definition of unemployed, then more than a third (35.6%) of those of working age were out of work in 2014. Youth unemployment is considerably higher – slightly less than half (49.8%) of those willing to work in the 15–24 age cohort. The number of people in long-term unemployment, defined as being unemployed for a year or more, is substantial and of the unemployed many have never had a job before (see also Statistics South Africa, 2014b).

9. According to the National Planning Commission (2012), the number of HIV/AIDS infected is predicted to continue to grow and reach 7.3 million in 2030. An antiretroviral programme, funded by the state, has alleviated some of the suffering inflicted by HIV/AIDS, allowing the infected to live better-quality lives.

10. This includes black African respondents from minority language groups, including the Siswati, IsiNdebele, Xitsonga, Tshivenda and speakers of other African and non-African languages.

11. A linear regression analysis on the NWI (dependent) and a continuous educational attainment (independent) variable reported the following results: $F(1,2230) = 0.03$, Coef = -0.02, $p = 0.86$, Adj. R-squared = -0.00. If a categorical variable of educational attainment is used instead of a continuous one, bivariate methods do not find a statistically significant level of difference.

12. Two questions are employed to create this categorical variable: (1) How many acquaintances do you know who have come to live in South Africa from another country? and (2) Of the people you know who have come to live in South Africa from another country, how many would you consider to be friends?

13. An additional reason for selecting this indicator as a proxy for economic status is that household income was difficult to capture using data from SASAS 2012. Many respondents in the sample (24%) did not (or refused to) answer the question on household income.

14. But will improving the NWI assist in reducing xenophobic violence in the country? This study has not investigated the relationship between NWI and intergroup violence, and there is currently no evidence that links the NWI with intergroup violence in a linear fashion. The relationship between outgroup hostility and violence is complex and related to structural conditions within a society.

REFERENCES

Alexander, P. (2013). 'Marikana, turning point in South African history', *Review of African Political Economy*, vol. 40, no. 138, pp. 605–619.

Blumer, H. (1958). 'Race prejudice as a sense of group position', *The Pacific Sociological Review*, vol. 1, no. 1, pp. 3–7.

Crosby, F. (1976). 'A model of egoistical relative deprivation', *Psychological Review*, vol. 83, no. 2, pp. 85–113.

Crush, J., Ramachandran, S., and Pendleton, W. (2013). *Soft targets: Xenophobia, public violence and changing attitudes to migrants in South Africa after May 2008*, Southern African Migration Project, Cape Town.

Cummins, R. and Nistico, H. (2002). 'Maintaining life satisfaction: The role of positive cognitive bias', *Journal of Happiness Studies*, vol. 3, pp. 37–69.

Cummins, R., Eckersley, R., and Pallant, J. (2003). 'Developing a national index of subjective wellbeing: The Australian Unity Wellbeing Index', *Social Indicators Research*, vol. 64, no. 2, pp. 159–190.

Cummins, R.A., Mellor, D., Stokes, M.A., and Lau, A.A. (2009). 'Quality of life down-under: The Australian Unity Wellbeing Index', in Møller, V., Huschka, D. and Michalos, A. (Eds.). *Barometers of quality of life around the globe*, Spinger, London, pp. 135–159.

Davey, G. and Rato, R. (2011). 'Subjective wellbeing in China: A review', *Journal of Happiness Studies*, vol. 13, no. 2, pp. 333–346.

Diener, E. and Diener, M. (1995). 'Cross-cultural correlates of life satisfaction and self-esteem', *Journal of Personality and Social Psychology*, vol. 68, no. 4, pp. 653–663.

Dodson, B. (2010). 'Locating xenophobia: Debate, discourse, and everyday experience in Cape Town, South Africa', *Africa Today*, vol. 56, no. 3, pp. 2–22.

Facchini, G., Mayda, A.M., and Mendola, M. (2013). 'What drives individual attitudes towards immigration in South Africa?', *Review of International Economics*, vol. 21, no. 2, pp. 326–341.

Fauvelle-Aymar, C. and Segatti, A.W.K. (2012). 'People, space and politics: An exploration of factors explaining the 2008 anti-foreigner violence in South Africa', in Landau, L.B. (Ed.). *Exorcising the demons within: Xenophobia, violence and statecraft in contemporary South Africa*, United Nations University Press with Wits University Press, Johannesburg, pp. 58–88.

Gorodzeisky, A. (2013). 'Mechanisms of exclusion: Attitudes toward allocation of social rights to out-group population', *Ethnic and Racial Studies*, vol. 36, no. 5, pp. 795–817.

Hainmueller, J. and Hopkins, D.J. (2014). 'Public attitudes toward immigration', *Annual Review of Political Science*, vol. 17, no. 1, pp. 225–249.

Hickel, J. (2014). 'Xenophobia in South Africa: Order, chaos, and the moral economy of witchcraft', *Cultural Anthropology*, vol. 29, no. 1, pp. 103–127.

Institute for Security Studies (2014). Factsheet: *Explaining the official crime statistics for 2013/14*, Available at http://www.issafrica.org/uploads/ISS-crime-statistics-factsheet-2013-2014.pdf (accessed 10 November 2014).

Landau, L.B. (2010). 'Loving the alien? Citizenship, law, and the future in South Africa's demonic society', *African Affairs*, vol. 109, no. 435, pp. 213–230.

Misago, J.P., Monson, T., and Landau, L.B. (2008). *Tensions, territory and terror: Understanding violence against foreigners in South Africa*, University of the Witwatersrand Forced Migration Studies Programme, Johannesburg.

Møller, V. (1999). 'South African quality of life trends in the late 1990s: Major divides in perceptions', *Society in Transition*, vol. 30, no. 2, pp. 93–105.

Møller, V. (2005). 'Resilient or resigned? Criminal victimisation and quality of life in South Africa', *Social Indicators Research*, vol. 72, no. 3, pp. 263–317.

Møller, V. (2007). 'Quality of life in South Africa – the first ten years of democracy', *Social Indicators Research*, vol. 81, no. 2, pp. 181–201.

Møller, V. (2013). 'South African quality of life trends over three decades, 1980–2010', *Social Indicators Research*, vol. 113, no. 3, pp. 915–940.

National Planning Commission. (2012). *National Development Plan 2030: Our future, make it work*, National Planning Commission, Pretoria.

Pettigrew, T.F., Jackson, J.S., Brika, J., Lemaine, G., Meertens, R.W., Wagner, U., and Zick, A. (1997). 'Outgroup prejudice in western Europe', *European Review of Social Psychology*, vol. 8, no. 1, pp. 241–273.

Pettigrew, T.F., Tropp, L.R., Wagner, U., and Christ, O. (2011). 'Recent advances in intergroup contact theory', *International Journal of Intercultural Relations*, vol. 35, no. 3, pp. 271–280.

Pichler, F. (2010). 'Foundations of anti-immigrant sentiment: The variable nature of perceived group threat across changing European societies, 2002–2006', *International Journal of Comparative Sociology*, vol. 51, no. 6, pp. 445–469.

Raijman, R., Davidov, E., Schmidt, P., and Hochman, O. (2008). 'What does a nation owe non-citizens? National attachments, perception of threat and attitudes towards granting citizenship rights in a comparative perspective', *International Journal of Comparative Sociology*, vol. 49, no. 2/3, pp. 195–220.

Roberts, B.B.J. (2012). 'State of affliction: Fear of crime and quality of life in South Africa', in Webb, D. and Wills-Herrera, E. (Eds.). *Subjective well-being and security*, Social Indicators Research Series. Springer Netherlands, Dordrecht, pp. 149–175.

Roberts, B.B.J., Gordon, S.L., Struwig, J., and Møller, V. (2015). 'Shadow of the sun: The distribution of wellbeing in sub-Saharan Africa', in Glatzer, W., Møller, V., Camfield, L. and Rojas, M. (Eds.). *The global handbook of wellbeing and quality of life*, Springer Press, Dordrecht, pp. 531–568.

Statistics South Africa (2014a). '*Quarterly Labour Force Survey, 2nd Quarter 2014*', Available at http://www.statssa.gov.za/publications/statsabout.asp?PPN=P0211&SCH (accessed 2003/2004).

Statistics South Africa (2014b). '*Gross Domestic Product (GDP), 3rd Quarter 2014*', Available at http://beta2.statssa.gov.za/?page_id=1854&PPN=P0441&SCH=5957 (accessed 20 March 2015).

Statistics South Africa (2014c). '*Poverty trends in South Africa: An examination of absolute poverty between 2006 and 2011*', Available at http://beta2.statssa.gov.za/?page_id=1854&PPN=Report-03-10-06&SCH=5794 (accessed 20 March 2015).

Tiliouine, H. (2009). 'Stability and change in national and personal wellbeing in Algeria: A case study of a developing country in transition', in Møller, V. and Huschka, D. (Eds.). *Quality of life and the millennium challenge*, Social Indicators Research Series, Springer Netherlands, Dordrecht, pp. 115–138.

Tiliouine, H., Cummins, R.A., and Davern, M. (2006). 'Measuring wellbeing in developing countries: The case of Algeria', *Social Indicators Research*, vol. 75, no. 1, pp. 1–30.

Wimmer, A. (1997). 'Explaining xenophobia and racism: A critical review of current research approaches', *Ethnic and Racial Studies*, vol. 20, no. 1, pp. 17–41.

United Nations Population Division (UNDP). (2013). '*International Migration 2013*'. Department of Economic and Social Affairs, Population Division. Available at http://esa.un.org/unmigration/documents/WallChart2013.pdf (accessed 10 November 2014).

APPENDIX

NWI mean scores are shown in Table V, satisfaction with the governance (46.9) and economic situation (46.8) domains received the lowest scores. In contrast, the business (50.5) and natural environment (52.1) domains received the highest evaluations. The discriminant validity of NWI was investigated using Principal Component Analysis with varimax rotation and multivariate regression analysis. The different NWI dimensions loaded onto a clearly defined factor (see Table 5) which explained 58.3 per cent of variance. The factorability of the correlation matrix also met the other assumptions for such an analysis. Therefore expectations, based on previous research, regarding the measurement of this latent concept are confirmed.

Table 5: Mean scores and principal component analysis on the National Well-Being Index

	Mean	Rank Order	Rotated Factor Loading
National Well-Being Index	49.6		
Economic situation in South Africa	46.8	6	0.78
State of the natural environment in South Africa	52.1	1	0.75
Social conditions in South Africa	50.4	3	0.79
Country's affairs are managed in South Africa	46.9	5	0.83
Business in South Africa	50.5	2	0.75
National security in South Africa	49.7	4	0.69
Eigenvalue			3.50