MEASURING ACCULTURATION IN THE SOUTH AFRICAN CONTEXT: THE RELIABILITY AND VALIDITY OF THE SOUTH AFRICAN ACCULTURATION SCALE

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ABSTRACT

Acculturation is often cited in South African research as an explanation for various phenomena. Researchers often cite the examination of acculturation as a recommendation for further research. To date there has been very little research in the South African context that empirically examines acculturation. This study explored the internal consistency reliability and construct validity of the South African Acculturation Scale (SAAS) in a nonprobability, convenience sample of 392 individuals in Johannesburg. The SAAS is a 22 item scale that

has a Likert-type response format ranging from 'Strongly Agree' (5) to 'Strongly Disagree' (1). From the results it was evident that some of the items on the SAAS were problematic and needed to be removed to ensure that the scale was psychometrically sound. The revised SAAS yielded better reliability coefficients for this sample.

Keywords: Acculturation; South African Acculturation Scale; reliability; validity

Social scientists throughout most of the 20th century, hypothesized about the process by which immigrants to America became included into the mainstream culture. Sociologist Robert Park's (1914 cited in Padilla & Perez, 2003) work was the first to explore this, where he explored what happens to people from mixed cultures and languages when they come into contact with one another. The next group of social scientists to expand on this idea was anthropologists. Redfield, Linton, and Herskovits (1936 cited in Berry, Poortinga, Segall & Dasen, 2002), in explaining the process of accommodation, made strong reference to acculturation as a key construct in their theorizing. According to them, acculturation occurs when individuals from different cultures come into contact with one another, which results in changes in the original cultural patterns of either or both groups.

THE UNIDIMENSIONAL MODEL OF ACCULTURATION

Another group of social scientists, nearly twenty years later, expanded on the Redfield et al., (1936) model of acculturation by adding a psychological dimension to the process of acculturation. This model was advanced as it identified important culture related information that changes with intergroup contact and what aspects of culture, such as values, might be more resistant to change with intercultural contact. The importance of this model is that it now provided individuals to have choice in the acculturation process, as the change from one cultural orientation to another could be 'selective' (Padilla & Perez, 2003). As a result individuals involved in intergroup contact could decide what elements of their culture they wish to give up and what cultural elements they want to incorporate from the new culture (Padilla & Perez, 2003).

This model was recognized as the unidimensional model of acculturation. The unidimensional model is based on the assumption that a strong ethnic identity is not possible among those who become involved in the mainstream society and that acculturation naturally occurs with the weakening of ethnic identity (Ourasse, 2003). There are two variants within the unidimensional model, mainly the assimilation variant and the bicultural variant (Ourasse, 2003). According to the assimilation variant, complete absorption into the mainstream culture is unavoidable, and cross-cultural travelers lose their ethnic feelings and cultural characteristics, supporting the host culture. In contrast the bicultural variant views biculturalism as conforming to

both cultures (Ourasse, 2003). According to the unidimensional model, immigrants may be placed into the acculturation continuum from unacculturated to acculturated during cultural changes in the new culture (see Figure 1) (Lee, 2005). As seen in Figure 1, the midpoint on the continuum is called biculturalism, which assumes that immigrants maintain their cultural heritage while adopting new cultural characteristics (Lee, 2005). Therefore, biculturalism is believed to be when immigrants are in the middle of a temporary period (Lee, 2005).
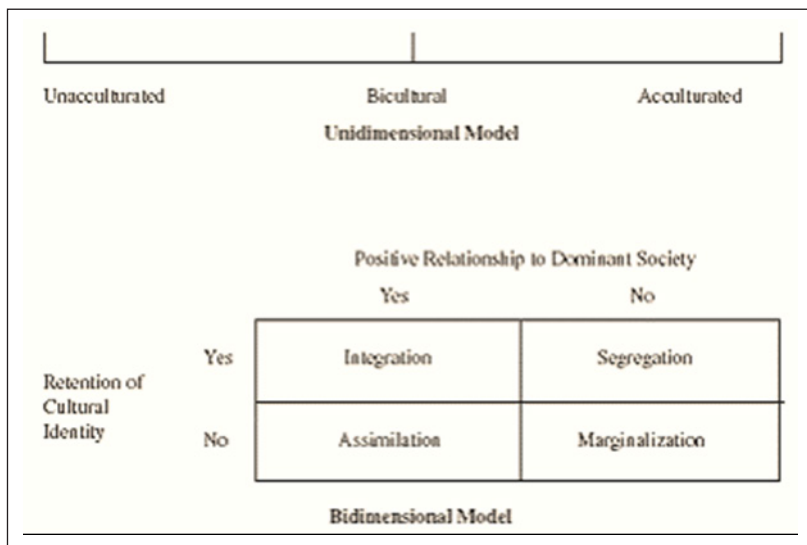

Figure 1:   Two models of acculturation (Keefe & Padilla, 1987)

THE BIDIMENSIONAL MODEL OF ACCULTURATION

Berry (1980) expanded on the unidimensional model of acculturation by including varieties of adaption thereby identifying the following four: assimilation, integration, rejection, and marginalization. Berry's model was considered important as it recognized the importance of multicultural societies, and the fact that individuals have a choice in the acculturation process (Padilla & Perez, 2003). Berry's model of acculturation is known as the bidimensional model.

The bidimensional model regards ethnic and host identities as independent (Ourasse, 2003). It employs four independent dimensions (Integration, segregation, assimilation, and marginalization) rather than the bipolar continuum of the unidimensional model (Lee, 2005). Adherence to both identities produces Integration. Assimilation is produced when individuals embrace the host culture and reject the ethnic cultural identity. When the individual retains only their ethnic cultural identity this produces

Segregation. Marginalization is when the individual expresses little interest in maintaining both cultural identities (see Figure 1; Ourasse, 2003). As is evident, the primary difference between the unidimensional and bidimensional models can be found in how they treat the relation between the heritage culture and the mainstream culture (Ryder, Alden & Paulhus, 2000).

Various scales have been constructed over the years to empirically assess acculturation but a number of the scales are specific to particular cultures (see Marino, Stuart, Klimides & Minas; 2011; Celenk & van de Vijver, 2011). Hence the need for an acculturation measure that is applicable to South Africans.

THE SOUTH AFRICAN ACCULTURATION SCALE

The South African Acculturation Scale (SAAS) was developed based on the work of Berry (1976), Berry, Trimble and Olmedo (1986) and Berry (1997) (cited in Kramers, 2000). This model provides a theoretical outline and a practical application for attitudinal measures of acculturation, while at the same time recognizing the multi-dimensionality of the construct (Kramers, 2000). In constructing the scale, Kramers (2000) considered an early scale assessing acculturation attitudes of American Indians in Canada, which used the acculturation strategies outlined by Berry (1997 as cited in Kramers, 2000). Measures of Marginalization (deculturation) were excluded from the scale based on Berry's (1976, p. 180) observation: "since both common sense and pilot work indicated that such an outcome was not to be chosen by anyone." Even though the scale was potentially adaptable to the South African context, Kramers (2000) found that the items were ethically inappropriate. As a result of the history of apartheid, it was possible that respondents would find a number of items in the scale offensive (Kramers, 2000). Therefore Kramers (2000) adapted appropriate items which were selected and changed from Berry's (1976) acculturation scale. The initial scale was assessed by two psychologists, in terms of the suitability of the questions to the subscales (cultural assimilation, integration, and rejection) (Kramers, 2000). The final 22-item version of the SAAS was used in this study.

METHODS

Sample

Nonprobability, convenience sampling was used in this study. This strategy was employed primarily as this was a student project that needed to be completed within a limited timeframe. Two hundred and seventy-two individuals from Johannesburg and surrounding areas voluntarily completed the questionnaire for this study. Individuals in the sample ranged from age between 14 and 90 years (X=36.52, SD=14.53).

Majority of the sample was female (n=85, 66.9%) as evidenced in Table 1. 39.7% of the sample were Black (n=108), 8.8% were Coloured (n=24), 23.2% Indian (n=63), and 27.6% White (n=75). One hundred and fifty three (56.3%) individuals spoke English as their first language. Two questions were included in the questionnaire that asked participants whose home language was not English to rate their English reading skills and English comprehension skills from 1 to 5, with 1 being "Not so good" and 5 being "Excellent". For individuals who had English as a second language, majority of the sample had an excellent to good English reading and English comprehension ability thus controlling for issues of language proficiency in the study.

Table 1:   Descriptive statistics for the sample

Variable		Frequency	%	Cumulative %
GENDER	Male	85	31.2	31.3
	Female	182	66.9	98.2
	Missing	5	1.8	100
POPULATION GROUP	Black	108	40.4	39.7
	Coloured	24	7.4	48.5
	Indian	63	23.2	71.7
	White	75	27.6	99.3
	Missing	2	.7	100
HOME LANGUAGE	English	153	56.3	56.3
	Afrikaans	7	2.7	59.0
	Ndebele	3	1.1	60.1
	Pedi	12	4.4	64.5
	Swati	3	1.1	65.6
	Sotho	7	2.6	68.2
	Tsonga	5	1.8	70.0
	Tswana	15	5.9	75.9
	Venda	4	1.5	77.4
	Xhosa	12	4.4	81.8
	Zulu	36	13.2	95.0
	Other	11	4.0	99.0
	Missing	4	1.5	100.0
ENGLISH READING ABILITY	Not so good (1)	2	0.8	.8
	Fairly good (2)	2	0.7	1.5
	Satisfactory (3)	23	8.5	10
	Very good (4)	49	18.0	28
	Excellent (5)	54	19.9	47.8
	Missing	142	52.2	100
	TOTAL	130	47.8	

ENGLISH COMPREHENSION ABILITY	Not so good (1)	1	0.8	.4
	Fairly good (2)	3	1.1	1.5
	Satisfactory (3)	23	8.5	10
	Very good (4)	46	16.9	26.9
	Excellent (5)	56	20.6	47.5
	Missing	143	52.6	100
	TOTAL	129	47.4	

Research Design

This study took the form of a non-experimental correlation design as there was no manipulation or control of variable in this study (Rosnow & Rosenthal, 2008). Additionally this study took the form of a cross sectional design. With cross sectional designs, the data of a particular sample or one could say, the 'cross section' of respondents that have been chosen to represent a certain target population is gathered at only one point in time, this is done in a short period of time as it is seen to be more achievable (Rosnow & Rosenthal, 2008). Thus questionnaires were handed out and were collected soon after.

Instruments

All volunteers completed a questionnaire consisting of a demographic section, the NEO-PI-3 and the South African Acculturation Scale (SAAS). Only the demographic section and the SAAS are discussed here, as these are the only three sections of relevance to this study. Demographic information (age, gender, race, home language, reading and comprehension ability) was collected for descriptive purposes only.

The South African Acculturation Scale Questionnaire

The SAAS is a twenty-two item self-report questionnaire which consists of three subscales assessing respondents' tendencies towards cultural assimilation, integration and rejection (Kramers, 2000). There are eight assimilation items which produce respondents' desires to maintain relationships with other cultural groups in the absence of maintaining own-group characteristics; seven integration items which produce respondents' desire to maintain their own cultural identity and relationships with other cultural groups and seven rejection items which are aimed to produce respondents' desires to maintain their own cultural identity in the absence of maintaining relationships with other cultural groups (Kramers, 2000).

When administering the scale, individuals were required to tick the appropriate response to each item, where items were scored according to a five-point Likert scale (Strongly Agree=5; Agree=4; Neutral=3; Disagree=2 and Strongly Disagree=1). A high score on this scale shows a preference for a specific acculturation strategy

(Kramers, 2000). Kramers (2000) conducted a pilot study for the SAAS on a sample of South African nursing students. The assimilation subscale was found to have an alpha co-efficient of .64 whereas the integration subscale demonstrated an alpha co-efficient of .70. The rejection subscale was found to be the least reliable with an alpha co-efficient of .53 (Kramers, 2000). The scale was adjusted with the removal of two questions which were negatively influencing the alpha values (Kramers, 2000) resulting in the 22 item scale.

Ethical considerations

Ethical clearance was obtained from the Human Research Ethics Committee at the University of the Witwatersrand (Protocol number: HONS/13/). All individuals who participated in this research did so voluntarily. A participant information sheet attached to each questionnaire briefly described the purpose of the study and provided a statement guaranteeing anonymity. Participants in the research at no stage needed to identify themselves, as the purpose of the research is to establish personality trends. It was stated that any respondent completing and submitting a questionnaire would thereby give their consent for the information to be used in the research. Furthermore it was stipulated that non-participation would have no negative consequences for the individual. The information sheet also provided contact details, should any participants want any extra information or feedback. Participants were informed that only general feedback would be provided as the questionnaires were anonymous. Feedback was available in the form of a one page summary sheet that was emailed to participants on request.

Procedure

Data was collected from members of the general public by enlisting the assistance of undergraduate and postgraduate students who got members in their communities to complete the questionnaires. Completed questionnaires were captured and scored. Data was analyzed using the SPSS computer program (IBM SPSS Version 21, 2013).

Data Analysis

Internal consistency reliability was calculated for the SAAS subscales using the Cronbach-Alpha reliability coefficient. A coefficient alpha of 0.6 or more represents good internal consistency (Nunnally & Bernstein, 1994). Construct validity was analysed using exploratory factor analyses. Principal components analysis with orthogonal varimax rotation was used given that the SAAS subscales are independent from each other. Missing data was controlled for using the pairwise deletion procedure. The sample size of 272 is appropriate for exploratory factory analysis. Kline (2010) suggests approximately 3 participants for every item in the

instrument suggesting that 66 participants would have been a minimum requirement for this study.

RESULTS

Internal consistency reliability

Initially reliability coefficients for the three SAAS subscales were measured on the original subscale items as postulated by Kramers (2000). However on examination of the item-total correlations and the alpha values if each of the items for a particular subscale were removed, it was evident that the reliability of the instrument could be improved by removing certain items. One Rejection item was removed, namely Item six. Two Assimilation items were removed, that being items eight and nine. No integration items were removed. This revision led to six items for Rejection, six items for Assimilation and seven items for Integration in the SAAS. This produced internal consistency coefficients, presented in Table 2, of .72 for Rejection, .55 for Assimilation and .79 for Integration.

Table 2:   Internal consistency reliability coefficients for the SAAS

SAAS	Initial α	α after item/s removed
Assimilation	.47	.55
Integration	.79	.79
Rejection	.64	.72

Construct validity

Keeping with standards for empirical validation of a psychometric instrument, this study conducted a factor analysis on the subscales of the SAAS in an attempt to comment on the construct validity of the instrument. Loadings above .40 or below-.40 were considered as a loading on that particular factor. Table 3 presents the results obtained for the three factor solution using the varimax rotation technique. Table 3 presents the results for the initial factor analysis with the 19 items. From this analysis it is evident that items 7 and 16 from the Rejection scale, item 15 from the Assimilation scale and item 17 from the Integration scale did not load on the appropriate factor as theorized.

A factor analysis was conducted excluding these items. From Table 3 it is evident that once the items are excluded, Factor 1 has all six Integration items loading positively with moderate to high loadings. A Rejection item crossloads negatively on factor one with a loading of -.495 but the primary loading for this item is on the Rejection subscale. Factor 2 is best defined as the Rejection factor as all

four Rejection items load positively on the factor, with moderate to high loadings. An Integration item loads negatively on Factor 2 with a loading of -.485. All five Assimilation items load positively on Factor 3 with moderate to high loadings.

Table 3:   3-Factor Solutions for the SAAS using Varimax rotation

	Subscale	Item	Initial rotated solution			Final rotated solutiom		
			Factor 1	Factor 2	Factor 3	Factor 1	Factor 2	Factor 3
1	Rejection	I only engage in the cultural practices of my own cultural group.	-.042	.787	.096	-.105	.809	.039
2	Rejection	I want to remain attached to the customs of my own cultural group.	.166	.778	.072	.125	.819	-.045
3	Assimilation	I have often thought of what it would be like to be a member of a different cultural group.	.082	-.279	.422	.102	-.249	.516
4	Integration	I feel comfortable in the presence of members of other cultural groups as well as members of my own cultural group.	.731	-.158	.067	.728	-.101	.028
5	Integration	I see South Africa as consisting of a union of several cultural groups.	.582	.061	-.080	.608	.085	-.151
6	Rejection	I believe that South Africa should remain as traditional as possible.						
7	Rejection	I resent the cultural practices of other cultural groups.	-.486	.117	.374			
8	Assimilation	Being a member of my own cultural group is not always a positive experience.						
9	Assimilation	I believe that South Africa should become more like Europe and America.						
10	Integration	I enjoy engaging in the cultural activities of my own group, as well as those of other cultural groups.	.586	-.458	.114	.640	-.398	.064

11	Integration	I have friends who belong to my own cultural group as well as other cultural groups.	.729	-.039	.218	.748	.006	.170
12	Rejection	I believe that it is Important to mix only with members of my cultural group.	-.594	.174	.304			
13	Assimilation	I envy the cultural practices of cultural groups other than my own.	-.187	-.092	.599	-.136	-.043	.618
14	Rejection	The cultural practices of other groups should remain separate from my own cultural practices.	-.170	.635	.015	-.191	.625	-.024
15	Assimilation	I would like to have more friends than I do now wa are members of other cultural groups.	.160	-.499	.249			
16	Rejection	I dislike joining in the activities of membe of other cultural groups.	-.469	.547	.064	-.495	.523	.075
17	Integration	I feel attached to the cultural practices of both my own group and other cultural groups	.340	-.478	.311			
18	Integration	I believe that all cultural groups should engage in shared activities.	.412	-.549	.270	.475	-.485	.228
19	Assimilation	I believe that people of other cultural groups express themselves better than members of my own cultural group.	-.140	.095	.605	-.123	.120	.671
20	Integration	I like to wear the clothes of my own cultural group as well as those of other cultures.	.510	-.300	.266	.616	-.241	.159
21	Assimilation	I like to eat the food of other cultural groups more than that of my own traditional culture.	.097	-.054	.545	.157	-.009	.550
22	Assimilation	I prefer to speak the language of the other cultural groups more than my own cultural group.	.182	.022	.616	.202	.038	.599

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DISCUSSION

Based on the results found in this sample it is evident that the SAAS in its 22 item format is not reliable for use in the South African context. There were seven items that needed to be removed to improve the reliability and validity of the SAAS. Once these items were removed, the construct validity of the instrument was also maintained with a clear three factor solution emerging in line with the theoretical model on which the SAAS was based. However the cross-loadings and overlap between items 16 and 18 suggest that these items need to be revised at the very least. Removing these items would shorten the scale which is already at 15 items only.

Aside from Kramer's (2000) work, there is no body of literature against which to compare these findings. Given that the sample used in this study was a nonprobability sample restricted to one area in South Africa; it is recommended that other studies be conducted with bigger and more diverse samples to see if these results hold. Given the results found on the seven items, it is also recommended that future research focus on developing more items to assess the three categories of acculturation. A longer scale will also improve reliability for the acculturation measure.

There is also an underlying problem with the model used to construct this scale in that one of the categories, 'marginalisation' is not assessed. Kramer (2000) provides the arguments in favour of this and these are also supported by Schwartz, Unger & Szapocznik (2010). Further work on acculturation in the South African context will have to look at the debates around Marginalisation and determine if Berry's bidimensional model is useful as the theoretical basis for an acculturation instrument or if other theories need to be considered.

Different from the bidimensional and unidimensional models, Keefe and Padilla (1987) presented a multidimensional and qualitative model of acculturation that depended on two major constructs, namely cultural awareness and ethnic loyalty. According to this model, cultural awareness symbolizes the inherent knowledge that individuals have of their cultures of origin and of their host cultures. If individuals show more knowledge of their heritage cultures than they do of the new contact cultures, the model holds that they are less acculturated (Padilla & Perez, 2003). Ethnic loyalty, however, is dependent on the self-ascribed ethnicity of the individuals, and the ethnic group memberships of their friends. Keefe and Padilla's (1987) model of acculturation focuses on the preference of individuals for the majority or minority cultures and the effects of such preferences on the overall acculturative process. However like the other models, this one also fails to explain why people chose one culture over the other. Until now, no model has been able to explain how it is that individuals from the same educational, socioeconomic, and familial backgrounds differ on willingness to acculturate. Choice to acculturate may be related to personality traits such as assertiveness, likeability, sociability, extraversion, and ego control (Padilla & Perez, 2003). Differences in attitudes and risk taking may also lead to differences in the acculturation process (Padilla & Perez, 2003).

Acculturation is therefore an extremely nuanced construct. Both internationally and locally a lot more research is needed into the theory and processes underpinning the construct and this will lead to the creation of better and more useful empirical measures of acculturation. For now this study paves the way for future research in South Africa on acculturation.

BIOGRAPHICAL NOTES

KIMERA PILLAY is the Academic Researcher in the R&D team at WorldsView™ Academy and has worked on the academic programmes since joining in March 2014. She holds a BA honours degree in Psychology from the University of the Witwatersrand as well as an undergraduate degree in Psychology and Anthropology. Kimeras' academic grounding, along with her work as a researcher has enabled her to analyse and critically assess any given task.

SUMAYA LAHER is an Associate Professor in the Department of Psychology, University of the Witwatersrand. Her research interests are in the field of psychological assessment, particularly personality theory and assessment, cross-cultural issues in relation to mental health and illness and the interface between religion and psychology.

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