An Empirical Exploration of the Psychological Acculturation Process Amongst First-Year Economics Students at Stellenbosch University

by
Lee Blake

Thesis presented in fulfilment of the requirements for the degree of Master of Arts (Psychology) in the Faculty of Arts and Social Sciences at Stellenbosch University

Supervisor: Dr Hermann Swart

April 2022

DECLARATION

By submitting this thesis, I declare that I understand what constitutes plagiarism, that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights, and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

Date: [April 2022]

Acknowledgements

I am entirely in the debt of Debra and Hermann for their generous spirits, notes, support, time, ideas, and—most of all—patience. Thanks also to mom, dad, and Ross.

Abstract

South Africa's higher education landscape has become highly diverse. However, many instances of inequity and discrimination are still present within and between institutions and institution types, especially along racial lines (Essop, 2020). Scholars (Heleta, 2016), students (Open Stellenbosch Collective in press, 2015), and even the Department of Higher Education (DHET, 2008) have levelled the complaint that institutions lack the will to transform. For example, while Stellenbosch University (SU) policy promotes diversity and equality (multiculturalism), black (African) and coloured South African students experience the climate as othering and uncomfortable (Biscombe et al., 2017).

In ideal acculturation conditions, students would navigate SU according to a preference for a particular acculturation strategy that would mediate the relationship between intercultural contact and acculturation adaptations such as wellbeing, intergroup relations, and academic performance (Berry, 1997). Four acculturation strategies (integration, assimilation, segregation, and marginalisation) are produced at the intersection of the two acculturation dimensions of ethnic identity and intergroup contact willingness. Research has reliably demonstrated that an integration strategy preference (in the right conditions) can result in both higher levels of well-being (e.g., Berry, 1990; Berry et al, 1989; Van Oudenhoven et al.,1998) and successful psychological adjustment amongst ethnic group members (Berry & Sam, 1998).

Research on the process of acculturation in the developing world and in the South African context more specifically is lacking in comparison to that of the developed world. Within this context, then, several gaps are evident including limited research on acculturation in Sub-Saharan Africa, an absence of research into acculturation in the mainstream groups, limited research comparing acculturation for mainstream and ethnic groups, and relatively little attention has been afforded to individual and psychological antecedents and to domain-specific sociocultural outcomes such as academic performance.

The following secondary data analysis aimed to determine the state of acculturation strategy preferences amongst both ethnic and mainstream first-year Economics students studying at SU in 2019. Moreover, the study explored whether the respective acculturation preferences and expectations of these groups are predicted by individual or psychological variables including (a) background demographics factors such as school quintile, socioeconomic status, home language, gender, and age; (b) pre-university experiences of

intercultural contact, (c) norms towards intercultural contact, (d) perceived intergroup similarity, (e) perceived discrimination, and (f) frequencies of negative and positive home community intergroup contact experiences. The present research then sought to determine the associations between acculturation strategy preferences and acculturation outcomes such as (a) intergroup attitudes, (b) frequency of positive and negative intergroup contact experiences at SU, (c) general wellbeing, (d) and academic performance.

The integration acculturation strategy was the most popular amongst both the mainstream and ethnic group. Adaptation difficulties for ethnic group members were evidenced by significantly lower wellbeing and academic performance amongst this group. The results further suggest that one driver behind these outcomes could be the experience of high rates of negative intergroup contact. Higher rates of outgroup attitudes could be promoted amongst ambivalent and unwelcoming mainstream groups to reduce negative contact, through interventions targeting intergroup similarity.

Opsomming

Alhoewel die hoëronderwyslandskap in Suid-Afrika hoogs divers geword het, is daar egter steeds baie gevalle van ongelykheid en diskriminasie binne en tussen instellings teenwoordig, veral langs rasselyne (Essop, 2020). Skoliere (Heleta, 2016), studente (Open Stellenbosch Collective in pers, 2015), en selfs die Departement van Hoër Onderwys (DHOO, 2008) het die klagte gelê dat instellings nie die wil besit om te transformeer nie. Byvoorbeeld, terwyl beleide vir diversiteit en gelykheid (multikulturalisme) van bevorder is op die Universiteit Stellenbosch (US) ervaar swart (Afrika) en bruin Suid-Afrikaanse studente die klimaat as anders en ongemaklik (Biscombe et al., 2017).

In ideale akkulturasietoestande, sal studente die US navigeer volgens 'n voorkeur vir 'n bepaalde akkulturasiestrategie wat die verhouding tussen interkulturele kontak en akkulturasie-aanpassings, soos welstand, intergroepverhoudings en akademiese prestasie, sal bemiddel (Berry, 1997). Vier akkulturasiestrategieë (integrasie, assimilasie, segregasie en marginalisering) word by die kruising van die twee akkulturasiedimensies van etniese identiteit en intergroepkontakgewilligheid geproduseer. Navorsing het betroubaar getoon dat 'n integrasiestrategie-voorkeur (in die regte omstandighede) beide hoër vlakke van welstand tot gevolg kan hê (vgl Berry, 1990; Berry et al, 1989; Van Oudenhoven et al., 1998) en suksesvolle sielkundige aanpassing onder etniese groeplede (Berry & Sam, 1998).

Navorsing oor die proses van akkulturasie in die ontwikkelende wêreld, en in die Suid-Afrikaanse konteks spesifiek, ontbreek in vergelyking met dié van die ontwikkelde wêreld. Binne hierdie konteks is verskeie leemtes duidelik, insluitend beperkte navorsing oor akkulturasie in Afrika suid van die Sahara, 'n afwesigheid van navorsing oor akkulturasie in hoofstroomgroepe, beperkte navorsing wat akkulturasie vir hoofstroom- en etniese groepe vergelyk, en relatief min aandag gegee aan individuele en psigologiese antesedente sowel as domeinspesifieke sosiokulturele uitkomste soos akademiese prestasie.

Die sekondêre data-analise wat in hierdie tesis aangebied is het ten doel gehad om die stand van akkulturasiestrategie-oriëntasies te bepaal onder beide etniese en hoofstroom-eerstejaar-ekonomiestudente wat in 2019 aan die US studeer. Verder het dié studie ondersoek of die onderskeie akkulturasievoorkeure en verwagtinge van hierdie groepe voorspel word deur individuele of psigologiese veranderlikes, insluitend (a) agtergrond demografiese faktore soos skoolkwintiel, sosio-ekonomiese status, huistaal, geslag en ouderdom; (b) pre-universitêre ervarings van interkulturele kontak, (c) norme ten opsigte van interkulturele kontak, (d) persepsies van intergroep-verlykbaarheid, (e) persepsies van diskriminasie, en (f) frekwensies

van negatiewe en positiewe tuisgemeenskap-intergroepkontakervarings. Die huidige navorsing het daarna gepoog om die verbande tussen akkulturasiestrategie-oriëntasies en akkulturasie-uitkomste soos (a) intergroephoudings, (b) frekwensie van positiewe en negatiewe intergroepkontakervarings aan die US, (c) algemene welstand, (d) en akademiese prestasie te bepaal.

Die integrasie-akkulturasiestrategie was die gewildste onder beide hoofstroom- en etniese groepe. Aanpassingsprobleme vir etniese groeplede word bewys deur aansienlik laer welstand en akademiese prestasie onder hierdie groep. Die resultate dui verder daarop dat een drywer agter hierdie uitkomste die ervaring van hoë koerse van negatiewe intergroepkontak in beide tuisgemeenskappe en op US wees. Houdings teenoor buitestaanders wat ervarings van negatiewe intergroepkontak verminder, kan onder ambivalente en onwelkome hoofstroomgroepe bevorder word deur intervensies wat persepsies van intergroep-verlykbaarheid teiken.

Table of Contents

Chapter 1: Introduction

Higher unemployment rates and lower earnings amongst black (especially African) South Africans (Statistics South Africa, 2019) is said to be the primary factor behind the country's severe income inequality (Francis & Webster, 2019; Lam, Finn, & Leibrandt, 2015)[1]. This difference in income has been linked to institutional exclusion and discrimination (Francis & Webster, 2019), particularly within higher education institutions (HEIs; Moses, Van der Berg, & Rich, 2017). These have become known as the social drivers of inequality that act in parallel with the more well-researched market drivers of, for example, technological change and labour market institutions (Bhorat, Cassim, & Tseng, 2014; Francis & Webster, 2019; Leibrandt, Bhorat, & Woolard, 2012). To formally and consistently participate in the relatively skills intensive economy of South Africa generally requires some form of HE (Moses et al., 2017). However, despite becoming increasingly diverse over the last three decades, the HE landscape is pervaded with race and class based inequity in terms of both access and participation (Essop, 2020).

In recent years, therefore, student protest movements have attempted to stir change and achieve justice with regard to many of these discrepancies. Most notably—in the case of the so-called #FeesMustFall movement—financial exclusion was relatively successfully lobbied. However, protesting students also attempted to challenge higher education institutions (HEIs), albeit to a less successful degree, on issues relating to curriculum and institutional cultures and identities under the banner of decolonisation (Calitz & Fourie, 2016; Luckett & Naicker, 2019). For example, the Open Stellenbosch Collective (OSC), which was a localised student movement at Stellenbosch University (SU), was particularly concerned with an Afrikaans-dominant language policy (OSC in Press, 2015). Afrikaans, the group argued, was being used as an exclusionary measure particularly against African students and staff.

Heleta (2016) agrees with these and other claims of cultural exclusion on campuses around the country. Specifically, that what underlies many of the issues related to participation are the lingering effects of colonialism and apartheid. Universities were ultimately established

[1] According to the BEE Act 53 of 2003, the label 'black' is used in South Africa as a generic and inclusive term to refer to African, coloured, and Indian population groups collectively. Conversely, the labels of black, coloured, and Indian come from Apartheid-era legislation. However, these labels continue to be used in official records (like the South African Census and Quarterly Labour Force Survey). As such, the labels used in this thesis have been derived from official records to better distinguish between these subgroups and to interpret the pattern of results observed in the collected data. I acknowledge that the use of these terms remains contentious in the South African context and their usage does not imply that either I or SU endorse their legitimacy. Lastly, I have used the label black (African) South African in the thesis as a means of distinguishing this sub-group from the generic, inclusive group identified as 'black' (which includes coloured and Indian South Africans) in South African legislation.

as instruments of white supremacy (Pietsch, 2013; Ramoupi, 2011), and, in many ways, were used to normalise racism and discrimination (Césaire, 2001; Heleta, 2016; Mudimbe, 1985, 2011; Said, 1994). Today, then, white students and lecturers tend to experience campus life within these historically white institutions as natural, and so are more inclined to feel at home and thrive than are their black counterparts who are more likely to experience hurt, anger, and pain in the face of what are essentially exclusionary and discriminatory climates (Badat, 2016; Biscombe, Conradie, Costandius, & Alexander, 2017). Moreover—and in tandem with international findings (Coll & Marks, 2012; Makarova & Birman, 2015)—minority ethnic groups in South Africa tend to, at least on average, underperform academically relative to the majority, or what can also be termed the mainstream groups (Essop, 2020), who are expected to cope with and adapt to greater social and cultural demands (as detailed above).

One way of conceptualising this adaptation is as an acculturation process. That is, where two or more cultural groups come into direct contact for extended periods of time, certain changes are expected to occur at the group and individual levels (Berry & Sam, 2016). In education settings, students' academic performance or wellbeing may begin to undergo shifts as the student is challenged to learn about and adapt to the acculturation context (Arends-Tóth & Van de Vijver, 2006; Van de Vijver, Berry, & Celenk, 2016). Individuals are additionally theorised to prefer an acculturation strategy that determines if as well as how intergroup contact unfolds in diverse settings (Berry, 1997; 2006; Berry & Sam 2016; Van de Vijver et al., 2016). There is more generally a lack of research into this process in the developing world (Adams & Van de Vijver, 2017) and particularly in South Africa (Adams & Abubakar, 2016). Additionally, far less research is conducted with regard to the acculturation processes as it unfolds for mainstream groups and there is an absence of attention focussed on domain specific outcomes such as academic performance. Moreover, globally, studies of a single acculturating group are the norm within the literature (Te Lindert, Korzilius, Stupar-Rutenfrans, & Van de Vijver, 2021).

The present thesis, then, will empirically examine secondary data collected from a diverse sample of first-year economics students based at SU to determine two broad aims: (i) whether as well as how mainstream and ethnic groups differ on a selection of antecedent and consequent variables, and (ii) whether as well as how members within each of these groups differ in relation to their preference for a particular acculturation strategy. What follows from here then is a more detailed introduction to the context of and socioeconomic problems in South Africa and how the acculturation process in HEIs could be a contributing factor. The literature review chapter then unpacks the necessary definitional, terminological, and theoretical

frameworks that have been used in the present study. A chapter is then dedicated to explaining the methodological undertakings including ethics, sampling, and analysis; which is then followed by a chapter presenting the analysis results, a chapter that discusses the results, limitations, and strengths; and, finally, a chapter to conclude.

Inequality in South Africa

Whilst today all South Africans can be said to be politically free, not all are free to participate in economic or social life on an equal basis (Cosser, 2010). One way in which this inequity continues to manifest is in the continued maintenance and development of high income and wealth inequality (Moses et al., 2017). A staggering 90% of income inequality is believed to be due to wage inequality in South Africa (Finn, 2015; Francis & Webster, 2019). This can be linked to the fact that white South Africans earn up to three times more than black (African) South Africans—implying a strong racial component to the inequality (Statistics South Africa, 2019). This is likely driven, in part, by the fact that unemployment amongst black (African) South Africans is more than four times that of white South Africans (Statistics South Africa, 2019).

One of the means through which government has long sought to address this issue has been to expand access to quality higher education (HE), especially to previously disadvantaged groups, through restructuring and transformation policies (Cosser, 2010; Department of Education [DoE], 2001; 2008; Mzangwa & Dede, 2019). The key assumption behind this intervention is that South Africa's labour market is relatively skills intensive and so it has been argued that employers place a high premium on HE—with the result that its acquisition is believed to be a not insignificant means of social mobility (Moses et al., 2017). However, because access to HE continues to be largely determined by socioeconomic status (SES) and race (Essop, 2020), privilege and inequality have only continued to develop, shift, and evolve (Bhorat et al., 2014; Francis & Webster, 2019; Leibrandt et al., 2012).

Social Drivers of Inequality

In noting the above, development economists have begun proposing that the social drivers of inequality need greater attention in research (Francis & Webster, 2019; Soudien, Reddy, & Woolard, 2019). Inequality, they claim, is not only a phenomenon rooted in market power (enriching shareholders at the expense of consumers) but it also emerges from institutional exclusion and discrimination—most notably at the intersection of multiple social

identities including race, gender, and class (Francis & Webster, 2019; Hino, Leibbrandt, Machema, Shifa, & Soudien, 2018; Soudien et al, 2019).

It might be argued then, that the DoE, in early awareness of this fact, outlined in its vision for a transformed HE landscape in the Education White paper 3 (WP3) *A Programme for the Transformation of the Higher Education System* (Department of Higher Education and Training [DHET], 1997, pp. 6), the promotion of equity through "… eradicating all forms of unfair discrimination…". The WP3 (Department of Higher Education and Training [DHET], 1997, pp. 9) then outlines institutional-level goals one of which includes "to encourage and build an institutional environment and culture based on tolerance and respect". The policy document then establishes a "fundamental point of policy", stating that under the new single co-ordinated HE system, there will be a "broadening of the social base of the higher education system in terms of race, class, gender and age" (Department of Higher Education and Training, 1997, pp. 10). The preamble of SU's "Transformation and Diversity" (n.d. b) aligns strongly with the above, stating that SU "… is striving towards a welcoming campus culture that will make all students, staff and visitors feel at home, irrespective of origin, ethnicity, language, gender, religious and political conviction, social class, disability or sexual orientation. This includes creating a multicultural environment that enables a variety of cultures to meet and learn from one another".

However, as will become evident below, these goals are far from realised nearly thirty years in Democracy. Indeed, a very clear picture emerges in present day South Africa in which poor and especially black (African) and coloured South Africans are still under-represented in HE more generally, but particularly in the more prestigious (historically white) institutions that offer greater returns in terms of academic achievement and graduate employment for all groups (Broekheizen, 2016; Kraak, 2010; Moleke, 2005). As such, one could say that this is not so much a problem of a lack of policy but rather of a lack of will to fully implement these policies at the institutional level (Department of Higher Education and Training [DHET], 2008; Heleta, 2016).

State of Access, Enrolment, Participation and Diversity in Higher Education

Recent data suggests that about half of all white South Africans aged 18- to 21-years are enrolled in a higher education institution (HEI), compared to approximately a third of black (African) South Africans and less than 20% of coloured South Africans (Statistics South Africa, 2017). Moreover, nearly half of all students between the ages of 18- and 24-years currently

studying at degree level have been drawn from the top quintile of household income [2] (Statistics South Africa, 2019). Conversely, more than half of individuals aged 18-24 years who are not enrolled in HE met the requirements to enter HE but could not afford tuition (Statistics South Africa, 2019).

Through aggregating the data at the national level, Essop (2020) found that black (African) and coloured South African learners who do access university were disproportionately more likely than their white counterparts to take extra time to graduate and were more likely to abandon their studies. In 2011, for instance, the minimum-time throughput rate for three- and four-year degree-programmes was found to be ten- to twenty-percentage points greater for white students than for black (African) and coloured South African students (DHET, 2019). Additionally, in four-year degree-programmes, and for that same period, black (African) students were found to be twice as likely to drop out as were white students (Essop, 2020).

It is important to note that, in general, HE diversity has improved remarkably over the past three decades. Between 1986 and 2011, for example, the number of black (African) graduates increased 16-fold from about 3,400 to over 55,600 across South Africa (Van Broekhuizen, 2016). In the period 2005 to 2017, Essop (2020) noted a 60% growth in black (African, coloured, and Indian) South African enrolments across all types of HEIs, and a 20% drop in white South African student enrolments. In 2017, then, black (African, coloured, and Indian) students accounted for up to 85% of all HEI enrolments, up from 75% in 2005.

However, whilst HE diversity—and by implication access—is clearly improving in an absolute sense, these aggregate national level statistics conceal a wide range of differences not only between institutions, but also from one type of institution to the next (Essop, 2020), and even from one degree-programme to the next (Cosser, 2009). South African universities generally, and prestigious (historically white) universities especially, are largely out of the reach of particularly poor, black (African) and coloured South Africans (Essop, 2020). In fact, Essop (2020) notes, black (African and coloured) students are more likely to be enrolled in historically black universities (HBUs), universities of technologies (UoTs), correspondence, and other institutional types, which also happen to be the least ethnically diverse institutions,

[2] According to Statistics South Africa (2019, pp. 67), the quintiles were created using monthly household income drawn from GHS data and "[m]edian per capita income derived using the Living Condition Survey 2014/2015 adjusted for inflation. Where total monthly household income values were missing or were less than R1 695, 34 monthly income values were imputed by using per capita median income multiplied by household size".

especially in the cases of HBU (99% black) and UoTs (96% black). Conversely, white South African students are far more likely to be concentrated in what are termed research intensive or elite universities (RIUs) than in any other type, where they make up, on average, 28% of the student body (Essop, 2020).

As a result of these and other differences, the academic performance and later employment prospects of graduates leaving university differ significantly along ethnic lines (Kraak, 2010; Moleke, 2005; Van Broekheizen, 2016), driven, at least in part, by the lack of social capital found at HBUs in particular (Kraak, 2010). Similarly, it has also been found that black (African) graduates who attended an RIU are more likely to outperform students from that same ethnic group who attended an HBU (Parker, 2010).

Precipitating Effect of Basic Education

This wide range of disparities between HEI types is not dissimilar from those found in the basic education system, which suffers from similar bifurcation (in terms of ethnic group distribution as a function of income quintile). The basic education system in South Africa is ranked according to five quintiles using indices of income, literacy, and unemployment levels from the surrounding area for the purpose of allocating financial resources (Dass & Rinquest, 2017; Graven, 2014; Ogbonnaya & Awuah, 2019). Most notably, two-thirds of all South African learners are enrolled in the poorer three school quintiles, often regarded as no-fee schools (Besharati & Tsotsotso, 2015). Moreover, some 95% of these learners are considered black (African) South Africans (General Household Survey [GHS], 2019). Conversely, quintile 4 and 5 and private schools are wealthier, more ethnically diverse spaces with significantly greater resources at their disposal (Hall & Giese, 2008; Ogbonnaya & Awuah, 2019).

One of the main drivers of inequity in both access and achievement in HE has been found to be access to a quality basic education (Van der Berg, Taylor, Gustafsson, Spaull, & Armstrong, 2011). For example, whereas 42% of quintile 5 learners will achieve a bachelor's pass in their secondary school exit examinations (matric), only 4% of learners attending the poorest schools (quintiles 1-3) will manage the same (Moses et al., 2017). Learners attending no-fee schools are disproportionately more likely to drop out prior to matriculation or underperform academically when compared to learners attending higher quintile schools (Cosser, 2009; DoE, 2000, 2004; Van der Berg et al., 2011). Furthermore, Moses and colleagues (2017) find that while one-in-six quintile 5 learners will obtain a university degree within six years of matriculation, only about one-in-one-hundred learners from no-fee schools will achieve that same milestone. What is clear from the above, then, is that continued public

spending on HE—as it currently exists—is decisively pro-rich (Van der Berg & Moses, 2012). All of this, it is argued, contributes to the consolidation of privilege and the development of the inequalities described earlier (Francis & Webster; Moses, 2017).

This split between the 'haves' and the 'have-nots' in the basic education system can most certainly be, at least in part, linked to the effects of Apartheid (Moses et al., 2017; Van der Berg et al., 2011). Education provision during the Apartheid period was founded on a race-based system that denied equal treatment to the black (African, Indian, and coloured) majority (Badat & Sayed, 2014). For example, formal policies such as the Bantu Education Act of 1953, centralised black (African) education under the government's control. Here, schools reserved for white South Africans were well funded, staffed, and managed at the direct expense of those reserved for black (African) South Africans, which were chronically under resourced (Moses et al., 2017). Today, as in the past, there are a few elites who are privileged enough to attend higher quintile schools and receive an education of a standard that is comparable to that found in developed nations, while the majority of South Africans struggle to get through a dysfunctional system little different than it was under Apartheid (Moses et al., 2017).

Student Protest on Fees and Institutional Culture

The antecedents of South Africa's perennial student protests are especially obvious when viewed against this contextual backdrop. Most notably — as protests often erupt around fee-related frustrations — the most recent and significant student protests were the aptly named #Feesmustfall (FMF) protests, which took place between 2015 and 2017 (Luckett & Naicker, 2019). The protests began with the announcement of a proposed 11% tuition fee increase at the University of the Witwatersrand (Wits) in September 2015 (Luckett & Naicker, 2019). Research conducted since the protests have confirmed that, in fact, tuition fees—at least at SU—were at their highest level in real terms for at least the past fifty years (Calitz & Fourie, 2016). Additionally, this increase had not been matched by gains in real household income in South Africa for that same period (Calitz & Fourie, 2016). The fervour would therefore spread fast to campuses around the nation, and eventually culminate in a 10,000 strong march to the Union Buildings in October of 2015 (Allais, 2017).

However, while the protests began in reaction to an announced fee increase for the following year, it would grow into a movement that would demand, and then come close to achieving, free education for all. For many, though, an equally important and lesser achieved goal of the movement was the decolonisation of the curriculum and of HE more generally. However, what was achieved by the movement was that the topic of decolonisation was widely

debated in the public sphere (Calitz & Fourie, 2016). Although the more general FMF movement would dominate national news headlines, peripheral movements would also emerge at the institutional level. One group in particular, the Open Stellenbosch Collective (OSC) at SU, were successful in their demands for transformative change, especially with regard to the institution's language policy.

Peripheral Movements and the Demand for Decolonisation

The OSC was concerned with the slow pace of transformation at SU, calling the many transformation policies "empty promises" (OSC in press, 2015). In particular, the OSC claimed that the then Afrikaans dominant language policy at SU was an exclusionary measure preventing mostly black (African) students and staff from learning and participating on an equal footing with white counterparts (OSC in press, 2015). By the end of 2016, SU would introduce a new multilingual language policy to be instituted in 2017 (Language Policy of Stellenbosch University, 2016). Here it is worth noting that, as of 2018, SU was the only South African HEI with a white numeric majority student body (Essop, 2020; Stellenbosch University Statistical Profile Overview, 2018)—a statistic highly indicative of the untransformed nature of the institution. This, I would argue, is evidence that transformative change was taking place, relative to other South African HEIs, from a very low base. It is no wonder then that the OSC additionally claimed that SU's institutional culture was only reflective of white, Afrikaans culture and that "radical and rapid" change was necessary for it to become more aligned with the national multicultural ethos (OSC in press, 2015). On these grounds, students claimed that SU management had failed in terms of the DoE's goals as set out in WP3, namely, to achieve equity of access and develop a new institutional culture and identity.

Heleta's (2016) more general critique of South African universities concurs with the assessment of the OSC, stating that while all South African universities have introduced policy frameworks that in one way or another allude to transformation and equity, institutional cultures have not undergone the necessary change. The DHET (2008) proposed that this was due to a lack of will to implement these policies and that the planned movement towards a democratic curriculum that would be open to all worldviews or epistemologies, has ultimately failed. The FMF and peripheral groups, therefore, expressed discontent at this lack of transformation, and began campaigns to disrupt 'whiteness' on campuses, in society, and the economy more broadly (Heleta, 2016) as a resistance to the long-standing imposition that whiteness is all that is "civilised, modern, and human" (Sardar, 2008, pp. xiii).

At this point, it is worth noting that the existence of universities in South Africa began as a means of furthering the colonial project (Pietsch, 2013; Rampoudi, 2011) and so contributed significantly to colonial domination by promoting Eurocentric epistemologies and modes of being at the expense of those of subjugated indigenous cultures (Heleta, 2016). This process occurred through encouraging an inferiority complex amongst indigenous peoples (Césaire, 2001; Heleta, 2016; Mudimbe, 1985) and through the normalisation of racism (Said, 1994).

Upon inheriting these institutions, the Apartheid government would further develop these tendencies from the late-1940s onwards. Bunting (2004) states, for example, that the development of white and Afrikaans only universities, such as SU, became a means through which the government could ensure white minority rule — making these HEIs instrumental to the maintenance of the Apartheid regime. SU unsurprisingly, then, has a long history associated with Apartheid's right-wing and nationalist ideologies (Swartz, Rohleder, Bozalek, & Carolisson, 2009). Apartheid, colonialism, and other movements of white supremacy were, therefore, developed and maintained by these same institutions, teaching a curriculum based on similar assumptions to, and their effects are still being felt (Nwadeyi, 2016). As such, these institutions, even as they exist in the present day, are inextricably linked to historically entrenched power that relied on dispossession and disenfranchisement — and the racism, discrimination, and exclusion that continues to result from these facts (Costandius et al., 2018).

Black South African students are today, then, expected to connect to curriculum material that is culturally alienating at best (Heleta, 2016) and demeaning at worst (Césaire 2001; Mudimbe, 1985) in an environment that they feel does not recognise their human worth in the same way it does that of white students. At present, white South African students and lecturers generally experience the campus culture of historically white universities as natural and are more inclined to feel at home (Badat, 2016), whilst black and/or disadvantaged students and lecturers tend to find this culture disproportionately uncomfortable, alienating, disempowering, and exclusionary (Badat, 2016; Biscombe et al., 2017).

Psychological Acculturation

The context that has been described above, is what psychological acculturation researchers refer to as acculturation conditions (Arends-Tóth & Van de Vijver, 2006; Van de Vijver et al., 2016). These include both the objective and perceived facets of a given societal context in which intercultural contact is taking place, including national and institutional

policies, the socioeconomic landscape and its history, intergroup relations, and the cultural characteristics of two or more ethnocultural groups.

The field of psychological acculturation is more generally concerned with whether, as well as how, members of different cultural groups interact (Berry, 2006). A major component of this research is the process of ongoing intercultural contact—as well as the antecedents and outcomes thereof (Berry & Sam, 2016). More generally, members of what is termed the host society are regarded as mainstream and, depending on several other factors, members of those entering the host space are considered ethnic groups (Berry & Sam, 2016). Van de Vijver and colleagues (2016) argue that while this distinction may contribute to the misleading notion that the mainstream group are not in possession of an ethnicity (because they are), the clarity that the term provides still exceeds that of the alternatives.

SU, in 2018, recorded upwards of 31,000 students. Of these, 58% were white, 20% were black (African), and 18% were coloured students (Stellenbosch University Statistical Profile, 2018). These figures do not mark major gains in diversity from the previous years. In 2014, for example, white students accounted for 63.4% of the student body (Stellenbosch University Statistical Profile, 2018). At SU, then, a historically Afrikaans and white HEI, black (African) and coloured South African students would then be regarded as ethnic groups and white students would best be regarded as the mainstream group.

Mainstream and ethnic groups are theorised to interact in diverse spaces through what are termed acculturation strategies (Berry, 1997). There are four strategies, according to Berry's bi-directional model of acculturation, created through the intersection of the preferences for (i) ethnic identity and (ii) intergroup contact (Berry, 1990, 1997). These strategies are integration (high inclination towards ethnic identity and towards contact with outgroup members), assimilation (low inclination towards ethnic identity but high desire for contact with outgroup members), separation (inclination towards ethnic identity but not towards contact with outgroup members), or exclusion (low inclination towards both ethnic identity and contact with outgroup members; Berry, 1990; Berry & Sam, 2016; Van de Vijver et al., 2016).

An equally important third factor is additionally believed to impact upon the preference of a strategy, and that is the power the individual and their group have relative to, especially the mainstream, dominant, or host society members (Berry & Sam, 2016). What this means is that, whilst an ethnic group member may seek to become integrated into mainstream society, national and institutional policies or discrimination from the mainstream group might not accommodate this preference or could even potentially create forced segregation through discrimination. In the case of SU, transformation policy at national and institutional level

embraces integration, but whether it is widely embraced by mainstream students is up for debate.

How an individual learns to cope with and adapt to what is termed acculturative stress, which emerges as a result of intercultural contact (Williams & Berry, 1991), can result in certain psychological and sociocultural changes known as adaptations (Berry, 1997; Berry & Sam, 2016). Stated otherwise, the way in which a student navigates a diverse space depends upon certain contextual factors which then together impact their intergroup contact-change relationship, and an array of outcomes such as intergroup relations, academic achievement, and wellbeing (Berry, 1990, 2016).

Although the different acculturation strategies have contextual benefits for coping with acculturative stress—say segregation or marginalisation in contexts of high discrimination—research has reliably demonstrated that ethnic minorities respond most positively when they show an orientation towards the integration strategy, experiencing both higher levels of well-being (Berry, 1990; Berry, Kim, Power, Young, & Bujaki, 1989; Van Oudenhoven, Prins, & Buunk, 1998) and successful psychological adjustment as a result (Berry & Sam, 1998). Moreover, it is through these multicultural and integration orientations that more positive intergroup contact is likely to occur, which, as per the well-known contact hypothesis (Allport, 1954), is one of the most reliable ways to both reduce negative out-group attitudes (i.e., prejudice) as well as promote positive intergroup attitudes (e.g., trust) within post-conflict societies (Dovidio, Love, Schellhaas, & Hewstone, 2017; Hewstone & Swart, 2011; Pettigrew & Tropp, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011).

A general lack of acculturation research is evident in the developing world more generally (Adams & Van de Vijver, 2017) and in the sub-Saharan region specifically (Adams & Abubakar, 2016). Only a handful of acculturation studies are currently known to the author to have been conducted in South Africa (e.g., Hocoy, 1999; Jackson, Van de Vijver, & Molokoane, 2013; Jogee, Callaghan, & Callaghan, 2018; Naidoo & Mahbeer, 2006). These works have been disproportionately concerned with ethnic group acculturation strategies and their associated antecedent and consequent variables with a relative lack of attention to how the mainstream group navigates diversity. While this may be in line with traditional acculturation study designs, Berry and Sam (2016) argue that the mainstream group are an important feature not to be neglected — the mainstream group are also expected to (albeit to a lesser degree) experience acculturative change. Additionally, many aspects of the acculturation process have not been touched on by these studies, including outcomes such as domain-specific adaptation or intercultural relations. Lastly, there have also been few instances of exploration of the impact

of precontact (in this case, prior to their first contact with the outgroup at SU) individual or psychological factors on the acculturation process.

Study Rationale

University students throughout South Africa, and at SU in particular, have expressed frustration through collective action with the state of transformation—or lack thereof. Furthermore, transforming HEIs (i.e., reducing discrimination) and making access and participation more equitable could positively change South Africa's inequality problems (Francis & Webster, 2019; Soudien et al., 2019). University campuses are becoming increasingly diverse (Essop, 2020), however, and intergroup contact under less equitable conditions could exacerbate feelings of isolation, discrimination, and other difficulties (Badat, 2016; Biscombe et al., 2017). Moreover, the study of psychological acculturation has found that the process of intergroup contact in diverse settings influences outcomes related to wellbeing, intergroup relations, and academic performance—moderated by a preference for a particular acculturation strategy (i.e., integration, assimilation, segregation, or marginalisation; Berry, 1990; Berry, 2016). Importantly, although many studies have neglected to assess mainstream groups in relation to ethnic groups—especially in developing contexts —theory suggests that this group bears a large influence over the process and outcomes of acculturation for ethnic groups (Adams & Van de Vijver, 2017; Adams & Abubakar, 2016; Berry, 1997; Berry & Sam, 2016). Additionally, relatively few studies have investigated acculturation more generally in the South African context and especially lacking is research into individual or psychological conditions as well as domain-specific outcomes, such as academic performance.

The following secondary data analysis therefore aimed to determine the state of acculturation strategy preferences amongst both ethnic and mainstream first-year Economics students studying at SU in 2019. Moreover, the study explored whether the respective acculturation preferences and expectations of these groups are predicted by individual or psychological variables including (a) background demographics factors such as school quintile, SES, home language, gender, and age; (b) pre-university experiences of intercultural contact, (c) norms towards intercultural contact, (d) perceived outgroup similarity, (e) perceived discrimination, and (f) frequencies of negative and positive home community intergroup contact experiences. The present research then sought to determine the associations between acculturation strategy preferences and acculturation outcomes such as (a) intergroup attitudes, (b) frequency of positive and negative intergroup contact experiences at SU, (c) general wellbeing, (d) and academic performance.

Thesis Outline

Chapter 1 provided an overview of a research problem, namely South Africa has for decades struggled with income and wealth inequality which researchers have begun to trace back to inequity of access and participation within the South African HE landscape. It has then additionally developed a contextual, historical, and theoretical backdrop from which the present research can be better understood. This was accomplished by providing an overview of the state of access and participation with HE and how it has changed over the decades with the help of changes to national and institutional policy as well as from student movements. A brief introduction to the theoretical landscape of acculturation was also undertaken to better develop the aims and objectives of the thesis.

Chapter 2 aims to define the major concepts within acculturation psychology relevant to this thesis. Additionally, an exploration of the seminal works, with regard to psychological acculturation more generally, is undertaken. The second chapter then sought to discuss and assess the specific aspects relevant to the field of psychological acculturation including predictors, acculturation strategy preferences, adaptations, and outcomes as well as a survey of the relevant ways in which these have been conceptualised and operationalised. Chapter 2 includes a critical review of acculturation as it has been researched in the South African context, which is followed by a synthesis and conclusion.

Chapter 3 details the methodological aspects of the present study, including the formulations of a research motivation, research design, the research question, and hypotheses. Next, the particulars of data collection, data missingness, data imputation, and data analysis methodologies are detailed. It then further presents the findings of the preliminary and main analyses, followed by a discussion of those findings in Chapter 5. This chapter then concludes by summarising and synthesising all previous chapters, as well as presenting policy recommendations and suggestions for future research.

Chapter 2: Literature Review

Introduction

This chapter is organised according to the main hypotheses developed for the present study. Namely, that members of mainstream and ethnic groups adapt to the challenges of intercultural contact at different rates and that, once sorted into acculturation strategy groups, are expected to differ significantly in their antecedent (e.g., childhood intercultural contact experiences and perceptions of intergroup similarity) and consequent (e.g., wellbeing, academic, and outgroup attitudes) factors. The main goals of the chapter are therefore to provide the reader with the necessary definitions and key concepts used in the field of psychological acculturation, as well as an overview of recent developments in the field and potential gaps that the present research attempted to fill.

This chapter thus begins with an overview of the field of acculturation psychology, including a survey of the core theory and seminal texts. This is followed by detailed summaries of the most recent and impactful research relating to the antecedent and consequent factors of psychological acculturation with a focus on those relevant to the present research. Although a large proportion of the existing research has emerged from developed contexts, I made the effort to survey research conducted in developing contexts too, most notably in the South African context.

A survey of the most recent research was conducted using Google scholar, with the timeline restricted to the past ten years, to ensure that no duplication of efforts was undertaken in the current research. Amongst others, keywords used in the search process included “acculturation in higher education”, “psychological acculturation South Africa”, “predictors of acculturation”, “acculturation adaptation outcomes”, “acculturation for ethnic groups and indigenous peoples”, “effects of negative contact experiences during acculturation process”, “Outgroup attitudes as adaptation to the acculturation process” and “acculturation in developing contexts”.

Acculturating Groups

Of central importance to the study of the acculturation process, is the contact that occurs between two or more cultural groups (Berry & Sam, 2016). Moreover, different terms are used to distinguish different types of groups involved in the acculturation process. At a very basic level, two very broad groups can be distinguished. The first group is known as the mainstream

group, which refers to the culturally dominant group/s of a society that may or may not be a numeric majority; for example, the disproportionately economically powerful white South African group as discussed in chapter one (Berry & Sam, 2016; Van de Vijver et al., 2016). The second group, known as the ethnic group, represent those engaged in an acculturation process in which they are the culturally non-dominant or less powerful group/s in a society; consisting of, for example, members of immigrant, asylum seeking, refugee, or ethnic minority groups (Van de Vijver et al., 2016).

The terms mainstream and ethnic mark a new direction for acculturation research, which historically has been focussed on immigrant and host society groups (Van de Vijver et al., 2016). This is owing to an historically disproportionate concern with issues relating to immigration within the field of acculturation psychology. Within developed contexts, where the majority of acculturation research has been conducted, the most common form of acculturation process unfolds between groups of foreign peoples and members of the host society (Sam & Berry, 2006). However, there are many types of contexts within which (and reasons for which) acculturation might take place in developing contexts (Berry & Sam, 2016). In fact, far higher rates of acculturation are argued to take place in the developing world than in the developed world (Adams & Van de Vijver, 2017).

Three dimensions have been proposed to distinguish six distinct acculturation groups: (i) voluntariness-involuntariness of contact, (ii) migrant-sedentary groups, and (iii) permanent-temporary settlement (Berry, 1990; Berry & Sam, 2016). What is perhaps evident from the above three dimensions, is that contact between groups can firstly be either sought out by or foisted upon a group. Secondly, there is the dimension of movement, which describes how a group has either never moved from their ancestral homeland or are a part of a diaspora in a new territory. Lastly, the temporality dimension is used to distinguish between groups who have chosen to settle permanently or only temporarily in a new society. The intersection of these three groups then produces six distinct groups of peoples (see Table 1 below), including ethnocultural groups, indigenous peoples, immigrants, sojourners, refugees, and asylum seekers.

Black (African) and coloured South African groups are both sedentary, permanent residents whose intergroup contact with white South Africans (at the group level at least) has been involuntarily (i.e., brought about through colonialism). Present day white South Africans, conversely, would meet the definition of an ethnocultural group. That is, they are the now sedentary decedents of earlier waves of (British, Dutch, and other) immigrants who voluntarily entered and permanently settled a new territory. Therefore, in contemporary South Africa, black

(African) South Africans and coloured South Africans can be considered indigenous people but also distinct ethnic groups (Naff & Capers, 2014).

Table 1

The six acculturation groups

		Voluntariness of contact	
		Voluntary	Involuntary
Mobility	Sedentary	Ethnocultural groups	Indigenous peoples
	Migrant		
	Permanent	Immigrants	Refugees
	Temporary	Sojourners	Asylum seekers

Source: Van de Vijver et al. (2016)

With regard to coloured South Africans, things are slightly more complicated than with black Africans. Scholars (e.g., Naff & Capers, 2014) have argued that the major source of the cleavage between the two groups was in Apartheid policies such as the Population Registration Act of 1950, in which citizens were broadly described as black (African), Indian, coloured, and white, and the Group Relocations Act (Act 41 of 1950) that evicted coloured and Indian residents, relocated them, and then restricted their (and black Africans') access to different geographical areas. The Coloured Preference Policy then sought to locate coloured South Africans as hierarchically superior to black Africans but subordinate to white South Africans (Naff & Capers, 2014). In contemporary South Africa, therefore, 'coloured' is a highly "contested and fluid identity" (Adhikari, 2013, pp. xxvi). Further elaboration of difference, however, is beyond the scope of this thesis. Therefore, because these separations can get complicated, the terms mainstream and ethnic group are applied for the sake of clarity. Specifically, the mainstream term is used to refer to the white South African student participant group and the ethnic term is used to refer to the black (African) and coloured South African student participant groups.

While during the colonial and Apartheid periods, white South Africans might have been considered as the mainstream group, today things are less certain. As evidenced in the introduction of this thesis, whilst white South Africans may have lost their political dominance, they retain a powerful ethnocultural minority in South Africa more broadly, in that they are comparatively economically advantaged. Moreover, at SU at least, this dominance is highly pronounced: Not only do white South Africans make up the numeric majority at SU, but SU

was also a historically white HEI whose dominant institutional culture, it has been convincingly argued, still favours white South Africans (Badat, 2016; Biscombe et al., 2017; Heleta, 2016). Therefore, while white South Africans are arguably no longer the (only) mainstream group of the country at large, white students at SU arguably are.

Black (African) and coloured South African students at SU are then, perhaps—in the way the institution is currently set up at least—more accurately representative of ethnocultural groups entering a host society on a voluntary basis. Indeed, education institutions have been theorised as microcosms of their larger societies, or "miniature societies of settlement" (Berry, Poortinga, Breugelmans, Chasiotis, & Sam, 2011, pp. 326), because it is where students tend to spend more of their time and so engage in most of their intergroup contact experiences. Thus, in the remainder of this thesis, white South African student participants are regarded as the mainstream group because of their relative position of socio-economic advantage in South Africa as well as their numerical and historically cultural dominance at SU, and black (African) and coloured South African student participants as the ethnic group.

Acculturation

The term "acculturation" has a substantial definitional history that begins in anthropology and sociology in the late 19th century (Berry & Sam, 2016; Boas, 1888; Lopez-Class, Castro, & Ramirez, 2011). Specifically, for anthropologists, acculturation is regarded as the process through which societies progress and become more complex (Berry & Sam, 2016; McGee, 1898), while for sociologists, the term acculturation—used interchangeably with assimilation—refers to the study of immigrant populations who, through engagement with members of their host society, live increasingly similar lives to those of their hosts (Berry & Sam, 2016; Simons, 1901).

Teske and Nelson (1974) advance the definition of acculturation by first rejecting the interchangeability of acculturation and assimilation, proposing that they are distinct concepts differentiated by their directionality. To elaborate, where acculturation is a process of mutual accommodation and bi-directional influence, assimilation is a process comprising one group exerting influence upon a passively receptive other. Building on this proposed bidirectionality of acculturation, Berry (1980) extrapolates a full set of acculturation strategies, of which assimilation is but one along with three others (Berry & Sam, 2016).

Although originally conceptualised as a group level phenomenon, acculturation has emerged as a field invested in understanding the individual level or psychological processes

that determine if and how intergroup contact unfolds. It was Graves (1967) who first introduced the term *psychological acculturation*, referring to it as the process of change that unfolds where an individual participates in their larger cultural group's acculturation process—thereby cleaving individual-level from group-level outcomes. Berry (1980), then, incorporated this line of thinking, claiming that group-level changes that might affect sociocultural, political, or economic factors, are fundamentally different from individual psychological-level changes that might impact upon identity, beliefs, attitudes, and behaviours.

Psychological Acculturation

According to Berry (1980), then, psychological acculturation can be defined as the process of unfolding psychological and sociocultural changes resulting from ongoing and direct intercultural contact, the quality of which is, in part, determined by the individual's preferred acculturation strategy and acculturation conditions (see also Berry & Sam, 2016; Searle & Ward, 1990; Ward & Kennedy, 2001). Berry and Sam (2016) theorise this contact results in changes known as *acculturation adaptation outcomes*, where psychological adaptations include how one is feeling (e.g., anxiety and depression), sociocultural adaptations refer to how one is doing (e.g., academic achievement and language competence), and intercultural adaptations are regarded as the changes affecting intergroup relations (e.g., outgroup attitudes).

Acculturation Strategies

Essentially, an acculturation strategy determines how people, as far as is possible, would prefer to live interculturally (Berry & Sam, 2016). An individual's preferred strategy is a factor of three essential components: orientation towards the outgroup (willingness for intercultural contact); orientation towards their own ethnocultural group identity (ethnic identity); and the degree of relative power to enact the resultant preference (Berry, 1980; Berry 1997; Berry et al., 1989; Van de Vijver et al., 2016). Where these first two orientations intersect, four distinct acculturation strategies are produced (see Figure 1 below), integration (high contact willingness and high ethnic identity), assimilation (high contact willingness and low ethnic identity), separation (low contact willingness and high ethnic identity), and marginalisation (low contact willingness and low ethnic identity; Berry, 1990, 1997; Berry et al., 1989; Sam & Berry, 2016).

The names for the strategies indicated in Figure 1 are generally demarcated for non-dominant groups. Theorists refer to strategies by different terms when viewed from the perspective of either the dominant or non-dominant group in a society; that is, groups with

either disproportionately more or less (economic, political, or social) power when compared to the other. When sought by members of the mainstream society, therefore, integration is known as multiculturalism, assimilation as melting pot, separation as segregation, and marginalisation as exclusion (Berry & Sam, 2016). Furthermore, there are two ways that acculturation strategies are studied in mainstream groups: the first is how members of the mainstream group would prefer to acculturate to a given outside group, and the second is how they would prefer the members of the outside group to acculturate with them. In the case of the former, these are also regarded as acculturation strategies, but in the case of the latter, these are known as acculturation expectations (Berry & Sam, 2016).

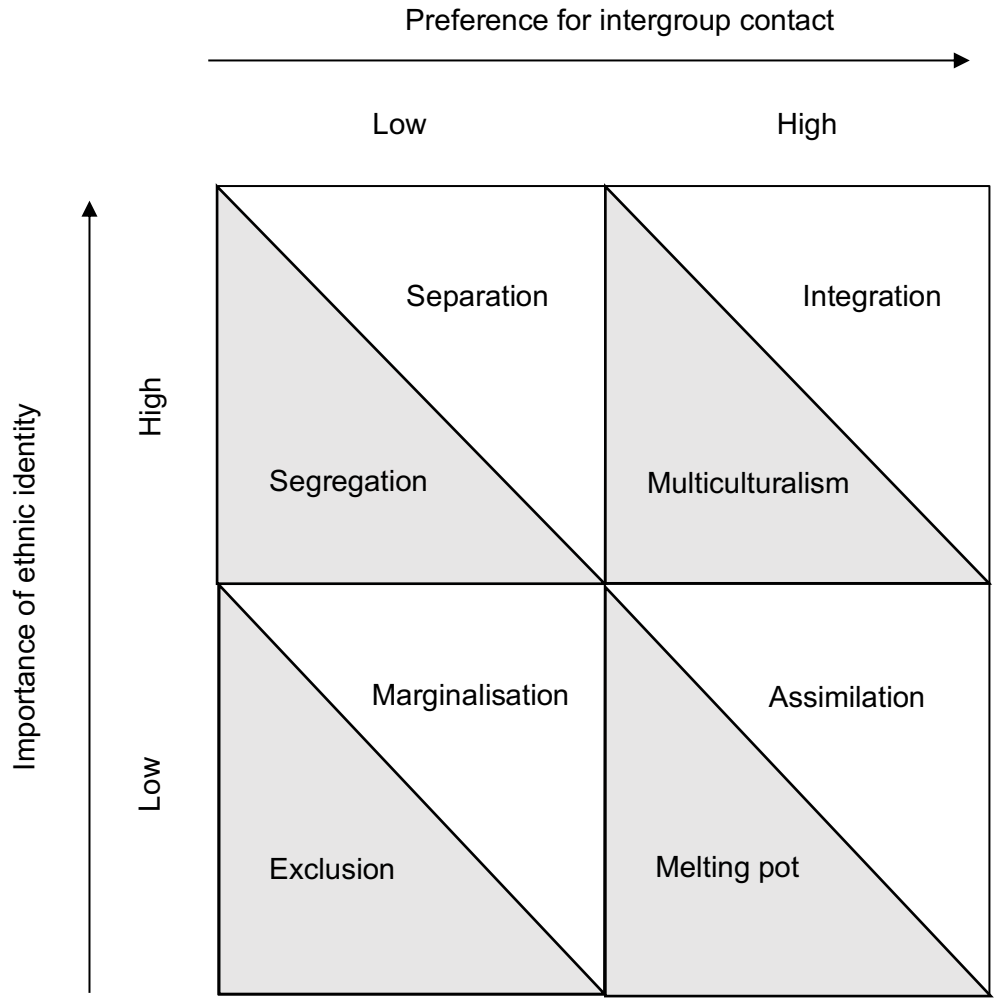


Figure 1

Acculturation Strategies

Source: Berry (2006)

Notes: Terms for the mainstream group's strategies are indicated in the bottom left of each box, whilst the terms for the ethnic group's strategies are indicated in the top right of each box.

Acculturation expectations

The *interactive acculturation model* (IAM; Bourhis, Moise, Perreault, & Senecal, 1997; Bourhis & Montreuil, 2013; Kunst & Sam, 2013) takes the acculturation expectations of the mainstream group a step further and divides these into welcoming (integration) and unwelcoming orientations (assimilation, segregation, and exclusion). Theorists have also made use of the terms "positive orientation" for interactionism/ multiculturalism, and "negative orientation" for assimilation/ melting pot, segregation/ separation, and exclusion/ marginalisation strategies (Bourhis & Bougie, 1998; Bourhis & Dayan, 2004; Montreuil & Bourhis, 2001; Trifiletti, Dazzi, Hichy, & Capozza, 2007). Positive orientation here is indicative of the high scores on the two dimensions (i.e., contact willingness and ethnic identity), while a negative orientation is indicative of a low score on either (or both) of those dimensions.

In the present study, I have decided to use the welcoming/unwelcoming terms of Bourhis and colleagues (1997). The sample size of the present study dictates that fewer and larger groups are required for more power in analysis—thus ruling out Berry's (1997) four acculturation strategies. Moreover, the use of positive/negative terms may become confusing with the introduction of positive and negative contact. The implication behind welcoming/unwelcoming terminology, as I understand it, is that acculturation preferences are constrained to either engaging unconditionally (welcoming), or conditionally (unwelcoming), or ambivalently in the intercultural context. More specifically, members preferring the welcoming (or integrated acculturation strategy) seek to engage with culturally different others while maintaining their ethnic identity. Conversely, those preferring an unwelcoming strategy (either assimilated, separated, or excluded) either do not engage with cultural outgroups or engage under a condition of low ethnic identification.

With regard to the third dimension of acculturation strategies—relative power—this usually manifests in a way that the mainstream group are better able to avoid having to adapt to (or change because of) intergroup contact (Berry, 1990; Berry & Sam, 2016). This might be achieved through discrimination or racism, which can be said to be a kind of forced segregation for non-dominant or ethnic groups (Van de Vijver et al., 2016). In other words, while an ethnic group may more generally prefer integration, the enactment of this strategy necessarily hinges on certain preconditions. The first of which is that the society in question has established multicultural policies and the second is that members of the mainstream society exhibit relatively low levels of prejudice and high levels of acceptance of multiculturalism (Berry & Kalin, 1995; Berry & Sam, 2016).

Dimensions of Acculturation Strategies

Contact Willingness. The ways in which the original conceptualisation of the two dimensions of acculturation have evolved are worth noting. First, the original intention of Berry's (1980, 1997) dimension of contact with outgroups was to measure the social domain of acculturation, or the acculturating individual's social intent towards either one or more groups within broader society (Berry, 1980, 1997; Berry & Sam, 2016). However, some researchers (e.g., Bourhis et al., 1997) have strayed from this conceptualisation and reimagined this dimension to measure the acculturating individual's identification with, or adoption of the culture of, one outgroup only (Berry & Sam, 2016; Liebkind, 2001).

The difference between these types of conceptualisations is that the original social intent version is more sensitive (Matera, Stefanile, & Brown, 2012). In other words, people are more likely to be willing to engage in social contact with outgroups than they are to, for example, adopt culture from an outgroup. Indeed, research with ethnic groups in Belgium found that when using the social domain, respondents were more likely to prefer the integration strategy, and that separation was most popular when using identification/adoption with/to the mainstream culture (Berry & Sabatier, 2011; Van de Vijver et al., 2016; Snauwaert, Soenens, Vanbeselaere, & Boen, 2003).

Ethnic Identity. Berry's (1980, 1997) original conceptualisation of the second dimension, namely cultural continuity, was in relation to maintenance of the acculturating individual's heritage culture; in other words, the relative degree to which one might seek to continue practising certain cultural behaviours, attitudes, and beliefs, such as continuing to engage in culturally relevant customs related to specific domains of, for example, food, language, or social relationships (Van de Vijver et al., 2016; Navas, García, Sánchez, Rojas, Pumares, & Fernández, 2005).

However, researchers began using ethnic identity—the subjective sense of belonging to one or more cultures—as an additional domain (Van de Vijver et al., 2016; Phinney, Horenczyk, Liebkind, & Vedder, 2001). Moreover, ethnic identity, in a similar fashion to acculturation, can be conceptualised as being construed of two dimensions: belonging and pride (Van de Vijver et al., 2016; Phinney & Ong, 2007). Belonging, in this sense, it is argued, mirrors the domain of cultural continuity (Van de Vijver, et al., 2016; Phinney et al., 2001). From an empirical perspective, studies in Bulgaria, the Netherlands, and Germany found that the items used for cultural maintenance and ethnic identity not only correlated highly with one another but also always loaded onto the same factor (Dimitrova, 2014).

In other studies, ethnic identity development has been shown to significantly affect how the process of acculturation unfolds (Phinney, 1989; Phinney et al., 2001; Schwartz, Unger, Zamboanga, & Szapocznik, 2010). One explanation is offered by the multiculturalism hypothesis (Berry, 1977), which links higher levels of ethnic identification with reduced intergroup bias (Phinney et al., 2007). Specifically, Berry (1997, 2013) argues that people are only able to truly accept those whom they regard as different from themselves once they are secure in their own identities. Therefore, higher rates of confidence and security in cultural identities are predictive of more positive attitudes towards other groups. Conversely, when cultural identities are perceived to be under threat, there is more likely to be mutual hostility (Berry, 2013), and the development of prejudicial attitudes and discrimination (Stephan, Renfro, Esses, Stephan, & Martin, 2005).

Levels of Acculturation Strategies

Acculturation strategies are not only used at the individual level but at the institutional and national level too (Berry, 2000; Berry & Sam, 2016). Assessment at the national level is concerned with the diversity policies on the one hand and with different ethnic groups' goals on the other. For example, some government policies are strictly melting pot oriented (encouraging assimilation amongst ethnic groups) while others are more multicultural (providing support structures for heritage culture and so encouraging integration). In conjunction with the national policies, some ethnic groups may formally seek out certain strategies: some may aim for separation to protect and maintain their heritage culture, while others might seek integration into larger society (Berry & Sam, 2016). Berry (2003; Berry & Sam, 2016) claim that there are no documented groups who have formally aimed for full assimilation or marginalisation. To the author's knowledge, there are no formal acculturation policies for particular ethnic groups in South Africa.

At the institutional level, competing visions between mainstream institutional policies and ethnic groups can be assessed—such as between SU and the FMF and OSC students. Ethnic groups, at the institutional level, are said to often be seeking out the twin goals of "diversity and equity" within the institution (Berry & Sam, 2016, pp. 25). These goals are described as the desire to, firstly, be recognised as a distinct ethnic group from the mainstream and, secondly, to have their needs be treated with "equal understanding, acceptance and support" (Berry & Sam, 2016, pp. 25). The conflict then arises where the institution favours (whether formally or informally) a more uniform approach in which they centre the mainstream culture's perspective of, for example, education and marginalise the perspective of the ethnic group. These later

descriptions neatly parallel the context described in the introductory chapter of student protesters and their criticism of university policies regarding culture, language, and curriculum.

Precontact Conditions of Acculturation

Group level conditions. Chapter 1 explored what can be regarded as the acculturation conditions—that is, the backdrop upon which the acculturation processes are unfolding at the different levels of contact in South Africa more generally, but at SU in particular. This survey of the cultural facets of the society and its cultural diversity provides the researcher with important details that might guide the design of the study (Van de Vijver et al., 2016). Van de Vijver and colleagues (2106) have identified five facets or dimensions pertaining to acculturation conditions to aid in this undertaking. These include (i) the goals driving the contact; (ii) the duration of the contact; (iii) group proportions, sizes, and vitality; (iv) policies targeting ethnic groups and diversity in general; and (v) the nature of the interaction. It is furthermore considered best practice that these aspects are addressed for both mainstream and ethnic groups (Van de Vijver et al., 2016). Below then, is an attempt to distil, and in some cases supplement the information already laid out in the introduction through these five facets or dimensions as well as provide an overview of the literature that has already emerged from the study of these facets.

Contact Goals. Van de Vijver and colleagues (2016) propose that researchers understand the purpose of the contact. The theorists claim that this is because the various components of the acculturation process are expected to vary depending on whether contact is occurring for educational, labour, or safety reasons. Ultimately, this is an assessment of push and pull factors. Berry (2006) proposes that groups with more reactive motivations or those occurring due to push factors (e.g., forced migration, war, genocide, etc.) are associated with greater difficulties and that such motivations are associated with more psychological adaptation issues (e.g., Kim, 1988). Importantly, a similar number of problems were reported by those with more proactive motivations, or in situations driven by pull factors. The latter group were somehow able to cope more sufficiently. In the instance of the present thesis, both groups are engaged in contact with one another for educational purposes, which is a pull factor.

Contact Duration. Duration of contact and its frequency are similarly argued to influence the way in which the process of acculturation unfolds. A survey of the research on the effects of contact duration has been compiled below (see biographic variables: age, under individual and psychological characteristics as pre-contact conditions). As only 4% of students attending no-fee schools ever manage to achieve a bachelor pass in South Africa (Moses et al.,

2017), this suggests that the vast majority of students studying at degree level have emerged from wealthier schools, which also happen to be more diverse (Hall & Giese, 2008; Ogbonnaya & Awuah, 2019).

Demographic proportions. The size and proportions of mainstream and ethnic groups provide researchers with an idea of institutional and group *vitality*. A group's vitality, according to the original conception of Giles, Bourhis, and Taylor (1977), is what causes it to actively maintain its identity in intergroup situations. To study group vitality, the theorists propose, three important variables need to be considered, namely institutional support (e.g., policy, programmes, resources, etc.), demography, and social status. Smith, Ehala, and Giles (2017) propose institutional support can be considered in both formal and informal terms. Formal institutional support can be thought of as being similar to Berry's (1997) conception of power dynamics in acculturation theory discussed earlier: the ability to employ preferences. However, in the instance of vitality theory (Giles et al., 1977), it is applied more generally, meaning the ability to exert broad control. Informally, the theory looks to determine the extent to which a group is a pressure group, promoting its own interests. From these two definitions, we might say that the ethnic group has both forms of institutional support. Through informal means, OSC students protested language policy (OSC in press, 2015) which led to formal support (Language Policy, 2016).

With regard to demography, Giles and colleagues (1977), propose that groups on a positive demographic trajectory are better suited to the task of actively maintaining their vitality. Large shifts in demographics, however, especially a rapid increase amongst an ethnic minority group can have a negative impact on intergroup relations, as the increasing proportion of the ethnic group can be perceived by the mainstream as a threat to their identity and their own linguistic vitality (Barker & Giles, 2002; Smith et al., 2017). At SU, black (African) and coloured students are currently a numeric minority of the entire student body of SU (Essop, 2020), and have grown in relation to the mainstream group over time (Statistical Profile, 2018). I would argue, then, that the decision by Afriforum Youth—which has been described as a "neo-Afrikaner enclave national[ist]" political party (Van der Westhuizen, 2018)— to take SU to the constitutional court over its change in language policy, is a signal of perceived threat amongst an unknown proportion of the mainstream group.

Policies. A truly multicultural context—which offers broadly the equal opportunity to be strongly ethnically identified in a non-threatening, secular atmosphere—is believed to lead to intergroup stability and harmony (Berry & Ward, 2016). Multiculturalism, however, can be considered in three different ways: firstly, it is a demographic fact (i.e., diversity is either

present or it is not); secondly, it is an ideology or ethos that individuals hold with regard to their support for or rejection of this diversity; and thirdly, it is a policy position for governments and institutions about how to manage diversity (Berry & Ward, 2016). As an ideology, multiculturalism can be defined in terms of equitable participation (Berry, 1977; Berry & Ward, 2016). Separation or segregation is likely to unfold where diversity is present, but equality of participation is absent. Conversely, the presence of equal participation in the absence of diversity is likely to result in assimilation or melting pot, and in the absence of both diversity and equal participation, marginalisation and exclusion are likely (Berry & Ward, 2016). As discussed in chapter 1, SU is a diverse campus (Stellenbosch University, n.d. a) for which policy has been developed that promotes equitable participation (Stellenbosch University, n.d. b). Whether a significant proportion of students and staff are supportive of the ideology has yet to be established.

Relevant to this discussion is Berry's (1997) *multiculturalism hypothesis*, which proposes that when individuals are comfortable with their own identities, they are well placed psychologically to accept culturally different others. Being able to accept people from different cultures is linked to lower levels of ethnocentrism and higher rates of acceptance of multiculturalism (Berry, 1997). The multiculturalism hypothesis relies in no small part on Allport's (1954) contact hypothesis (further detailed in the next section), which proposes that equality of social status (amongst others) is a prerequisite condition for favourable contact. However, where the multiculturalism hypothesis describes phenomena unfolding between the cultural component (e.g., cultural maintenance) and political goals (e.g., mutual acceptance), the contact hypothesis refers to those that emerge between the social component (e.g., contact situation) and political goals (Berry, 2013).

The *integration hypothesis* (Berry et al., 1977) then links the social component to the cultural component and then asserts that greater adaptation can be derived for individuals employing an integration acculturation strategy—of which consists of concurrently engaging in two or more cultures. According to the integration hypothesis, it is expected that the best adaptation outcomes will be associated with the integration strategy, the worst with marginalisation, and separation and assimilation strategies would yield results somewhere in-between (Berry, 1997). In addition to equal status, this association is dependent upon certain conditions of the contact environment (Berry, 1997, 2008): there is a need for both multicultural policy and a widespread acceptance of this policy by the mainstream group, as well as relatively low level of prejudice.

In cases where these contingent factors are not present, adaptation outcomes are expected to suffer more amongst welcoming oriented individuals than those in the unwelcoming acculturation strategy category (Brown & Zagefka, 2011). Theorists have proposed two ways to account for the consistent findings supporting the integration hypothesis. Berry (1997) believes that the integration strategy provides individuals with the benefit of two support structures (mainstream *and* ethnic), while assimilation and segregation each provide one support structure (either mainstream *or* ethnic), and the marginalization strategy provides none. Additionally, the contexts in which studies investigating these links may be more likely to offer the above-mentioned multicultural conditions best suited to integration (Berry, 1997; Brown & Zagefka, 2011).

Policies at SU are multicultural in nature, in that they propose equality of participation for all, irrespective of their race, religion, gender, or sexual orientation (Stellenbosch University, n.d. b). Nationally—whilst the term multicultural is not used in South African policy language (McAllister, 1996), Beker and Leildé (2003) argue that, as both policy and outcome, South Africa is in fact multicultural.

The nature of the interaction. Stemming from the work of Babiker, Cox, and Miller (1980), *cultural distance* has been found to have a positive relationship with psychological distress in the acculturation process whether operationalised as an objective (e.g., gross domestic product and adaptation of measures of cultural values) or subjective (i.e., perceived differences) measure. However, a greater perceived difference between two cultures has been found to lead to more difficulties for adaptation (Demes & Geeraert, 2013). In a study of Russian exchange students, large perceived differences between acculturating groups' language, traditions, beliefs, and customs (i.e., cultural distance) were found to be more impactful on outcomes than were even acculturation orientations (Galchenko & Van de Vijver, 2007).

At SU, the nature of the interaction between the mainstream and ethnic groups is conducted over a large cultural distance. This means that groups are culturally highly dissimilar in terms of home language, traditions, beliefs, and customs. Large objective differences between languages (e.g., different families) — such as exists between English, Afrikaans, and isiXhosa — have been found to have a positive relationship to adaptation difficulties (Torbiörn, 1982). A more detailed discussion of the language dimension is undertaken in the next section.

Individual and psychological characteristics as pre-contact conditions. The basic individual-level factors that hold relevance here include, amongst others, age, gender, socioeconomic status, intergroup contact history, norms, and personality. Variables found at the psychological level are theorised to influence the degree to which one copes with, and adapts to, the pressures associated with acculturation (Li, France, & del Carmen Rodríguez, 2021). They also interact with group level conditions to influence both the process of adaptation to, and outcomes of acculturation (Van de Vijver, et al., 2016). It is in studying these individual-level facets that the psychological aspect of acculturation really comes to the fore. Stated differently, these characteristics may, even amongst individuals from the same culture and entering the same contact situation, vary according to the way the contact situation is entered into and the subsequent adaptation to the acculturation process (Van de Vijver et al, 2016).

Biographic variables. The most basic units of investigation in acculturation research include age, gender, home language, and SES. Age, for example, is one of the longer and more well-studied aspects of acculturation. Younger (preschool-age) children have been found to experience relatively smooth acculturation (e.g., Beiser,1999) as compared to older children especially adolescents (e.g., Aronowitz, 1992; Sam & Berry, 1995). Furthermore, age, when associated with time spent acculturating, has been found to have significant effects in certain contexts (e.g., Kimbro, 2009; Kuo & Roysircar, 2004; Yeh, 2003), such as on adjustment difficulties related to psychological wellbeing, while this was less the case in others (Krause, Bennett, & Tran, 1989).

Gender, although lesser studied than age, has been paid some attention by researchers. Studies focussed on gender have found females to be at greater risk of lower psychological adjustment than males (e.g., Beiser, 1999). Naidoo (1992), argues that this is likely linked to a difference in gender roles between the mainstream and heritage culture, creating an internal conflict and acculturative stress.

Variations in SES have also been shown to influence the acculturation processes, with wealthier individuals more often showing better adjustment and lower acculturative stress (Khan, Sobal, & Martorell 1997). This has been linked to better education preparedness, higher reading levels, and language competency (Kuo & Roysircar, 2004). Berry (2006) argues that these differences are most probably attributed to the protective factors associated provided by income and education.

However, language proficiency has been linked to the acquisition of other cultural characteristics such as identity (Lambert, 1981; Noels & Berry, 2016). This association has been shown to bear differential results for mainstream and ethnic groups (Lambert, 1981).

Where mainstream groups acquire a new outgroup language proficiency, they are more likely to simply gain in their cultural repertoire—conversely, for the ethnic group, where they develop language proficiency in the mainstream group's language, they are more likely to lose proficiency in their home language and experience loss in their heritage culture identity (Lambert, 1981). Berry (1986) argues that large cultural distances between mainstream and, especially, indigenous peoples lead to adaptation problems because it anticipates the need for greater *culture shedding* as well as, therefore, cultural conflict. Culture shedding in this instance refers to the relinquishment of aspects of one's heritage culture and can be contrasted with *culture learning*, which is the process of adopting aspects of the outgroup culture (Berry, 1997). Berry (2001) theorises that this is an inevitable aspect of intercultural contact and the acculturation process more generally.

Previous contact experiences and norms. Contact-promoting norms have been linked to both contact willingness (Gómez, Tropp, Vazquez, Voci, & Hewstone, 2018; Mazziotta, Mummendey, & Wright, 2011) and actual intergroup contact (Wölfer et al., 2019). Moreover, it has been found that children growing up experiencing intergroup contact are more likely to develop bi-cognitive abilities that enable them to function optimally in both their own as well as other cultures to which they have been exposed (Ramirez & Castañeda, 1974). There is also evidence to suggest that contact-promoting norms are also predictive of changes in dimensions of both acculturation strategy dimensions as well as outcomes. A recent longitudinal study by González and colleagues (2017) found that changes in ethnic identity could be linked to norms supportive of quality intercultural contact. Moreover, these changes in ethnic identification were then found to be predictive of both support for cultural maintenance and mainstream culture adoption. Furthermore, contact experiences with cultural outgroups have been shown to impact a variety of acculturation adaptations for both ethnic and mainstream cultures—most notably during childhood and adolescence (LaFromboise, Coleman, & Gerton, 1993; Schwartz et al., 2010). This, it is argued, transpires through the development of bi-cultural competence or efficacy (LaFramboise et al., 1993). That is, through a process of outgroup culture learning, and minimising heritage culture shedding, individuals gain the ability to live effectively and successfully in more than one culture without a loss of security to their ethnic identity.

Cultural and Language Competency and Perceptions of Similarity. As mentioned above in the section on group level conditions, the mainstream and ethnic groups at SU are operating over a large cultural distance. Berry (2006) states that language is an important determinant in the perception of social and cultural similarity between acculturating groups and that lower perceptions of similarity produce more difficulties with regard to the acculturation

process (Berry, 2006: pp. 33). Lower perceptions of intergroup similarity can make it more difficult to adjust to the outgroup, impacting how individuals interact across groups; greater perceptions of similarity are, conversely, a powerful factor positively impacting mutually favourable attitudes between groups (Berry, 2006).

Self-categorisation theory proposes that social categories result from the assessment of social groups as either similar or different—the subsequent category is produced, therefore, through the process of determining intragroup similarities and intergroup differences (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Once the social group is formed, perceived similarity affects the way different outgroups are perceived (Grigoryan, 2020). A lack of consensus on the relationship between intergroup similarity and outgroup attitudes pervades the relevant literature (see Costa-Lopes, 2012 for a review). There are, however, interesting findings from a study of Icelanders and Polish immigrants reported by Árnadóttir, Lolliot, Brown, and Hewstone (2018), to suggest that amongst mainstream (but not ethnic) groups, positive intergroup contact is linked with higher perceptions of intergroup similarity.

According to the SU language policy (n.d.), a lack of proficiency in either English or Afrikaans will result in exclusion from tuition. Amongst black (African) South Africans, approximately 28% speak isiZulu as their home language, 20% isiXhosa, 11% Sepedi, and 10% Setswana (Statistics South Africa, 2015). However, only 3% speak English and 1.5% speak Afrikaans as their home languages. About 76% of coloured South Africans speak Afrikaans and 21% speak English as their home language. With regard to white South Africans, 61% speak Afrikaans and 36% speak English as their home language. This suggests that most of the black (African) students at SU are only second language English or Afrikaans speakers. Perceptions of similarity may therefore be greater between mainstream groups and the coloured ethnic group than between the mainstream group and the black (African) ethnic group.

Perceived Discrimination. Perceived discrimination is a subjective sense of unjust treatment based on prejudice (Jackson, Williams, & Torres, 1997). In the field of acculturation, perceived discrimination has been found to have the largest effect size on acculturative adaptation when compared to other situational variables (Wilson, Ward, & Fischer, 2013). Amongst mainstream groups, perceptions of discrimination have been found to be far lower than with ethnic groups (e.g., Van den Berg & Evers, 2006). For this reason, there are no studies (to my knowledge) on the effect of perceived discrimination on adaptation for a mainstream group. However, the experience of discrimination is suggested to result in a lower desire for interaction with the mainstream group for the ethnic group, resulting in either an orientation

towards their cultural ingroup or ambivalence and confusion about these interactions (Te Lindert et al., 2021).

The rejection-identification model (RIM; see Branscombe, Ellemers, Spears, & Doosje, 1999; Schmitt & Branscombe, 2002) predicts that ethnic group individuals with a high sense of perceived discrimination are more likely to strengthen their ethnic group identification to derive a greater sense of belonging and support. In this way, preference for separation often emerges as an adaptive strategy when there is a greater perception of discrimination (Liebkind, Mähönen, Varjonen, & Jasinskaja-Lahti, 2016). Furthermore, Berry (2006) argues that the separation strategy can be applied with the aim of preventing undesired mainstream influence on ethnic groups—for example, a melting pot diversity policy. Additionally, the rejection disidentification model (RDIM; Jasinskaja-Lahti, Liebkind, & Solheim, 2009; Jasinskaja-Lathi, Mähönen, & Ketokivi, 2012) claims that perceived discrimination can also result in ethnic group individuals rejecting the national (or some other superordinate group) identity as well as instil greater negative outgroup attitudes.

Positive and Negative Contact Experiences. Based on the seminal work of Gordon Allport (1954) and his contact hypothesis, intergroup contact is today regarded as a major mechanism that promotes more harmonious intergroup relations. Allport (1954) theorised that intergroup contact leads to better group relations when certain optimal conditions are met, which include: (i) shared interests between groups, (ii) equal power and status between the groups, (iii) cooperation towards a shared goal; and (iv) intergroup contact is sanctioned by an authority or approved of more generally by existing social norms. Pettigrew and Tropp's (2006) much-cited meta-analysis of over-500 studies of the effects of intergroup contact has confirmed the link between intergroup contact and prejudice reduction (even in the absence of Allport's (1954) optimal conditions for contact. Over and above these effects on prejudice, intercultural contact has also been found to promote more positive explicit attitudes (Aberson & Haag, 2007; Gómez, Tropp, & Fernández, 2011; Mähönen, Jasinskaja-Lahti, Liebkind, & Finell, 2011), reduce negative explicit attitudes (Vezzali & Giovannini, 2011), promote forgiveness and trust (Hewstone, Cairns, Voci, Hamberger, & Niens, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011; Swart, Hewstone, Turner, & Voci, 2011), and reduce perceptions of threat (Hodson, 2011; Pettigrew, Tropp, Wagner, & Christ, 2011). Importantly, many of these effects have been confirmed to take places where they are most needed—in post-conflict societies (Dovidio et al., 2017; Hewstone, Lolliot, Swart, Myers, Voci, Al Ramiah, & Cairns, 2014; Hewstone & Swart, 2011; Hodson & Hewstone, 2013; Pettigrew & Tropp, 2006; Pettigrew et al., 2011).

Where intergroup relations are concerned, researchers have argued that both positive and negative contact experiences need to be considered (e.g., Graf, Paolini, & Rubin, 2014; Paolini, Harwood, & Rubin, 2010; Stark, Flache, & Veenstra, 2013). Pettigrew and Tropp (2006, 2008, 2011) concur with this assessment, stating that much of the contact research that was synthesised in their meta-study lacked an account of the effects of negative contact (Gaff et al., 2014). This admission is important because subsequent research has found negative contact to have a greater impact on outgroup attitudes than does positive contact (Barlow et al., 2012; Dhont & Van Hiel, 2009). This, however, does not negate the overall positive effects of intergroup contact because, as Baumeister, Bratslavsky, Finkenauer, and Vohs (2001) claim, rates of positive contact far exceed those of negative contact resulting in a net positive effect. Moreover, more recent research has found evidence to suggest that the effects of positive and negative contact are not significantly different for intergroup relations, proposing that other factors, such as prior contact experiences, could be shaping moderating the effect of negative contact (Schäfer, Kauff, Prati, Kros, Lang, & Christ, 2021).

Te Lindert and colleagues (2021) propose that positive and negative intercultural contact experiences can be considered as relevant antecedents of the acculturation process and are globally a relatively under-researched area when considered in this way. There are presently several available studies to confirm the predictive role of intercultural contact as antecedent factors of the acculturation process (Te Lindert et al., 2021; Te Lindert, Korzilius, Van de Vijver, Kroon, & Arends-Tóth, 2008; Van Oudenhoven et al., 2002). A study by Hui, Chen, Leung, and Berry (2015) discovered that intergroup contact and the integration strategy played a significant mediation role on perceived discrimination. The research also found a positive correlation between the integration strategy and better psychological adaptations, thus implying that contact was also linked to adaptation outcomes.

A not uncommon finding in the contact literature is that ethnic or minority groups tend to report higher rates of negative contact than do mainstream or majority group members (e.g., Reimer et al., 2017; Stephan et al., 2002). Stephan and colleagues (2002) argue that this discrepancy in reports of negative contact is linked to integrated threat theory (Stephan et al., 2002), which posits that perceptions of threat have an impact on intergroup attitudes for both ethnic and mainstream groups. Groups may experience higher perceptions of threat when there is a history of intergroup conflict and inequity in status (Stephan et al., 2002). Furthermore, as argued in a previous section, the perception that cultural identities are under threat is likely to lead to mutual hostility (Berry, 2013) — not to mention the precipitation of prejudicial attitudes and discrimination (Stephan et al. 2005).

Adaptation to and Outcomes of the Acculturation Process

When the acculturation process has continued for a significantly long period of time, the outcomes are termed adaptations (Berry & Sam, 2016). Adaptation is conceptualised as a necessary feature of the acculturation process. This is because acculturation requires, at the very least, that the acculturating individual learn new cultural skillsets — the undertaking of which always involves some degree of challenge and stress (Berry & Ward, 2016). Certain strategy preferences have been associated with more beneficial adaptation. An integration preference has more generally been shown to be consistently associated with better adaptation outcomes, particularly for ethnic group members (Berry, 2006). However, in certain contexts in which discrimination is present, separation has been associated with greater coping and psychological adaptations (Berry, 1977; Berry & Sam, 2016; Berry & Ward, 2016).

Two broad distinctions were originally made between affective and behavioural adaptations—that is, between psychological and sociocultural components respectively (Berry & Ward, 2016; Searle & Ward, 1990; Ward, 1996, 2001). The psychological component of adaptation refers broadly to the mental health and emotional well-being of the acculturating individual (affective aspects), while the sociocultural part involves acquiring and developing the cultural skills necessary for navigating diverse spaces (behavioural aspects). The acculturative process can negatively affect the wellbeing of acculturating individuals where coping is not sufficient (Berry, 1997; Lazarus, 1997). The ethnic group is especially prone to these effects because they are more likely to experience social isolation (Ferguson & Birman, 2016), discrimination (Vinokurov, Trickett, & Birman, 2002), and the process of having to harmonise differences in the norms and values between the mainstream group and their own heritage culture (Berry, 1997; Rodriguez, Mira, Paez, & Myers, 2007).

Berry and Ward (2016) propose affective and behavioural components of adaptation can conceptually couch a subset of domain-specific adaptations. Two of the major domains in acculturation literature include employment and educational outcomes. Educational underachievement is a great concern for ethnic students around the world and has been indicated as a factor of the acculturation process more generally (Coll & Marks, 2012; Makarova & Birman, 2015). Moreover, the general and domain specific components of adaptation have been empirically linked in educational settings in a study of international students in Germany (Zhang, Mandl, & Wang, 2010). The study found that academic adjustment was not only associated with higher life satisfaction but also lower levels of depression.

More recently, a third dimension of adaptation has also been introduced—that of intercultural adaptation. This is used to refer to intergroup relations and is itself a construal of affective (i.e., feeling warmth or coldness) and behavioural (i.e., the performance of these attitudes) dimensions. This aspect of adaptation has been linked to the contact hypothesis (Allport, 1954) and the multicultural hypothesis. Not only do contact researchers concur that contact brings about reduced prejudice, but also that negative attitudes are likely to lead to the avoidance of intergroup contact (Acker & Van Beselaer, 2011; Pettigrew, 1998; Pettigrew & Tropp, 2006). As argued by Zagefka and colleagues (2007), therefore, negative outgroup attitudes can be linked to lower frequencies of contact. In the present study, therefore, negative outgroup attitudes would be expected to be associated with lower contact willingness and so more negative acculturation strategy preferences (e.g., segregation and marginalisation).

South African Acculturation Research

Psychological acculturation studies are increasingly focused on issues pertinent to developed world contexts, such as immigration and the settlement of refugees and asylum seekers (Sam & Berry, 2006). Research into the effects of the acculturation process on other ethnic groups, such as indigenous peoples and ethnocultural minorities is generally lacking within the literature, especially within the African context (Adams & Van de Vijver, 2017). Within the sub-Saharan African context more generally, relatively little acculturation research has been conducted (Adams & Abubakar, 2016). Below, I briefly describe those key acculturation studies that have been undertaken in the South African context.

In a relatively early study, Hocoy (1999) examined the preferred acculturation strategies amongst 348 black (African) students from three South African technikons. The cross-sectional study found that although most participants preferred integration, as predicted by Berry's (1990) model of acculturation, there was additional evidence of high rates of marginalisation amongst black (African) participants. Moreover, reports of low levels of psychological well-being and perceptions of discrimination were high amongst the sample. It was additionally noted that a preference for separation was a moderator of outcomes of mental health and well-being—thus acting as a protective factor against the negative impact of discrimination.

In a cross-sectional, exploratory analysis, Naidoo and Mahabeer (2006), found that both Indian and black (African) South African university students preferred the acculturation strategy of integration. The sample consisted of 63 black (African) and 106 Indian students from the (then) University of Durban-Westville. Findings revealed that both groups preferred the integration strategy but that, on average, black (African) students preferred separation more

and assimilation less than did Indian students. A major difference between the two groups' preferred approaches to acculturation, was that black (African) participants sought to maintain their traditions and language, while Indian participants were generally losing touch with theirs. However, both groups showed a desire for mainstream values and norms including education, careers, and equality of opportunity. In addition, Indian participants were disproportionately more likely to be competent in English (the mainstream language), while the majority of black (African) participants preferred to speak their mother tongue at home. For both groups, but more so for black (African) students, women expressed admiration for western feminist notions and a desire for mainstream conceptions of marriage and gender roles.

Van de Vijver, Molokoane, and Jackson (2013) explored intercultural relations within the South African police force using a cross-sectional research design. The study discovered a significant positive relationship between high perceptions of discrimination and ailing mental health. An important contribution by the paper was that it assessed a domain-specific outcome (i.e., job performance), finding that between 26% and 33% of the variance in perceived effectiveness and efficiency at work-related tasks was accounted for by acculturation context and coping styles (but not acculturation strategy preferences). One important drawback of the study was that, apart from language, it did not clearly identify the ethnic groups in its sample.

Jackson and Koker (2014) assessed the impact of negative acculturation conditions on psychological wellbeing and physiological ill-health as mediated by separation and segregation orientations in a variety of South African workplaces. The sample (N = 327) consisted of both mainstream (white South Africans) and ethnic groups (black (African), coloured, and Indian South Africans) drawn from workers from a variety of industries in both the public and private sectors. Their study tested Zagefka and Brown's (2002) understanding of segregation as a demand placed on members of ethnic groups to stick to their ingroup by the mainstream. Structural equation modelling of the cross-sectional data found that segregation demands of the mainstream, as well as discrimination and racism, were — when combined with ethnic separation strategies — indicative of greater physiological and psychological health difficulties and greater frequencies of intention to resign from the workplace amongst ethnic group members.

A more recent paper, conducted in the aftermath of the FMF protests, by Jogee and colleagues (2018), looked at individual-level factors related to personality (i.e., the big five) to determine the extent to which these variables predicted a sample of economic students' acculturation strategies. Using logistic regression, the researchers found an association between two individual-level factors (age and neuroticism) and the segregation/separation acculturation

strategy. The marginalisation/exclusion category was evidenced to be negatively associated with agreeableness and positively linked to older participants and women. The findings furthermore contradicted those of Naidoo and Mahabeer (2006), noting less heritage culture maintenance amongst black Africans than amongst Indian South Africans.

From the above summary of the research conducted within the South African context, four main patterns emerge: (i) all existing South African studies cross-sectional in design; (ii) few examine acculturation of mainstream (white South Africans); (iii), only one examined domain specific outcomes; (iv) only one examined individual/ psychological antecedents. The present research, therefore, aimed to include a mainstream group in the study as well as to assess the influence of a range of individual level antecedents on acculturation strategy preferences as well as on a domain-specific adaptation (i.e., academic performance) and two general adaptations (i.e., wellbeing and intergroup relations).

Chapter Summary

Diversity has been steadily increasing in South African institutions of higher education (Van Broekhuizen, 2016). While SU policy promotes diversity and equality, the success of this policy depends upon several factors, including low levels of prejudice and discrimination and upon the degree to which it is supported by mainstream (white) students (Berry, 2006). This is known as the context of the acculturation process. Together with individual factors such as age, gender, and SES, the context is known to influence the acculturating individual's adaptation during the acculturation process.

The individual and psychological variables explored in this chapter included early experiences of intergroup contact and contact-promoting norms, perceived discrimination, and perceived similarity. Early experiences of intergroup contact and contact-promoting norms have been linked to both intergroup contact willingness, actual intergroup contact, and ethnic identity. Additionally, perceived discrimination has been linked to the segregation strategy, which is therefore seen as a protective measure. Low perceptions of intergroup similarity, which has been linked to language competence, have been found to hamper the acculturation process.

These factors above are believed to affect the preference for acculturation strategies, which determine whether (and how) intergroup contact unfolds in diverse settings (Berry, 1990, 1997; Berry et al., 1989; Berry & Sam, 2016). This preference is a construal of two dimensions including ethnic identity and contact willingness with the outgroup, producing the four distinct strategies: integration, assimilation, segregation, and marginalisation. Research has reliably demonstrated that ethnic groups show the most positive response to integration and as a result

experience both higher levels of well-being (Berry, 1990; Berry et al, 1989; Van Oudenhoven et al., 1998) and successful psychological adjustment (Berry & Sam, 1998). These resultant effects are known as acculturation adaptations and are divided into three broad types including psychological adaptations (affective component), sociocultural adaptations (behavioural component), and intercultural adaptations (relational component). With regard to the sociocultural component, there are general and domain-specific outcomes, of which the latter might include employment or academic performance.

Research on the process of acculturation in the developing world and in the South African context more specifically is chronically lacking. Within this context, then, major gaps are evident in several areas including a lack of longitudinal studies, an absence of research into the mainstream groups; moreover, little attention has been afforded to individual and psychological antecedents and to domain-specific sociocultural outcomes such as academic performance.

Chapter 3: The Present Study and Methodology

The diversity of student bodies in South African universities has grown consistently in recent decades. However, evidence suggests that black (African) and coloured students are not participating on equal footing with their white counterparts (Essop, 2020). One framework used to assess inequity in performance and throughput, as well as other adaptations of wellbeing and outgroup attitudes, is Berry's (1977) bi-directional acculturation model. The motivation behind the present study was the noticeable gap in the literature on acculturation in Sub-Saharan Africa, and the dearth of research comparing acculturation for members of ethnic *and* mainstream groups. Additionally, few of these studies have assessed the impact of psychological and individual level antecedent variables on the acculturation process or focused on domain-specific outcomes such as academic performance. As such, the present study investigated the acculturation strategies adopted by mainstream and ethnic first-year university students at Stellenbosch University (SU) and empirically explored the antecedents (predictors) and consequences (outcomes) of the acculturation strategies adopted by these students. The proposed study additionally aimed to produce findings and recommendations that can lay a foundation for further research to inform possible interventions. Against this backdrop, the following research questions, and related hypotheses, were formulated for the present study:

Research Question 1 (RQ1):

Are mainstream and ethnic acculturating groups, identified by ethnocultural self-categorisation, significantly distinguishable considering antecedent and consequent factors?

Research Question 2 (RQ2):

Do distinct acculturation strategy preference groups emerge within mainstream and ethnic groups when using ethnic identity and contact willingness constructs as dimensions in a bi-directional acculturation model?

Research Question 3 (RQ3):

Do acculturating and acculturation strategy preference groups differ on antecedent and consequent factors?

Hypothesis 1 (H1):

$H_0: \mu_M = \mu_E$

Acculturating groups have the same mean vector.

$H_1: \mu_M \neq \mu_E$

Acculturating groups do not have the same mean vector. In other words, mainstream and ethnic groups exhibit significant multivariate differences in their mean scores on the combined dependent variables.

Hypothesis 2 (H2):

$H_0: \mu_{M,1} = \mu_{M,2} = \mu_{M,3}$

Mainstream (M) acculturating strategy preference groups, $i = 1, 2, 3$, have the same mean vector.

$H_1: \mu_{M,i} \neq \mu_{M,j}$ for at least one pair $i \neq j$

At least two of the three mainstream acculturation strategy preference groups have different mean vectors. In other words, at least two of the acculturation strategy preference groups exhibit significant multivariate differences in mean scores on the combined dependent variables.

Hypothesis 3 (H3):

$H_0: \mu_{E,1} = \mu_{E,2} = \mu_{E,3}$

Ethnic (E) acculturation strategy preference groups, $i = 1, 2, 3$, have the same mean vector.

$H_1: \mu_{E,i} \neq \mu_{E,j}$ for at least one pair $i \neq j$

At least two of the ethnic acculturation strategy preference groups have different mean vectors. In other words, at least two of the acculturation strategy preference groups exhibit significant multivariate differences in mean scores on the combined dependent variables.

Hypothesis 4 (H4):

$H_0: \mu_{M,k} = \mu_{E,k}$

Acculturating group mean values of dependent variable k are equal, where $k = 1, 2, \ldots, 11$ antecedent and consequent variables.

$H_1: \mu_{M,k} \neq \mu_{E,k}$

Acculturating group mean values of dependent variable k exhibit a significant difference.

Hypothesis 5 (H5):

$H_0: \mu_{M,1} = \mu_{M,2} = \mu_{M,3}$

Mainstream acculturation strategy preference group mean values of dependent variable k are equal, where $k = 1, 2, \ldots, 11$ antecedent and consequent variables.

$H_1: \mu_{M,i} \neq \mu_{M,j}$ for at least one pair $i \neq j$

At least two of the mainstream acculturation strategy preference group mean values of dependent variable k are significantly different.

Hypothesis 6 (H6):

$H_0: \mu_{E,1} = \mu_{E,2} = \mu_{E,3}$

Ethnic acculturation strategy preference group mean values of dependent variable k are equal, where $k = 1, 2, \ldots, 11$ antecedent and consequent variables.

$H_1: \mu_{E,i} \neq \mu_{E,j}$ for at least one pair $i \neq j$

At least two of the ethnic acculturation strategy preference group mean values of dependent variable k are significantly different.

The remainder of this chapter is dedicated to a description of the methodology employed in the present study. I begin with an explanation of the background to the study, including the nature of the data, the process of ethical clearance and necessary permissions, sample description, and a brief rationale behind the selection of the target population. This is followed by a detailed summary of the measures employed. Hereafter, the process followed for preparing the data, namely cleaning and the imputation of missing data, as well as the various empirical approaches adopted for data analysis, are described.

Background to the Original Study

The present study comprised a secondary data analysis of a subset of cross-sectional, quantitative online survey data collected amongst both mainstream and ethnic group first-year Economics 114 students at SU in 2019. The original study (lead by Dr Hermann Swart, Department of Psychology), from which the subset of secondary data was drawn, had received the necessary Institutional permission (to collect data from SU students) and ethics clearance

from the Research Ethics Committee: Social, Behavioural, and Educational Sciences (REC Project number: PSY-2018-7796).

The original study was undertaken among first-year Economics students for three important reasons. Firstly, according to the Economics 114 course convenor for 2019, Economics 114 and 144 are the two courses at SU that consistently show the largest enrolment numbers (approximately 1,650 to 1,750 students) (personal communication, 25 April, 2020). In 2019, 1,792 students were enrolled in Economics 114 and 1,837 students were enrolled in Economics 144 (personal communication, April 25, 2020). Secondly, the population of first-year Economics students comprise students drawn from across a diversity of faculties including Economic and Management Sciences, Arts and Social Sciences, and Agricultural Sciences. Thirdly, the first-year Economics students are relatively equally balanced in terms of gender representation (in 2019: Economics 114 – n = 941 males, n = 851 females; personal communication, April 25, 2020), reducing the risk of potential gender bias in the data. The sample characteristics have been further detailed in chapter 4.

Data Collection in the Original Study

Prospective participants were informed of the study in their first-year Economics classes and subsequently invited to participate via email. Information about the study was provided, along with a unique URL link to an electronic informed consent form (see Appendix B). The electronic informed consent form provided prospective participants with further information about the study as well as information about their rights as research participants. These included the right to anonymity, the right to confidentiality, and the right to withdraw their participation from the study at any time without penalty. Participants were provided with the contact details to free counselling services available in Stellenbosch should they require it after participating in the study. Prospective participants who provided informed consent to participate in the study were directed to the online survey materials.

Data were collected and managed using Research Electronic Data Capture (REDCap; Harris, Taylor, Thielke, Payne, Gonzalez, & Conde, 2019), an electronic data capture tool hosted at SU. Participants who completed all survey materials were given the option to opt-in to a cash prize draw to win one of 21 cash prizes valued at R200 to R500. The secondary data analyses comprised a subset of the data collected among Economics 114 students (data collected from Economics 144 students in the original study were not included in the secondary data analyses reported on here). Below I describe only those materials relevant to the present

study (i.e., excluding all measures included in the original project that did not form part of the secondary analyses undertaken in the present study).

Materials

Participants who agreed to participate in the study were routed to the online survey materials. The original study comprised a wide array of measures, and only a subset of these measures is relevant to the present secondary data analyses. As such, only those measures included in the secondary data analyses of the present study are described below (all the items contained in the instruments below can be seen in detail in Appendix B). Unless otherwise indicated, the measures described below were developed by the Principal Investigator of the original project, Dr Hermann Swart, for the purposes of the project.

Acculturation Strategy Preference Variables. Acculturation strategy preferences was measured along two dimensions, namely the importance of ethnic identity (measured as the strength of ethnic identification) and the willingness to engage in intergroup contact.

Importance of Ethnic Identity. A single item asked participants "How strongly do you identify as a member of your ethnic group?" (scaled from 1 = *Not at all* to 4 = *Very strongly*).

Willingness for Intergroup Contact. A single item asked participants "At the next opportunity you have to interact with someone who you do not know, how likely are you to start a conversation with [ethnic group]?", where ethnic group is, for purposes of this study, one of black (African) South African, coloured South African, and white South African (scaled from 1 = *Very Unlikely* to 5 = *Very Likely*). For mainstream participants, a composite measure of willingness for intergroup contact was created by averaging the scores for willingness for intergroup contact with black (African), coloured, and Indian South Africans. For ethnic participants, willingness for intergroup contact was measured using the score for willingness for intergroup contact with white South Africans.

Antecedent (Predictor) Variables.

Demographics. Participants reported on their age, gender, home language, ethnic identity, and socioeconomic status (i.e., household income and self-perceived social class). The exact wording of these items can be reviewed in Appendix A. For the purposes of this secondary data analysis, home language is grouped into four categories: English; Afrikaans; other African language; and other. Moreover, for the purposes of the present study, only participants who identified with one of three ethnic categories were included in the analyses, namely, white

South African, black (African) South African, and (coloured) South African (further details provided below when describing the participants included in the secondary data analyses).

Childhood intergroup contact experiences. Participants rated their frequency of intergroup contact with white, black (African), coloured, and Indian South Africans prior to attending university along three items per group. Participants were asked: "As a child and teenager, how often did you have face-to-face interactions with [white/coloured/black (African) South Africans] [at school/as neighbours/as close friends]?" (scaled from 1 = *Never* to 5 = *Always*). For mainstream participants, a composite measure of childhood intergroup contact experiences was created by averaging the scores across all three items for childhood contact with both black (African) and coloured South Africans. For ethnic participants, a composite measure of childhood intergroup contact experiences was created by averaging the scores across all three items for childhood contact with white South Africans.

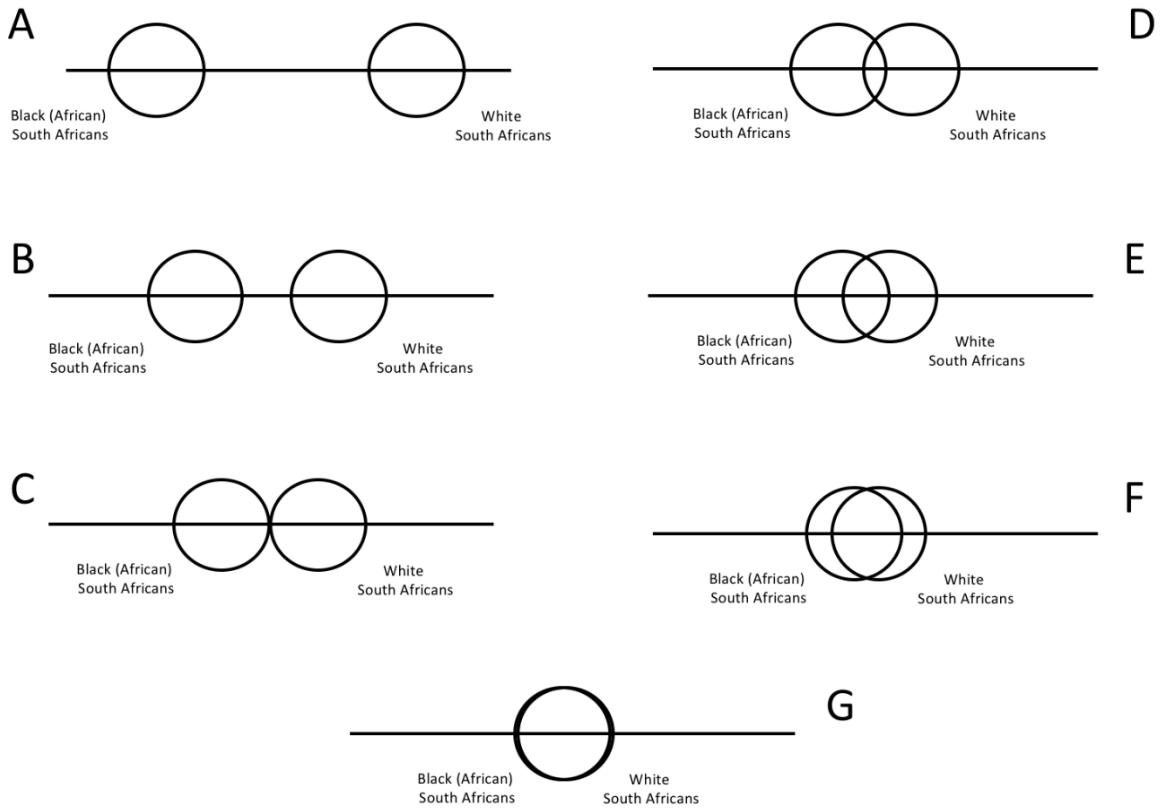
Norms Towards Intercultural Contact. A 4-item measure asked participants about the ethnic diversity norms in their home and community as children and teenagers; for example: "When I was a child and teenager, my family members had friends from different ethnic groups." (scaled from 1 = *Completely Disagree* to 5 = *Completely Agree*).

Frequencies of Positive and Negative Intergroup Contact in the Home Community. A single item measure asked participants to rate how frequently they have positive experiences (e.g., making friends with, feeling welcomed by) when engaging in direct, face-to-face contact with white, black (African), and coloured South Africans in their home community. Similarly, a single item measure asked participants to rate how frequently they have negative experiences (e.g., feeling unwanted, intimidated, or bullied) when engaging in direct, face-to-face contact with white, black (African), and coloured South Africans in their home community. Both measures were scaled from 1 = *Never* to 5 = *Always*. For mainstream participants, a composite measure of positive contact in the home community was created by averaging the scores for positive contact with both black (African) and coloured South Africans in the home community. A similar approach was taken to create a compositive measure of negative contact in the home community among mainstream participants. For ethnic participants, positive contact in the home community was measured using scores for positive contact with white South Africans. A similar approach was taken to measure negative contact in the home community among ethnic participants.

Perceived Cultural Discrimination. Three items (adapted from Pinel [1999]) asked participants to rate the extent to which they felt they had been discriminated against for their

ethnic backgrounds, for example: “Stereotypes about my ethnic group have not affected me personally” (scaled from 1 = *Strongly Disagree* to 7 = *Strongly Agree*).

Perceived Group Similarity. Perceived group similarity was measured across two instruments. The first instrument comprised a single item measure (adapted from Aron et al., 1992). This measure asked participants to rate the similarity between various pairs of South African ethnic groups on a scale comprising six diagrams of two circles (each representing one of the ethnic groups being compared) that ranged from 1 = *the two circles being situation far apart from one another* (i.e., the two groups are very different to one another) to 6 = *the circles completely overlapping one another* (i.e., the two groups are essentially identical to one another). For example:



The second instrument asked participants to compare various combinations of South African ethnic groups and to report the extent to which they believed the two ethnic groups being compared were similar to one another in general (scaled from 1 = *Very Different* to 6 = *Very Similar*). For both mainstream and ethnic participants, a composite measure of perceived group similarity was created by averaging the scores provided across these two instruments comparing white South Africans with black (African) and coloured South Africans.

Consequent (Outcome) Variables.

Subjective Wellbeing. A shortened 7-item measure of the scaled general health questionnaire (Goldberg & Hillier, 1979) was used to assess participants' sense of subjective well-being (e.g., "In most ways, my life is close to my ideal."; scaled from 1 = *Completely Disagree* to 7 = *Completely Agree*).

Frequencies of Positive and Negative Intergroup Contact while at SU. A single item measure asked participants to rate how frequently they have positive experiences (e.g., making friends with, feeling welcomed by) when engaging in direct, face-to-face contact with white, black (African), and coloured South Africans at SU. Similarly, a single item measure asked participants to rate how frequently they have negative experiences (e.g., feeling unwanted, intimidated, or bullied) when engaging in direct, face-to-face contact with white, black (African), and coloured South Africans at SU. Both measures were scaled from 1 = *Never* to 5 = *Always*. For mainstream participants, a composite measure of positive contact at SU was created by averaging the scores for positive contact with both black (African) and coloured South Africans at SU. A similar approach was taken to create a compositive measure of negative contact at SU among mainstream participants. For ethnic participants, positive contact at SU was measured using scores for positive contact with white South Africans. A similar approach was taken to measure negative contact at SU among ethnic participants.

Academic performance. Participants were asked to provide consent for the researchers to access their final academic performance in the Economics 114 course. Percentage scores were divided by 10 to create a score ranging from 0 to 10.

Outgroup attitudes. A single item attitude (feeling) thermometer (adapted from Converse, Dotson, Hoag, & McGee, 1980) asked participants to rate their feelings towards members of different South African population groups in general along a sliding-scale (scaled from 0 = *Cold* to 100= *Warm*). For mainstream participants, a composite measure of outgroup attitudes was created by averaging the scores for attitudes towards black (African) and coloured South Africans. For ethnic participants, outgroup attitude was measured by the score for attitudes towards white South Africans. Percentage scores were divided by 10 to create a score ranging from 0 to 10.

Throughout, all items were scored (and, where necessary, reverse scored) such that higher scores indicated greater importance of ethnic identity, greater willingness for intergroup

contact, more frequent intergroup contact during childhood, more positive norms towards contact during childhood, more frequent positive intergroup contact in home community or at SU, more frequent negative intergroup contact in home community or at SU, greater perceived cultural discrimination, greater perceived outgroup similarity, greater subjective wellbeing, better academic performance, and more positive outgroup attitudes.

Data Preparation

Below I briefly describe the steps (and the rationale behind these steps) that were followed to acquire, safeguard, and prepare the data prior to undertaking the preliminary and main analyses. These steps include initial data cleaning and dealing with missing data.

Ethical considerations

The data set was received by myself only after my name had been added as a co-researcher on the original study and was subsequently cleared by the Research Ethics Committee: Social, Behavioural, and Educational Sciences. Only those data necessary to achieve the aims of the present study were requested and then received from the primary investigator (Dr Hermann Swart). This includes all the measures detailed in the above section. Data were securely stored on a password protected device and were not stored online or shared with anyone. Participant anonymity was maintained using identity codes. The data were fully analysed — only in necessary instances were observations excluded from analysis for reliability and validity concerns.

Data cleaning

The necessary data were extracted from the REDCap (Harris et al., 2019) platform and imported into RStudio (R Core Team, 2020). Observations of participants who did not report their ethnicity as either white, coloured, or black (African) South African were deleted. This is because the cell sizes of these additional groups were considered too small to be useful to the quantitative study at hand. Observations of participants who did not at least complete the first of the three surveys, or whose missing data was deemed to be missing completely at random, were also deleted. Lastly, where participants who did not provide consent to access their Economics 114 results were also omitted from further analyses. The number of participants who were excluded from further analyses is provided in further detail below when introducing the samples that were retained for final analyses.

Missing data and Multiple Imputation

Regardless of the quality of a study's design or control, missing data are a highly likely if not inevitable outcome, especially in social science research (Carpenter & Smuk, 2020; Kang, 2013). Missing data are defined as any data that are expected for an observed variable of interest but are, for whatever reason, not stored (Kang, 2013). Missingness can pose a problem in that it can negatively influence the statistical power and precision of analyses as well as the conclusions that can be drawn from potentially biased estimates (Graham, 2009; Hughes, Heron, Sterne, & Tilling, 2019; Kang, 2013; Little, Jorgensen, Lang, & Moore, 2014). These biased estimates can be attributed to the mechanism behind the missingness, as well as to the remedial methods of analysis applied for compensation (Jakobson, Gluud, Wetterslev, & Winkel, 2017). From this perspective, the problem is less the missing data than it is the approach adopted to deal with missing data (Little et al., 2014)

Regarding the study at hand, it was evident that up to 33% of the data were missing (see Table A1 of Appendix A). It was assumed that most of the missingness could be accounted for by attrition (participant dropout while completing the survey). Concerns, then, that attrition may lead to missing not at random were addressed through determining whether there were any significant differences between the group of participants who completed the survey and the group of participants who dropped out along the way. A logistic regression of sociodemographic variables (i.e., gender, age, SES class, SES income, home language and school quintile) on the probability of completing the survey showed that older participants were significantly ($p < .05$) less likely to complete the survey. The results of this logistic regression are provided in Table A2 of Appendix A.

In previous decades it was more popular, and even acceptable, to use complete case analysis through, for example, listwise deletion. However, multiple imputation (MI) is fast becoming a standard method for dealing with missingness (Carpenter & Smuk, 2020; Klebanoff & Cole, 2008; Sterne et al., 2009). MI is a Monte-Carlo or stochastic method that can be used to determine parameter estimates of datasets suffering from missingness (Carpenter & Kenward, 2008). MI is most commonly used when the missingness mechanism is assumed missing at random (MAR). Rubin (1976) proposed that every data point (missing or not) has some likelihood of being missing, based on a missingness mechanism. When data are missing completely at random (MCAR), for example, this implies that, as far as is known by the researcher, the missingness cannot be attributed to some known or even unknown variable or set of variables. Thus, each missing piece of data are equally as likely as any other to be missing (Rubin, 1976; Van Buuren, 2018).

Complete case analysis is most appropriate under this assumption, although this is considered highly unlikely in uncontrolled environments (Hughes et al., 2019; Little et al., 2014). MAR, therefore, is a far more plausible assumption for the missing data described above (Carpenter & Kenward, 2008). This is because MAR assumes that any mechanism that explains the systematic differences between observed and missing data are due to some association between them (Hughes et al., 2019). Hughes and colleagues (2019) established in their research that MI was appropriate for all tested mechanisms of MAR data. Given the above, the data were imputed using multivariate imputation by chained equation (MICE) package (Van Buuren et al., 2021), which performs MI using fully conditional specification (FCS) implemented by the MICE algorithm.

The MI process followed in the present thesis was based on the tutorial of Yoshida (2016) and the instructions of Van Buuren and colleagues (2021). Based on work by other researchers (see Collins, Schafer, and Kam, 2001; Rubin, 1976), Van Buuren and colleagues (2021) recommend the following five steps to generate accurate imputation results: (i) Include as many variables in the imputation model as will be used in the target analysis; (ii) the order in which the variables will be used in the target analysis needs to be maintained in the imputation analysis, (iii) auxiliary variables related to the variables with missingness can be included, (iv) avoid using variables with a high correlation (>.90); and exclude variables with missingness greater than 50%.

A pre-imputation dataset was created in which the variables required for later analysis were selected, whether missing or complete. A square predictor matrix was created in which a '0' or '1' indicated missing or complete data for a particular variable. Variables considered outcomes in the target analysis (wellbeing, academic performance, and outgroup attitudes) were excluded as imputer variables, while all other variables, whether complete or not, were identified as appropriate imputers. The variables selected as imputers included biographical variables of SES, gender, language, as well as childhood contact experiences, and positive and negative home community contact experiences.

Five imputed data sets were generated using the *MICE* package with the 'empty imputation' method (Van Buuren & Groothuis-Oudshoorn, 2021). The *setdiff* function was used to assess whether unplanned variables were accidentally imputed or if planned imputation was not achieved. The five imputed data sets were appended into a single long data set that included an 'imp_id' variable to distinguish between imputations in later analysis. The impact of multiple imputation on the final sample size retained for further analyses are described when introducing the mainstream and ethnic samples below.

Analytical Approach to the Main Analyses

One-way analysis of variance (ANOVA) and its multivariate extension (MANOVA) are both commonly used statistical techniques in the social sciences. Both are members of the family of General Linear Model (GLM) procedures that aim at establishing the strength of the relationship between variables. Specifically, a one-way ANOVA can be considered a correlation between a dependent variable and a grouping variable, whilst a one-way MANOVA can be considered a special type of canonical correlation. ANOVA and MANOVA estimation rest upon two strong assumptions that the samples are drawn independently (i.e., the same unit of observation does not appear in multiple groups), and that within each sample, observations are drawn randomly and independently. Two further (weaker)[3] assumptions of normality and equality of variances across samples are also required.

A one-way fixed-effects ANOVA is used to test the null hypothesis of statistically equivalent means of a chosen response (dependent) variable among several independent samples. These are identified by a discrete, nominal grouping variable that takes on at least two or more values.[4] The alternative hypothesis is that the mean of at least one group differs from the others. Therefore, in the main analyses, ANOVA aims to determine how likely it is that acculturation strategy groups, for example, differ through determining how much of the total variance in a dependent variable is associated with the grouping variable, and how much is residual variance.

Given $i = 1, 2, \ldots, n$ independent observations (i.e., study participants) and $j = 1, 2, \ldots, k$ acculturation groups, the total sum of squares is given by:

$$SS_{total} = \sum_{j=1}^{k} \sum_{i=1}^{n} (y_i - \bar{y})^2$$

where $\bar{y}$ is the sample grand mean. The sum of squares for the acculturation group (model) effect is:

$$SS_{model} = \sum_{j=1}^{k} n_j (\bar{y}_j - \bar{y})^2$$

where n_j is the sample size within the j[th] group, and $\bar{y}_j$ is the group mean. Finally, the residual sum of squares is:

[3] ANOVA can be robust to the violation of these two weaker assumptions.

[4] A one-way fixed-effects ANOVA simplifies to a student's *t*-test in the case of only two groups.

$$SS_{residual} = \sum_{j=1}^{k}\sum_{i=1}^{n}(y_i - \bar{y}_j)^2 = SS_{total} - SS_{model}$$

The null hypothesis is rejected if the F-statistic, measured as:

$$F = \frac{MS_{model}}{MS_{residual}} = \frac{\frac{SS_{model}}{df_{model}}}{\frac{SS_{residual}}{df_{residual}}}$$

is larger than a critical value found in the F-distribution with $df_{model} = (k-1)$ and $df_{residual} = (n-k)$ degrees of freedom, and a significance level of α that, for purposes of this study, is chosen to be 95%.

A MANOVA extends an ANOVA to situations in which there are two or more dependent variables. It is important to note, however, that although one-way ANOVA and MANOVA investigate the differences in means between two or more groups, the latter considers the relationships between dependent variables simultaneously and not individually. As with ANOVA, the MANOVA tests whether the model variance exceeds the residual variance, but this test makes use of a composite, unobserved (latent) dependent variable that is computed from the array of dependent variables.

The computation of variation in the MANOVA procedure is based upon the general linear model:

$$Y = \beta' X + \epsilon$$

where Y is an $n \times m$ matrix of dependent variables, X is an $n \times p$ matrix of control variables. β and ϵ represent the regression coefficients and residual, respectively. In addition to computing the sum of squares (total, model, and residual) for each dependent variable (as in the ANOVA), the MANOVA also computes the total, model, and residual cross products between all possible combinations of dependent variables. With $m = 1, 2$ dependent variables, the cross products for total, model and residual variation are computed as:

$$CP_{total} = \sum_{i=1}^{n}(y_{i,1} - \bar{y}_1)(y_{i,2} - \bar{y}_2)$$

$$CP_{model} = \sum_{j=1}^{k} n \times (\bar{y}_{k,1} - \bar{y}_1)(\bar{y}_{k,2} - \bar{y}_2)$$

$$CP_{residual} = \sum_{i=1}^{n}(y_{i,1} - \bar{y}_{k,1})(y_{i,2} - \bar{y}_{k,2})$$

where $\bar{y}_m$ and $\bar{y}_{k,m}$ are the grand and group means of dependent variable m, respectively. Overall (T), model (M) and residual (E) variance in the MANOVA, therefore, can be assembled into the three matrices:

$$T = \begin{pmatrix} SS_{total,1} & CP_{total,1\times2} & \cdots & CP_{total,1\times m} \\ CP_{total,2\times1} & SS_{total,2} & \cdots & CP_{total,2\times m} \\ \vdots & \vdots & \ddots & \vdots \\ CP_{total,m\times1} & CP_{total,m\times2} & \cdots & SS_{total,m} \end{pmatrix}$$

$$M = \begin{pmatrix} SS_{model,1} & CP_{model} & \cdots & CP_{model} \\ CP_{model} & SS_{model,2} & \cdots & CP_{model} \\ \vdots & \vdots & \ddots & \vdots \\ CP_{model} & CP_{model} & \cdots & SS_{total,m} \end{pmatrix}$$

$$E = \begin{pmatrix} SS_{residual,1} & CP_{residual} & \cdots & CP_{residual} \\ CP_{residual} & SS_{residual,2} & \cdots & CP_{residual} \\ \vdots & \vdots & \ddots & \vdots \\ CP_{residual} & CP_{residual} & \cdots & SS_{residual,m} \end{pmatrix}$$

The final steps of the MANOVA procedure involve decomposing these matrices into their eigenvectors and eigenvalues, which are used to derive the relevant F-statistic and its p-value. For purposes of this study, the Pillai test is employed.

Whilst it is common practice to follow a MANOVA analysis with multiple ANOVAs conducted on each of the dependent variables, these processes, as is evident from the above, address different research questions because they are fundamentally analysing different variables (Fish, 1988). Importantly, a MANOVA linearly combines the relationships between dependent variables "to generate one or more… composite variables [that]… represent unobserved constructs that can best account for the group differences… [which] become the focus of the analysis" (Smith, Lamb, & Henson, 2019, pp. 41). Therefore, it is possible to obtain *p*-values of, for example, >0.5 on two univariate ANOVAs of group differences in two outcomes, but a *p*-value <0.001 when using a MANOVA of those same groups and outcomes (Zientek & Thompson, 2009). Since the MANOVA is only able to establish whether an unobserved composite variable differs by the independent groupings of observations, some multivariate post hoc technique would be required to interpret this result.

The simplest and, therefore, most frequently recommended multivariate procedure to follow MANOVA is descriptive discriminant analysis (DDA; Enders, 2003; Huberty & Olejnik, 2006; Smith et al, 2019). DDA is a statistical procedure that generates a set of

orthogonal linear equations that maximise between-group differences between groups. The number of equations will at a minimum be the smaller of the number of dependent variables or the number of groups less 1 (Haase & Ellis, 1987). Like MANOVA, a composite unobserved variable is generated. Dissimilarly, however, standardised weights and structure coefficients for each dependent variable are also generated that allow for the unobserved composite variable to be interpreted; that is, those predictors that are the most differentiating will be indicated by higher discriminant weights. Unfortunately, neither of the statistical software (namely, RStudio and Stata) utilised in the present study can perform DDA with multiply imputed data.

Preliminary exploratory factor analyses were conducted in RStudio (R Core Team, 2020).[5] The *describe* function of the *stats* package in RStudio was used to generate all descriptive statistics, whilst the *fa*, *alpha*, and *cor* functions in the *Psych* package were used for exploratory factor analyses, Cronbach's alpha, and correlation matrices respectively (Revelle, 2021). All univariate and multivariate analyses described above were conducted in Stata 17 BE (StataCorp, 2021). The first step in the main analysis was to compute correlations of the antecedent and consequent variables and assess potential multicollinearity using the full imputed data set. This was followed by MANOVA analyses using the *mi* prefix and *mvreg* command to determine whether groups could be considered statistically significantly different, and multiple one-way analyses of variance (ANOVA) to test for significant differences in dependent variable means by the group variable (Reinhard, 2017). All univariate and multivariate analyses conditioned on background variables of age, gender, home language, and SES class, income, and school quintile.

[5] This was necessary as R studio is not capable of generating the variance covariance matrix required for a multivariate analysis of variance (MANOVA) with multiply imputed data sets.

Chapter 4: Results

In the chapter that follows, I present the evidence produced by the analytical approach described in chapter 3. I begin with an overview of the final study sample of participants, before describing the processes and results from the preliminary analyses that included tests for distribution normality, construct correlations, exploratory factor analyses, and Cronbach's alpha. This is followed by a description of the operationalisation of the acculturation strategy preferences and the subsequent distribution of the study sample across these groups. Findings from the main analysis are then presented. This beings with a multivariate comparison of the mainstream and ethnic groups, followed by univariate comparisons across the multiple dependent variables. The same process is then repeated comparing across acculturation strategy preference groups within each of the mainstream and ethnic acculturating groups. I conclude with a summary of the findings in relation to the hypotheses developed in chapter 3.

Participants

A total of 897 Economics 114 students agreed to participate in the survey. A total 102 participants were excluded because they did not self-identify as either white, black (African), or coloured South Africans. The data from 265 students were further excluded due to missingness on predictor variables utilised in multiple imputation. Upon completion of the multiple imputation procedure on the remaining data, the data from N = 530 participants were retained for further analyses. This included n = 396 white South African participants (comprising the mainstream group; n = 163 male, n = 231 female; M_{age} = 18.56, SD = 0.78, Range = 17 – 22) and n = 78 coloured South African participants and n = 56 black (African) South African participants. The coloured and black (African) participants were combined to create the ethnic group (n = 56 male, n = 77 female; M_{age} = 18.60, SD = 1.10, Range = 17 – 23). Descriptive statistics are presented in greater detail further below.

Preliminary Analyses

The validity and reliability of the constructs used in the main analyses were determined using complete cases only (n = 294 mainstream, n = 98 ethnic). The first step undertaken in this process was to determine face validity. All items intended for analysis appeared to meet face validity.

Intergroup (MANOVA) comparisons that form the main analysis of this study require multivariate normality to be met. Item distributions were compared to threshold benchmarks

for skewness (within the range -2.00 to +2.00) and kurtosis (within the range -7.00 to +7.00), as recommended by Hair, Black, Babin, and Anderson (2010) and Byrne (2010). Where items did not meet the predetermined thresholds for at least one of the mainstream and ethnic groups, they were rejected for both groups. As indicated in Table A4 and Table A5 of Appendix A, all items under consideration indicated adequate normality.

Constructs comprised of three or more items were assessed for validity through an exploratory factor analysis (EFA) using direct oblimin rotation and maximum likelihood. Only items with factor loadings of at least 0.40 on the first factor were retained (Costello & Osborn, 2004; Watkins, 2018). In cases where items were rejected, EFA was rerun and retained items again assessed against the same 0.40 threshold. As with item normality, where items did not meet the predetermined thresholds for at least one of the mainstream and ethnic groups, they were rejected for both groups to allow for meaningful subsequent group comparisons.

The EFA results summarised in Table A4 and Table A5 of Appendix A indicate that only item 2 and item 3 of the construct for childhood contact norms did not meet the minimum requirements for the ethnic group specifically and were therefore removed from further analysis for both the mainstream and ethnic groups. In all cases, a single factor was indicated to be a suitable fit to the data. Scores on all constructs, generated by taking the average of all accepted items, were indicated to be normally distributed for both acculturating groups.

In cases where at least three items were retained for a given construct, reliability was tested using Cronbach's alpha, with a 0.70 raw alpha score chosen as the threshold. Constructs of fewer than three items were assessed for reliability using Pearson's product moment correlation, with a threshold of 0.30 and significance of $p < 0.05$ chosen. All constructs were indicated to pass these minimum reliability thresholds (see the final columns of Tables A3 and A4 of Appendix A).[6]

Identifying Acculturation Strategy Subgroups

Subgrouping into acculturation strategy preference groups of unwelcoming, ambivalent, and welcoming acculturation strategy preferences was achieved using participants' responses to the two dimensions of acculturation strategy; that is, ethnic identity and contact willingness with ethnic outgroup/s. Participants who scored low on either or both dimensions were

[6] The Cronbach's alpha of 0.69 for the mainstream group's childhood intercultural contact experiences with coloured South Africans only marginally misses the threshold.

classified as adopting an unwelcoming acculturation strategy, whilst those who scored high on both dimensions were classified as adopting a welcoming acculturation strategy.

As the scale of contact willingness provided a neutral response (corresponding to a score of 3), the creation of an ambivalent category was necessary such that participants who selected the neutral response on contact willingness—regardless of ethnic identification—were determined to be ambivalent. For the mainstream group, contact willingness with outgroup was targeted at two ethnic groups, namely black African and coloured South Africans. And so, the assignment of mainstream group members to an ambivalent acculturation strategy becomes less straightforward.

The following rules were therefore applied:

1. Assignment to ambivalent acculturation strategy if neutral response for contact willingness towards both groups, irrespective of strength of ethnic identification.
2. Assignment to an unwelcoming acculturation strategy if neutral response for contact willingness towards one group and low contact willingness towards the other group and/or low ethnic identification.
3. Assignment to a welcoming acculturation strategy if neutral response for contact willingness towards one group and high contact willingness towards the other group and high ethnic identification.

Table 2 below describes the proportion of participants from each acculturating group that were categorised into one of the three acculturation strategy preference categories. Amongst the mainstream and ethnic groups, the welcoming acculturation strategy group comprises roughly 65% and 50% of the group samples, respectively. Amongst the mainstream group, the unwelcoming acculturation strategy group made up a large minority of 25% and the ambivalent a small minority of 11%. Amongst the ethnic group, similar proportions of the group sample fall into the ambivalent (29%) and unwelcoming (22%) categories.

Table 2

Distribution of acculturating strategy groups within acculturating groups

	Mainstream group			**Ethnic group**		
	Group 1 (Unwelcoming)	*Group 2 (Ambivalent)*	*Group 3 (Welcoming)*	*Group 4 (Unwelcoming)*	*Group 5 (Ambivalent)*	*Group 6 (Welcoming)*
Size (%)	97 (24.5%)	43 (10.9%)	202 (64.7%)	30 (22.4%)	39 (29.1%)	65 (48.5%)
Observations	396			134		

Main analyses

Acculturating group comparison

A MANOVA analysis (see Table 3 below) of the two acculturating groups generated a significant F-statistic of $F_{11,\ 513} = 4.96$ (p <0.001), confirming hypothesis H1 that acculturating groups can be significantly differentiated. Multiple ANOVA analyses of group differences along dependent variables indicated support for hypothesis H4 (i.e. significant univariate differences in mean scores) on five of the dependent variables. These were contact-promoting childhood norms, negative contact experiences in the home community, wellbeing, negative contact experiences while at SU, and academic performance. Specifically, the mainstream (*M*) group reported a significantly (p <0.01) lower average score for contact-promoting childhood norms than the ethnic (*E*) group ($\mu_M = 3.74$, $SD_M = 0.85$; $\mu_E = 3.95$, $SD_E = 0.85$), as well as significantly (p <0.01) lower average negative home community contact ($\mu_M = 2.11$, $SD_M = 0.94$; $\mu_E = 2.41$, $SD_E = 0.83$), and lower average negative SU contact experiences ($\mu_M = 1.99$, $SD_M = 0.79$; $\mu_E = 2.35$, $SD_E = 0.98$). Wellbeing was evidenced to be significantly higher (p <0.05) amongst mainstream group members when compared to ethnic group members ($\mu_M = 4.30$, $SD_M = 1.11$; $\mu_E = 3.90$, $SD_E = 1.23$), and mainstream group members scored significantly (p <0.05) higher average academic results in Economics 114 than did ethnic group members ($\mu_M = 6.26$, $SD_M = 1.22$; $\mu_E = 5.72$, $SD_E = 1.33$).

Acculturation strategy group comparisons

From the descriptive statistics summarised in Table A6 of Appendix A, it can be seen that there were no significant *intra*-acculturating group differences in the sociodemographic characteristics of acculturating strategy groups; that is, the sociodemographic profile of mainstream group study participants classified as adopting a welcoming acculturating strategy was no different to that of mainstream group study participants adopting an ambivalent or unwelcoming acculturating strategy, and similarly for ethnic group study participants.

However, there were significant *inter*-acculturating group differences: mainstream group members were more likely to be Afrikaans speaking (p <0.01), less likely to speak one of the other African languages (p <0.001), and more likely to self-classify their home background as middle class and higher (p <0.05). Only in the case of study participants classified as adopting a welcoming acculturating strategy was it found that mainstream group

members were more likely (p <0.05) to have attended quintile 5 schools than ethnic group members.

Table 3

Multivariate and one-way analysis of variance of acculturating groups

Panel A: MANOVA			
	df	F-stat	p-value
Acculturating group	11	4.96	0.000

Panel B: ANOVA						
			Acculturating group			
			Mainstream		**Ethnic**	
Dependent variable	F-stat	p-value	Mean	SD	Mean	SD
Contact-promoting childhood norms	**7.15**	**0.008**	3.74	0.85	3.95	0.85
Perceived outgroup similarity	2.95	0.086	2.71	0.94	2.58	1.19
Perceived discrimination	0.58	0.445	3.99	1.55	3.99	1.59
Childhood intercultural contact experiences	2.74	0.098	2.84	0.77	2.83	1.17
Positive contact home	0.01	0.903	3.10	0.84	2.76	1.16
Negative contact home	**6.82**	**0.009**	2.11	0.94	2.41	0.83
Wellbeing	**5.92**	**0.015**	4.30	1.11	3.90	1.23
Outgroup attitude	3.39	0.066	6.48	1.82	6.53	2.16
Positive contact at SU	3.18	0.075	3.55	0.83	3.52	0.99
Negative contact at SU	**5.30**	**0.022**	1.99	0.79	2.35	0.98
Academic performance	**9.72**	**0.002**	6.26	1.22	5.72	1.33
Number of observations			396		134	

Notes: The MANOVA and ANOVA regressions additionally control for age, gender, language, and socioeconomic factors. Significance of the F-statistics at the 95% level (p <0.05) or higher are bolded.

The results of the multivariate and univariate analysis of variance of the three acculturation strategy groups within the mainstream acculturating group are indicated in Table 4, and similarly for the ethnic acculturating group in Table 5. The MANOVAs provide evidence of significant differentiation between acculturation strategy groups amongst the mainstream group ($F_{22,382} = 3.81, p$ <0.001; Panel A of Table 4), confirming hypothesis H2, and the ethnic group ($F_{22,116} = 2.17, p$ <0.01; Panel A of Table 5), confirming hypothesis H3. Restricting the comparison to pairs of acculturation strategy groups revealed that the mainstream ambivalent (*MA*) and unwelcoming (*MU*) acculturation strategy groups could not be significantly differentiated ($F_{128,\,11} = 1.52, p = 0.131$). In the case of the ethnic group, only the unwelcoming (*EU*) and welcoming (*EW*) acculturation strategy groups were significantly different from one another ($F_{78,\,11} = 3.59, p$ <0.001).

The multiple ANOVAs (Panel B of Table 4) for the mainstream group revealed, in support of hypothesis H5, significant differences in the average scores of several antecedent and consequent variables across acculturation strategy groups. Mainstream group members adopting an unwelcoming acculturating strategy indicated significantly lower levels of perceived outgroup similarity than those adopting a welcoming (*MW*) acculturating strategy ($\mu_{MU} = 2.84, SD_{MU} = 0.89; \mu_{MW} = 2.57, SD_{MW} = 0.85; p = 0.017$), as well as significantly lower frequencies of positive intergroup contact in home communities ($\mu_{MU} = 2.96, SD_{MU} = 0.78; \mu_{MW} = 3.21, SD_{MW} = 0.76; p<0.01$). Regarding consequent variables, significant differences in outgroup attitudes are evidenced across all three acculturating groups ($\mu_{MU} = 5.49, SD_{MU} = 1.95; \mu_{MA} = 6.26, SD_{MA} = 1.79; \mu_{MW} = 6.89, SD_{MW} = 1.63; p<0.05$). Those adopting an unwelcoming acculturation strategy also reported significantly lower frequencies of positive contact experiences at SU when compared to their welcoming and ambivalent counterparts ($\mu_{MU} = 3.23, SD_{MU} = 0.87; \mu_{MA} = 3.33, SD_{MA} = 0.87; \mu_{MW} = 3.71, SD_{MW} = 0.75; p <0.01$). Conversely, those adopting a welcoming acculturation strategy were significantly more likely to report fewer negative intergroup contact experiences at SU than both their ambivalent and unwelcoming strategy counterparts ($\mu_{MU} = 6.40, SD_{MU} = 1.27; \mu_{MA} = 6.05, SD_{MA} = 1.13; \mu_{MW} = 6.29, SD_{MW} = 1.19; p<0.05$).

Univariate ANOVA analysis of between-acculturation strategy group differences amongst the ethnic group (Panel B of Table 5) revealed mean values of antecedent variables to not differ significantly from one another. Therefore, at least when considering antecedent variables alone, the null hypothesis H6 cannot be rejected. However, when comparisons are restricted to two groups, welcoming acculturation strategy group members are, relative to their ambivalent (*EA*) counterparts, found to report significantly higher perceived outgroup similarities ($\mu_{EA} = 2.40, SD_{EA} = 0.96; \mu_{EW} = 2.88, SD_{EW} = 1.17; p = 0.046$) and significantly greater childhood intercultural contact experiences ($\mu_{EA} = 2.60, SD_{EA} = 1.18; \mu_{EW} = 3.29, SD_{EW} = 1.17; p = 0.043$).

Confirming H6, several of the consequent variables are found to differ significantly from one another across acculturating strategy groups. Specifically, ethnic group members preferring a welcoming acculturation strategy scored significantly higher than their unwelcoming and ambivalent counterparts on outgroup attitudes ($\mu_{EU} = 5.32, SD_{EU} = 2.55; \mu_{EA} = 6.11, SD_{EA} = 2.08; \mu_{EW} = 7.41, SD_{EW} = 1.71; p <0.01$) and positive intergroup contact experiences at SU ($\mu_{EU} = 3.33, SD_{EU} = 1.24; \mu_{EA} = 3.21, SD_{EA} = 0.83; \mu_{EW} = 3.85, SD_{EW} = 0.85; p <0.05$). In the case of negative intergroup contact experiences at SU,

those adopting a welcoming acculturation strategy report significantly greater frequencies than their unwelcoming strategy counterparts ($\mu_{EU} = 2.63$, $SD_{EU} = 1.03$; $\mu_{EW} = 2.22$, $SD_{EW} = 0.93$; $p = 0.020$).

These findings are graphically depicted in Figures 2 to 12 in which the mean scores on all 11 antecedent and consequent variables of all six acculturating-acculturation strategy preference groups are plotted. Looking first to the antecedent variables, welcoming acculturation strategy groups reported the highest average scores on perceived outgroup similarity ($\mu_{MW} = 2.88$, $SD_{MW} = 0.89$; $\mu_{EW} = 2.84$, $SD_{EW} = 1.17$). These means did not differ significantly from one another (see Figure 4). Average perceived intergroup similarity scores amongst the mainstream welcoming acculturation strategy group were non-significantly higher than that of the mainstream unwelcoming acculturation strategy group ($p = 0.017$). In the case of the ethnic group, average perceived intergroup similarity was lowest amongst those indicating an ambivalent acculturating strategy ($\mu_{EA} = 2.40$, $SD_{EA} = 0.96$).

The highest average score on childhood intercultural contact experience is found for the ethnic welcoming acculturation strategy group ($\mu_{EW} = 3.29$, $SD_{EW} = 1.17$) (see Figure 3). This average score is also indicated to be significantly higher than that of the ethnic ambivalent ($p < 0.001$), as well as the welcoming mainstream acculturation strategy group ($p = 0.033$). Negative contact in the home community was found to be higher amongst the unwelcoming acculturation strategy groups ($\mu_{MU} = 2.41$, $SD_{MU} = 0.76$; $\mu_{EU} = 2.33$, $SD_{EU} = 0.99$) (see Figure 7). Significant differences in the average scores are, however, not observed for the mainstream group, but average negative intergroup contact in home community is significantly higher amongst members of the ethnic unwelcoming acculturation strategy group when compared to their ambivalent counterparts ($p = 0.027$).

Turning attention to the consequent variables, outgroup attitudes show a strong negative relationship with the adoption of unwelcoming and ambivalent acculturation strategies (see Figure 9). This is indicated by significantly higher average outgroup attitudes amongst those adopting a welcoming acculturation strategy when compared to either their ambivalent ($p<0.05$) or unwelcoming counterparts ($p<0.01$). Average positive attitudes towards outgroup are greatest amongst ethnic welcoming acculturation strategy students ($\mu_{EW} = 7.41$, $SD_{EW} = 1.71$), followed by mainstream welcoming acculturation strategy students ($\mu_{MW} = 6.26$, $SD_{MW} = 1.79$). Conversely, students from both acculturating groups categorised as adopting unwelcoming acculturation strategies report significantly ($p < 0.001$) lower outgroup attitudes

than their welcoming strategy counterparts ($\mu_{MU} = 5.49$, $SD_{MU} = 1.95$; $\mu_{EU} = 5.32$, $SD_{EU} = 2.55$).

Average experiences of positive intergroup contact at SU are, irrespective of acculturating group, significantly higher ($p < 0.01$) amongst those adopting welcoming acculturation strategies when compared to the average reported positive contact experiences of both the ambivalent and unwelcoming acculturation strategy groups (see Figure 10). Furthermore, no significant inter-acculturating group differences are found in average positive contact experiences, controlling for acculturation strategy preference.

Regarding negative intergroup contact at SU, the highest average score is found for the ethnic unwelcoming acculturation strategy group (see Figure 11). In general, positive contact at SU is positively related to the adoption of a more welcoming acculturation strategy. Furthermore, average negative contact experiences at SU are significantly higher amongst the ethnic than the mainstream group ($p < 0.05$), holding acculturation strategy constant.

Finally, average academic performance is indicated to be higher amongst unwelcoming acculturation strategy groups when compared to that of the other acculturation strategy groups, although not significantly so (see Figure 12). Comparing across acculturating groups, the average performance of the welcoming acculturation strategy mainstream group significantly ($p < 0.001$) exceeds that of the welcoming acculturation strategy ethnic group ($\mu_{MW} = 6.29$, $SD_{MW} = 1.19$; $\mu_{EW} = 5.62$, $SD_{EW} = 1.39$).

Table 4

Multivariate and one-way analysis of variance of mainstream acculturating strategy preferences groups

PANEL A: MANOVA	1 vs 2 vs 3 (All mainstream groups)		1 vs 2 (Unwelcoming vs Ambivalent)		1 vs 3 (Unwelcoming vs Welcoming)		2 vs 3 (Ambivalent vs Welcoming)	
	F-stat	p-value	F-stat	p-value	F-stat	p-value	F-stat	p-value
Acculturating strategy group	**3.81**	**0.000**	1.52	0.131	**5.86**	**0.000**	**2.48**	**0.006**
PANEL B: ANOVA	1 vs 2 vs 3 (All mainstream groups)		1 vs 2 (Unwelcoming vs Ambivalent)		1 vs 3 (Unwelcoming vs Welcoming)		2 vs 3 (Ambivalent vs Welcoming)	
Variable name:	F-stat	p-value	F-stat	p-value	F-stat	p-value	F-stat	p-value
Contact-promoting childhood norms	0.14	0.870	0.00	0.991	0.19	0.665	0.16	0.691
Perceived outgroup similarity	**3.50**	**0.031**	0.01	0.926	**5.72**	**0.017**	2.15	0.144
Perceived discrimination	1.48	0.229	4.57	0.035	0.34	0.560	1.93	0.166
Childhood intercultural contact experiences	1.49	0.226	0.55	0.461	3.01	0.083	0.04	0.844
Positive contact home	**3.78**	**0.024**	0.78	0.380	**7.81**	**0.006**	1.12	0.290
Negative contact home	1.11	0.329	1.72	0.192	0.02	0.885	1.92	0.167
Wellbeing	0.33	0.717	0.01	0.940	0.16	0.690	0.61	0.435
Outgroup attitude	**22.70**	**0.000**	**4.06**	**0.046**	**44.24**	**0.000**	**5.99**	**0.015**
Positive contact at SU	**13.91**	**0.001**	0.12	0.735	**24.28**	**0.000**	**8.97**	**0.003**
Negative contact at SU	**4.23**	**0.015**	**5.48**	**0.021**	**5.39**	**0.021**	1.15	0.221
Academic performance	1.04	0.356	2.07	0.153	0.26	0.608	1.48	0.225
Number of observations	396		140		353		299	

Notes: All analyses additional control for age, gender, home language, socioeconomic class, household income and school quintile as independent variables. Significance of the F-statistics at the 95% level ($p < 0.05$) or higher are bolded.

Table 5

Multivariate and one-way analysis of variance of ethnic acculturating strategy preferences groups

PANEL A: MANOVA	4 vs 5 vs 6 (All ethnic groups)		4 vs 5 (Unwelcoming vs Ambivalent)		4 vs 6 (Unwelcoming vs Welcoming)		5 vs 6 (Ambivalent vs Welcoming)	
	F-stat	p-value	F-stat	p-value	F-stat	p-value	F-stat	p-value
Acculturating strategy group	**2.17**	**0.002**	1.60	0.127	**3.59**	**0.000**	1.88	0.052
PANEL B: ANOVA	1 vs 2 vs 3 (All ethnic groups)		1 vs 2 (Unwelcoming vs Ambivalent)		1 vs 3 (Unwelcoming vs Welcoming)		2 vs 3 (Ambivalent vs Welcoming)	
Variable name:	F-stat	p-value	F-stat	p-value	F-stat	p-value	F-stat	p-value
Contact-promoting childhood norms	0.53	0.591	0.01	0.934	1.04	0.310	1.44	0.234
Perceived outgroup similarity	1.73	0.182	0.85	0.361	0.42	0.518	**4.09**	**0.046**
Perceived discrimination	0.17	0.844	0.17	0.681	0.44	0.510	0.00	0.947
Childhood intercultural contact experiences	3.28	0.041	0.41	0.523	3.82	0.054	**4.22**	**0.043**
Positive contact home	0.29	0.745	0.02	0.893	0.00	0.994	0.72	0.400
Negative contact home	1.84	0.163	1.02	0.317	2.12	0.149	2.50	0.118
Wellbeing	0.93	0.399	0.00	0.972	1.65	0.203	0.56	0.456
Outgroup attitude	**12.88**	**0.000**	**7.69**	**0.008**	**22.84**	**0.000**	**9.31**	**0.003**
Positive contact at SU	**5.43**	**0.006**	0.00	0.988	**5.92**	**0.017**	**10.98**	**0.001**
Negative contact at SU	2.0	0.135	0.28	0.597	**5.63**	**0.020**	1.45	0.231
Academic performance	0.10	0.902	0.12	0.729	0.26	0.610	0.01	0.908
Number of observations	134		69		95		104	

Notes: All analyses additional control for age, gender, home language, socioeconomic class, household income and school quintile as independent variables. Significance of the F-statistics at the 95% level ($p < 0.05$) or higher are bolded.

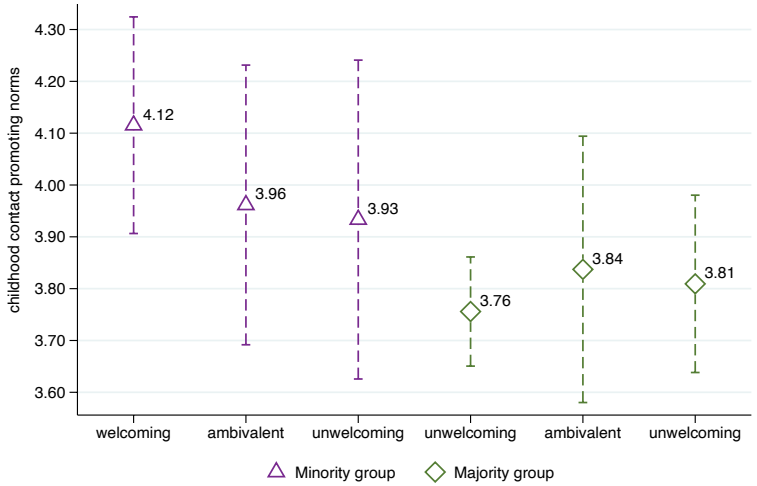


Figure 2

Average childhood contact-promoting norms, by acculturating and acculturation strategy groups

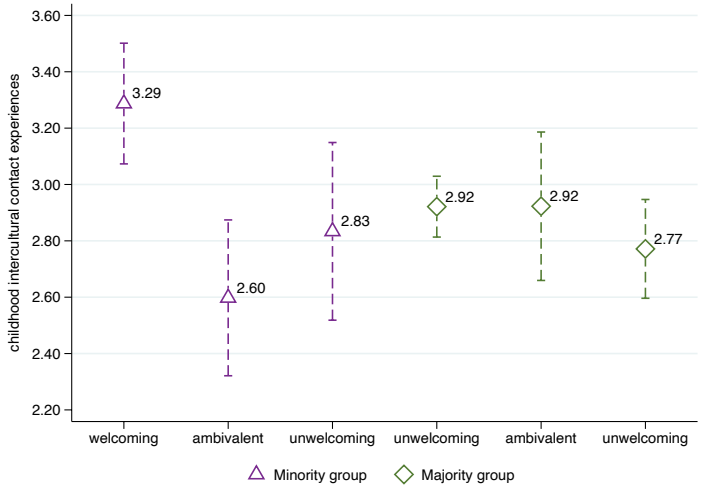


Figure 3

Average childhood intercultural contact experiences, by acculturating and acculturation strategy groups

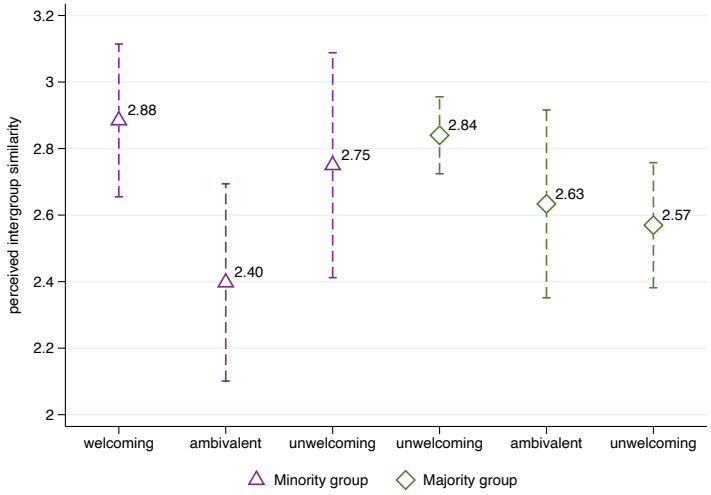


Figure 4

Average perceived similarity, by acculturating and acculturation strategy groups

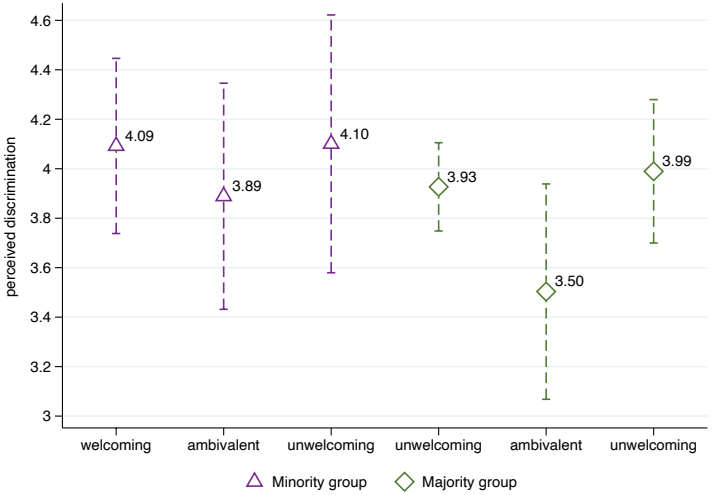


Figure 5

Average perceived discrimination, by acculturating and acculturation strategy groups

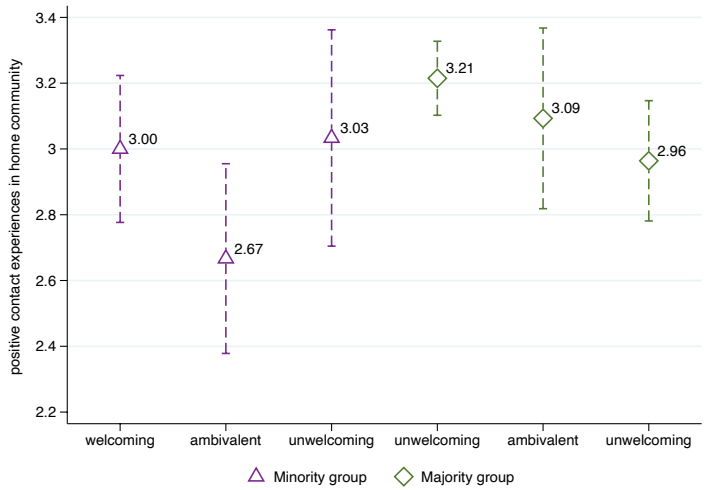


Figure 6

Average positive intergroup contact experiences in home community, by acculturating and acculturation strategy groups

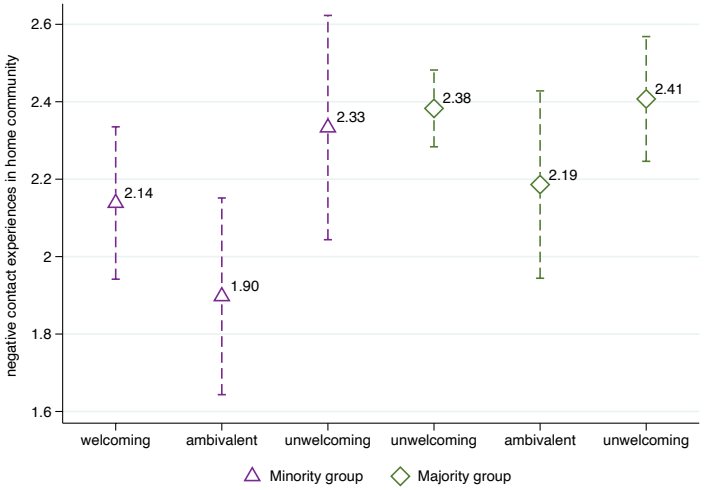


Figure 7

Average negative intergroup contact experiences in home community, by acculturating and acculturation strategy groups

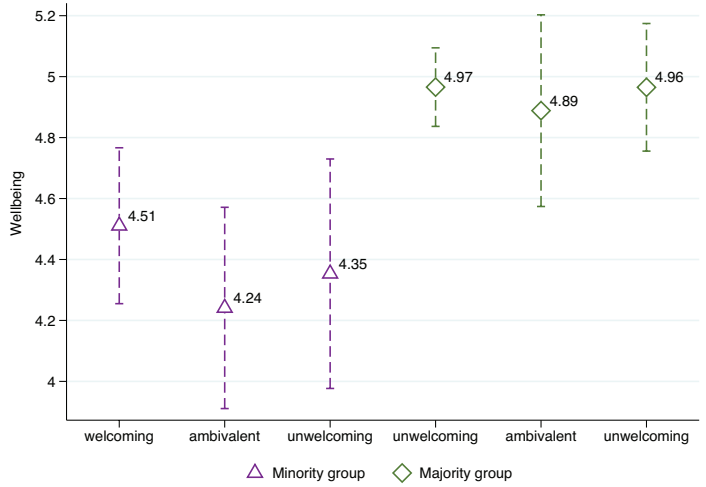


Figure 8

Average wellbeing, by acculturating and acculturation strategy groups

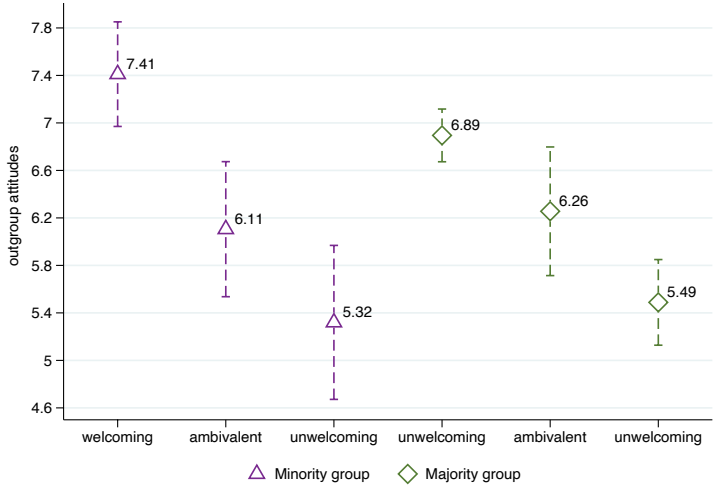


Figure 9

Average outgroup attitudes, by acculturating and acculturation strategy groups

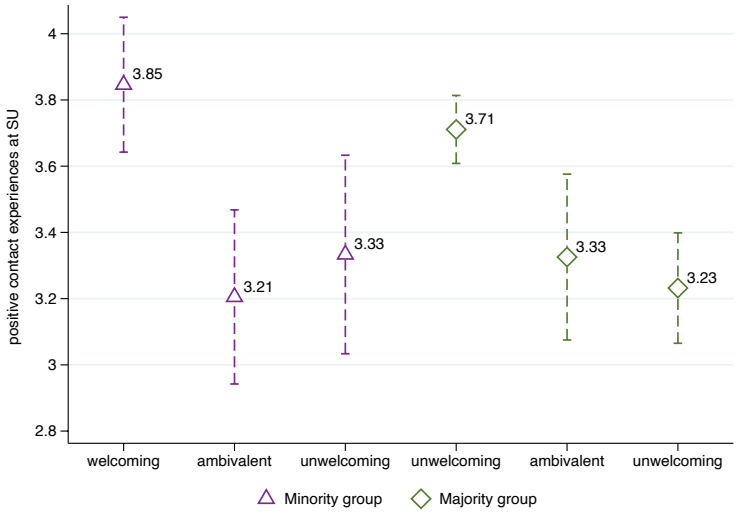


Figure 10

Average positive intergroup contact experiences at Stellenbosch University, by acculturating and acculturation strategy groups

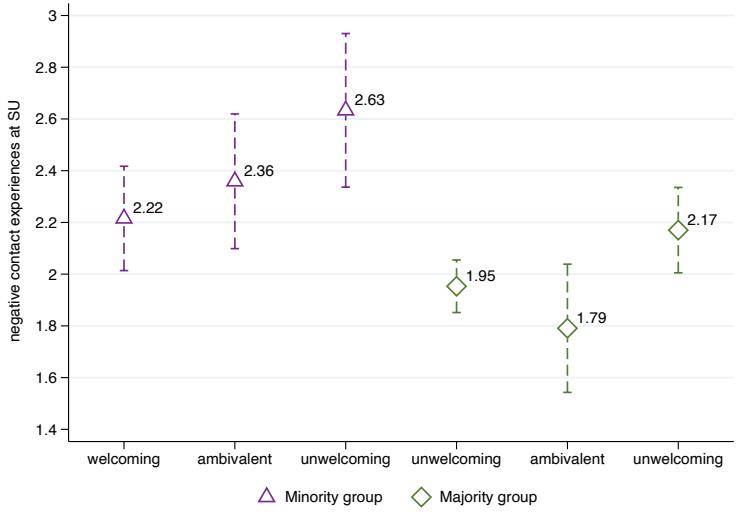


Figure 11

Average negative intergroup contact experiences at Stellenbosch University, by acculturating and acculturation strategy groups

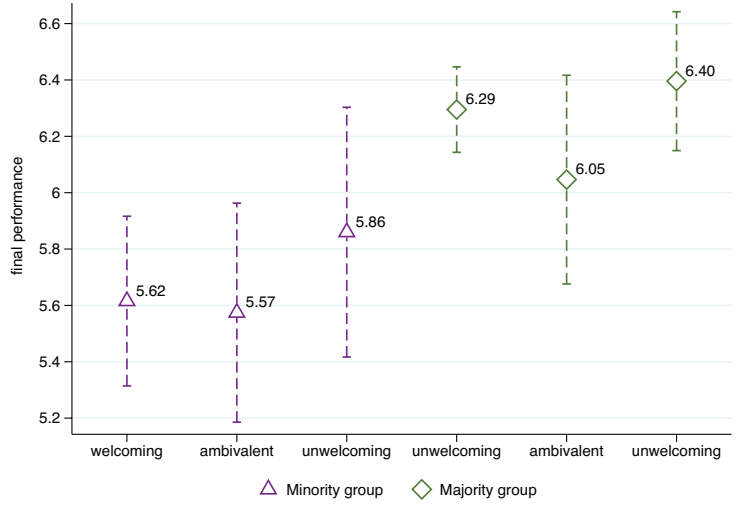


Figure 12

Average academic performance by acculturating and acculturation strategy groups

Summary of findings

From the multivariate evidence presented above, there is sufficient evidence for the H1, H2, and H3 null hypotheses to be rejected. The alternative hypothesis for H1 that the acculturating mainstream and ethnic groups are significantly different in their mean scores on the combined dependent variables is therefore accepted. Similarly, because at least two of the three mainstream acculturation strategy preference groups have significantly different mean vectors on the combined dependent variables, the H2 alternative hypothesis is accepted. For the same reasons, the H3 alternative hypothesis for the ethnic acculturating group is also accepted.

With regard to H4, the mainstream and ethnic groups displayed significant mean differences on both antecedent and consequent variables. Amongst the former, means scores on childhood contact-promoting norms and negative contact in the home community were significantly different between the mainstream and ethnic groups. Amongst the consequent dependent variables, mean scores on negative contact experiences at SU, wellbeing, and academic performance were all significantly different between the two groups. However, perceived outgroup similarity, perceived discrimination, childhood intercultural experiences, positive contact in the home community, positive contact at SU, and outgroup attitudes did not show significant mean score differences across mainstream and ethnic groups.

The univariate analyses found partial evidence for the rejection of the null hypothesis of H5. Within the mainstream group, between acculturation strategy preference comparisons found evidence to suggest significant differences between the mean scores on several antecedent and consequent dependent variables. The groups displayed significant differences on average scores of the antecedents of perceptions of intergroup similarity and positive contact in the home community, as well as the consequent variables of outgroup attitudes and positive and negative contact at SU. No significant mean score differences were found, therefore, for perceived discrimination, childhood intercultural contact experiences, negative contact in the home community, wellbeing, and academic performance.

For hypothesis H6, the within ethnic between acculturation strategy preference groups univariate analysis revealed significant differences for a pair of consequent variables only. Specifically, acculturation strategy groups differed significantly with regard to outgroup attitudes and negative contact experiences at SU. However, no significant mean score differences were found for childhood contact-promoting contact norms, perceived similarity, perceived discrimination, childhood intercultural contact experiences, positive and negative

contact experiences in the home community, positive contact experiences at SU, wellbeing, and academic performance

Chapter 5: Discussion and Conclusion

In the face of the ever-increasing diversity on South African university campuses, the present study was motivated by the noticeable gap in the literature on acculturation in Sub-Saharan Africa, and the limited research that has compared acculturation for members of mainstream and ethnic groups. As such, the present study investigated the acculturation strategies adopted by mainstream and ethnic first-year university students at Stellenbosch University (SU). Moreover, it explored the antecedents (predictors) and consequences (outcomes) of the acculturation strategies adopted by these students.

The pattern of results was broadly consistent with the six proposed hypotheses. The multivariate analysis provided sufficient evidence for the null hypotheses H1, H2, and H3 to be rejected. Stated differently, there were significant multivariate mean vector differences between the mainstream and ethnic groups, as well as between the acculturation strategy preference groups within each of these acculturating groups. The results of the multiple univariate analyses suggest that the null hypotheses H4, H5, and H6 null are partially rejected. Specifically, the average scores on several antecedent (childhood contact-promoting norms and negative contact in the home community) and consequent (negative contact experiences at SU, wellbeing, and academic performance) dependent variables indicated significant differences across the mainstream and ethnic groups. The same was true for the comparisons between mainstream acculturation strategy groups, where significant differences in the average scores of the three acculturation groups were found for the antecedent variables of perceptions of intergroup similarity and positive contact in the home community, as well as the consequent variables of outgroup attitudes and positive and negative contact at SU. Conversely, evidence of significant mean differences was only found for the consequent variables of negative contact experiences at SU and outgroup attitudes when comparisons were made between ethnic acculturation strategy groups.

The discussion that follows is comprised of two broad sections. In the first section, I discuss the multivariate (RQ1 and H1) and univariate (RQ3 and H4) differences observed between the mainstream and ethnic acculturating groups in relation to the literature. In the second section, I similarly discuss the multivariate differences found between acculturation strategy groups within mainstream and ethnic groups (RQ2 and H2 and H3) in relation to existing evidence, as well as the significant univariate differences (RQ3) between acculturation strategy preferences within the two acculturating groups (H5 and H6). This is followed by a discussion of the implications of the present findings for promoting greater integration on South

African university campuses. This chapter concludes with a discussion of the strengths and limitations of the present study, along with suggestions for future research.

Comparing Mainstream and Ethnic Groups

Significant multivariate differences emerged between mainstream and ethnic groups when compared on 11 dependent antecedent and consequent variables. This supports hypothesis H1 and conclusively answers RQ1; that is, are acculturating groups significantly distinguishable on the combined dependent variables? This adds support to Berry's (1977) bi-directional acculturation framework, which asserts that because mainstream groups tend to hold disproportionate power in relation to ethnic groups, they are expected to undergo less change in the acculturation process (Berry & Sam, 2016). The ways in which mainstream groups wield this power include the use of discrimination or racism that are arguably a kind of forced segregation for ethnic groups (Van de Vijver et al., 2016). The way this process unfolds is explored in more detail below drawing from the univariate results.

Comparisons Along key Antecedent (Predictors) Variables

The univariate analyses indicated significant mean differences in childhood contact-promoting norms, negative contact in the home community, negative contact experiences at SU, wellbeing, and academic performance between mainstream and ethnic acculturating groups. These findings provide partial support for hypothesis H3. Mean scores for childhood contact norms were found to be significantly larger amongst the ethnic than the mainstream group, suggesting that members of the ethnic acculturation group had experienced significantly more positive norms in support of intergroup contact than did members of the mainstream acculturation group. Given the significant link that contact-promoting norms have been shown to hold with both contact intentions (e.g., Gómez et al., 2018; Mazziotta, et al., 2011) and actual intergroup contact (e.g., Wölfer et al., 2019), it is surprising that, at least in the present data, the significant inter-acculturating group difference in childhood contact norms was not accompanied by significant differences in childhood contact experiences. Rather, the present findings showed that mainstream group and ethnic group members reported experiencing similar average frequencies of intergroup contact as children and teenagers.

Why, then, might significant differences in childhood contact norms not translate into or be accompanied by significant differences in childhood contact experiences? One explanation for this might relate to the different wording of items used to construct norm and

contact measures. Whilst survey items referring to intergroup contact made use of multiple and specific outgroups as the target of comparison (e.g., white South Africans, black (African) South Africans, and so forth), items pertaining to norms alluded to outgroups more generally (e.g., "other ethnicities"). The mainstream and ethnic group participants therefore showed average differences on items focused on a more general outgroup target but not with items where a specific outgroup was identified.

One reason this might be important is that for the mainstream group, contact norms defined in relation to a broad outgroup would necessarily elicit ethnic groups (i.e., black (African) and coloured South Africans) in the minds of participants. In this case, a broadly defined outgroup would comprise anyone who is not a mainstream group member, which includes both black (African) and coloured South Africans. However, for the ethnic group participants, this phrasing includes both mainstream and other ethnic group members. The implication, therefore, is that for mainstream participants, these items are measuring *outgroup* contact norms exclusively, but for ethnic group participants it could be measuring *ingroup* (i.e., with fellow ethnic group members) *and/or outgroup* (i.e., with mainstream group members) contact norms. However, even if we are to assume that this line of reasoning is correct, the data still suggest that the ethnic group members are more likely to come from home contexts in which intercultural contact was more likely to be promoted than was the case for mainstream group's members, even if it may have been with fellow ethnic group members of other South African population groups, and not necessarily with mainstream group members.

It is worth noting that the present research focused on broader social ingroup behaviours and attitudes (norms) towards intergroup contact. However, emerging research proposes that a particular focus on peer beliefs and opinions exert a powerful influence on adolescent beliefs and attitudes (Brechwald & Prinstein, 2011; González et al., 2017; Palacios & Berger, 2016). Previous research has found that the opinions of peers have an especially strong impact on what adolescents believe to be acceptable or valued (e.g., Brechwald & Prinstein, 2011). Palacios and Berger (2016), for example, found that aggression and bullying were more likely to occur when endorsed by peers, while Eisenberg and colleagues (2015) confirmed higher instances of prosocial responding to be linked to peer norms. Future research might, therefore, look to capitalise on this through aiming to better understand the role that contact-promoting norms amongst peers play in promoting (or inhibiting) later contact experiences and acculturation orientations for university students.

Comparisons Along Consequent (Outcome) Variables

Multiple univariate analyses determined that mainstream and ethnic groups differed significantly with regard to negative contact experiences in one's home community, negative contact experiences at SU, wellbeing, and academic performance. This adds further partial support for hypothesis H3. Ethnic group members reported significantly more negative intergroup contact with white South Africans in their home community and at SU than did mainstream group members (reporting on negative contact in these contexts with black (African) and coloured South Africans). Moreover, ethnic group members reported significantly lower scores on wellbeing and academic performance than did mainstream group members.

It is interesting to note the significant difference in negative contact experiences, both in the home community and at SU, between the ethnic group and the mainstream group, especially considering that there was no significant difference in the childhood contact experiences reported by these two groups. One reason for this could be that the childhood contact measure did not take negative contact experiences into account, but rather aimed to determine frequencies and quality of contact more generally. Moreover, the childhood contact measure included an item that asked about having outgroup friends, which constitutes a positive form of contact (Pettigrew & Tropp, 2006). This is most likely why the lack of significant difference in (arguably positive) childhood contact was mirrored by the lack of a significant difference in (average) positive contact at home and at SU between these two acculturation groups.

Based on the intergroup contact literature, ethnic (minority) groups are generally expected to report greater rates of negative contact than mainstream groups (Reimer et al., 2017; Stephan et al., 2002). Stephan and colleagues (2002) propose that reports of negative contact can be linked to perceptions that the outgroup poses a threat to members of an individual's ingroup. This is the main assumption underlying the integrated threat theory (ITT) that accounts for the way outgroup threat contributes to intergroup attitudes (Stephan et al., 2002; 2005). Essentially, the theory posits that ingroup members anticipate threatening behaviour from outgroup members. These effects are most pronounced when certain conditions are in place, two of which are that (i) there is a history of intergroup conflict, and that (ii) there are perceived inequalities between group status.

In the first instance, South Africa has a long and rich history of intergroup conflict starting with colonial conquests and developed yet further under the Apartheid regime.

Furthermore, based on the recent student protests and research that emerged because of them (e.g., Costandius et al., 2018; Heleta, 2016; Jogee et al., 2018), it is speculated that ethnic group members would perceive status inequalities between themselves and the mainstream group. This unequal status could be found in the curriculum that scholars have argued to be demeaning and alienating for black (African) and coloured students (Césaire 2001; Heleta, 2016; Mudimbe, 1985). Badat (2016) further argues that white students would be more likely to experience historically white campuses, such as SU, as inoffensive or natural even. I speculate, therefore, that because there is a history of intergroup conflict and that the ethnic group are likely to be experiencing high perceptions of inequality, they are, therefore, also at a greater likelihood of experiencing perceived threat and negative contact, as per ITT (Stephan et al., 2002).

The present findings relating to the significantly lower scores on wellbeing reported by the ethnic group members conform to the substantial evidence that suggests ethnic, more than mainstream group members, are likely to struggle with the acculturation process, most likely due to power imbalances (Berry & Sam, 2016). Stated differently, because there is a greater likelihood for ethnic groups to experience social isolation (Ferguson & Birman, 2016), discrimination (Vinokurov et al., 2002), and difficulty balancing the competing norms and values of the mainstream group and their ethnic culture (Berry, 1997; Rodriguez et al., 2007), ethnic group members' wellbeing is expected to suffer disproportionately (Berry, 1997; Lazarus, 1997). Moreover, the co-occurrence of significant differences found between negative contact and wellbeing supports research by Gee and colleagues (2009) who found negative contact experiences to be associated with lower psychological wellbeing amongst immigrants (Gee et al., 2009).

Differences in academic performance between white and black (African) and coloured South Africans at tertiary level is common in the literature (Berry, 1990; Berry et al, 1989; Van Oudenhoven et al., 1998) and is linked to a multitude of factors, including school preparedness and historic disadvantages (Van der Berg et al., 2011). Interestingly, the significant difference in academic performance between ethnic and mainstream students was observed even when controlling for school quintile and socioeconomic background more generally. As such, it is reasonable to consider the impact of other factors – including the demands of acculturation – as explanations for this significant difference. Indeed, this possibility is supported by the literature that shows ethnic group students to underperform academically when involved in acculturation processes more generally (Coll & Marks, 2012; Makarova & Birman, 2015).

No significant differences in outgroup attitudes were evidenced for comparisons between mainstream and ethnic groups, despite the differences in reported frequencies of negative contact. Therefore, even though members of the ethnic group were, on average, more likely to report experiencing higher frequencies of behaviour listed as, for example, bullying and intimidation by mainstream group members, their attitudes towards the outgroup were not significantly different from that of the mainstream group. This is somewhat unexpected, as some scholars have argued that the experience of negative intergroup contact is more likely to occur when ethnic groups interact with people who have more negative outgroup attitudes (Kim et al., 2014). This is based on evidence that suggests that those individuals who hold greater racial bias and negative outgroup attitudes are more prone to expressing negative reactions to outgroups than those with more multiculturally inclined ideologies (Mendes, Gray, Mendoza-Denton, Major, & Epel, 2007; Phelps et al., 2000).

This lack of a difference in outgroup attitudes may be linked to the significantly higher rates of reported positive contact experiences than reported negative contact experiences within both groups. Otherwise put, both groups experienced significantly greater rates of positive than negative intergroup contact both in the context of their home community and at SU. A growing body of research has linked positive contact to more positive outgroup attitudes (Schmid, Wölfer, Swart, Christ, Al Ramiah, Vertovec, & Hewstone, 2017). Wagner and colleagues (2006), for instance, found that within highly diverse contexts, positive intergroup contact contributes to changes in outgroup attitudes. Schmid and colleagues (2014) confirmed that this link holds true for both mainstream and ethnic groups. It is possible, then, that higher rates of positive contact could be offsetting the deleterious effects of negative contact on outgroup attitudes. As mentioned in the literature review in chapter 2 of this thesis, there is conflicting evidence for the claim that positive contact is not expected to be as impactful on attitude outcomes as is negative contact; however, it has been consistently found to be far more frequently occurring (Baumeister et al., 2001).

In summation, the evidence discussed above reveals that mainstream and ethnic groups to be significantly distinct — fully supporting H1 — as indicated by the combined effect of the dependent (antecedent and consequent) variables associated with the acculturation process. This supports the theoretical expectations of Berry's (1997) b-directional acculturation model, which proposes that power differentials between mainstream and ethnic groups impact the degree of change that acculturating individuals experience during the acculturation process. Univariate differences in childhood contact-promoting norms indicate ethnic group members

to have been more likely to grow up in contexts that are more supportive of intergroup contact. That a similar difference was not also found on the childhood contact measure could be accounted for by a difference in the ways that the constructs were measured (e.g., contact with outgroups in general compared to contact with a specific outgroup). The lack of a significant difference in perceived discrimination, combined with lower wellbeing scores amongst ethnic groups, could be accounted for by higher negative contact experiences amongst ethnic group members. It was also argued that, based on ITT (Stephan et al., 2002), ethnic group individuals could be attributing the negative contact that they experience to themselves as individuals rather than as members of their ethnic group. To account for a finding of significant differences in negative outgroup contact, but not a difference in outgroup attitudes, I invoke an argument that both mainstream and ethnic groups experience similarly higher rates of positive than negative contact both at SU and in their home communities. In other words, because both groups experienced greater rates of positive than negative contact, it is possible that the effect of positive contact acted as a buffer despite negative contact amongst the ethnic group being reported at greater rates when compared to the mainstream group (Baumeister et al., 2001). The result of this is an insignificant difference in outgroup attitudes between the two acculturating groups. Considering these differences between mainstream and ethnic groups, I move now to a discussion of the findings from comparisons made within acculturating groups and between the acculturation strategy preference groups.

Differences Between Acculturation Strategy Preference Groups

Hypotheses H2 and H3 were formed to answer RQ2, namely, whether distinct acculturation strategy preference groups emerge within acculturating groups using ethnic identity and contact willingness constructs as dimensions in a bi-directional acculturation model. The results from the multivariate analysis showed that at least two distinct acculturation strategy preference groups emerged within both mainstream and ethnic groups. Furthermore, the evidence indicated the welcoming acculturation strategy preference to be the most popular strategy for both ethnic and mainstream groups. This was to be expected based on the literature, especially given that this study used an intergroup contact (as opposed to a culture adoption) dimension (e.g., Berry & Sabatier, 2011; Brown & Zagefka, 2011; Snauwaert et al., 2003).

The multivariate comparisons of the acculturation strategy groups further suggest that the welcoming and unwelcoming groups account for most of the magnitude and significance when comparing all three strategy preferences together. The unwelcoming and ambivalent

groups were not significantly distinguishable within either the ethnic or mainstream acculturating groups. We might say, then, that the ambivalent acculturation strategy preference group shares more in common, on average, with the unwelcoming group than it does with the welcoming group.

In the discussion that follows, I focus on the results from the multiple univariate analyses to determine the ways in which acculturation strategy groups differ significantly within mainstream and ethnic groups, beginning with the former. The results from comparing the mainstream welcoming and unwelcoming acculturation strategy preferences groups are presented first, followed by the results from the comparison of the mainstream ambivalent and welcoming groups. The discussion of the within ethnic group differences are limited to a comparison of the unwelcoming and welcoming acculturation strategy preferences.

Within Mainstream Acculturation Strategy Group Comparisons

There is something quite promising about the lack of significant differences in reported contact norms and childhood intergroup contact experiences across acculturation strategy preference groups for either mainstream or ethnic groups. What I mean to say, is that the difference between these groups may not necessarily be emerging from somewhere deep in the experiences of childhood, but rather from a point in time closer to the present. The univariate analysis suggests that what really distinguishes these groups are, then — at least for the mainstream group — the remaining antecedent variables, of which include positive home community contact experiences and perceived intergroup similarity, and the consequent variables of outgroup attitudes, and positive and negative contact experiences at SU. These findings offer partial support for the associated hypotheses H3 and H5.

Whilst ambivalent and unwelcoming acculturation strategy groups within the mainstream group did not differ on any antecedent variables, their welcoming orientated counterparts were significantly more likely to have reported higher perceptions of intergroup similarity with members of the ethnic group, as well as report greater frequencies of positive intergroup contact in their home communities than were members of the unwelcoming group. These differences are matched with highly significant differences in outgroup attitudes and reports of positive and negative contact experiences at SU.

These findings support Berry's (2006) claim that perceptions of similarity are a powerful factor impacting intergroup attitudes. Moreover, the unwelcoming acculturation group's lower average perceptions of intergroup similarity could be regarded as a potential

barrier to adjustment to the outgroup (Berry, 2006). Similarly, greater perceptions of similarity are, according to Berry (2006), a powerful factor positively impacting mutually favourable attitudes. This finding converges with recent research that has linked intergroup similarity to warmer outgroup attitudes (Polson & Lášticová, 2019). This appears to be confirmed by reports of higher frequencies of negative intergroup contact at SU amongst the mainstream unwelcoming group and lower reports of positive contact at home and at SU, as well as lower outgroup attitudes when compared to the welcoming group. This aligns with research that found lower outgroup attitudes tend to predict lower rates of contact willingness (Acker & Van Beselaer, 2011; Pettigrew, 1998; Pettigrew & Tropp, 2006; Zagefka et al., 2007), making it more likely that an individual with less warm attitudes towards outgroups would be a member of the unwelcoming rather than the welcoming acculturation strategy group.

While reported frequencies of positive contact did not emerge as significantly different for mainstream and ethnic groups, comparisons across mainstream acculturation strategy preference groups revealed significant differences in positive intergroup contact at home and at SU. Furthermore, both welcoming and unwelcoming acculturation strategy groups each reported significantly higher average rates of positive than negative contact experiences. Thus, as previous research has found, whilst negative contact experiences may in fact have a greater effect on outgroup attitudes than do positive contact experiences (Barlow et al., 2012; Dhont & Van Hiel, 2009), greater frequencies of positive contact experiences are able to counteract these (Baumeister et al., 2001). In the present study, the welcoming acculturation strategy preference group had significantly more positive contact experiences and lower frequencies of negative contact experiences, and were, on average, more likely to report experiencing better outgroup attitudes than were their unwelcoming counterparts.

Based on Berry's (1997) integration hypothesis (discussed in chapter 2 of this thesis), the finding that neither the mainstream nor ethnic welcoming acculturation strategy groups showed no significant differences on either academic performance or wellbeing from their less welcoming counterparts was unexpected. Numerous studies have provided evidence to suggest that the integration acculturation strategy — which, in the context of this study, is the welcoming acculturation strategy — produces better academic functioning, especially among ethnic minorities, and that ethnic minorities respond most positively to an integration acculturation strategy, both of which contribute to higher levels of wellbeing (Berry, 1990; Berry et al., 1989; Van Oudenhoven et al., 1998) and successful psychological adjustment

(Berry & Sam, 1998). Berry's (1997) integration hypothesis also proposes that the worst outcomes should be associated with strategies of marginalisation and separation (Berry, 1997).

However, many of the studies listed that have found benefits associated to integration strategy were drawn from an acculturation measure based on bi-cultural identity. That is, rather than the intergroup contact intention dimension, the second axis of the bi-directional model used culture adoption either in conjunction with a contact measure or on its own (Berry, 1990; Berry et al., 1989; Berry & Sam, 1998; Van Oudenhoven et al., 1998). This may explain the apparent lack of an effect of acculturation strategy preference on academic performance and wellbeing in the present study. As Berry (1997) himself speculates, the differences in outcomes between strategy preferences, when outgroup cultural adoption is the included measure, might be linked to access to support structures. That is, for those preferring the integration acculturation strategy, there is access to at least two support structures (namely the ingroup and the outgroup), while for those preferring marginalisation there is an absence of support structures entirely. The contact willingness measures used in the present study simply do not tap into these mechanisms. Further research is clearly needed in this area to determine whether acculturation strategies as operationalised using a culture adoption dimension would impact the above adaptations.

Within Ethnic Acculturation Strategy Group Comparisons

According to the multivariate analyses, the ethnic welcoming and unwelcoming groups emerged as significantly distinct. This is in support of hypothesis H3. Fewer univariate differences were evidenced between ethnic acculturation strategy groups as compared to the mainstream acculturation strategy groups. Arguably a proportion of this discrepancy was likely due to the smaller sample size that provides for less statistical power amongst the ethnic group. The null hypothesis of H6 was not able to be rejected in the case of the antecedent variables, as the multiple univariate analyses indicated no significant mean differences amongst these variables. However, amongst the consequent variables, significant differences emerged for positive and negative contact experiences at SU and for outgroup attitudes, yielding partial support for hypothesis H6.

As has already been alluded to in the previous sections and chapters, there is much research that links these three variables. As such, the same connections that were made between the mainstream welcoming and unwelcoming groups can be made for the ethnic welcoming and unwelcoming groups. That is, both the welcoming and unwelcoming groups reported

significantly greater frequencies of positive contact experiences than negative. The intergroup contact literature has shown that both positive and negative contact influence outgroup attitudes, with positive contact improving outgroup attitudes and negative contact working in the opposite direction (Barlow et al., 2012; Dhont & Van Hiel, 2009). Furthermore, the fact that the welcoming group reported significantly more positive and less negative contact experiences than their ambivalent and unwelcoming counterparts, as well as reported having warmer outgroup attitudes, conforms to the findings of Baumeister and colleagues (2001). Similarly, that this finding was identical for both mainstream and ethnic groups was anticipated by research conducted by Schmid and colleagues (2014).

Summary of Key Findings

In summation, the mainstream and ethnic groups were shown to be significantly different, thus fully supporting H1. Several univariate differences then offered partial support for H4. Hypotheses H2 and H3 were fully supported by multivariate analyses that found significant differences between at least two of the three acculturation strategy preferences within both the mainstream and ethnic groups. Within the mainstream group, welcoming and unwelcoming as well as welcoming and ambivalent strategy preference groups were significantly distinguishable. Amongst the ethnic group, only the welcoming and unwelcoming preference groups were found to be significantly distinct. Several univariate differences emerged between the acculturation strategy preference groups within acculturating mainstream and ethnic groups, thus lending partial support for H5 and H6.

From the mainstream and ethnic univariate group analyses, results showed that the ethnic group's members reported experiencing more contact-promoting intergroup contact norms and greater rates of negative contact experiences in their home communities. Moreover, the ethnic group were also more likely to report higher rates of negative contact experiences at SU, lower levels of wellbeing, and register lower academic performance.

Amongst the mainstream acculturation strategy preference groups, particularly between welcoming and unwelcoming strategy preferences groups, intergroup similarity and positive contact experiences in the home community emerged as key predictors of group membership. That is to say, the higher an individual scored on intergroup similarity and positive contact experiences in their home community, the more likely they would be classified as preferring a welcoming than an unwelcoming strategy reference. Between these same two groups, membership suggested higher rates of positive contact experiences at SU, lower rates of

negative contact experiences at SU, as well as warmer outgroup attitudes amongst the welcoming strategy preference group. Similarly, between ambivalent and welcoming mainstream strategy preference groups, significantly higher rates of positive contact experiences and warmer outgroup attitudes emerged for the welcoming group.

Mean scores on the same three consequent variables emerged as significantly different between the ethnic welcoming and unwelcoming strategy preference groups and the mainstream welcoming and unwelcoming strategy preference groups, namely, positive and negative contact experiences at SU as well as outgroup attitudes. Specifically, the ethnic welcoming group reported higher rates of positive contact and lower rates of negative contact at SU, as well as warmer outgroup attitudes than did the ethnic unwelcoming group.

Notable findings that are worth reiterating were that the ethnic group were more likely to report having experienced childhood contact-promoting norms. I argued that this did not translate into a significant difference between the mainstream and ethnic group on reported experiences of intergroup contact during childhood because the measures did not tap similar target groups. Acculturating groups did, however, indicate significantly different frequencies of negative, but not positive, contact experiences in both home communities and at SU. Similar reports of positive (present day) and childhood intergroup contact experiences makes sense, as the childhood contact measures were alluding indirectly to positive contact through friendship experiences. I also speculated that the higher rates of negative contact amongst the ethnic group could be linked to lower levels of wellbeing that is based on an attribution mechanism to the individual rather than the group level that affects self-esteem rather than perceptions of discrimination (Gee et al., 2009; Stephan et al., 2002). I further posit that members of the ethnic group are more likely to experience negative contact given contextual conditions such as a history of intergroup conflict and perceived inequalities of status between the groups (e.g., Reimer et al., 2017; Stephan et al., 2002).

To end off this section, I would like to suggest that lower outgroup attitudes amongst the mainstream unwelcoming group may be leading to higher reported negative contact experiences amongst the ethnic group more generally. As mentioned earlier, ethnic groups are more likely to experience negative contact when engaged with people who have more negative outgroup attitudes (Kim et al., 2014). Moreover, negative reactions to outgroups are most likely to emerge from individuals who hold racial bias and negative outgroup attitudes (Mendes et al., 2007; Phelps et al., 2000). In the discussion that follows, I consider possible interventions that might mitigate these effects.

Promoting Better Acculturation Adaptation

As stated in the above summary section, I now consider the ways in which interventions tailored to the various relations between groups could lead to improved outcomes, in particular, the lower average levels of wellbeing amongst ethnic group members. Multivariate analysis of the welcoming and ambivalent mainstream groups suggested that the latter shares more in common with those preferring an unwelcoming than welcoming acculturation strategy, at least when considering the combined dependent variables. An intervention targeting intergroup similarity, one of the only significantly different antecedent variables between welcoming and unwelcoming acculturation strategy mainstream members, could prove beneficial to shifting preferences away from non-welcoming towards more welcoming acculturation strategies. An increase in perceptions of intergroup similarity could, then, lead to warmer outgroup attitudes (Polson & Lášticová, 2019), which could in turn contribute to lower reported rates of negative contact by ethnic group members and, consequently, improved wellbeing.

Interventions using *indirect* (e.g., extended, vicarious, or imagined) contact have successfully helped children become more secure or confident in later intergroup contact situations (Cameron & Turner, 2010; Di Bernardo et al., 2017; Dovido et al., 2011; Polson & Lášticová, 2019). One model developed by Turner and Cameron (2016) attempts to strengthen children's confidence in contact situations through promoting cross-group friendships. This is said to involve cultivating social contexts that are positive and open, with attention focussed on developing socio-cognitive abilities, reducing intergroup anxiety, and increasing intergroup similarity. A proposed intervention by Page-Gould, Mendoza-Denton, and Tropp (2008), involved building cross-group friendships among college students using a series of three meetings in which same-sex pairs of different ethnic groups engaged in sets of activities. One activity involved a self-disclosure task, while others sought to promote a sense of collaboration and trust (Turner & Cameron, 2016). The study found a reduction in intergroup anxiety and an increase in desire for future intergroup contact. A similar intervention could be piloted at SU residences, which are well-placed for such endeavours.

However, it has been argued that interventions targeting perceptions of intergroup similarity may threaten the individual's social (ethnic) identity (Polson & Lášticová, 2019; Tajfel & Turner, 1979) as well as an increased desire for positive distinctiveness (Brewer, 1993; Polson & Lášticová, 2019). A threat to ethnic identity could prove disastrous for intergroup relations because it has been shown to lead to mutual hostility (Berry, 2013), as well as to

increased prejudice and discrimination (Stephan et al. 2005). Some studies have found increased intergroup similarity to lead to ingroup favouritism (Jetten, Spears, & Manstead, 1996; Jetten, Spears, & Manstead, 2001; Diehl, 1988). Even so, there are ways to minimize these risks. The associated benefits of the intervention, which include better outgroup attitudes amongst the mainstream ambivalent group, could lead to lower frequencies of reported negative intergroup contact amongst the ethnic group (Kim et al., 2014). As argued above, then, lower rates of reported negative contact amongst the ethnic group would likely lead to improved self-esteem and wellbeing (Gee et al., 2009). The personal benefits for mainstream group members could include higher self-esteem and more cognitive flexibility (Polson & Lášticová, 2019).

An additional and related route that could be followed is improving positive contact experiences amongst the ambivalent group specifically, who reported lower rates of positive intergroup contact experiences than the welcoming group. A recent study by Reimer, Love, Wölfer, & Hewstone (2021), found an intervention that involved a national citizen service in the United Kingdom decreased intergroup anxiety as well as increased outgroup perspective taking amongst a large sample of adolescents. The effects were observed to be strongest for individuals who had reported experiencing less positive intergroup contact prior to the intervention. Improved rates of positive contact, as evidenced by the large and consistent findings produced by contact literature, could then lead to improved intergroup relations (see meta-analysis by Pettigrew and Tropp, 2006). Developing a civil service programme at SU could promote similar outcomes for new first-year SU students. Furthermore, the programme might be combined with the first intervention: Namely, by pairing together individuals from different ethnic backgrounds to foster a sense of trust and collaboration.

A third avenue to reduce high rates of reported negative contact experiences amongst ethnic group members could be to look at perceived status inequality with mainstream students at SU (Stephan et al., 2002). This could be achieved through strengthening and implementing an already established multicultural policy at SU (Stellenbosch University, n.d. b). Increasing support for this policy amongst mainstream students would additionally benefit the goal of reducing power differentials between mainstream and ethnic groups and reduce difficulties in adjusting to outgroups more generally (Hui et al., 2015; Ward & Berry, 2016).

Contributions, Limitations and Suggestions for Future Research

The present study addressed three gaps in the literature with regard to the roles of individual and psychological conditions and their effects on acculturation preferences. Firstly,

in contrast to the bulk of the literature, the present study explored the acculturation strategies preferred mainstream group members. Secondly, the present study offers a comparison of acculturation strategy preferences for mainstream and ethnic group members. Thirdly, the present study examines the effects of acculturation on a domain-specific sociocultural adaptation in the form of academic performance. These three contributions constitute an important addition to the acculturation literature more generally and the acculturation literature in Sub-Saharan Africa in particular. Despite these contributions, there are several limitations associated with the present study relating to the cross-sectional research design, the choice and size of the samples, and the reliance on secondary data. Each of these is discussed in turn, along with suggestions for future research.

The present study comprised the analysis of cross-sectional data. This is problematic insofar as the acculturation process is a dynamic one that unfolds over time (Van de Vijver et al., 2016). As such, the present study is unable to capture the important temporal nature of this process. Longitudinal research is better suited to capturing testing acculturation as it unfolds over time (Van de Vijver et al., 2016). However, longitudinal research is expensive and can be resource intensive (Rajulton, 2001). Nevertheless, given the limited acculturation literature available on mainstream acculturation preferences and comparing these preferences with those of ethnic groups, the present cross-sectional study makes an important contribution to the literature, even if the results should be interpreted with caution. Future research should attempt to replicate the present cross-sectional results using a longitudinal design.

The present sample relied on relatively small opportunity samples of white, black (African) and coloured South African university students drawn from a single university campus. Not only does the fact that these samples are not representative (of either South African university students or of the broader South African population) limit the generalisability of the findings, the small sample sizes for the individual black (African) and coloured South African samples did not make it possible to compare each of these population groups separately (Berry & Sam, 2016). Future research could attempt to replicate the findings of the present study at different South African universities among samples that are more representative of the South African university population. Moreover, the literature would benefit from research comparing the acculturation strategies for previously disadvantaged South African population groups separately. This could uncover important similarities and differences in acculturation preferences for sub-groups of the South African student population.

Finally, the present study was limited by its reliance on secondary data. One of the consequences of this was that not all measures were ideally suited to the hypotheses being tested. For example, the ethnic identity dimension was construed as just one item and would preferably have included other aspects of the construct such as belonging. Nevertheless, the present study took advantage of an available secondary dataset that, while limited, offered the opportunity to explore research questions that are under-represented in the literature. Future research, dedicated to the investigation of acculturation preferences, should utilize measures that are better suited towards capturing the various facets that influence these preferences.

One final avenue for future research is suggested by the results of the present study. The ambivalent acculturation strategy group that was identified in the present study is not one that is formally recognised in the literature. Nevertheless, it does provide a useful category for those who truly are uncertain with regard to future contact intentions (i.e., they are 'sitting on the fence') and it may prove to be a useful category for developing tailored interventions for shifting individuals from an ambivalent acculturation strategy to a welcoming one. Future research should explore the validity of this ambivalent category in greater detail to determine whether it truly adds a new dimension to the study of acculturation preferences or not.

Conclusion

Nearly thirty years into democracy, South Africa continues to struggle with high levels of inequality. New lines of research have begun to attribute the source of this inequality to social drivers of inequity, most notably institutional discrimination and racism (Francis & Webster, 2019). Nowhere is this more clearly visible than in the disproportionate rates with which—especially poor—black (African and coloured) South Africans are excluded from and struggle to gain access to and participate in South African universities (Essop, 2020).

While South African universities are today exceedingly more diverse spaces than in the past, historically disadvantaged students continue to voice dissatisfaction with the unwelcoming atmospheres at these institutions. During the 2015-2016 FMF protests, issues related to untransformed institutional culture, identity and curriculum were brought to the fore, despite the existence of relevant policies to address these. SU is the only publicly funded university in South Africa with a majority white student body. It was unsurprising, then, that during the FMF protests, the Open Stellenbosch Collective (OSC) raised concerns with SU's culture and identity. Recent research has additionally found that black students at SU feel unwelcome at the institution (Badat, 2016; Biscombe et al., 2017).

The field of psychological acculturation may provide a perspective from which to better understand diverse contexts such as South African universities. Where students of different cultural backgrounds come into contact with one another, it is anticipated that psychological, sociocultural, and intercultural adaptations of, for example, wellbeing, task performance, and outgroup attitudes will be impacted upon. This is known as the acculturation process. Under specific group and individual acculturation conditions, individuals can show preference for up to four acculturation strategies (i.e., integration, assimilation, segregation, and marginalisation) that determine whether, as well as how, intergroup contact unfolds in diverse settings.

The present study made use of a cross-sectional study design and secondary data analyses to quantitatively assess the acculturation process that unfolds for mainstream and ethnic student groups at SU. Differences between acculturating (i.e., mainstream and ethnic) and acculturation strategy groups on a set of antecedent and consequent variables were tested using multivariate analysis of variance (MANOVA) and univariate analysis of variance (ANOVA). These results broadly supported the hypothesised differences between mainstream and ethnic groups and suggest that the context and state of the acculturation process unfolding at SU has resulted in adaptation difficulties for ethnic group members (as evidenced by significantly lower wellbeing and academic performance amongst this group). A key driver of these adaptation difficulties appears to be the experience of negative intergroup contact at SU. Nevertheless, the results also suggest that for both mainstream and ethnic group members there is an important opportunity to shift the acculturation strategy preferences of those students who feel ambivalent towards a more welcoming acculturation strategy. Promoting a welcoming acculturation strategy among both mainstream and ethnic group members on university campuses can promote not only more positive intergroup relations, but also contribute towards greater student wellbeing and academic success.

References

Aberson, C.L. & Haag, S. (2007). Contact, perspective taking, and anxiety as predictors of stereotype endorsement, explicit attitudes, and implicit attitudes. *Group Processes & Intergroup Relations*, *1*(2), 179-201. https://doi.org/10.1177/1368430207074726

Adams, B. G. & Abuakbar, A. (2016). Acculturation in Sub-Saharan Africa. In D. L. Sam & J. W. Berry (Eds.). *Cambridge handbook of acculturation psychology* (pp. 355-374). Cambridge University Press. https://doi.org/10.1017/CBO9781316219218.021

Adams, B. G. & Van de Vijver, F. J. (2017). Identity and acculturation: The case for Africa. *Journal of Psychology in Africa*, *27*(4), 115-121. https://doi.org/10.1080/ 14330237.2017. 1301699

Adhikari, M. (2009). *Burdened by race: Coloured identities in Southern Africa*. UCT press. https://doi.org/10.26530/oapen_628130

Allais, S. (2017). Towards measuring the economic value of higher education: Lessons from South Africa. *Comparative Education*, *53(1)*, 147-163. https://doi.org/10.1080/ 03050068.2017. 1254985

Allport, G. W. (1954). *The nature of prejudice*. Addison-Wesley.

Arends-Tóth, J. & Van de Vijver, F. J. R. (2006). Issues in the conceptualization and assessment of acculturation. In M. H. Bornstein & L. R Cote (Eds.), *Acculturation and parent-child relationships: Measurement and development* (pp. 33–62). Lawrence Erlbaum Associates Publishers.

Árnadóttir, K., Lolliot, S., Brown, R., & Hewstone, M. (2018). Positive and negative intergroup contact: Interaction not asymmetry. *European Journal of Social Psychology*, *48*(6), 784-800. https://doi.org/10.1002/ejsp.2365

Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, *63*(4), 596-612. https://doi.org/10.1037/0022-3514.63.4.596

Aronowitz, M. (1992). Adjustment of immigrant children as a function of parental attitudes to change. *International Migration Review*, *26*(1), 89-110. https://doi.org/10.2307/ 2546938

Babiker, I., Cox, J., & Miller, P. (1980). The measurement of culture distance and its relationship to medical consultations, symptomatology and examination performance of overseas students at Edinburgh University. *Social Psychiatry*, *15*(3), 109-116.

Badat, S. (2016). Deciphering the meanings, and explaining the South African higher education student protests of 2015–16. *Pax Academica*, *1*(1), 71-106.

Badat, S. & Sayed, Y. (2014). Post-1994 South African education: The challenge of social justice. *The ANNALS of the American Academy of Political and Social Science*, *652*(1), 127-148. https://doi.org/10.1177/0002716213511188

Barker, V. & Giles, H. (2002). Who supports the English-only movement?: Evidence for misconceptions about Latino group vitality. *Journal of Multilingual and Multicultural Development*, *23*(5), 353-370. https://doi.org/10.1080/01434630208666474

Barlow, F. K., Paolini, S., Pedersen, A., Hornsey, M. J., Radke, H. R., Harwood, J., ... & Sibley, C. G. (2012). The contact caveat: Negative contact predicts increased prejudice more than positive contact predicts reduced prejudice. *Personality and Social Psychology Bulletin*, *38*(12), 1629-1643. https://doi.org/10.1177/0146167212457953

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, *5*(4), 323-370. https://doi.org/10.1037/1089-2680.5.4.323

Beiser, M. (1999). *Strangers at the gate. The "boat people's" first ten years in Canada*. University of Toronto Press.

Bekker, S. & Leildé, A. (2003). Is multiculturalism a workable policy in South Africa. *International Journal on Multicultural Societies*, *5*(2), 119-134.

Berry, J.W. (1980) Acculturation as varieties of adaptation. In A. Padilla (Ed.), *Acculturation: theory, models and findings*. (pp. 9-25).

Berry, J. W. (1990). Psychology of acculturation. In J. J. Berman (Ed.), *Nebraska symposium on motivation, 1989: cross-cultural perspectives* (pp. 201-234.). University of Nebraska Press.

Berry, J. W. (1997). Immigration, acculturation, and adaptation. *Applied Psychology*, *46*(1), 5-34. https://doi.org/10.1111/1464-0597.1997.tb01087.x

Berry, J. W. (2013). Intercultural relations in plural societies: Research derived from multiculturalism policy. *Acta de Investigación Psicológica*, *3*(2), 1122-1135. https://doi.org/10.1016/ S2007-4719(13)70956-6

Berry, J. W. & Kalin, R. (1995). Multicultural and ethnic attitudes in Canada: An overview of the 1991 national survey. *Canadian Journal of Behavioural Science/Revue Canadienne des Sciences du Comportement*, *27*(3), 301. https://doi.org/10.1037/0008-400X.27.3.301

Berry, J. W., Kim, U., Power, S., Young, M., & Bujaki, M. (1989). Acculturation attitudes in plural societies. *Applied Psychology*, *38*(2), 185-206. https://doi.org/10.1111/j.1464-0597.1989.tb01208.x

Berry, J.W., Poortinga, Y.H., Breugelmans, S.M., Chasiotis, A., & Sam, D.L. (2011) *Cross-cultural Psychology: Research and applications.* Cambridge University Press. http://dx.doi.org/10.1017/CBO9780511974274

Berry, J. W. & Sabatier, C. (2011). Variations in the assessment of acculturation attitudes: Their relationships with psychological wellbeing. *International Journal of Intercultural Relations*, *35*(5), 658-669. https://doi.org/10.1016/j.ijintrel.2011.02.002

Berry, J. W. & Sam, D. L. (2016). Theoretical Perspectives. In D. L. Sam & J. W. Berry (Eds.). *Cambridge handbook of acculturation psychology* (pp. 11-29). Cambridge University Press. https://doi.org/10.1017/CBO9781316219218.003

Berry, J. W. & Ward., C. (2016). Multiculturalism. In D. L. Sam & J. W. Berry (Eds.). *Cambridge handbook of acculturation psychology* (pp. 441-463). Cambridge University Press. https://doi.org/10.1017/CBO9781316219218.026

Besharati, N. A. & Tsotsotso, K. (2015). *In search for the education panacea: A systematic review and comparative meta-analysis of interventions to improve learner achievement in South Africa.* (Working paper). University of the Witwatersrand, Johannesburg. https://doi.org/10.5089/9781498301374.001

Biscombe, M., Conradie, S., Costandius, E., & Alexander, N. (2017). Investigating" othering" in visual arts spaces of learning. *Education as Change*, *21*(1), 137-154.

Bhorat, H., Cassim, A., & Tseng, D., (2014). Higher education, employment and economics growth: Exploring the interactions. *Development Southern Africa*, *33*(3), 312-327. https://doi.org/10.1080/0376835X.2016.1161501

Bhugra D. (2003). Migration and depression. *Acta Psychiatrica Scandinavica*, *108*, 67–72. https://doi.org/10.1034/j.1600-0447.108.s418.14.x

Boas, F. (1888). The aims of ethnology. In F. Boas (Ed.), *Race, language, and culture* (pp. 628-638). Macmillan.

Bourhis, R. Y. & Bougie, É. (1998). Le modèle d'acculturation interactif: Une étude exploratoire [The interactive acculturation model: An exploratory study]. *Revue québécoise de psychologie, 19*(3), 75-114.

Bourhis, R. V. & Dayan, J. (2004). Acculturation orientations towards Israeli Arabs and Jewish immigrants in Israel. *International Journal of Psychology*, *39*(2), 118-131. https://doi.org/ 10.1080/00207590344000358

Bourhis, R. Y., Moise, L. C., Perreault, S., & Senecal, S. (1997). Towards an interactive acculturation model: A social psychological approach. *International Journal of Psychology*, *32*(6), 369-386. https://doi.org/10.1080/002075997400629

Bourhis, R. Y. & Montreuil, A. (2013). *Methodological issues related to the host community acculturation scale (HCAS) and the immigrant acculturation scale (IAS).* (Working paper). UQAM, Département de Psychologie, Université du Québec à Montréal. https://doi.org/10.1111/j.1540-4560.2010.01675.x

Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 35–58). Blackwell Science.

Branson, N., Leibbrandt, M., & Zuze, T., (2009). What are the returns of tertiary education and who benefits? In Cloete, N. (Ed.), *Responding to the educational needs of post-school youth: Determining the scope of the problem and developing a capacity-building model*. Centre for Higher Education Transformation (CHET), 45–60.

Brechwald, W. A. & Prinstein, M. J. (2011). Beyond homophily: A decade of advances in understanding peer influence processes. *Journal of Research on Adolescence*, *21*(1), 166-179. https://doi.org/10.1111/j.1532-7795.2010.00721.x

Brewer, M. B., Manzi, J. M., & Shaw, J. S. (1993). In-group identification as a function of depersonalization, distinctiveness, and status. *Psychological Science*, *4*(2), 88-92. https://doi.org/10.1111/j.1467-9280.1993.tb00466.x

Brown, R. & Zagefka, H. (2011). The dynamics of acculturation: An intergroup perspective. In J. M. Olson & M. P. Zanna (Eds.), *Advances in Experimental Social Psychology*, 44, 129-184. https://doi.org/10.1016/B978-0-12-385522-0.00003-2

Bunting, I. (2004). The higher education landscape under apartheid. In N. Cloete, P. Maassen, R. Fehnel, T. Moja, H. Perold. & T. Gibbon (Eds.), *Transformation in higher education: Global pressures and local realities in South Africa* (pp. 35–52), Kluwer Academic Publishers.

Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. Routledge.

Carpenter, J. R. & Kenward, M. (2008). *Brief comments on computational issues with multiple imputation*. Retrieved from https://www.lshtm.ac.uk/media/37316

Carpenter, J. R. & Smuk, M. (2021). Missing data: A statistical framework for practice. *Biometrical Journal, 63*(5), 915-947. https://doi.org/10.1002/bimj.202000196

Calitz, E. & Fourie, J. (2016). The historically high cost of tertiary education in South Africa. *Politikon*, *43*(1), 149-154. https://doi.org/10.1080/02589346.2016.1155790

Césaire, A. (2001). *Discourse on colonialism*. NYU Press.

Coll, C. G. E. & Marks, A. K. E. (2012). Introduction. In C. G. E. Coll & A. K. E. Marks (Eds.), The immigrant paradox in children and adolescents: Is becoming American a developmental risk? (pp. i-xiv). American Psychological Association.

Collins, L. M., Schafer, J. L., & Kam, C. M. (2001). A comparison of inclusive and restrictive strategies in modern missing data procedures. *Psychological Methods*, *6*(4), 330-351.

Converse, P. E., Dotson, J. D., Hoag, W. J., & McGee, W. H. (1980). *American social attitudes Sata sourcebook: 1947-1978*. Harvard University Press.

Cosser, M. (2009). *Ambitions revised: Grade 12 learner destinations one year on*. HSRC Press.

Cosser, M. (2010). The skills cline: Higher education and the supply-demand complex in South Africa. *Higher Education*, *59*(1), 43. https://doi.org/10.1007/s10734-009-9231-z

Costa-Lopes, R., Vala, J., & Judd, C. M. (2012). Similarity and dissimilarity in intergroup relations: Different dimensions, different processes. *Revue Internationale de Psychologie Sociale*, *25*(1), 31-65.

Costello, A. B. & Osborne, J. (2004). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation*, *10*(1), 7. https://doi.org/10.7275/jyj1-4868

Costandius, E., Nell, I., Alexander, N., Mckay, M., Blackie, M., Malgas, R., & Setati, E. (2018). # FeesMustFall and decolonising the curriculum: Stellenbosch University students' and lecturers' reactions. *South African Journal of Higher Education*, *32*(2), 65-85. https://doi.org/10.20853/32-2-2435

Dass, S. & Rinquest, A. (2017). *Amended national norms and standards for school funding. Government notice no. 869. Government Gazette no. 29179 of 31 August 2006.* Government Printer. Retrieved from https://static.pmg.org.za/docs/110222gazette_0.pdf

Department of Education (2001). *National plan for higher education*. Department of Education. Retrieved from https://www.dhet.gov.za/HED%20Policies/National%20Plan%20on%20Higher%20Education.pdf

Department of Education (2008). *Report of the ministerial committee on transformation and social cohesion and the elimination of discrimination in public higher education institutions*. Department of Education. Retrieved from https://www.ukzn.ac.za/wp-content/miscFiles/publications/ReportonHEandTransformation.pdf

Di Bernardo, G. A., Vezzali, L., Stathi, S., Cadamuro, A., & Cortesi, L. (2017). Vicarious, extended and imagined intergroup contact: A review of interventions based on indirect contact strategies applied in educational settings. *Testing, Psychometrics, Methodology in Applied Psychology, 24*(1), 3-21. https://doi.org/10.4473/TPM24.1.1

Diehl, M. (1988). Social identity and minimal groups: The effects of interpersonal and intergroup attitudinal similarity on intergroup discrimination. *British Journal of Social Psychology*, *27*(4), 289-300. https://doi.org/10.1111/j.2044-8309.1988.tb00833.x

Dimitrova, R. (2014). *Does your identity make you happy? Collective identifications and acculturation of youth in a post-communist Europe* (Doctoral dissertation, Tilburg University). Retrieved from https://research.tilburguniversity.edu/en/publications/does-your-identity-make-you-happy-collective-identifications-and-

Dhont, K. & Van Hiel, A. (2009). We must not be enemies: Interracial contact and the reduction of prejudice among authoritarians. *Personality and Individual Differences*, *46*(2), 172-177. https://doi.org/10.1016/j.paid.2008.09.022

Dovidio, J. F., Eller, A., & Hewstone, M. (2011). Improving intergroup relations through direct, extended and other forms of indirect contact. *Group Processes & Intergroup Relations*, *14*(2), 147- 160. https://doi.org/10.1177/1368430210390555

Dovidio, J. F., Love, A., Schellhaas, F. M., & Hewstone, M. (2017). Reducing intergroup bias through intergroup contact: Twenty years of progress and future directions. *Group Processes & Intergroup Relations*, *20*(5), 606-620. https://doi.org/10.1177/1368430217712052

Eisenberg, M. E., Gower, A. L., McMorris, B. J., & Bucchianeri, M. M. (2015). Vulnerable bullies: Perpetration of peer harassment among youths across sexual orientation, weight, and disability status. *American Journal of Public Health*, *105*(9), 1784-1791. https://doi.org/10.2105/AJPH.2015.302704

Enders, C. K. (2003). Performing multivariate group comparisons following a statistically significant MANOVA. *Measurement and Evaluation in Counseling and Development*, *36*(1), 40-56. https://doi.org/10.1080/07481756.2003.12069079

Essop, A. (2020). *The changing size and shape of the higher education system in South Africa, 2005–2017* (Report). Ali Mazrui Centre for Higher Education Studies, University of Johannesburg. Retrieved from https://heltasa.org.za/wp-content/uploads/2020/08/Size-and-Shape-of-the-HE-System-2005-2017.pdf

Ferguson, G. M. & Birman, D. (2016). Acculturation in the United States of America. In D. L. Sam & J. W. Berry (Eds.), *Cambridge handbook of acculturation psychology* (pp. 396-416). Cambridge University Press. https://doi.org/10.1017/CBO9781316219218.023

Finn, A. & Leibbrandt, M. (2017). *The dynamics of poverty in South Africa.* (Working paper No. 174). SALDRU, Cape Town.

Francis, D. & Webster, E. (2019). Poverty and inequality in South Africa: critical reflections. *Development Southern Africa*, *36*(6), 788-802. https://doi.org/10.1080/0376835X.2019.1666703

Gee, G. C., Ro, A., Shariff-Marco, S., & Chae, D. (2009). Racial discrimination and health among Asian Americans: Evidence, assessment, and directions for future research. *Epidemiologic Reviews*, *31*(1), 130-151. https://doi.org/10.1093/epirev/mxp009

Giles, H., Bourhis, R. Y., & Taylor, D. M. (1977). Towards a theory of language in ethnic group relations. In H. Giles (Ed.), *Language, ethnicity and intergroup relations*. (pp. 307-348). Academic Press.

General Household Survey (2019). Statistics South Africa

Goldberg, D. P. & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, *9*(1), 139-145. https://doi.org/10.1017/s0033291700021644

Gómez, A., Tropp, L. R., & Fernández, S. (2011). When extended contact opens the door to future contact: Testing the effects of extended contact on attitudes and intergroup expectancies in majority and minority groups. *Group Processes & Intergroup Relations*, *14*(2), 161-173. https://doi.org/10.1177/1368430210391119

Gómez, A., Tropp, L., Vazquez, A., Voci, A., & Hewstone, M. (2018). Depersonalized extended contact and injunctive norms about cross-group friendship impact intergroup orientation. *Journal of Experimental Social Psychology*, *76*, 356–370. https://doi.org/10.1016/ j.jesp.2018.02.010

González, R., Lickel, B., Gupta, M., Tropp, L. R., Kanacri, B. P. L., Mora, E., ..., & Bernardino, M. (2017). Ethnic identity development and acculturation preferences among minority and majority youth: Norms and contact. *Child Development*, *88*(3), 743-760. https://doi.org/10.1111/cdev.12788

Graf, S., Paolini, S., & Rubin, M. (2014). Negative intergroup contact is more influential, but positive intergroup contact is more common: Assessing contact prominence and contact prevalence in five Central European countries. *European Journal of Social Psychology*, *44*(6), 536-547. https://doi.org/10.1002/ejsp.2052

Graham, J. W. (2009). Missing data analysis: Making it work in the real world. *Annual Review of Psychology*, *60*, 549-76. https://doi.org/10.1146/annurev.psych.58.110405.085530

Graven, M. H. (2014). Poverty, inequality and mathematics performance: The case of South Africa's post-apartheid context. *ZDM–International Journal on Mathematics Education*, *46*(7), 1039–1049. https://doi.org/10.1007/s11858-013-0566-7

Graves, T. D. (1967). Acculturation, access, and alcohol in a tri-ethnic community. *American Anthropologist*, *69*(3-4), 306-321. https://doi.org/10.1525/aa.1967.69.3-4.02a00030

Grigoryan, L. (2020). Perceived similarity in multiple categorisation. *Applied Psychology*, *69*(4), 1122-1144. https://doi.org/10.1111/apps.12202

Haase, R. F. & Ellis, M. V. (1987). Multivariate analysis of variance. *Journal of Counseling Psychology*, *34*(4), 404-413.

Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson Educational International.

Hall, K. & Giese, S. (2008). Addressing quality through school fees and school funding. In S. Pendlebury, L. Lake & C. Smith (Eds.), *South African child gauge* 2008/2009 (pp. 35–40). Children's Institute, UCT.

Harris, P. A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J. G. (2009). Research electronic data capture (REDCap) – A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics*, *42*(2), 377-381. https://doi.org/10.1016/j.jbi.2008.08.010

Heleta, S. (2016). Decolonisation of higher education: Dismantling epistemic violence and Eurocentrism in South Africa. *Transformation in Higher Education*, *1*(1), 1-8. https://doi.org/10.4102/the.v1i1.9

Hewstone, M., Cairns, E., Voci, A., Hamberger, J., & Niens, U. (2006). Intergroup contact, forgiveness, and experience of "The Troubles" in Northern Ireland. *Journal of Social Issues*, *62*(2), 99-120. https://doi.org/10.1111/j.1540-4560.2006.00441.x

Hewstone, M., Lolliot, S., Swart, H., Myers, E., Voci, A., Al Ramiah, A., & Cairns, E. (2014). Intergroup contact and intergroup conflict. *Peace and Conflict: Journal of Peace Psychology*, *20*(1), 39. https://doi.org/10.1037/a0035582

Hewstone, M. & Swart, H. (2011). Fifty-odd years of inter-group contact: From hypothesis to integrated theory. *British Journal of Social Psychology*, *50*(3), 374-386. https://doi.org/10.1111/j.2044-8309.2011.02047.x

Hino, H., Leibbrandt, M., Machema, R., Shifa, M., & Soudien, C. (2018). *Identity, inequality and social contestation in the post-Apartheid South Africa.* (Working paper No. 233). SALDRU, Cape Town.

Hocoy, D. (1999). Marginalization among blacks in South Africa. In J. C. Lasry, J. Adair & K. Dion (Eds.), *Latest contributions to cross-cultural psychology* (pp. 88-103). Routledge. https://doi.org/10.1201/9781003077466

Hodson, G. (2011). Do ideologically intolerant people benefit from intergroup contact? *Current directions in psychological science*, *20*(3), 154-159. https://doi.org/10.1177/0963721411409025

Huberty, C. J. & Olejnik, S. (2006). *Applied MANOVA and discriminant analysis* (Vol. 498). John Wiley & Sons.

Hughes, R. A., Heron, J., Sterne, J. A., & Tilling, K. (2019). Accounting for missing data in statistical analyses: multiple imputation is not always the answer. *International Journal of Epidemiology*, *48*(4), 1294-1304.

Hui, B. P. H., Chen, S. X., Leung, C. M., & Berry, J. W. (2015). Facilitating adaptation and intercultural contact: The role of integration and multicultural ideology in dominant and non-dominant groups. *International Journal of Intercultural Relations*, *45*, 70-84.

Jackson, L. T. B. & De Koker, D. G. (2014). Negative acculturation conditions, wellbeing, and the mediating role of separation in the workplace. In L. T. B. Jackson, D. Meiring, F. J. R. Van de Vijver, E. S. Idemoudia & W. K. Gabrenya Jr. (Eds.), *Toward sustainable development through nurturing diversity: Proceedings from the 21st International Congress of the International Association for Cross-Cultural Psychology*

Jackson, L. T., Van de Vijver, F. J., & Molokoane, D. H. (2013). A dual-process model of diversity outcomes: The case South African police service in the Pretoria area. *SA Journal of Human Resource Management*, *11*(1), 1-13.

Jackson, J. S., Williams, D. R., & Torres, M. (1997). *Perceptions of discrimination: The stress process and physical and psychological health*. National Institute of Mental Health.

Jakobsen, J. C., Gluud, C., Wetterslev, J., & Winkel, P. (2017). When and how should multiple imputation be used for handling missing data in randomised clinical trials–a practical guide with flowcharts. *BMC Medical Research Methodology*, *17*(1), 1-10.

Jasinskaja-Lahti, I., Liebkind, K., & Solheim, E. (2009). To identify or not to identify? National disidentification as an alternative reaction to perceived ethnic discrimination. *Applied Psychology: An International Review, 58*(1)*, 105-128*. https://doi.org/10.1111/j.1464-0597.2008.00384.x

Jasinskaja-Lahti, I., Mähönen, T. A., & Ketokivi, M. (2012). The dynamics of ethnic discrimination, identities and outgroup attitudes: A pre–post longitudinal study of ethnic migrants. *European Journal of Social Psychology*, *42*(7), 904-914. https://doi.org/10.1002/ejsp.1916

Jetten, J., Spears, R., & Manstead, A. S. (1996). Intergroup norms and intergroup discrimination: Distinctive selfcategorization and social identity effects. *Journal of Personality and Social Psychology*, *71*(6), 1222-1233.

Jetten, J., Spears, R., & Manstead, A. S. (2001). Similarity as a source of differentiation: The role of group identification. *European Journal of Social Psychology*, *31*(6), 621-640. https://doi.org/10.1002/ejsp.72

Jogee, R., Callaghan, N. C., & Callaghan, C. W. (2018). Student acculturation in the context of "FeesMustFall". *South African Journal of Higher Education*, *32*(2), 122-142.

Kang, H. (2013). The prevention and handling of the missing data. *Korean Journal of Anesthesiology*, *64*(5), 402-406. https://doi.org/10.4097/kjae.2013.64.5.402

Kim, J., Suh, W., & Heo, J. (2014). Do Korean immigrant adolescents experience stress-related growth during stressful intergroup contact and acculturation? *Journal of Humanistic Psychology*, *54*(1), 3-27. https://doi.org/10.1177/0022167812468614

Kimbro, R. T. (2009). Acculturation in context: Gender, age at migration, neighborhood ethnicity, and health behaviors. *Social Science Quarterly*, *90*(5), 1145-1166. https://doi.org/10.1111/j.1540-6237.2009.00651.x

Kinder, D. R. & Sears, D. O. (1981). Prejudice and politics: Symbolic racism versus racial threats to the good life. *Journal of Personality and Social Psychology*, *40*(3), 414.

Khan, L. K., Sobal, J., & Martorell, R. (1997) Acculturation, socioeconomic status, and obesity in Mexican Americans, Cuban Americans, and Puerto Ricans. *International Journal of Obesity*, *21*(2), 91-96. https://doi.org/10.1038/sj.ijo.0800367

Klebanoff, M. A. & Cole, S. R. (2008). Use of multiple imputation in the epidemiologic literature. *American Journal of Epidemiology*, *168*(4), 355-357. https://doi.org/10.1093/aje/kwn071

Kraak, A. (2010). The collapse of the graduate labour market in South Africa: Evidence from recent studies. *Research in Post-Compulsory Education*, *15*(1), 81-102. https://doi.org/10.1080/13596740903565384

Krause, N., Bennett, J., & Tran, T. V. (1989). Age differences in the acculturation process. *Psychology and Aging*, *4*(3), 321. https://doi.org/10.1037/0882-7974.4.3.321

Kunst, J. R. & Sam, D. L. (2014). "It's on time that they assimilate"–Differential acculturation expectations towards first and second generation immigrants. *International Journal of Intercultural Relations*, 39, 188-195. https://doi.org/10.1016/j.ijintrel.2013.10.007

Kuo, B. C. H. & Roysircar, G. (2004). Predictors of acculturation for Chinese adolescents in Canada: Age of arrival, length of stay, social class, and English reading ability. *Journal of Multicultural Counselling and Development*, *32*(3), 143–154. https://doi.org/10.1002/ j.2161-1912.2004.tb00367.x

LaFromboise, T., Coleman, H. L., & Gerton, J. (1993). Psychological impact of biculturalism: Evidence and theory. *Psychological Bulletin*, *114*(3), 395-412. https://doi.org/10.1037/0033-2909.114.3.395

Lam, D., Finn, A., & Leibbrandt, M. (2015*). Schooling inequality, returns to schooling, and earnings inequality: Evidence from Brazil and South Africa.* (Working paper No. 2015/050). UNU-WIDER, Helsinki.

Lambert, W. E. (1981). Bilingualism and language acquisition. *Annals of the New York Academy of Sciences, 379,* 9-22. https://doi.org/10.1111/j.1749-6632.1981.tb41993.x

Lazarus, R. S. (1997). Acculturation isn't everything. *Applied Psychology*, *46*(1), 39-43. https://doi.org/10.1111/j.1464-0597.1997.tb01089.x

Leibbrandt, M., Bhorat, H., & Woolard, I. (2001). Household inequality and the labor market in South Africa. *Contemporary Economic Policy*, *19*(1), 73-86. https://doi.org/10.1111/j.1465-7287.2001.tb00051.x

Li, Y., France, M. H., & del Carmen Rodríguez, M. (2021). Providing counselling for immigrants and refugees. In M. H. France, M. del Carmen Rodríguez & G. G. Hett (Eds.), *Diversity, culture and counselling: A Canadian perspective* (3rd ed). Brush Education.

Liebkind, K., Mähönen, T. A., Varjonen, S., & Jasinskaja-Lahti, I. (2016). Acculturation and identity. In D. L. Sam & J. W. Berry (Eds.). *Cambridge handbook of acculturation psychology* (pp. 30-49). Cambridge University Press. https://doi.org/10.1017/CBO9781316219218

Little, T. D., Jorgensen, T. D., Lang, K. M., & Moore, E. W. G. (2014). On the joys of missing data. *Journal of Paediatric Psychology*, *39*(2), 151-162. https://doi.org/10.1093/jpepsy/jst048

Lopez-Class, M., Castro, F. G., & Ramirez, A. G. (2011). Conceptions of acculturation: A review and statement of critical issues. *Social Science & Medicine*, *72*(9), 1555-1562. https://doi.org/10.1016/j.socscimed.2011.03.011

Luckett, K. & Naicker, V. (2019). Responding to misrecognition from a (post)/colonial university. *Critical Studies in Education*, *60*(2), 187-204. https://doi.org/10.1080/17508487.2016.1234495

Mähönen, T. A., Jasinskaja-Lahti, I., Liebkind, K., & Finell, E. (2011). Perceived importance of contact revisited: Anticipated consequences of intergroup contact for the ingroup as predictors of the explicit and implicit ethnic attitudes of youth. *Group Processes & Intergroup Relations*, *14*(1), 19-30. https://doi.org/10.1177/1368430210378300

Major, B., Quinton, W. J., & Schmader, T. (2003). Attributions to discrimination and self-esteem: Impact of group identification and situational ambiguity. *Journal of Experimental Social Psychology*, *39*(3), 220-231. https://doi.org/10.1016/S0022-1031(02)00547-4

Makarova, E. & Birman, D. (2015). Cultural transition and academic achievement of students from ethnic minority backgrounds: A content analysis of empirical research on acculturation. *Educational Research*, *57*(3), 305-330. https://doi.org/10.1080/00131881. 2015.1058099

Matera, C., Stefanile, C., & Brown, R. (2012). Host culture adoption or intercultural contact? Comparing different acculturation conceptualizations and their effects on host members' attitudes towards immigrants. *International Journal of Intercultural Relations*, *36*(4), 459-471. https://doi.org/10.1016/j.ijintrel.2012.03.002

Mazziotta, A., Mummendey, A., & Wright, S. C. (2011). Vicarious intergroup contact effects: Applying social- cognitive theory to intergroup contact research. *Group Processes & Intergroup Relations*, *14*(2), 255–274. https://doi.org/10.1177/1368430210390533

McAllister, P. (1996). Australian multiculturalism: lessons for South Africa? *Indicator South Africa*, *13*, 72-78.

McGee, W. J. & Hewitt, J. N. B. (1898). *The Seri Indians* (Vol. 17). US Government Printing Office.

Mendes, W. B., Gray, H. M., Mendoza-Denton, R., Major, B., & Epel, E. S. (2007). Why egalitarianism might be good for your health. *Psychological Science*, *18*(11), 991-998. https://doi.org/10.1111/j.1467-9280.2007.02014.x.

Moleke, P. (2005). A review of labour markets in South Africa: Education and training. Report, SIDA.

Montreuil, A. & Bourhis, R. Y. (2001). Majority acculturation orientations toward "valued" and "devalued" immigrants. *Journal of Cross-Cultural Psychology*, *32*(6), 698-719. https://doi.org/10.1177/0022022101032006004

Moses, E., Van der Berg, S. & Rich, K. (2017). A society divided: How unequal education quality limits social mobility in South Africa. PSPPD Report, Stellenbosch.

Mudimbe, V. Y. (1985). African gnosis: philosophy and the order of knowledge. *African Studies Review*, *28*(2-3), 149-233. https://doi.org/10.2307/524605

Mudimbe, V. Y. (2011). 'Kata Nomon': Letter to René Devisch. In R. Devisch & F. B. Nyamnjoh (Eds.), *The postcolonial turn: Re-imagining anthropology and Africa*, (pp. 143-196). Langaa Research and Publishing Common Initiative Group.

Mzangwa, S. T. (2019). The effects of higher education policy on transformation in post-apartheid South Africa. *Cogent Education*, *6*(1). https://doi.org/10.1080/2331186X.2019.1592737

Naff, K. C. & Capers, K. J. (2014). The complexity of descriptive representation and bureaucracy: The case of South Africa. *International Public Management Journal*, *17*(4), 515-539. https://doi.org/10.1080/10967494.2014.958804

Naidoo, J. C. (1992). The mental health of visible ethnic minorities in Canada. *Psychology and Developing Societies*, *4*(2), 165-186. https://doi.org/10.1177/097133369200400205

Naidoo, J. C. & Mahabeer, M. (2006). Acculturation and integration patterns among Indian and African university students in South Africa: Implications for ethno–gender relations in

the "rainbow" nation. *Psychology and Developing Societies*, *18*(1), 115-132. https://doi.org/10.1177/097133360501800107

Navas, M., García, M. C., Sánchez, J., Rojas, A. J., Pumares, P., & Fernández, J. S. (2005). Relative acculturation extended model (RAEM): New contributions with regard to the study of acculturation. *International Journal of Intercultural Relations*, *29*(1), 21-37. https://doi.org/10.1016/j.ijintrel.2005.04.001

Noles, K. A. & Berry, J. W. (2016). Acculturation in Canada. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 199-226). Cambridge University Press. https://doi.org/ 10.1017/CBO9781316219218.014

Nwadeyi, L. (2016). 'We all have a responsibility to disrupt the status quo'. *Mail & Guardian*. Retrieved from http://mg.co.za/article/2016-06-29-we-allhave-agency-and-we-must-use-it-to-disrupt-the-status-quo

Ogbonnaya, U. I. & Awuah, F. K. (2019). Quintile ranking of schools in South Africa and learners' achievement in probability. *Statistics Education Research Journal. 18*, 106-119. https://doi.org/10.52041/serj.v18i1.153

Open Stellenbosch Collective (2015). Op-Ed: Open Stellenbosch–Tackling language and exclusion at Stellenbosch University. *Daily Maverick*. Retrieved from https://www.dailymaverick.co.za/article/2015-04-28-op-ed-open-stellenbosch-tackling-language-and-exclusion-at-stellenbosch-university/

Palacios, D. & Berger, C. (2016). What is popular? Distinguishing bullying and aggression as status correlates within specific peer normative contexts. *Psicologia: Reflexão e Crítica*, *29*(10). https://doi.org/10.1186/s41155-016-0031-y

Paolini, S., Harwood, J., & Rubin, M. (2010). Negative intergroup contact makes group memberships salient: Explaining why intergroup conflict endures. *Personality and Social Psychology Bulletin*, *36*(12), 1723-1738. https://doi.org/10.1177/0146167210388667

Parker, K. M. (2010). Does attendance at a historically white university benefit non-white students of introductory economics in South Africa? *South African Journal of Economics*, *78*(2), 208-218.

Pettigrew, T. F. & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, *90*(5), 751-783. https://doi.org/10.1080/00224540209603915

Pettigrew, T. F. & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, *38*(6), 922-934. https://doi.org/10.1002/ejsp.504

Pettigrew, T. F., Tropp, L. R., Wagner, U., & Christ, O. (2011). Recent advances in intergroup contact theory. *International Journal of Intercultural Relations*, *35*(3), 271-280. https://doi.org/10.1016/j.ijintrel.2011.03.001

Phelps, E. A., O'Connor, K. J., Cunningham, W. A., Funayama, E. S., Gatenby, J. C., Gore, J. C., & Banaji, M. R. (2000). Performance on indirect measures of race evaluation predicts amygdala activation. *Journal of Cognitive Neuroscience*, *12*(5), 729-738. https://doi.org/10.1162/089892900562552

Phinney, J. S. (1989). Stages of ethnic identity development in minority group adolescents. *The Journal of Early Adolescence*, *9*(1-2), 34-49. https://doi.org/10.1177/0272431689091004

Phinney, J. S., Horenczyk, G., Liebkind, K., & Vedder, P. (2001). Ethnic identity, immigration, and well-being: An interactional perspective. *Journal of Social Issues*, *57*(3), 493-510. https://doi.org/10.1111/0022-4537.00225

Phinney, J. S. & Ong, A. D. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology*, *54*(3), 271. https://doi.org/10.1037/0022-0167.54.3.271

Pietsch, T. (2013). Rethinking the British world. *Journal of British Studies*, *52*(2), 441-463. https://doi.org/10.1017/jbr.2013.53

Poslon, X. D. & Lášticová, B. (2019). The silver lining between perceived similarity and intergroup differences: Increasing confidence in intergroup contact. *Human Affairs*, *29*(1), 63-73. https://doi.org/10.1515/humaff-2019-0006

R Core Team (2020). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. https://www.R-project.org/.

Rajulton, F. (2001). The fundamentals of longitudinal research: An overview. *Canadian Studies in Population*, *28*(2), 169-185. https://doi.org/10.25336/P6W897

Ramirez, M. & Castaneda, A. (1974). *Cultural democracy, bicognitive development, and education*. Academic Press.

Ramoupi, N. L. L. (2011). African-centred education and African languages: Content and curriculum in post-apartheid education and training in South Africa (Policy Brief No. 56). Africa Institute of South Africa, Tshwane.

Reimer, N. K., Becker, J. C., Benz, A., Christ, O., Dhont, K., Klocke, U., ..., & Hewstone, M. (2017). Intergroup contact and social change: Implications of negative and positive contact for collective action in advantaged and disadvantaged groups. *Personality and Social Psychology Bulletin*, *43*(1), 121-136. https://doi.org/10.1177/0146167216676478

Reimer, N. K., Love, A., Wölfer, R., & Hewstone, M. (2021). Building social cohesion through intergroup contact: Evaluation of a large-scale intervention to improve intergroup relations among adolescents. *Journal of Youth and Adolescence*, *50*(6), 1049-1067. https://doi.org/10.1007/s10964-021-01400-8

Reinhart, M. A. (2017). Multivariate analysis of variance (MANOVA). In M. Allen (Ed.), *The SAGE encyclopedia of communication research methods*. Sage Publications. https://doi.org/https://dx-doi-org.ez.sun.ac.za/10.4135/9781483381411.n366

Revelle, W. (2021). psych: Procedures for Psychological, Psychometric, and Personality Research. Northwestern University, Evanston, Illinois. R package version 2.1.6, https://CRAN.R-project.org/package=psych.

Reyna, C., Brandt, M., & Tendayi Viki, G. (2009). Blame it on hip-hop: Anti-rap attitudes as a proxy for prejudice. *Group Processes & Intergroup Relations*, *12*(3), 361-380. https://doi.org/10.1177/1368430209102848

Rodriguez, N., Mira, C. B., Paez, N. D., & Myers, H. F. (2007). Exploring the complexities of familism and acculturation: Central constructs for people of Mexican origin. *American Journal of Community Psychology*, *39*(1-2), 61-77. https://doi.org/10.1007/s10464-007-9090-7

Rubin, D. B. (1976). Inference and missing data. *Biometrika*, *63*(3), 581-592.

Rudmin, F. W. (2003). Critical history of the acculturation psychology of assimilation, separation, integration, and marginalization. *Review of General Psychology*, *7*(1), 3–37. https://doi.org/10.1037/1089-2680.7.1.3

Said, E. (1994). *Culture and imperialism*, Vintage.

Sardar, Z. (2008). I think it would be good if certain things were said: Fanon and the epidemiology of oppression. In F. Fanon (1967), *Black skins, white masks* (pp. vi–xx) Pluto Books.

Schmid, K., Ramiah, A. A., & Hewstone, M. (2014). Neighbourhood ethnic diversity and trust: The role of intergroup contact and perceived threat. *Psychological Science*, *25*(3), 665-674. doi:10.1177/0956797613508956

Schmid, K., Wölfer, R., Swart, H., Christ, O., Al Ramiah, A., Vertovec, S., & Hewstone, M. (2017). The "wallpaper effect" revisited: Divergent findings on the effects of intergroup contact on attitudes in diverse versus nondiverse contexts. *Personality and Social Psychology Bulletin*, *43*(9), 1268-1283. https://doi.org/10.1177/0146167217711929

Schmitt, M. T. & Branscombe, N. R. (2002). The meaning and consequences of perceived discrimination in disadvantaged and privileged social groups. *European Review of Social Psychology*, *12*(1), 167-199. 10.1080/14792772143000058

Schwartz, S. J., Unger, J. B., Zamboanga, B. L., & Szapocznik, J. (2010). Rethinking the concept of acculturation: Implications for theory and research. *American Psychologist*, *65*(4), 237-251. https://doi.org/10.1037/a0019330

Searle, W. & Ward, C. (1990). The prediction of psychological and sociocultural adjustment during cross-cultural transitions. *International Journal of Intercultural Relations*, *14*(4), 449-464. https://doi.org/10.1016/0147-1767(90)90030-Z

Sears, D. O. (1988). Symbolic racism. In P. A. Katz, D. A. Taylor (Eds.), *Eliminating racism. Perspectives in Social Psychology* (pp. 53-84). Springer. https://doi.org/10.1007/978-1-4899-0818-6_4

Simons, S. E. (1901). Social decadence. *The ANNALS of the American Academy of Political and Social Science*, *18*(2), 63-86. https://doi.org/10.1177/000271620101800203

Smith, B. K., Ehala, M., & Giles, H. (2017). Vitality theory. *Oxford Research Encyclopedia of Communication*. Retrieved from https://www.academia.edu/34177972/Vitality_Theory

Smith, K. N., Lamb, K. N., & Henson, R. K. (2020). Making meaning out of MANOVA: the need for multivariate post hoc testing in gifted education research. *Gifted Child Quarterly*, *64*(1), 41-55. https://doi.org/10.1177/0016986219890352

Snauwaert, B., Soenens, B., Vanbeselaere, N., & Boen, F. (2003). When integration does not necessarily imply integration: Different conceptualizations of acculturation orientations lead to different classifications. *Journal of Cross-Cultural Psychology*, *34*(2), 231-239. https://doi.org/10.1177/0022022102250250

Soudien, C., Reddy, V., & Woolard, I. (2019). *The state of the nation: poverty & inequality: diagnosis, prognosis and responses* (pp. 1-41). HSRC Press.

Stark, T. H., Flache, A., & Veenstra, R. (2013). Generalization of positive and negative attitudes toward individuals to outgroup attitudes. *Personality and Social Psychology Bulletin*, *39*(5), 608-622. https://doi.org/10.1177/0146167213480890

StataCorp. 2021. *Stata Statistical Software: Release 17*. College Station, TX: StataCorp LLC.

Statistics South Africa (2015). *Census 2011: Population dynamics in South Africa*. https://www.statssa.gov.za/publications/P03014/P030142011.pdf

Statistics South Africa (2017). *Education series volume III: Educational enrolment and achievement, 2016* (Report No. 92-01-03). https://www.statssa.gov.za/publications/Report%2092-01-03/Report%2092-01-032016.pdf

Statistics South Africa (2019). *Inequality Trends in South Africa: A multidimensional diagnostic of inequality* (Report No. 03-10-19). https://www.statssa.gov.za/publications/Report-03-10-19/Report-03-10-192017.pdf

Stellenbosch University (2016). Language Policy of Stellenbosch University. Retrieved from http://www.sun.ac.za/english/Documents/Language/Final%20June%20Language%20Policy%20November%202016.pdf

Stellenbosch University (n.d. a). Student Profile. Retrieved from http://www.sun.ac.za/english/Pages/Student-Profile.aspx

Stellenbosch University (n.d. b). Transformation and Diversity. Retrieved from http://www.sun.ac.za/english/Pages/Diversity.aspx#:~:text=%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B%E2%80%8B,class%2C%20disability%20or%20sexual%20orientation.

Stephan, W. G., Boniecki, K. A., Ybarra, O., Bettencourt, A., Ervin, K. S., Jackson, L. A., … Renfro, C. L. (2002). The role of threats in the racial attitudes of blacks and whites. *Personality and Social Psychology Bulletin*, *28*(9), 1242-1254. doi:10.1177/01461672022812009

Stephan, W. G., Renfro, C. L., Esses, V. M., Stephan, C. W., & Martin, T. (2005). The effects of feeling threatened on attitudes toward immigrants. *International Journal of Intercultural Relations*, *29*(1), 1-19. https://doi.org/10.1016/j.ijintrel.2005.04.011

Sterne, J. A., White, I. R., Carlin, J. B., Spratt, M., Royston, P., Kenward, M. G., ... & Carpenter, J. R. (2009). Multiple imputation for missing data in epidemiological and clinical research: potential and pitfalls. *Research Methods and Reporting Journal*, *338*. https://doi.org/10.1136/bmj.b2393

Swart, H., Hewstone, M., Turner, R. N., & Voci, A. (2011). Achieving forgiveness and trust in post-conflict societies: The importance of self-disclosure and empathy. In L. R. Tropp, & R. Mallett (Eds.), *Beyond prejudice reduction: Pathways to positive intergroup*

relations (pp. 181-200). American Psychological Association. https://doi.org/10.1037/12319-009

Swartz, L., Rohleder, P., Bozalek, V., Carolissen, R., Leibowitz, B., & Nicholls, L. (2009). 'Your mind is the battlefield': South African trainee health workers engage with the past. *Social Work Education*, *28*(5), 488-501. https://doi.org/10.1080/02615470802129872

Te Lindert, A., Korzilius, H., Stupar-Rutenfrans, S., & Van de Vijver, F. J. (2021). The role of perceived discrimination, intergroup contact and adoption in acculturation among four Dutch immigrant groups. *International Journal of Intercultural Relations, 85, (In Press, corrected proof)*. https://doi.org/10.1016/j.ijintrel.2021.02.005

Te Lindert, A., Korzilius, H., Van de Vijver, F. J., Kroon, S., & Arends-Tóth, J. (2008). Perceived discrimination and acculturation among Iranian refugees in the Netherlands. *International Journal of Intercultural Relations*, *32*(6), 578-588. https://doi.org/10.1016/j.ijintrel.2008.09.003

Teske Jr, R. H. & Nelson, B. H. (1974). Acculturation and assimilation: A clarification. *American Ethnologist*, *1*(2), 351-367. https://doi.org/10.1525/ae.1974.1.2.02a00090

Torbiörn, I. (1982). *Living abroad: Personal adjustment and personnel policy in the overseas setting*. John Wiley & Sons.

Trifiletti, E., Dazzi, C. Hichy, Z., & Capozza, D. (2007). A validation of HCAS: The host community acculturation scale. *Testing, Psychometrics, Methodology in Applied Psychology*, *14*(3-4), 1-15.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Basil Blackwell.

Van Acker, K. & Van Beselaere, N. (2011). Bringing together acculturation theory and intergroup contact theory: Predictors of Flemings' expectations of Turks' acculturation behavior. *International Journal of Intercultural Relations*, *35*(3), 334-345. https://doi.org/10.1016/j.ijintrel.2010.06.004

Van Broekhuizen, H. (2016). *Graduate unemployment, higher education access and success, and teacher production in South Africa* (Doctoral dissertation, Stellenbosch University,). Retrieved from https://resep.sun.ac.za/van-broekhuizen-hendrik-2016/

Van Buuren, S. (2018). *Flexible imputation of missing data* (2nd Ed.). CRC press.

Van Buuren, S. & Groothuis-Oudshoorn, K. (2011). mice: Multivariate imputation by chained equations in R. *Journal of Statistical Software*, *45*(3), 1-67. https://doi.org/10.18637/jss.v045.i03

Van Buuren, S., Groothuis-Oudshoorn, K., Vink, G., Schouten, R., Robitzsch, A., Rockenschaub, P., Doove, L., …, & I Arel-Bundock, V., (2021). mice: Multivariate Imputation by Chained Equations. R package version 3.13.0. https://cran.r-project.org/web/packages/mice/index.html

Van de Vijver, F., Berry, J. W., & Celenk, O. (2016). Assessment of acculturation. In D. L Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 293-314). Cambridge University Press. https://doi.org/10.1017/CBO9781316219218

Van de Vijver, F. J., Molokoane, D. H., & Jackson, L. T. (2013). A dual-process model of diversity outcomes: The case South African police service in the Pretoria area. *SA Journal of Human Resource Management*, *11*(1), 1-13. https://doi.org/10.4102/sajhrm.v11i1.504

Van den Berg, S. & Evers, L. (2006). *Monitoring racial discrimination* (pp. 15-49). Argus.

Van der Berg, S. & Moses, E. (2012). How better targeting of social spending affects social delivery in South Africa. *Development Southern Africa*, *29*(6), 127-139. https://doi.org/10.1080/0376835X.2012.645647

Van der Berg, S., Taylor, S., Gustafsson, M., Spaull, N., & Armstrong, P. (2011). Improving education quality in South Africa. *Report for the National Planning Commission*, *2*, 1-23.

Van der Westhuizen, C. (2018). South Africa's White Right, the Alt-Right and the Alternative. *The Conversation*. Retreived from https://theconversation.com/south-africas-white-right-the-alt-right-and-the-alternative-103544

Van Oudenhoven, J. P., Prins, K. S., & Buunk, B. P. (1998). Attitudes of minority and majority members towards adaptation of immigrants. *European Journal of Social Psychology*, *28*(6), 995-1013. https://doi.org/10.1002/(SICI)1099-0992(1998110)28:6<995::AID-EJSP908>3.0.CO;2-8

Van Oudenhoven, J. P. & Van der Zee, K. I. (2002). Predicting multicultural effectiveness of international students: The multicultural personality questionnaire. *International Journal of Intercultural Relations*, *2*(6), 679-694. https://doi.org/10.1016/S0147-1767(02)00041-X

Vedder, P. H. & Horenczyk, G. (2006). Acculturation and the school. In D. L. Sam, & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 93-112). Cambridge University Press. https://doi.org/10.1017/CBO9780511489891

Vezzali, L. & Giovannini, D. (2011). Intergroup contact and reduction of explicit and implicit prejudice toward immigrants: A study with Italian businessmen owning small and medium enterprises. *Quality & Quantity*, *45*(1), 213-222. https://doi.org/10.1007/s11135-010-9366-0

Vinokurov, A., Trickett, E. J., & Birman, D. (2002). Acculturative hassles and immigrant adolescents: A life-domain assessment for Soviet Jewish refugees. *The Journal of Social Psychology*, *142*(2), 425-445. https://doi.org/10.1080/00224540209603910

Wagner, U., Christ, O., Pettigrew, T. F., Stellmacher, J., & Wolf, C. (2006). Prejudice and minority proportion: Contact instead of threat effects. *Social Psychology Quarterly*, *69*(4), 380-390. doi:10.1177/019027250606900406

Ward, C. (1996). Acculturation. In D. Landis & R. S. Bhagat (Eds.), *Handbook of intercultural training* (pp. 124–147). Sage Publications.

Ward, C. & Fischer, R. (2008). Personality, cultural intelligence and cross-cultural adaptation. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Theory, measurement, and applications* (pp. 159-73). Routledge.

Ward, C. & Kennedy, A. (2001). Coping with cross-cultural transition. *Journal of Cross-Cultural Psychology*, *32*(5), 636-642. https://doi.org/10.1177/0022022101032005007

Watkins, M. W. (2018). Exploratory factor analysis: A guide to best practice. *Journal of Black Psychology*, *44*(3), 219-246. https://doi.org/10.1177/0095798418771807

Williams, C. L. & Berry, J. W. (1991). Primary prevention of acculturative stress among refugees: application of psychological theory and practice. *American Psychologist*, *46*(6), 632. https://doi.org/10.1037/0003-066X.46.6.632

Wilson, J., Ward, C., & Fischer, R. (2013). Beyond culture learning theory: What can personality tell us about cultural competence? *Journal of Cross-Cultural Psychology*, *44*(6), 900-927. https://doi.org/10.1177/0022022113492889

Wölfer, R., Christ, O., Schmid, K., Tausch, N., Buchallik, F.M., Vertovec, S. & Hewstone, M. (2019). Indirect contact predicts direct contact: Longitudinal evidence and the mediating role of intergroup anxiety. *Journal of Personality and Social Psychology*, *116*(2), 277–295. https://doi.org/10.1037/pspi0000146

Yeh, C. J. (2003). Age, acculturation, cultural adjustment, and mental health symptoms of Chinese, Korean, and Japanese immigrant youths. *Cultural Diversity and Ethnic Minority Psychology*, *9*(1), 34–48. https://doi.org/10.1037/1099-9809.9.1.34

Zagefka, H., Brown, R., Broquard, M., & Martin, S. L. (2007). Predictors and consequences of negative attitudes toward immigrants in Belgium and Turkey: The role of acculturation preferences and economic competition. *British Journal of Social Psychology*, *46*(1), 153-169. https://doi.org/10.1348/014466606X111185

Zhang, J., Mandl, H., & Wang, E. (2010). Personality, acculturation, and psychosocial adjustment of Chinese international students in Germany. *Psychological Reports*, *107*(2), 511-525. https://doi.org/10.2466/07.09.11.17.PR0.107.5.511-525

Zientek, L. R. & Thompson, B. (2009). Matrix summaries improve research reports: Secondary analyses using published literature. *Educational Researcher*, *38*(5), 343-352. https://doi.org/10.3102/0013189X09339056

Appendix A

Table A1

State of missing observations

	Missing			Missing	
Variable name	#	%	Variable name	#	%
wcsim2	203	33.4	wellbeing6	169	27.8
wisim2	203	33.4	discrim1	169	27.8
wasim2	203	33.4	discrim2	169	27.8
cisim2	203	33.4	discrim3	169	27.8
casim2	203	33.4	discrim4	169	27.8
iasim2	203	33.4	discrim5	169	27.8
bwsim2	202	33.2	discrim6	169	27.8
bcsim2	202	33.2	schoolcontb1	168	27.6
bisim2	202	33.2	schoolcontw1	168	27.6
basim2	202	33.2	schoolcontc1	168	27.6
closefriendcontc3	169	27.8	schoolconti1	168	27.6
childhoodexp1	169	27.8	schoolconta1	168	27.6
childhoodexp2	169	27.8	schoolcontf1	168	27.6
childhoodexp3	169	27.8	schoolconteng	168	27.6
childhoodexp4	169	27.8	schoolcontafr	168	27.6
homecomposcontb1	169	27.8	neighcontb2	168	27.6
homecomposcontw1	169	27.8	neighcontw2	168	27.6
homecomposcontc1	169	27.8	neighcontc2	168	27.6
homecomposconti1	169	27.8	neighconti2	168	27.6
homecomposconta1	169	27.8	neighconta2	168	27.6
homecomposcontf1	169	27.8	neighcontf2	168	27.6
homecomnegcontb1	169	27.8	neighconteng	168	27.6
homecomnegcontw1	169	27.8	neighcontafr	168	27.6
homecomnegcontc1	169	27.8	closefriendcontb3	168	27.6
homecomnegconti1	169	27.8	closefriendcontw3	168	27.6
homecomnegconta1	169	27.8	closefriendconti3	168	27.6
homecomnegcontf1	169	27.8	closefriendconta3	168	27.6
wellbeing1	169	27.8	closefriendcontf3	168	27.6
wellbeing2	169	27.8	closefriendconteng	168	27.6
wellbeing3	169	27.8	closefriendcontafr	168	27.6
wellbeing4	169	27.8	final_mark	42	6.9
wellbeing5	169	27.8			

Table A2

Logistic regression of continuation in the study

Variables	RRR	95% C.I. LB	UB
Self-identified woman (ref.)	-	-	-
Self-identified man	0.55	0.05	6.49
Age	0.78*	0.62	0.97
English (ref.)	-	-	-
Afrikaans	0.94	0.61	1.45
Other African language	0.54	0.25	1.20
Other Language	0.22	0.04	1.15
Lower class (ref.)	-	-	-
Working class	2.20	0.55	8.90
Middle class	1.11	0.30	4.13
Upper middle class	1.52	0.41	5.62
Upper class	0.88	0.22	3.45
Elite	0.74	0.15	3.69
School quintile 2	0.62	0.07	5.18
School quintile 3	1.58	0.30	8.32
School quintile 4	2.71	0.81	9.05
School quintile 5 (ref.)	-	-	-
Independent school	1.35	0.83	2.19
LR Chi2		34.49**	
p-value Chi2		0.005	

Notes: Dependent variable is whether participation in the study occurred past Survey 1. Ref. = reference category. School quintile 1 excluded as a control because it predicts "success" (i.e. remaining in study past survey 1) perfectly. * $p<0.05$

Table A3

Correlation matrix of dependent variables

		Childhood contact norms	Perceived outgroup similarity	Perceived discrimination	Childhood intercultural contact	Positive contact home	Negative contact home	Wellbeing	Outgroup attitude	Positive contact SU	Negative contact SU	Academic performance	
Mainstream group correlations	Childhood contact norms		0.27	0.02	0.17	0.07	0.02	0.15	0.12	0.18	-0.13	-0.03	Childhood contact norms
	Perceived outgroup similarity	0.15		-0.22	0.05	0.14	-0.05	0.29	0.35	0.34	-0.21	0.04	Perceived outgroup similarity
	Perceived discrimination	0.03	-0.04		0.09	-0.05	0.22	-0.25	-0.24	-0.12	0.33	0.03	Perceived discrimination
	Childhood intercultural contact	0.41	0.10	0.18		0.65	0.29	0.22	0.24	0.27	-0.02	0.23	Childhood intercultural contact
	Positive contact home	0.32	0.11	0.01	0.44		0.35	0.23	0.22	0.26	-0.15	0.18	Positive contact home
	Negative contact home	-0.15	-0.11	0.27	0.05	-0.08		0.00	0.00	0.09	0.12	0.21	Negative contact home
	Wellbeing	0.16	-0.07	-0.17	-0.01	-0.03	-0.17		0.18	0.17	-0.22	0.13	Wellbeing
	Outgroup attitude	0.30	0.28	-0.05	0.24	0.29	-0.19	0.06		0.58	-0.32	0.02	Outgroup attitude
	Positive contact SU	0.17	0.19	0.01	0.15	0.21	-0.15	-0.06	0.47		-0.37	0.15	Positive contact SU
	Negative contact SU	-0.14	-0.14	0.12	-0.07	-0.17	0.25	0.02	-0.33	-0.18		0.11	Negative contact SU
	Academic performance	0.13	0.02	0.06	0.02	0.03	-0.03	0.02	0.08	0.02	-0.03		Academic performance
		Childhood contact norms	Perceived outgroup similarity	Perceived discrimination	Childhood intercultural contact	Positive contact home	Negative contact home	Wellbeing	Outgroup attitude	Positive contact SU	Negative contact SU	Academic performance	

Ethnic group correlations

Table A4

Descriptive statistics and exploratory factor analysis results for mainstream group

Construct name	Response scale	Descriptive statistics				Exploratory factor analysis			Cronbach alpha/inter-item correlation[a]
		Mean	Std dev	Skewness	Kurtosis	Factor loading	Eigenvalue first factor (F1)	% variance explained by F1	
Childhood contact norms		3.71	0.87				N/A	N/A	0.42***,[a]
Accepted items:									
Item 1	1-5	3.82	0.94	-0.41	-0.64	0.66			
Item 4	1-5	3.52	1.13	-0.63	-0.44	0.66			
Rejected items:									
Item 2	1-5	2.04	0.87	0.66	0.14	0.46			
Item 3	1-5	4.10	1.02	-1.15	0.73	0.60			
Perceived outgroup similarity		2.7	0.89				1.82	45%	0.77
Item 1	1-6	2.71	1.25	0.64	-0.57	0.69			
Item 2	1-6	3.22	1.2	0.32	-0.75	0.73			
Item 3	1-6	2.11	1.08	0.96	0.17	0.63			
Item 4	1-6	2.84	1.14	0.23	-0.75	0.64			
Perceived discrimination		4.01	1.52				1.91	64%	0.82
Item 1	1-7	3.78	1.78	-0.04	-1.25	0.95			
Item 2	1-7	5.54	1.73	-0.59	-0.81	0.58			
Item 3	1-7	5.54	1.73	-0.59	-0.81	0.58			
Childhood intercultural contact experiences (with coloured South Africans)		2.85	0.74				1.43	48%	0.69
Item 1	1-5	3.53	1.18	-0.25	-1.06	0.79			
Item 2	1-5	3.61	1.11	-0.55	-0.55	0.40			
Item 3	1-5	3.04	1.15	-0.18	-0.82	0.81			
Childhood intercultural contact experiences (with black African South Africans)							1.59	60%	0.73
Item 1	1-5	3.53	1.18	-0.25	-1.06	0.78			
Item 2	1-5	2.07	1.22	0.91	-0.30	0.45			
Item 3	1-5	3.04	1.15	-0.18	-0.82	0.89			
Positive contact in home community		3.09	0.79			N/A	N/A	N/A	0.34***,[a]
Item 1	1-5	3.07	1.00	-0.23	-0.62	N/A	N/A	N/A	
Item 2	1-5	3.10	0.94	-0.32	-0.56	N/A	N/A	N/A	

Construct name	Response scale	Descriptive statistics				Exploratory factor analysis			Cronbach alpha/inter-item correlation[a]
		Mean	Std dev	Skewness	Kurtosis	Factor loading	Eigenvalue first factor (F1)	% variance explained by F1	
Negative contact in home community		2.45	0.81			N/A	N/A	N/A	0.61***,[a]
Item 1	1-5	2.60	0.94	0.21	-0.42	N/A	N/A	N/A	
Item 2	1-5	2.29	0.88	0.39	-0.21	N/A	N/A	N/A	
Outgroup contact preference		3.65	0.81			N/A	N/A	N/A	
Item 1	1-5		0.94	-0.59	-0.03	N/A	N/A	N/A	
Item 2	1-5		0.84	-0.82	0.87	N/A	N/A	N/A	
Cultural continuity	1-4	3.38	0.67	-0.63	-0.69				
Wellbeing		4.92	1.06				2.16	43%	0.77
Item 1	1-7	5.00	1.36	-0.94	0.51	0.69			
Item 2	1-7	5.24	1.55	-0.88	-0.22	0.71			
Item 3	1-7	5.04	1.61	-0.48	-1.00	0.78			
Item 4	1-7	5.69	1.15	-1.39	2.29	0.57			
Item 5	1-7	3.59	1.65	0.58	-0.67	0.48			
Outgroup attitude		6.43	1.71			N/A	N/A	N/A	0.56***,[a]
Item 1	0-10	6.12	2.15	-0.34	-0.20	N/A	N/A	N/A	
Item 2	0-10	6.74	1.70	-0.44	0.21	N/A	N/A	N/A	
Positive contact experiences at SU		3.51	0.80			N/A	N/A	N/A	0.59***,[a]
Item 1	1-5	3.47	0.90	-0.49	-0.38	N/A	N/A	N/A	
Item 2	1-5	3.56	0.90	-0.62	0.20	N/A	N/A	N/A	
Negative contact experiences at SU		1.99	0.79			N/A	N/A	N/A	0.68***,[a]
Item 1	1-5	2.09	0.92	0.59	-0.26	N/A	N/A	N/A	
Item 2	1-5	1.91	0.89	0.79	0.70	N/A	N/A	N/A	
Academic achievement (final mark)	0-10	6.39	1.24	-0.08	0.08	N/A	N/A	N/A	

Notes: Only the complete case (n = 308) sample of mainstream acculturating group members used. [a] Constructs created using two items were tested for reliability with inter item correlation using Pearson's r product moment. * p < .05. ** p <0.01 *** p < 0.001

Table A5

Descriptive statistics and exploratory factor analysis results for ethnic group

Construct name and items	Response scale	Descriptive statistics				Exploratory factor analysis			Cronbach alpha/inter-item correlation[a]
		Mean	Std dev	Skewness	Kurtosis	Factor loading	Eigenvalue of first factor (F1)	% variance explained by F1	
Childhood contact norms		3.96	0.84				N/A	N/A	0.34***[a]
Included items:									
Item 1	1-5	4.01	1.00	-0.82	0.30	0.69			
Item 4	1-5	3.90	1.04	-1.09	0.71	0.48			
Rejected items:									
Item 2	1-5	2.42	1.01	0.25	-1.04	0.34			
Item 3	1-5	4.34	0.93	-1.21	0.31	0.38			
Perceived outgroup similarity		2.53	1.23				1.68	0.42	0.73
Item 1	1-6	2.59	1.45	0.53	-0.97	0.53			
Item 2	1-6	3.18	1.47	0.08	-1.09	0.64			
Item 3	1-6	1.99	1.20	1.14	0.60	0.67			
Item 4	1-6	2.85	1.32	0.25	-0.98	0.73			
Perceived discrimination		4.11	1.52				1.86	0.62	0.82
Item 1	1-7	3.73	1.70	-0.06	-1.20	0.74			
Item 2	1-7	3.74	1.91	0.01	-1.39	0.92			
Item 3	1-7	4.86	1.68	-0.79	-0.43	0.69			
Childhood intercultural contact experiences		2.94	1.21				1.92	0.64	0.82
Item 1	1-5	3.38	1.44	-0.36	-1.29	0.94			
Item 2	1-5	2.51	1.43	0.41	-1.23	0.59			
Item 3	1-5	2.93	1.35	0.05	-1.17	0.83			
Positive contact in home community	1-5	2.81	1.24	-0.09	-1.20	N/A	N/A	N/A	N/A
Negative contact in home community	1-5	2.12	0.94	0.4	-0.83	N/A	N/A	N/A	N/A
Outgroup contact preference	1-5	3.40	0.98	-0.59	-0.16	N/A	N/A	N/A	N/A
Cultural continuity	1-4	3.29	0.82	-0.79	-0.45	N/A	N/A	N/A	N/A
Wellbeing		4.44	1.21				2.05	0.41	0.78
Item 1	1-7	4.42	1.17	-0.43	-0.97	0.53			
Item 2	1-7	4.54	1.8	-0.19	-1.24	0.69			

Construct name and items	Response scale	Descriptive statistics				Exploratory factor analysis			Cronbach alpha/inter-item correlation[a]
		Mean	Std dev	Skewness	Kurtosis	Factor loading	Eigenvalue of first factor (F1)	% variance explained by F1	
Item 3	1-7	4.47	1.79	-0.25	-1.11	0.82			
Item 4	1-7	5.50	1.33	-1.02	0.62	0.51			
Item 5	1-7	3.26	1.78	0.65	-0.49	0.60			
Outgroup attitude	0-10	6.39	2.14	-0.37	-0.50	N/A	N/A	N/A	N/A
Positive contact experiences at SU	1-5	3.44	1.03	-0.13	-0.78	N/A	N/A	N/A	N/A
Negative contact experiences at SU	1-5	2.41	0.92	0.42	-0.10	N/A	N/A	N/A	N/A
Academic achievement (final mark)	0-10	5.81	1.43	-0.22	0.53	N/A	N/A	N/A	N/A

Notes: Only the complete case (n = 103) sample of ethnic acculturating group members used. [a] Constructs created using two items were tested for reliability with inter item correlation using Pearson's r product moment. * $p < .05$. ** $p < 0.01$ *** $p < 0.001$

Table A6

Descriptive statistics of sociodemographic characteristics, by acculturating and acculturating strategy groups

	Mainstream group						Ethnic group					
	Group 1: Welcoming		Group 2: Ambivalent		Group 3: Unwelcoming		Group 4: Welcoming		Group 5: Ambivalent		Group 6: Unwelcoming	
	Mean 0r %	s.e.	Mean 0r %	s.e.	Mean 0r %	s.e.	Mean 0r %	s.e.	Mean 0r %	s.e.	Mean 0r %	s.e.
Age (years)	18.6	0.05	18.5	0.13	18.6	0.07	18.5	0.12	18.8	0.18	18.6	0.23
Male	36.7	3.0	53.4	7.7	47.4	5.1	41.5	6.2	43.6	8.0	40.0	9.1
Female	62.5	3.0	46.5	7.7	52.6	5.1	58.5	6.2	56.4	8.0	56.7	9.2
Home language												
English	41.4	3.1	46.5	7.7	41.2	5.0	40.0	6.1	51.3	8.1	46.7	9.3
Afrikaans	57.0	3.1	51.2	7.7	57.7	5.0	23.1	5.3	12.8	5.4	20.0	7.4
Other African	0.0	-	0.0	-	0.0	-	35.4	6.0	35.9	7.8	33.3	8.8
Other	1.6	0.8	2.3	2.3	1.0	1.0	1.5	1.5	0.0	-	0.0	-
SES Class	4.0	0.9	4.1	0.7	4.0	0.9	3.1	0.9	2.5	1.0	2.8	1.0
Lower	0.4	0.4	0.0	-	0.0	-	10.8	3.9	15.4	5.9	10.0	5.6
Working	3.5	1.2	0.0	-	3.1	1.8	21.5	5.1	35.9	7.8	10.0	5.6
Middle	25.4	2.7	18.6	6.0	25.8	4.5	44.6	6.2	28.2	7.3	43.3	9.2
Upper middle	45.7	3.1	58.1	7.6	58.1	5.1	20.0	5.0	20.5	6.6	36.7	8.9
Upper	20.3	2.5	20.9	6.3	20.9	4.1	3.1	2.2	0.0	-	0.0	-
Elite	4.7	1.3	2.3	2.3	2.3	2.3	0.0	-	0.0	-	0.0	-
Household income	7.3	4.5	5.8	4.9	6.6	4.8	5.8	4.4	4.7	4.0	6.4	3.9
School quintile	5.3	0.5	5.2	0.5	5.3	0.5	4.9	1.2	4.4	1.4	4.8	1.0
Quintile 1	0.0	-	0.0	-	0.0	-	1.5	1.5	7.7	4.3	6.7	4.6
Quintile 2	0.0	-	0.0	-	0.0	-	3.1	2.2	7.7	4.3	0.0	-
Quintile 3	0.0	-	0.0	-	0.0	-	7.7	3.3	5.1	3.6	3.3	3.3
Quintile 4	2.7	1.0	2.3	2.3	1.0	1.0	9.2	3.6	10.3	4.9	3.3	3.3
Quintile 5	66.8	2.9	72.1	6.9	68.0	4.8	61.5	6.1	56.4	8.0	63.3	8.9
Independent	30.5	2.9	25.6	6.7	30.9	4.7	16.9	4.7	12.8	5.4	23.3	7.9

Appendix B

Instruments and Informed Consent Form

Although more measures were included in the battery of instruments applied to the participants, only those applicable to the proposed study have been included below.

INFORMED CONSENT FORM

UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

Informed Consent to Participate in this Study

Social Networks, Social Experiences and Opinions, Student Health, and Academic Success amongst Stellenbosch University Students

You are asked to participate in a research study conducted by Dr Hermann Swart, Department of Psychology and Dr Debra Shepherd, Department of Economics, at Stellenbosch University on the Social Networks, Social Experiences and Opinions, Student Health, and Academic Success amongst Stellenbosch University Students. This research has received the necessary ethical clearance from the Research Ethics Committee (Humanities) at Stellenbosch University (REC clearance number: REC-2018-7796), as well as the necessary Institutional clearance from Stellenbosch University. You were selected as a possible participant in this study because you are a registered student in Economics 114 at Stellenbosch University. This study is being undertaken in collaboration with Mrs Angelika Love, Department of Experimental Psychology, Oxford University (England), and Prof Elirea Bornman, Department of Communications at UNISA.

1. PURPOSE OF THE STUDY

The purpose of this study is to gather information from students about some of their social networks in their Economics 114 class, their social experiences and opinions, and on specific social attitudes and opinions of students. We are interested in exploring those factors that might influence student wellbeing and success at University.

2. PROCEDURES

Should you agree to participate in this study, you will be asked to read through and answer three short surveys over the course of a week. In total, completing these surveys will not take more than 30 minutes. Should you complete all three online surveys, you will be entered into a cash prize draw with to win one of four cash prizes. There will be a separate cash prize draw for each of Economics 114 class. You will be entered into the cash prize draw for your particular Economics 114 class. In these surveys you will be asked to identify your social network within your Economics 114 class, and be asked to answer a

range of questions relating to your social opinions and experiences. Should you feel that there is a question that you do not wish to answer, you are free to withdraw your participation (see below).

3. POTENTIAL RISKS AND DISCOMFORTS

It is not expected that this research should cause you any risk and discomfort. However, if at any time you feel distressed, you have the right to withdraw at any time. If you should feel any psychological discomfort, you may access free counselling services at the Stellenbosch University Center for Student Counselling and Development located at 37 Victoria Street, Stellenbosch (tel: 021 808 4707).

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Your participation in this study could lead to improved knowledge on those social factors that promote student wellbeing and success at University. The findings from this research will be published in peer-reviewed, accredited scientific journals.

5. PAYMENT FOR PARTICIPATION

Participants that complete all three surveys will be eligible to enter themselves into the Cash Prize Draw for one of four cash prizes per Economics 114 class (1 x R500, 1 x R300, 2 x R100). You will be asked to provide a valid telephone number where you might be contacted in the event that you are the winner of the Cash Prize.

6. CONFIDENTIALITY AND ANONYMITY

Your participation in this study is completely confidential. No other student or staff member at the University will have access to your responses. Only the principal researchers identified above will have access to the data that you provide. Any personal or identifying information collected from you (such as the names in the social network survey) will be recoded to ensure your anonymity in this study. None of the collaborators on this study will have access to any data that includes personally identifying information.

7. PARTICIPATION AND WITHDRAWAL AND RIGHTS OF PARTICIPANTS

You may withdraw your consent and participation from this study at any time without penalty. There is a ‘quit’ button on each page that will allow you to exit the survey at any point in time. The principle investigator may withdraw you from this research if circumstances arise which warrant doing so. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché (mfouche@sun.ac.za; 021 808 4622) at the Division for Research Development.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Dr Hermann Swart (Principal Investigator): hswart@sun.ac.za / 021 808 9061.

Should you agree with these terms and conditions, please select the ‘I Agree’ icon at the bottom of the page. In doing so, you will be giving your consent to participate in this study, and you will then be directed to the survey. Should you not agree with the terms and conditions, please select the ‘I do not Agree’ icon at the bottom of the page, and you will be exited from this portal.

PART 1

Instructions

Please read all questions carefully.

We're interested to learn about your experiences and beliefs - there are no right or wrong answers! You do not need to think about each of your answers for too long. Your first, honest impressions are usually best. Thank you for helping us complete this research project!

Instruksies

Lees asseblief aandagtig deur al die vrae.

Ons is geïnteresseerd om te leer oor u ervarings en oortuigings - daar is geen regte of verkeerde antwoorde nie! Jy hoef nie te lank oor elkeen van jou antwoorde te dink nie. Jou eerste, eerlike indrukke is gewoonlik die beste. Dankie dat u ons help om hierdie navorsingsprojek te voltooi!

Academic Performance

We would like to explore the impact that social networks amongst university students have on their academic performance. We would like to ask your permission to access your final mark for Economics 114 that you achieve in June / July this year. This data will be used in aggregate form only (i.e., only as a calculated average, and will not be linked to your personal identity). Please indicate below whether you provide your consent for us to access this data or not.

Yes, I AGREE that you may access my Economics 114 mark for 2019 for the purposes of this research. ☐

No, I DO NOT AGREE that you may access my Economics 114 mark for 2019 for the purposes of this research. ☐

Positive

We would now like to ask you about your personal experiences with people from different groups in South Africa. Please do not think too long about each of your answers. Your honest, first impression or answer will be the best answer. There are no right or wrong answers, and your answers will be treated with strict confidentiality and anonymity.

Positive Contact At Stellenbosch University

At Stellenbosch University, how often do you personally have positive experiences (e.g., making friends, feeling welcome, being helped) with members of each of the following groups?					
	1 Never	2 Rarely	3 Sometimes	4 Often	5 Very Often
Black (African) South Africans	1	2	3	4	5
White South Africans	1	2	3	4	5
Coloured South Africans	1	2	3	4	5

Negative Contact Experiences at Stellenbosch University

At Stellenbosch University, how often do you personally have negative experiences (e.g., feeling unwanted by, intimidated by, or bullied by) with members of each of the following groups?

Black (African) South Africans	1	2	3	4	5
White South Africans	1	2	3	4	5
Coloured South Africans	1	2	3	4	5

Outgroup Attitudes

We would now like to ask you about how you feel towards people from different groups in South Africa. There will always be individuals in a group that we like more than others. We are interested in your overall or general feeling towards people from different groups in South Africa. Please do not think about particular individuals from each group. Rather consider your feelings towards each group as a whole. Please do not think too long about each of your answers. Your honest, first impression or answer will be the best answer. There are no right or wrong answers, and your answers will be treated with strict confidentiality and anonymity.

Use the sliding scale below to indicate how warm (positive / favourable) or cold (negative / unfavourable) you feel towards members of each group below. The closer you move the sliding scale towards 100, the warmer or more positive you feel towards members of the group. The closer you move the sliding scale towards 0, the colder or more negative you feel towards members of the group. Please do not think too long about each of your answers. Your honest, first impression or answer will be the best answer. There are no right or wrong answers, and your answers will be treated with strict confidentiality and anonymity.

Please indicate how warm or cold you feel toward people from the following groups. If you feel warm/more favourably, choose a higher number (50-100). If you feel cold/less favourably, choose a lower number (0-50). Please DO NOT tick any areas between numbers or across multiple boxes!											
Black (African) South Africans	0	10	20	30	40	50	60	70	80	90	100
White South Africans	0	10	20	30	40	50	60	70	80	90	100
Coloured South Africans	0	10	20	30	40	50	60	70	80	90	100

Contact Willingness

Think about the next time you find yourself in a situation where you have the opportunity to interact with (talk with, get to know, work together with) someone who you do not know from each of the following groups.

For each group, how likely is it that you will start a conversation with a member of this group in such a situation? Please do not think too long about each of your answers. Your honest, first impression or answer will be the best answer. There are no right or wrong answers, and your answers will be treated with strict confidentiality and anonymity.

Next time you find yourself in a situation where you could interact with someone of the following background, how likely is it that you would strike up a conversation with them?					
	1 Very unlikely	2 Unlikely	3 Unsure	4 Likely	5 Very likely
Black (African) South Africans	1	2	3	4	5
White South Africans	1	2	3	4	5
Coloured South Africans	1	2	3	4	5

Perceived Outgroup Similarity

Think about the different population groups in South Africa. The next question is about the general level of similarity and difference that you personally perceive between members of different groups in South Africa (for example in terms of status in society, the everyday experiences, attitudes and values, etc.). Please do not think about specific individuals. Rather, think about your overall or general perception of how similar or different members of the different groups are. Please do not think too long about each of your answers. Your honest, first impression or answer will be the best answer. There are no right or wrong answers, and your answers will be treated with strict confidentiality and anonymity.

Look at each of the different pairs of South African population groups being compared to one another below. For each pair, indicate how different or similar the members of the groups being compared are in general.

Generally speaking, how different or similar are members of the following groups?						
	1 Very different	2 Different	3 Somewhat different	4 Somewhat similar	5 Similar	6 Very similar
Black (African) and White South Africans	1	2	3	4	5	6
Black (African) and Coloured South Africans	1	2	3	4	5	6
White and Coloured South Africans	1	2	3	4	5	6

Background Variables

We are interested in your background and the different ways in which you identify yourself. People have many different ways of identifying themselves, including as a member of a nation, and as a member of an ethnic group in that nation. Of course, labels can be narrow and restrictive. Neither the Department of Economics, nor the Department of Psychology at Stellenbosch University acknowledge or endorse the legitimacy of the artificial categories that are used in this survey, and accepts that individuals might categorize themselves in a number of different ways over-and-above, or other than just, ethnicity. This survey, however, aims to compare the points of view and experiences of individuals across these ethnic groups, and it is therefore important that an individual's responses can be located within a given ethnic group. This does not mean that the individual identifies with or endorses the category, rather that it provides a context for understanding his/her point of view or experience. Please do not think too long about each of your answers. Your honest, first impression or answer will be the best answer. There are no right or wrong answers, and your answers will be treated with strict confidentiality and anonymity.

National and Ethnic Identity

Which of the following categories would you say describes you best?				
Black (African) South African				
White South African				
Coloured South African				
	1 Not at all strongly	2 Not very strongly	3 Fairly strongly	4 Very strongly
How strongly do you identify as South African?	1	2	3	4
How strongly do you identify as a member of your ethnic group?	1	2	3	4

Socioeconomic Variables

Which of the answer options below would best describe your family's socio-economic class status (Please select the appropriate option below). Please do not think too long about your answer. Your honest, first impression or answer will be the best answer. There are no right or wrong answer, and your answer will be treated with strict confidentiality and anonymity.

Lower Class
Working Class
Middle Class
Upper Middle Class
Upper Class
Elite
Other (Please specify)

If you want to elaborate on your answer, please add your comment here below:_____
_____

If you had to estimate (even roughly), what would you say is the combined average monthly household income of your family? (Please select the appropriate option below). Please do not think too long about your answer. Your honest, first impression or answer will be the best answer. There are no right or wrong answer, and your answer will be treated with strict confidentiality and anonymity.

No Monthly Income	
R1 – R400 per month	
R401 – R800 per month	
R801 – R1 600 per month	
R1 601 – R3 200 per month	
R3 201 – R6 400 per month	
R6 400 – R12 800 per month	
R12 801 – R25 600 per month	
R25 601 – R51 200 per month	

R51 201 – R102 400 per month	
R102 401 – R204 800 per month	
R204 801 or more per month	
I do not know	

How many cars used for private use does your family own (including your own car and those of your siblings)?

What is the name of the neighbourhood that your Parents / Legal Guardians currently stay in?
_____

If you know the postal code of the neighbourhood that your Parents / Legal Guardians currently stay in, please insert that here: _____

In what town (or city) is this neighbourhood located? _____

Finally, we would like to ask you to provide us with some demographic information about yourself. Please complete each of the following questions as accurately as possible:

Your Age Today: _____

Your Gender (Please select the appropriate option below):

Man	
Woman	
Other (Please specify)	
/A	

If you want to elaborate on your answer, please add your comment here below:
_____
_____

First (Home) Language: _____

Afrikaans
English
IsiNdebele
IsiXhosa
IsiZulu
Sepedi
SeSotho
SeTswana
SiSwati
TshiVenda
XiTsonga
German
French
Spanish
Italian
Portuguese

Dutch
Other (please specify below)

At least thirty-five languages indigenous to South Africa are spoken in the Republic, eleven of which are official languages of South Africa: Afrikaans, IsiNdebele, Sepedi, SeSotho sa Borwa, SiSwati, XiTsonga, SeTswana, TshiVenḓa, IsiXhosa, IsiZulu,

Other languages you are sufficiently proficient in to hold a basic conversation in: _____

Name of your University Residence / PSO: [Select the Relevant Answer Option, including I Don't Know and Not Applicable]

Your ResEd Cluster: [Select the Relevant Answer Option, Including I Don't Know]

What year did you matriculate from High School? _____

What is the name of the High School you matriculated from? _____

What is the name of the Town where this High School is Located? _____

Childhood Contact Experiences

As a child and teenager, how much contact did you have with members of the following groups?						
		1 Never	2 Rarely	3 Sometimes	4 Often	5 Very Often
Black (African) South Africans	At school	1	2	3	4	5
	As neighbours	1	2	3	4	5
	As close friends	1	2	3	4	5
White South Africans	At school	1	2	3	4	5
	As neighbours	1	2	3	4	5
	As close friends	1	2	3	4	5
Coloured South Africans	At school	1	2	3	4	5
	As neighbours	1	2	3	4	5
	As close friends	1	2	3	4	5
	As neighbours	1	2	3	4	5
	As close friends	1	2	3	4	5

Childhood Contact-Promoting Norms

Please think about your experiences growing up as a child and teenager.					
	1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree
My family actively encouraged me to mix with people of all ethnic backgrounds.	1	2	3	4	5

People in my community generally preferred to spend time with people of their own ethnic background.	1	2	3	4	5
Had I wanted to bring home a friend of a different ethnic background, that would have been frowned upon.	1	2	3	4	5
My family members had ethnically mixed friendship groups.	1	2	3	4	5

If you would like to elaborate on your experience growing up, you can add a brief comment:
_____
_____

Positive and Negative Contact Experiences in Home Community

These days, how often do you have positive and negative experiences with members of the following groups in your home community?						
		1 Never	2 Rarely	3 Sometimes	4 Often	5 Very Often
Positive experiences (e.g., making friends, feeling welcome, being helped) with...	Black (African) South Africans	1	2	3	4	5
	White South Africans	1	2	3	4	5
	Coloured South Africans	1	2	3	4	5
Negative experiences (e.g., feeling unwanted, intimidated, or bullied) with...	Black (African) South Africans	1	2	3	4	5
	White South Africans	1	2	3	4	5
	Coloured South Africans	1	2	3	4	5

Wellbeing

Thinking about how you felt over the past 4 months, please rate each of the following statements.							
	1 Strongly disagreed	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
In most ways my life is close to my ideal.	1	2	3	4	5	6	7
I am not satisfied with my life.	1	2	3	4	5	6	7
I feel sad or depressed.	1	2	3	4	5	6	7
I feel optimistic about the future.	1	2	3	4	5	6	7
I worry about things that might go wrong.	1	2	3	4	5	6	7
I feel fearful or anxious.	1	2	3	4	5	6	7

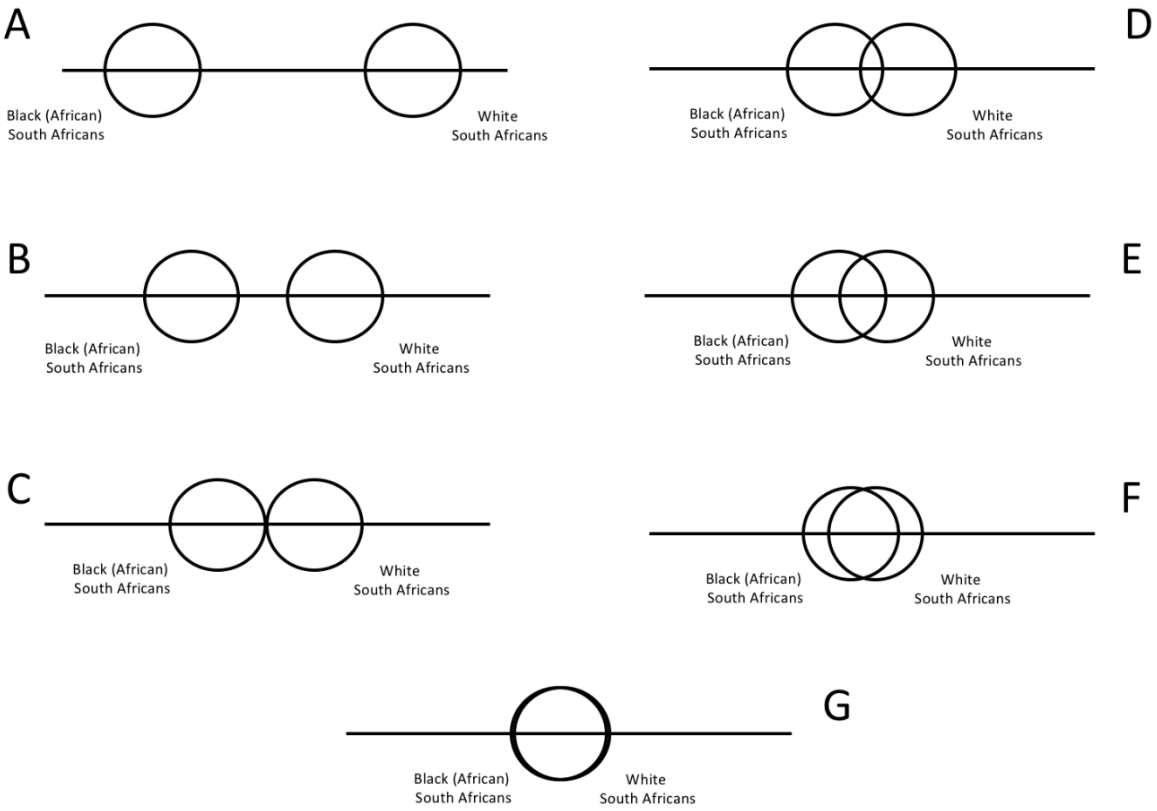
How much do you agree or disagree with the following statements?							
	1 Strongly disagree	2 Disagree	3 Disagree somewhat	4 Neither agree nor disagree	5 Agree somewhat	6 Agree	7 Strongly agree
I feel discriminated against because of my ethnic background.	1	2	3	4	5	6	7
I have been treated rudely or unfairly because of my ethnic background.	1	2	3	4	5	6	7
I feel that people very often interpret my behaviour based on their stereotypes of what people of my ethnic background are like.	1	2	3	4	5	6	7

Perceived Discrimination

How much do you agree or disagree with the following statements?							
	1 Strongly disagree	*2 Disagree*	*3 Disagree somewhat*	*4 Neither agree nor disagree*	*5 Agree somewhat*	*6 Agree*	*7 Strongly agree*
I feel discriminated against because of my ethnic background.	1	2	3	4	5	6	7
I have been treated rudely or unfairly because of my ethnic background.	1	2	3	4	5	6	7
I feel that people very often interpret my behaviour based on their stereotypes of what people of my ethnic background are like.	1	2	3	4	5	6	7

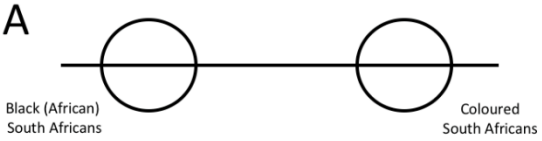
Perceived Intergroup Similarity

Please think about the similarities and differences between Black (African) South Africans and White South Africans. Choose the picture that best reflects the degree of similarity/difference between these two groups by circling the letter next to the picture!

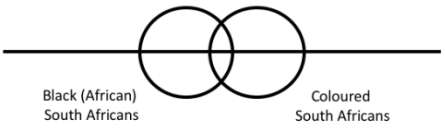


Please think about the similarities and differences between Black (African) South Africans and Coloured South Africans. Choose the picture that best reflects the degree of similarity/difference between these two groups by circling the letter next to the picture!

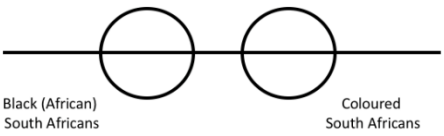
A



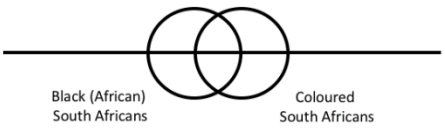
D



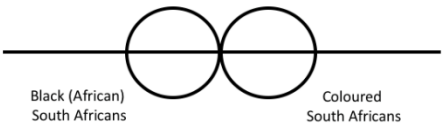
B



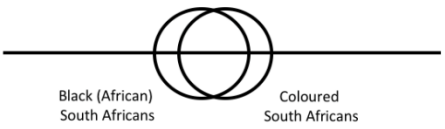
E



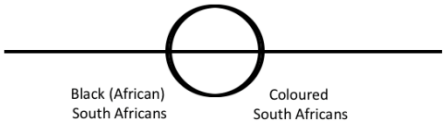
C



F

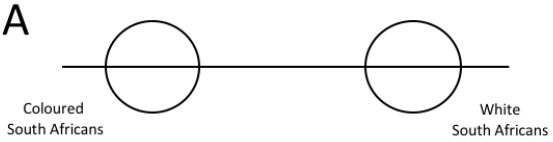


G

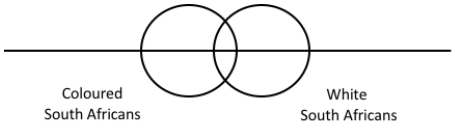


Please think about the similarities and differences between White South Africans and Coloured South Africans. Choose the picture that best reflects the degree of similarity/difference between these two groups by circling the letter next to the picture!

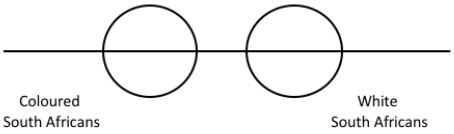
A



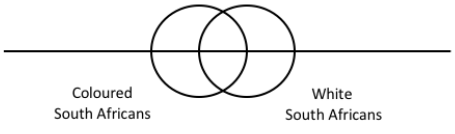
D



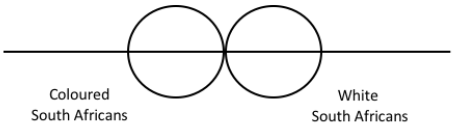
B



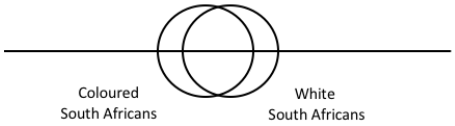
E



C



F



G