

Cross-cultural differences in the character strength of citizenship in South Africa

Abstract

The psychological conceptualisation of the character strength of citizenship as a trait ubiquitous across cultures is examined within the context of a diverse South African sample. The theoretically supposed elements common to the definition of citizenship as a dispositional trait (rather than a situational or cultural phenomenon) are examined by means of considering Peterson and Seligman's (2004) conceptualisation of citizenship as espoused in their work on character strength and virtues. Using the Rasch model of item response theory the International Personality Item Pool (IPIP) Value in Action Inventory (VIA) Citizenship scale was examined for fit and differential item functioning (DIF). A diverse sample of 902 South African university students who completed the Citizenship scale was examined for DIF as a function of self-asserted ethnicities and home language groups, which serve as indicators of culture within the South African context. The findings of the study suggest that while certain conceptual aspects of trait-based citizenship as espoused by Peterson and Seligman (2004) are common across the heterogeneous cultures (as defined by ethnicity and language group) examined, there is sound evidence that there are also qualitative distinctions that are exclusively a function of cultural grouping, suggesting difficulties with the exclusive conceptualisation of citizenship as an individual trait. The implications of these findings speak to the importance of considering citizenship as a nuanced and complex notion that requires further consideration in terms of the philosophical, theoretical and empirical qualification of its conceptualisation.

Introduction

The concept of citizenship has been debated and discussed by scholars from numerous disciplines, including

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psychology (Dahlsgaard, Peterson & Seligman, 2005). At the broadest level, citizenship is linked to concepts such as membership and belonging. Although it was initially linked to belonging to a specific nation state, in recent times understandings of citizenship have moved beyond simplistic linkages with nation states to the idea that citizenship can be related to belonging to any grouping (Barnes, Auburn & Lea, 2004; Hamilton, 2009). Within psychology, citizenship has recently been conceptualised as one of the trait like character strengths identified by Peterson and Seligman (2004) and as such forms part of the growing positive psychology movement. This study examined this particular conceptualisation of citizenship within the South African context, making use of Peterson and Seligman's (2004: 13) seminal conceptualisation of citizenship as a trait-like construct that is "ubiquitously recognized and valued". It is acknowledged that despite the prominence of Peterson and Seligman's (2004) conceptualisation of citizenship other, contrasting, notions exist within psychology that view citizenship as being more situationally and culturally, rather than dispositionally, bound (Barnes et al., 2004). These contrasting perspectives on citizenship inform a need for further research into the concept, in order to investigate the utility of the trait-like conceptualisation advanced by Peterson and Seligman (2004). The South African context serves as a particularly relevant cultural context in which to explore the conceptualisation of citizenship as a trait, given the culturally and racially divided nature of the country's history which has resulted in contention regarding the notion of what it means to be a citizen in South Africa (Comaroff & Comaroff, 2003).

In order to position this study within the current body of knowledge concerning citizenship, the concept of citizenship is first discussed from a broad psychological perspective, in order to position the particular trait-like definition of citizenship used in this study within the broader context of psychology. Then, the importance of citizenship within the South African context is discussed. Finally, an argument is made regarding the psychometric measurement of citizenship as a trait, and the relationship between the theoretical characteristic of universality and the psychometric property of measurement invariance. This literature review serves as a backdrop to the empirical study, which investigated the measurement invariance of citizenship in the South African context using the IPIP (International Personality Item Pool) edition of the VIA Citizenship scale (Goldberg et al., 2006).

Defining citizenship from a psychological perspective

At its most fundamental political level the term citizen simply means someone who is a subject of a certain state or nation (Barnes et al., 2004). In this way the word has strong links to the growth of European nation-states and embodies ideas of democracy (Conover, Searing & Crewe, 2004) as well as hegemony. Thus, citizens of a particular country are expected to act in a particular way and to share certain characteristics (Barnes et al., 2004). Citizenship in this sense is bi-directional in that a state is seen as having responsibilities towards its citizens, but citizens are also seen as having responsibilities towards the state

(Barnes et al., 2004; Hamilton, 2009). Studies of citizenship from philosophical, sociological and political viewpoints abound (see, for example, Bennet, Wells & Rank, 2009) and the exact conceptualisation of citizenship used within a specific academic discipline is as varied as the academics within that discipline (see Canover et al. [2004] for a discussion of the varied understandings of the concept of citizenship). However, within this study the emphasis is on psychological understandings of citizenship, which focus specifically on citizenship as a sense of responsibility.

It is this sense of citizenship, as involving responsibility, which forms the core of the psychological understandings of citizenship that contribute to the particular conceptual understanding of citizenship investigated in this study. Closely linked to psychological concepts such as social responsibility, loyalty and teamwork (Peterson & Seligman, 2004; McGovern, 2011), from within this perspective citizenship as a psychological construct is viewed as a trait possessed by an individual, rather than as a political status (Barnes et al., 2004). Psychological research using this conceptualisation has thus focused on differentiating the personal characteristics of people who participate in communities (or, in other words, display citizenship behaviours) from people who do not participate (Barnes et al., 2004; McGovern, 2011). Thus, citizenship is understood to be something that resides in an individual and that can be identified based on certain manifest and measurable attributes and behaviours (Barnes et al., 2004; Peterson & Seligman, 2004). The most obvious behaviour in this regard is considered to be teamwork (Peterson & Seligman, 2004; McGovern, 2011). Using this trait perspective as a point of departure, Peterson and Seligman (2004) investigated the concept of citizenship from a psychological perspective. Based on extensive research, they provided the following consensual description of a person who demonstrates citizenship: “A strong sense of duty, works for the good of the group rather than for personal gain, is loyal to friends, and can be trusted to pull his or her weight. He or she is a good teammate. A generative spirit and sense of responsibility for the community” (Peterson & Seligman, 2004: 370).

An analysis of this consensual definition suggests that the psychological “trait” of citizenship consists of two distinct aspects, which are both internal to an individual manifesting citizenship. The first of these involves the idea of attitude (Jimenez, 2009) or spirit (Peterson & Seligman, 2004). This refers to a general sense of responsibility towards others and the desire to work for the common good. In this sense, citizenship can be seen as an orientation (Munro, Chilimanzi & O’Neil, 2012). The second aspect of citizenship relates to behaviour and the way in which the individual engages in teamwork and community projects. It is this aspect of psychological citizenship that is frequently researched in the context of the business environment (see, for example, Moorman, 1991; Borman, Penner, Allen & Motowidlo, 2001; LePines, Erez & Johnson, 2002; Borman, 2004; Lievens & Anseel, 2004; Bolino & Turnley, 2005; Lyubomirsky, King & Diener, 2005; Diener & Ryan, 2008; Money et al., 2008; Mills, Fleck & Kozikowski, 2013).

The consensual definition detailed above provides the basis for the positioning of citizenship as one of the 24 character strengths identified by Peterson and Seligman (2004). Character strengths are defined as trait-like aspects of human functioning that are measurable, universal and morally valued across cultures (Peterson & Seligman, 2004; Dahlsgaard et al., 2005). These character strengths are grouped into six virtues, with citizenship grouped under the virtue of justice, which relates to fair-mindedness and even-handedness (Peterson & Seligman, 2004). From within this conceptualisation citizenship is a trait that resides within an individual, and is not linked to situational or cultural variables.

It should be noted that this focus on citizenship as a trait-like feature has been criticised from social and cross-cultural psychological viewpoints for emphasising the dispositional rather than the situational aspects of citizenship (Barnes et al., 2004). This suggests that this particular conceptualisation of citizenship fails to take into account factors such as group membership and identity, which are core concepts in psychology. Authors such as Barnes et al. (2004), Shotter (1993), Edley (2001) and McDonald and O'Callaghan (2008) have argued that the psychological conceptualisation of citizenship as a trait-like entity needs to be revisited. These authors argue that citizenship needs to be viewed in context, and that the focus on citizenship as a trait downplays the impact of situational, cultural and social aspects on the enactment of citizenship (Barnes et al., 2004). This is a criticism that has also been voiced more generally in relation to the positive psychology movement as a whole, which tends to highlight features related to individuals rather than to groups or societies (Brdar, 2011).

Despite these criticisms, the conceptualisation of citizenship as a trait-like feature possessed by individuals, as opposed to a situationally determined behaviour, is a prominent one within the psychology literature. This trait view of citizenship, and hence its identification as a character strength, forms part of the ongoing positive psychology endeavour to identify and research non-pathological aspects of human functioning (Seligman & Csikszentmihalyi, 2000; Peterson & Seligman, 2004). According to Seligman and Csikszentmihalyi (2000: 5) the aim of the positive psychology movement is to “begin to catalyze a change in the focus of psychology from preoccupation only with repairing the worst things in life to also building positive qualities”. As part of this effort to catalyse a change, the positive psychology movement has focused on the generation of empirical research and objective psychometric measures. In the case of citizenship, this empirical thrust relates to the development of the citizenship subscale of the VIA, which is designed to measure the trait of citizenship in accordance with Peterson and Seligman's (2004) theoretical conceptualisation of citizenship. Since its initial development the VIA has been used to facilitate many research projects related to the examination of character strengths, and various studies identify good criterion and construct validity across the scales (Park, Peterson & Seligman, 2004; Peterson & Seligman, 2004; Park & Peterson, 2006; Steger, Hicks, Kashdan, Krueger & Bouchard, 2007). Relatively

few studies have reported particularly on citizenship (Ranzjin, 2002; Gillham et al., 2011), with most studies favouring examination of the entire VIA scale (e.g. Hutchinson, Stuart & Pretorius, 2002; Linley et al., 2007; Money et al., 2008; Norrish & Vella-Brodrick, 2009). One of the central arguments on which the VIA (and therefore the citizenship subscale) is based is the idea that the measured strengths should not display cultural and historical specificity, but instead should display invariance when the same strength construct is measured in the same manner for different groups or individuals (Waiyavutti, Johnson & Deary, 2012).

In summary, psychological notions of citizenship are broad with varying sub-disciplines such as social psychology, cross-cultural psychology and positive psychology using different definitions of citizenship. One of the prominent definitions is based on Peterson and Seligman's (2004) identification of citizenship as a character strength, suggesting that it is a universal trait common to all cultures and historical time periods, and it is this specific conceptualisation that informs the analysis presented here. This conceptualisation has implications in terms of measurement invariance, a concept that is discussed in detail later in this literature review.

The South African context and citizenship

The South African context poses challenges to both political and psychological understandings of citizenship. From a political or sociological perspective, the idea of South Africa as a single nation state containing South African citizens is fraught with difficulties. South Africa is a multicultural, multi-ethnic and multilingual society characterised as much by the differences between the various groupings as by similarities (Comaroff & Comaroff, 2003; Swartz, 2006). Colonial and apartheid legacies have resulted in deep seated divisions within the country that bring into question the very notion of the possibility of a unitary definition of what it means to be South African (Comaroff & Comaroff, 2003). The realities of the struggle against the apartheid state frequently necessitated behaviour, such as rioting and activism, that implicitly denies the (conventional) idea of citizenship (Hamilton, 2009), or at least the rejection of the notion of citizenship in an illegitimate state (Conover et al., 2004; Hamilton, 2009). Indeed, according to Comaroff and Comaroff (2003) the idea of nationhood in South Africa is in constant tension with ideas around multiculturalism and ethnic diversity. This is apparent in one of the many national slogans, the idea of South Africa as a 'rainbow nation', which contains simultaneous (and perhaps contradictory) messages of unity and diversity (Comaroff & Comaroff, 2003). Thus, within the South African context the very notion of citizenship is contested in relation to the way in which citizenship is understood (for example, as a status, as an identity or as a responsibility) and enacted (Comaroff & Comaroff, 2003; Hamilton, 2009).

One of the most enduring divisions within South African society relates to ethnicity, a divide dating back to the colonial and apartheid eras (Glaser, 2010). During the apartheid

era ethnicity (commonly referred to as race both by the apartheid government and by the current democratically elected government) was used to define the rights of citizens, with various ethnic (racial) groups being treated in different ways, with the most prominent distinction being drawn between the privileged white ethnic group and the non-privileged non-white ethnic groups. Despite the demise of apartheid in the early 1990s, ethnic classification continues in South Africa and is used as a way to identify specific racial and cultural groups within the country (Roodt, 2009; Glaser, 2010). In modern South African society four distinct ethnic (or race) groups are usually identified (Adams, Van de Vijver & De Bruin, 2012). These groupings are generally referred to as the African (or Black) ethnic group (79.4% of the population), which consists of the nine indigenous Bantu-speaking groups; the Coloured ethnic group (8.8% of the population), comprising individuals of mixed descent; the Indian (or Asian) ethnic group (2.6% of the population), which consists of descendants of indentured labourers who came to South Africa from the Indian subcontinent in the late 1800s; and the White ethnic group (9.2% of the population), consisting of the descendants of European immigrants and settlers (StatsSA, 2012). While classification of individuals along ethnic or racial lines is likely to be deemed offensive by both South African and international audiences, particularly in relation to the use of the term “Coloured” to refer to individuals of mixed descent, these classification categories continue to be commonly used in South Africa even under the new democratically elected government, and have even been incorporated into the census as acceptable terms for self-identification (StatsSA, 2012). As such these ethnic classifications form an integral part of understanding South African society and are often used as proxies for racial, cultural, historical and linguistic divides within South African society (Adams et al., 2012). In particular, language often serves as a proxy for ethnicity in South Africa with each of the ethnic groups being associated with a specific language or group of languages. Thus, the African (Black) ethnic group is associated with indigenous South African languages, the Coloured group is associated with Afrikaans (a language developed in South Africa and based on Dutch), the Indian (Asian) group traditionally speaks English, and the White group speaks a mixture of English and Afrikaans (Adams et al., 2012). Discriminatory and segregationist policies in South Africa under previous government regimes have also contributed to the development of distinct histories, language(s), and identities for these groups, although these differences may have existed without the presence of these policies (Adams et al., 2012). In a very real sense, South Africa continues to be a country divided along ethnic lines, with these divides reflected in cultural and language divisions (Roodt, 2009; Glaser, 2010; Adams et al., 2012).

These difficulties around the political and sociological definition of citizenship in South Africa are likely to have ramifications for the psychological understanding of citizenship in the country, as it seems possible that different cultural and ethnic groupings within the country are likely to enact citizenship differently, and to manifest the trait of

citizenship differently. There has been very limited research in South Africa concerning psychological understandings of citizenship, particularly in relation to the conceptual definition of citizenship provided by the positive psychology movement (Coetzee & Viviers, 2007) and operationalised through the use of the VIA. Van Eeden and Wissing's (2008) use of the VIA (Peterson & Seligman, 2004) to measure citizenship and other character strengths highlighted the existence of differences in the way in which different cultural groups in South Africa understand Peterson and Seligman's (2004) character strengths. They concluded that further research on character strengths is required within the South African context, as the diverse nature of the context suggests that the conceptualisation of the strengths may be different for different population groups. Based on this identified need the discussion now turns to focus on the measurement of citizenship as a psychological trait.

The invariance of citizenship across different groups: A psychometric perspective

The combination of the complex nature of the South African context, as well as the prevailing psychological understanding of citizenship as a universal trait-like feature, provides an ideal context for the investigation of the notion of citizenship as an invariant construct. As citizenship at its most basic level expounds a concept of membership and belonging to a particular social group it may be reasonably supposed that this core membership and belonging embodies an invariant construct that transcends particular contexts. Certainly, Peterson and Seligman's (2004: 13) intent in developing their "manual of sanities" (a term colloquially used to refer to their categorisation of virtues, as opposed to pathologies) was to create a consensual classification of strengths that were "ubiquitously recognized and valued" and concomitant ways of measuring these as individual differences (Park & Peterson, 2007). Specifically seeking accordant definitions and measurements of strengths Peterson and Seligman (2004: 50) sought to avoid "the criticism that any specific list would be culturally and historically idiosyncratic". In order to achieve this, a "test of ubiquity" (Peterson & Seligman, 2004: 51) was held as a standard by which delimitations and measurements were admitted in the strength classification in general and in respect of citizenship in particular.

In the context of the literature that questions the fundamental assumption of invariance in citizenship by emphasising qualitatively differing cultural conceptualisations in general and in the South African context in particular, psychometric theory presents an empirical means by which to clearly test the notion of citizenship's ubiquity. Specifically, from a psychometric perspective, if we view citizenship as an attribute internal to people, then it is legitimate to view it as a latent trait that explains observable behaviour. Questionnaire items serve as manifest indicators of the latent trait. Variance in individual performance in respect to such items should, apart from measurement error, be fully explained by the

latent trait of citizenship. In the context of the present research this would extend to the notion that the ethnicity of participants should not predict how a person responds to items measuring the trait. From an item response theory (IRT) perspective it follows that citizenship should exhibit the same meaning across groups if two things can be shown to be equal across the groups: (1) the relationship of the manifest variables to the attribute of citizenship (item discrimination), and (2) the endorsability (i.e. how difficult it is to agree with a particular item) of the item (item location). One means by which to examine the invariance of the meaning and measurement of citizenship is to test its fit to a psychometric model that requires invariance. One such model that explicitly explores such invariance is that of the Rasch measurement model.

The Rasch measurement model facilitates a means by which to assess the extent to which the relationship between two aspects of a person's performance in respect of measurement items (typically person and item difficulty) are preserved in a third aspect (typically response probabilities) (Bond & Fox, 2007). This model holds that "the response probability for any person n attempting item i is a function of the difference between the ability of the person (B_n) and the difficulty of the item (D_i)" (Bond & Fox, 2007: 48). In the context of measurement invariance it follows that items should relate to the same trait in the same way across different groups of people. In the context of the present report, if item difficulties on a citizenship scale are statistically comparable across different cultural groupings then there exists evidence that those comparable items represent an invariant measurement of a latent trait of citizenship as measured by the theorised scale. The methodology that follows examines the fit of a citizenship scale based on the construct of citizenship as described by Peterson and Seligman (2004). To our knowledge, no present investigation of such fit has been done with a view to examining invariance across cultural groups using manifest scale items.

Method

Participants

Participants were 904 South African undergraduate students at a residential university in Johannesburg, which is the capital of South Africa's Gauteng province, South Africa's economic hub (Van Niekerk, 2013). The mean age of the participants was 21.07 years (SD = 2.73 years). Demographic particulars pertaining to Ethnicity and Home Language were recorded in order to facilitate an examination of item invariance. All demographic descriptors are self-reported and reflect delimitations consistent with the South African census (StatsSA, 2012). As previously mentioned, while arguably offensive, the ethnic delimitations of "Black", "Coloured", "Indian/Asian" and "White" are taken in accordance with this census and South African law to offer a proxy for cultural group identity. The sample comprised of 630 (69.69%) Black participants, 59 (6.53%) Coloured participants,

47 (5.2%) Indian/Asian participants and 164 (14.14%) White participants. Four participants (0.44%) did not specify an ethnicity. Home language groups were delimited as follows: 47 (5.2%) Afrikaans speaking participants, 258 (28.54%) English speaking participants and 588 (65.04%) indigenous South African language speaking participants. Eleven (1.22%) of the participants either spoke a language not circumscribed in the three groups or did not specify a home language.

Instrument and procedure

Citizenship was measured using the 13 item IPIP VIA Citizenship scale (<http://ipip.pori.org/>; Goldberg, 1999; Goldberg et al., 2006; MacDonald, Bore & Munro, 2008). A total of 13 IPIP VIA items measuring the construct of citizenship as conceptualised by Peterson and Seligman (2004) were used in this study. These items are detailed in Table 1 below. Goldberg et al.'s (2006) process of refinement determined only the computation of a reliability coefficient for the first nine items as these yielded the highest Cronbach Alpha of .78 (IPIP, n.d.). In the present investigation the additional items indicated by Goldberg et al. (2006) to be in theoretical keeping with a proxy for the VIA Citizenship scale are also examined in the interest of theoretical consistency and measurement veracity.

Table 1. IPIP VIA citizenship items

Item
1. Do not miss group meetings or team practices.
2. Enjoy being part of a group.
3. Support my teammates or fellow group members.
4. Feel that I must respect the decision made by my group.
5. Am not good at working with a group. (R)
6. Prefer to do everything alone. (R)
7. Work best when I am alone. (R)
8. Keep to myself. (R)
9. Do not think it's important to socialize with others. (R)
10. Am an extremely loyal person.
11. Do not talk badly to outsiders about my own group.
12. Must try to maintain peace within my group.
13. Lose respect for leaders if I disagree with them.

Note (R) indicates that the item is reverse scored.

Statistical analyses

The 13 IPIP items delimiting Peterson and Seligman's (2004) citizenship construct were analysed using Rasch item response modelling in a five step procedure. The first three steps ensure that the items are functioning in a manner that is consistent with the invariant measurement of a latent construct of citizenship. The fourth step involves an examination of the scale reliability using a Cronbach Alpha coefficient. While not a measure of invariance, the computation of this coefficient affords insight into the reliability of the composite scale. Having determined sufficiency of the scale item category functioning, violation of local independence, item fit, and a Cronbach Alpha reliability coefficient, the specific emphasis of the present study is facilitated in the examination of differential item function as a function of membership in the two subgroups of Ethnicity and Home Language.

The analytical steps are summarised as follows:

1. Examination of item category function. Here the fit of the scale categories were evaluated. This process considered the step calibrations, which are the difficulties estimated for choosing one response category over the next (Linacre & Wright, 1996).
2. Examination of items that violate local independence. The Rasch assumption of local independence requires that items within the same scale be independent of one another given a particular endorsement of the latent trait (Camminatiello, Galloo, & Menini, 2010). Essentially, any given item's functioning should not be predicated on that of another item.
3. Examination of item fit statistics. In order to test for fit with Rasch principles, the model utilises infit and outfit statistics. These indicate the degree to which expected and observed response patterns match how consistently individuals respond to particular items (Teo, 2011).
4. Determination of a Cronbach Alpha coefficient.
5. Examination of differential item functioning (DIF). Here the different performance of the subgroups (Ethnicity, Home Language Group) is examined for different item performance after being matched for the latent construct of citizenship. This analysis which informs the fundamental research is addressed in more detail in the paragraph below, where specific emphasis is given to the exploration of DIF.

Determining the statistical and substantive significance of DIF is facilitated in a number of different means by different researchers. As DIF for items is commonly

reported as the difference in item locations and expressed as logits (the Rasch unit of the item person measure) different researchers have determined different rules of thumb to indicate a cut-off level above which DIF is held to be present. The most commonly recognized and cited standard for prima facie evidence for the violation of item invariance across testing groups is that of Linacre's (2012) recommendation of a DIF of a magnitude greater than .5 that is statistically significant enough not to have happened by chance. Together the statistical significance and magnitude exceeding .5 are held as standards for the identification of DIF.

In the present research DIF is examined for a magnitude greater than .5 and for statistical significance using both standard chi-square computations and the Benjamini-Hochberg adjustment to the Bonferroni correction. The Bonferroni correction is often employed when examining several statistical tests that are performed simultaneously on a single data set (Terry, Malekshahi & Delva, 2012); it involves the employ of $P_{crit} = \frac{\alpha}{k}$, where k is the number of comparisons (Field, Miles & Field, 2012). The calculation of the critical value in this manner serves to reduce (in exact proportion) the chance of making a Type 1 error when conducting multiple simultaneous tests. The Bonferroni correction is, however, often criticised for being too conservative and ignoring truly significant probabilities (a Type 2 error; Misawa et al., 2008). The Benjamini-Hochberg procedure offers a practical way of countering this criticism by sorting the test comparison probability values in ascending order and testing each against a critical value of $P_{crit} = \alpha \times \frac{i}{n}$, where i is the test comparison order position and n is the number of test comparisons (Benjamini & Hochberg, 1995; Noble, 2009).

The present research employed the Benjamini-Hochberg procedure in order to identify DIF that was evident at a 5% level of significance in the chi-square DIF computations across ethnic and language groups in respect of the 13 citizenship items. In keeping with dominant thinking in Rasch modelling application that DIF contrast statistics greater than .5 are substantive (Bond & Fox, 2007; Chien, Wang, Chien & Hwang, 2011; Linacre, 2012) statistically significant DIF contrast results larger than .5 are identified in the results.

Results

As a first step we examined the fit of the data to the Rasch model requirements. Examination of the category functioning revealed that the response category thresholds were properly ordered and that the rating scale functioned as expected. Inspection of the correlations between the standardised Rasch residuals did not evidence any violation of local independence (i.e. all correlations between standardised residuals were < .20). Table 2 below summarises the overall item locations and fit statistics.

Table 2. Item locations and fit statistics

Item Number	Location	SE	Infit	Outfit	Infit t-statistic	Outfit t-statistic
1	-0.11	.04	1.03	1.05	0.5	1.0
2	-0.19	.04	0.89	0.86	-2.3	-3.0
3	-1.03	.05	0.69	0.67	-6.6	-6.9
4	-0.29	.04	0.75	0.80	-5.4	-4.3
5	0.30	.04	1.01	1.05	0.2	1.0
6	0.87	.03	0.87	0.88	-3.3	-3.0
7	2.01	.04	1.11	1.11	2.1	2.1
8	1.13	.03	1.20	1.22	4.6	5.0
9	-0.83	.05	1.33	1.28	5.7	4.9
10	-0.90	.05	0.95	0.94	-1.0	-1.2
11	-0.41	.04	1.36	1.43	6.4	7.6
12	-0.58	.04	0.76	0.82	-4.9	-3.7
13	0.05	.04	0.97	1.01	-0.7	0.1

The outfit mean squares ranged from .67 (item 3) and 1.43 (item 11), whereas the infit mean squares ranged from .69 (item 3) to 1.36 (item 11). Bond and Fox (2007) noted the incumbent difficulties in formulating definitive cut-off points where items may be regarded as so misfitting as to warrant exclusion. Central to much debate among various researchers, these pertain to a balancing of interpreting t-values relative to the magnitudes of both fit statistics and sample size (Bond & Fox, 2007; Smith, Rush, Fallowfield, Velikova & Sharpe, 2008). Bond and Fox (2007: 243) do, however, offer “reasonable item mean square ranges” for rating scales (likert/survey) such as those used in this investigation, of 0.6 to 1.4. Interpreted from this criterion the items as a whole demonstrate reasonable infit and outfit, with the possible exception of the outfit statistic of 1.43 for item 11. As the primary focus of the present study is exploration of DIF using the IPIP VIA items for the Citizenship scale all items were retained for the purposes of DIF analysis. It is important to note that the potential misfit of item 11 warrants further consideration and caution in interpretation. The Cronbach Alpha coefficient of the scale (step four in the methodology) was .65 which suggests a “minimally acceptable” reliability of measurement (DeVellis, 2012: 109).

The results of the DIF analyses for Ethnic Group are summarised in Table 3 below, which show the item location and standard error for each ethnic group, a chi-square statistic

and corresponding p -value that summarises the difference between the item locations across groups, and the p -value determined using the Benjamini-Hochberg correction which can be compared with the chi-square p -value. Following the recommendations of Linacre (2012) only items where item location differences greater than 0.5 were found across the groups were considered to have practical meaningfulness (or substantive DIF) and were examined for statistical significance.

Table 3. DIF analyses across ethnic groups

Item	Black		Coloured		Indian / Asian		White		χ^2 (df = 3)	p (χ^2)	p (BH)
	Location	SE	Location	SE	Location	SE	Location	SE			
1	-0.11	0.05	-0.20	0.15	-0.11	0.17	-0.17	0.09	0.66480	0.8815	0.025000
2	-0.16	0.05	-0.13	0.15	-0.24	0.17	-0.39	0.10	4.70710	0.1935	0.007143
3	-1.03	0.06	-1.11	0.19	-0.95	0.21	-0.97	0.11	0.66310	0.8819	0.050000
4	-0.38	0.05	-0.10	0.15	-0.29	0.17	-0.04	0.09	11.7788	0.0081	0.005556
5	0.34	0.04	0.20	0.14	0.22	0.16	0.16	0.09	4.13810	0.2458	0.008333
6	0.89	0.04	0.87	0.14	0.94	0.15	0.76	0.08	2.48850	0.4762	0.010000
7	2.01	0.05	2.20	0.17	2.18	0.18	1.96	0.09	2.35490	0.5010	0.012500
8^a	1.27	0.04	0.66	0.14	0.64	0.15	0.90	0.08	11.7788	0.0000	0.003846
9	-0.81	0.05	-0.98	0.18	-0.71	0.19	-0.93	0.11	1.79880	0.6143	0.016667
10^a	-0.79	0.05	-0.98	0.18	-1.27	0.22	-1.32	0.13	18.1549	0.0004	0.005000
11^a	-0.58	0.05	-0.20	0.15	-0.34	0.18	0.09	0.09	42.4232	0.0000	0.004167
12^a	-0.71	0.05	-0.32	0.16	-0.16	0.17	-0.35	0.10	20.1371	0.0002	0.004545
13	-0.03	0.05	0.20	0.14	0.17	0.16	0.25	0.09	9.85490	0.0197	0.006250

^a Substantive and Statistically Significant DIF found

Items 8, 10, 11 and 12 were shown to have both practically meaningful DIF that was statistically significant at a 5% level of significance when applying the Benjamini-Hochberg correction. Substantive DIF contrasts (> 0.5) for item 8 were found between the Black group and the Coloured and Indian Asian groups respectively. Substantive DIF contrasts (> 0.5) for items 10 and 11 were found between the Black group and the White group. Substantive DIF contrast (> 0.5) for item 12 were found between the Black group and the Coloured group.

The results of the DIF analyses for Language Group are summarised in Table 4 below, which shows the item location and standard error for each language group, a chi-square statistic and corresponding p -value that summarises the difference between

the item locations across groups, and the p -value determined using the Benjamini-Hochberg correction which can be compared with the chi-square p -value. Following the recommendations of Linacre (2012) only items where item location differences greater than 0.5 were found across the groups, were considered to have practical meaningfulness (or substantive DIF) and were examined for statistical significance.

Table 4. DIF analyses across language groups

Item	Afrikaans		English		Indigenous South African		χ^2 (df = 3)	p (χ^2)	p (BH)
	Location	SE	Location	SE	Location	SE			
1	-0.11	0.07	-0.41	0.18	-0.11	0.05	2.45960	0.2889	0.012500
2	-0.30	0.08	-0.31	0.18	-0.14	0.05	3.90330	0.1396	0.008333
3	-1.00	0.09	-1.07	0.22	-1.03	0.06	0.12430	0.9416	0.050000
4	-0.08	0.07	-0.25	0.18	-0.39	0.05	12.0842	0.0023	0.005556
5	0.22	0.07	0.23	0.16	0.33	0.04	2.06370	0.3527	0.016667
6	0.81	0.06	0.81	0.15	0.9	0.04	1.32890	0.5114	0.025000
7	2.12	0.08	1.87	0.16	1.97	0.05	3.22600	0.1963	0.010000
8^a	0.74	0.06	1.3	0.15	1.29	0.04	49.1389	0.0000	0.003846
9	-0.97	0.09	-0.44	0.18	-0.81	0.06	6.84710	0.0319	0.007143
10^a	-1.17	0.09	-1.32	0.23	-0.78	0.06	16.4528	0.0003	0.005000
11	-0.10	0.07	-0.25	0.18	-0.57	0.05	27.9005	0.0000	0.004167
12	-0.31	0.08	-0.41	0.18	-0.72	0.05	19.9813	0.0000	0.004545
13	0.20	0.07	0.12	0.16	-0.03	0.05	7.84310	0.0193	0.006250

^a Substantive and Statistically Significant DIF found

Items 8 and 10 were shown to have both practically meaningful DIF that was statistically significant at a 5% level of significance when applying the Benjamini-Hochberg correction. Substantive DIF contrasts (> 0.5) for item 8 were found between English and Afrikaans language groups when contrasted with the indigenous South African language group. Substantive DIF contrasts (> 0.5) for item 10 were found between the Afrikaans language group and the Indigenous South African language group.

The results of the Rasch modelling of the items suggest that in respect of the noted items there is measurement variance as a function of ethnic grouping and language grouping for some of the items. In respect of the ethnic groupings, items 8, 10, 11 and 12 exhibit substantive and statistically significant DIF. In respect of language grouping, items 8 and 10 exhibit substantive and statistically significant DIF.

Discussion

While the 13 items examined collectively yielded only a minimally acceptable collective construct measure reliability ($\alpha = .65$) they did allow for the determination of substantive and statistically significant differential item function (DIF) as a function of both ethnicity and language. The two items exhibiting DIF as a function of language were also shown to exhibit DIF in ethnicity. The close association between language and ethnicity in the South African context (Adams et al., 2012) suggests that in this context language is a proxy for ethnic group and that the predominate grouping around which item invariance occurs is therefore that of ethnic grouping. The discussion below therefore focuses on the findings concerning DIF in relation to ethnicity.

The results presented in the previous section suggest that citizenship shows a discernible lack of measurement invariance as a function of ethnic group with four of the 13 items (30.07%) exhibiting DIF. Based on the literature presented earlier, there are several possible explanations for this finding.

The scale used in this study was predicated on Peterson and Seligman's (2004) hypothesis that citizenship is a universal trait. However, as was indicated in the literature review (Shotter, 1993; Edley, 2001; Barnes et al., 2004; McDonald & O'Callaghan, 2008) this conceptualisation of citizenship is disputed, with various authors arguing that citizenship actually refers to a far more complex and nuanced concept that has social and historical aspects. Indeed, it may suggest that situational aspects do play a role in citizenship, as suggested by authors from within the social psychology and cross-cultural sub-disciplines of psychology. The DIF evidenced as a function of ethnicity lends support to the argument that some aspects of citizenship may indeed not be universal, but instead that citizenship may consist of particular cultural and historical components. An examination of the items evidencing DIF for the four ethnic groups (Black, Coloured, Indian, White) shows that these items relate to various aspects of citizenship, including being alone (Item 8), gossiping (Item 11), loyalty (Item 10) and the maintaining of harmony within the collective (Item 12). Thus, although all these items relate to citizenship, the specific level of endorsement of a specific item means something different for individuals from the different ethnic groups. These findings highlight the importance of re-visiting the conceptualisation of citizenship as simply an individual trait, and the importance of considering more situationally bound understandings of citizenship.

It is interesting to note that in examining all cases of DIF for ethnicity, the Black group was the substantive and statistically significant contrast to the other three. Specifically, none of the remaining three groups (Coloured, Indian, and White) contrasted substantively or statistically significantly with each other but rather only

with the Black group for various items. A possible explanation for this difference may be drawn from the notion that within the South African context the Black group has historically been treated very differently to the other groups and is seen to embody very different cultural understandings and norms (Comaroff & Comaroff, 2003; Swartz, 2006) to the other groups, including distinctive linguistic traditions (Adams et al., 2012). In particular, the Black ethnic group has been seen as endorsing collectivistic values as opposed to the more individualistic values endorsed by the White, Coloured and Indian/Asian groups (Eaton & Louw, 2000). It seems plausible that this difference between collectivistic and individualistic cultures manifests as DIF in the endorsement of specific items related to citizenship. This suggestion would be in keeping with conclusions drawn in other cross-cultural studies situated within the South African context, which have also found cultural differences in trait-like personality variables (Valchev et al., 2012; Valchev et al., 2013; Valchev et al., 2014). In the context of this body of research, this serves as sound cause for abductively motivated research into the manner in which such distinctions may be understood using a collectivistic-individualistic theoretical frame.

However, despite these potential fruitful avenues for future research it is important to not overstate the argument concerning the usefulness of the conceptualisation of citizenship as a trait. Thus, although four of the 13 items included in the analysis manifested DIF, the remaining seven items did not; suggesting that these items are indeed measurement invariant and that individuals' responses to these items are indications of the latent trait of citizenship and are not being influenced by ethnicity. These items do then meet the criteria stated previously in relation to psychometric assessment, in that they relate the same way across different groups of people.

In conclusion, the results support the literature in suggesting that citizenship is a complex and nuanced concept that necessitates further consideration. In relation to Peterson and Seligman's (2004) identification of citizenship as a ubiquitous and ahistorical trait, the results suggests that there is indeed an aspect of citizenship (as evidenced by the nine non-DIF displaying items) that adheres to the concept of measurement invariance implicit in the positioning of citizenship as a universal trait. However, the presence of DIF in four of the items suggests that perhaps citizenship is not a single trait but consists of various aspects, some of which are culturally and historically determined. Within the South African context the results clearly show that at least some aspects of citizenship are influenced by ethnicity. What these various aspects of citizenship are, and how they relate to the universal character strength of citizenship, is unclear at this point in time. What is clear is that further consideration of this concept from philosophical, theoretical and empirical perspectives is necessary if greater understanding of citizenship is to be achieved.

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