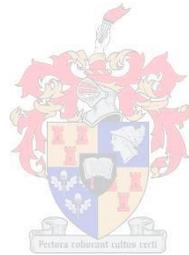


**ATTITUDE AND EMPATHY GENERALISATION AS MEDIATORS OF THE
SECONDARY TRANSFER EFFECT AMONGST WHITE SOUTH AFRICAN
STUDENTS AT STELLENBOSCH UNIVERSITY**

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**Thesis presented in fulfilment of the requirements for the degree of Master of
Arts (Psychology) at Stellenbosch University**

Supervisor: Dr Hermann Swart

March 2015

DECLARATION

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ABSTRACT

Intergroup contact has proven to be one of the most effective ways to reduce prejudice and improve attitudes towards an outgroup (e.g., Allport, 1954; Pettigrew & Tropp, 2006). The present study investigated the extent to which positive intergroup contact (namely cross-group friendships) with coloured South African students are associated with positive attitudes towards not only coloured South Africans in general (the primary outgroup), but also towards black (African) South Africans in general (a secondary outgroup). As such, the present study focused on testing the *secondary transfer effect* of intergroup contact (Lolliot et al., 2013; Pettigrew, 2009). A quantitative, cross-sectional design was used to explore the secondary transfer effect of intergroup contact via the processes of empathy and attitude generalisation. Data were collected amongst white South African students at Stellenbosch University (N = 551), via an electronic survey. The findings from the present study show that cross-group friendships with coloured South African students (primary outgroup) positively and significantly predicted more positive attitudes towards coloured South Africans in general, and that these effects generalised towards black (African) South Africans in general (secondary outgroup), after controlling for general contact with this secondary outgroup. These findings support the secondary transfer effect of contact. Moreover, the results show that the secondary transfer effect occurs via the processes of empathy and attitude generalisation. This research contributes to the relatively sparse body of literature exploring the secondary transfer effect and the underlying processes mediating this effect. Knowing *how* positive attitudes generalise from one outgroup to other outgroups could offer practical means for shaping intergroup contact interventions that aim to reduce prejudice and improve intergroup relations, especially in the post-conflict South African context.

OPSOMMING

Daar is bewys dat intergroep kontak een van die doeltreffendste maniere is om vooroordeel te verminder en houdings teenoor 'n uitgroep te verbeter (b.v., Allport, 1954; Pettigrew & Tropp, 2006). Die huidige studie ondersoek tot watter mate positiewe intergroep kontak (naamlik kruis-groep vriendskappe) met bruin/kleurling Suid-Afrikaanse studente verband hou met positiewe houdings nie net teenoor bruin/kleurling Suid-Afrikaners oor die algemeen nie (die primêre uitgroep), maar ook teenoor swart Suid-Afrikaners in die algemeen ('n sekondêre uitgroep). Na aanleiding hiervan fokus die huidige studie om die *sekondêre oordrag effek* van intergroep kontak te toets (Lolliot et al., 2013; Pettigrew, 2009). 'n Kwantitatiewe, deursnee-ontwerp was gebruik om die sekondêre oordrag effek van intergroep kontak te verken, via die prosesse van empatie- en houding-veralgemening. Die data was onder wit Suid-Afrikaanse studente by Stellenbosch Universiteit (N = 551) ingesamel deur middel van 'n elektroniese vraelys. Die bevindinge van die huidige studie toon dat kruis-groep vriendskappe met bruin/kleurling Suid-Afrikaanse studente (primêre uitgroep) positief en beduidend meer positiewe houdings teenoor bruin/kleurling Suid-Afrikaners in die algemeen voorspel en dat hierdie effekte veralgemeen na swart Suid-Afrikaners in die algemeen (sekondêre uitgroep) nadat daar kontrole gehou is oor die algemene kontak met hierdie sekondêre uitgroep. Hierdie bevindinge ondersteun die sekondêre oordrag effek van intergroep kontak. Die bevindinge bewys ook dat die sekondêre oordrag effek plaasvind deur die prosesse van empatie- en houding-veralgemening. Hierdie navorsing dra by tot die relatief yl beskikbare literatuur wat die sekondêre oordrag effek ondersoek, asook die onderliggende prosesse wat hierdie effek bemiddel. Die wete *hoe* positiewe houdings van een uitgroep na ander uitgroepe veralgemeen, kan prakties aangewend word tot intergroep kontak intervensies wat poog om vooroordeel te verminder en tussengroep-verhoudings te verbeter, veral in die post-konflik Suid-Afrikaanse konteks.

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CHAPTER ONE

INTERGROUP RELATIONS IN SOUTH AFRICA

South Africa has a long history of intergroup conflict, with more than 360 years of racial oppression, of which 40 years were enforced by law during the Apartheid era. Today, 20 years after Apartheid, there is still a need to promote positive intergroup relations, cooperation, understanding, trust and forgiveness between the various ethnic groups in South Africa. As Gibson and Claassen (2010) state: "There can be little doubt that the future of South Africa's nascent democracy depends upon the development of cooperative rather than conflictual intergroup relations" (p. 255). In order to understand the present patterns of contact and post-apartheid attitudes in South Africa, it is necessary to understand the history, origins, movements and early development of the various population groups (Lemon, 1987). This will be briefly discussed below.

A Brief History of Intergroup Relations in South Africa

Intergroup Relations before Apartheid

South Africa's diverse population originated from the various indigenous groups (for example the San, Khoikhoi, Zulu, Xhosa, Ndebele and Swazi people; which comprise South Africa's black (African) population today; Lemon, 1987), as well as the influx of people of other nationalities to Southern Africa during the course of European imperial conquest. The Dutch East India Company ('Vereenigde Oostindische Compagnie' or VOC) were the first to establish a permanent settlement in South Africa, and under Dutch rule many Europeans (including Germans and French Huguenots), and a large number of imported slaves from East and West Africa, Madagascar and Indonesia came to South Africa (Le May, 1971). From the onset, the European emigrants were antagonistic towards the native populations, and they regarded themselves as superior. As described by Hulme (1984, p. 224), "their attitude was simply of masters over 'inferior beings'". Over time, the imported slaves, as well as the indigenous slaves (such as the Khoikhoi and San) intermixed with their European overseers, and the offspring of these unions formed the basis of today's coloured South African population.

Some of the earliest accounts of intergroup separation in South Africa could already be seen during the late 17th century, when deliberate attempts were made by the Europeans to restrict contact with the indigenous groups. For example, Jan van Riebeeck (commander of the Dutch colony) planted a fence of almond trees to keep the Khoikhoi apart from the free burghers (a stretch of which remains visible in Kirstenbosch Gardens); in 1663 the first separate schools were built for the indigenous population; in 1678 die VOC banned black Africans from living amongst them; and in 1685 a law prohibiting marriages between whites and Africans was promulgated (Louw, 1984).

The established black (African), coloured and white Afrikaans-speaking South African populations were joined by the British, who colonised South Africa in 1815, and by 1860 nearly 40,000 Britons came to South Africa, establishing the white English-speaking population. The British also imported nearly 140,000 Indians as workers for the sugar plantations to South Africa from 1860 to 1911, which established the Indian population in South Africa (Lemon, 1976).

After the British colonised South Africa, the tension between the white Afrikaans-speaking South Africans (also known as 'Boers'/'farmers' or 'Afrikaners') and the British (white English-speaking South Africans) increased, prompting the Great Trek, and culminating in two Anglo-Boer Wars (De Reuck, 1999). These wars were considered by many as a 'white-man's war', however, various accounts show that the coloured, black (African) and Indian population played active roles in battle (Hulme, 1984). Under British command, for example, General Sir Herbert Kitchener, Commander-in-Chief of the British army since November 1900, acknowledged that 10,053 coloured and 4,618 black (African) South Africans took part in their battles (Le May, 1965), while on the other hand, nearly 20,000 coloured and black (African) South Africans who fought on the side of the 'Boers' reportedly died in British concentration camps (Morgan, 2002). Nevertheless, the white superior status and control over the non-white population remained unchanged (Hulme, 1984).

Ironically, although the British had more positive legislation towards the non-white population and fostered social and political reforms for non-Europeans (for example, by abolishing slavery in 1834; Lemon, 1976), their attitudes toward non-Europeans were not very different from those of the Afrikaners, with numerous laws

passed in Natal that would be the precursors to the segregationist policies implemented by the Afrikaans government during Apartheid (Hulme, 1984). After the final Anglo-Boer war was won by the British, home-rule was given to the white Afrikaans-speaking South Africans, although the land remained British territory. The newly established white Afrikaans-speaking Union Parliament started to pass several pieces of segregation legislation, the first of which, for example, was the Natives' Land Act (1913), which ultimately formed the basis of Apartheid.

Intergroup Relations during Apartheid (1948-1994)

In 1948, when Dr DF Malan (leader of the National Party) became the ruling First Minister of South Africa, a new era started in South Africa, which formalised and extended existing systems of racial discrimination and segregation (Brits, 1994). The National Party claimed that Apartheid between South Africa's various ethnic groups was necessary to reduce conflict. As such, laws were put in place limiting the contact amongst the various population groups (Gibson, 2004).

In order to achieve this aim, one of the first laws that were passed was the Population Registration Act (1950), which formally classified every South African citizen into one of the four racial population groups (namely, white, black, coloured and Indian/Asian South African). This law would form the basis on which various other laws, each aimed at systematically diminishing contact between white and non-white groups, were developed and enforced (Attwell 1986; Louw, 1984). Intergroup contact was limited, for example, through residential segregation, which was enforced by the Group Areas Act (no 41 of 1950) - a law that divided urban areas into 'group areas', where ownership and residence was restricted to certain population groups. The control of racial spaces was expanded in 1951 in the Prevention of Illegal Squatting Act, where thousands of people were forcibly removed from 'white ground' (O'Meara, 1996). Contact was also limited in public spheres through the Reservation of Separate Amenities Act (no 49 of 1953), which enforced the segregation of public premises such as parks, beaches, hotels, theatres and restaurants (Welsh & Spence, 2011). Intimate close relationships such as marriage and/or sexual relations between white and non-white people were also prohibited according to the Prohibition of Mixed Marriages Act (no 55 of 1949) and the Immorality Amendment Act (1950).

Segregation was also enforced in the education system. According to the Bantu Education Act (no 47 of 1953) and the Extension of University Education Act (nr 45 of 1959), white and non-white learners were not allowed to go to the same schools or universities. While there were many universities for white South Africans, including Stellenbosch University, there were very few universities available for non-white citizens (e.g., the University of Zululand). Ironically, during the 1960s, only 19.00% of the South African population were white, while 90.00% of the people studying at a tertiary institution were white (Karris & Gerhart, 1997). The education system, therefore, not only limited contact between groups, but also created an inferior status for non-white citizens and restricted them to certain, lower-status employment opportunities (e.g., labourers and domestic workers), while more prestigious, white-collar employment was legally reserved for white people (e.g., through the Native Building Workers Act, 1951 and the Native Labour Act, 1953).

All of this legislation aimed to limit contact and conflict between white and non-white groups, however the effects of these segregationist laws turned out to be ironic for two reasons. Firstly, legalised segregation increased conflict between the various groups as the non-white citizens begin to rise up against the ruling party through strikes, boycotts and violent clashes (including the Sharpeville massacre, where police killed 69 non-white protesters; Eades, 1999). Secondly, the act of limiting contact in order to reduce conflict is ironic because during this time, researchers in America began to hypothesize that contact between groups (as opposed to the *separation* of groups) could be one of the most effective ways to reduce prejudice and improve intergroup relations (e.g., Allport, 1954).

Levels of prejudice between the different racial groups during Apartheid were extremely high, with white South Africans – especially the Afrikaans-speaking white South Africans – consistently showing the highest levels of prejudice towards the non-white groups (for a review see Durrheim, Tredoux, Foster, & Dixon, 2011). Black (African) and coloured South Africans on the other hand, also showed high levels of prejudice especially towards the Afrikaans-speaking white South Africans, but held more positive attitudes towards the white English-speaking South Africans (Durrheim, et al., 2011; Kinloch, 1985). Clearly, then, the reduction of intergroup contact through

legislation had failed to improve intergroup attitudes and to reduce prejudice between the different population groups in South Africa.

The intergroup violence continued until 1990, when numerous sanctions forced the ruling National Party to abandon Apartheid and negotiations began between the National Party and the African National Congress to end the legalised segregation. In 1994 South Africa's first democratic election was held, marking the beginning of South Africa's democracy.

Intergroup Relations in post-Apartheid South Africa

Since the abolition of enforced racial segregation, South Africa has made momentous progress in developing a more democratic society, where diversity is celebrated. South Africa's informal characterisation as a 'rainbow nation' is a symbolic acknowledgement of the Country's multicultural character. South African has 11 official languages and is home to approximately 52 million people, which consists of 79.20% black (African)- , 8.90% white- , 8.90% coloured- and 2.50% Indian/Asian South Africans (Statistics South Africa, 2012).

According to a recent survey undertaken by the Institute for Justice and Reconciliation (IJR) amongst a national, representative sample of South Africans, the majority of South Africans (76.40%) agree that Apartheid was a crime against humanity, and recognise that there has been progress in reconciliation since 1994 (61.40%; IJR, 2013). Moreover, the IJR (2013) reports that the majority of South Africans have a desire to forgive members of the outgroup (61.90%), and wish to move forward from Apartheid (64.00%). In general, a significant minority of South Africans indicate they are willing to learn more about the customs of others (38.90%), although a majority of respondents agree that it remains difficult to understand customs of others (42.10%; IJR, 2013).

However, in spite of these generally positive findings, there is still a deep-rooted level of prejudice that limits behavioural changes in the South African society. As part of the survey described above, the IJR (2013) asked participants "If you had a choice, would you want to talk 'more' / 'the same amount' or 'less' to (other race group) people?". In response to this question, 21.00% of respondents indicated that they would prefer to have less interaction with people from groups other than their

own, 50.50% of respondents indicated that they would prefer to have the same amount of interaction with people from groups other than their own, while only 19.40% of participants indicated that they were interested in interacting more with people from groups other than their own. Black (African) South Africans, in particular expressed the biggest desire to decrease the amount that they communicate with South Africans of other races (24.60%), while white South Africans expressed the smallest desire (11.70%) to increase the amount of interactions they have with South Africans from other groups, while an overwhelming number of white South Africans (69.40%) indicated that they would prefer to keep the amount of interaction they have with South Africans from other groups the same (IJR, 2013).

Taken together, these results indicate that although there has been a positive change in the social and political climate, and an increased general desire for change in post-Apartheid society, South Africans still hold negative attitudes towards other groups that decrease their willingness to interact with those groups. Numerous other South African studies support these findings, revealing that black (African) South Africans' negative attitudes towards white South Africans in particular have *increased* over time (e.g., Durrheim, et al., 2011; Gibson & Claassen, 2010; Tredoux & Finchilescu, 2010), which might explain why they wish to interact less with other groups. On the other hand, white South Africans' attitudes towards black (African) South Africans have been shown to improve over time (e.g., Durrheim, et al., 2011; Gibson & Claassen, 2010; Tredoux & Finchilescu, 2010). However, although white South Africans indicate that they support racial integration, they remain reluctant to interact with other groups on a social level (e.g., Dixon & Durrheim, 2010). The decreased desire to interact with other groups is confirmed in the amount of *actual* intergroup contact that is reported to take place amongst South Africans.

Since the abolition of Apartheid, South Africa has moved from being a "noncontact" society (Foster & Finchilescu, 1986), where contact was limited through various laws, to a society where all South Africans have the opportunity to freely interact with each other. Formerly segregated institutions, such as churches and universities, are now open to all, leading to increased opportunities for South Africans from different groups to interact with one another. Although contact opportunities increased, research shows that this has not led to the desired increase in integration

(Clack, Dixon, & Tredoux, 2005; Dixon & Durrheim, 2003; Dixon, Durrheim, & Tredoux, 2005; Dixon & Reichter, 1997; Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008; Tredoux & Dixon, 2009). South Africans participating in the IJR (2013) national survey reported minimal social intergroup contact with South Africans from other groups – 53.90% reported that they ‘never’ or ‘rarely’ engaged in everyday intergroup socialising (53.9%), while only 23.50% reported that such intergroup social encounters occurred ‘often’ or ‘always’. These results indicate that positive intergroup contact (i.e., direct, face- to-face interactions between members of the ingroup and outgroup that is perceived by both to be high in quality, constructive, and/or enjoyable) remains limited in South Africa. This is concerning, especially in light of the fact that there is strong empirical evidence that confirms that positive intergroup contact could be one of the most effective ways to improve attitudes and lessen prejudice towards an outgroup (i.e., contact theory; Allport, 1954; Hewstone & Swart, 2011; Pettigrew & Tropp, 2006). The South African university context, in particular, could play an important role in fostering positive intergroup relations amongst young South Africans of different groups.

The University Context

As described above, the education system was one of the structures that were used to limit contact and foster increased separation between groups, both before and during Apartheid. Today, after the removal of segregationist laws, students are free to go to any education facility they wish. However, research suggests that racial integration has not completely taken root at South African universities (Finchilescu, Tredoux, Mynhardt, Pillay, & Muaianga, 2007), reflecting the state of intergroup contact and integration across South Africa. High levels of self-segregation were, for example, found amongst undergraduate students in university residence cafeterias (Schrieff, Tredoux, Dixon, & Finchilescu, 2005; Schrieff, Tredoux, Finchilescu, & Dixon, 2010) and tutorial groups (Alexander & Tredoux, 2010). Intergroup social interaction is also limited. For example, black (African) and white South African students reported having almost no cross-group friendships in a study done by Schrieff and colleagues (2005).

Although the desired amount of intergroup contact is still not taking place, the university context has an important role to play in creating a climate for positive

intergroup contact in South Africa, because it serves as a 'melting pot' of students coming together from different backgrounds. For some South African students, coming to university may offer them the first real opportunity to engage in regular, face-to-face interactions with South Africans from other groups, especially given the largely homogenous character of South African neighbourhoods and schools (Chisholm & Nkomo, 2005), which often offer limited opportunities for students to engage in intergroup contact before they start to study at a university. In particular, at Stellenbosch University (SU) 28,156 students from across South Africa now have the opportunity to engage with one another within one milieu (Stellenbosch University, 2013). Although SU was previously seen as a white Afrikaans-speaking tertiary institution during the Apartheid-era, today it celebrates and takes pride in its diversity on campus and includes white- (N = 18,424), black (African)- (N = 4,597), coloured- (N = 4,492) and Indian/Asian (N = 643) South African students (Stellenbosch University, 2013).

The Present Study

Against the backdrop of South Africa's long history of intergroup conflict and racial segregation and oppression, the present study investigated the effect of intergroup contact on outgroup prejudice towards multiple outgroups. Positive intergroup contact (i.e., contact high in quality, such as cross-group friendships) has been shown to be one of the most effective ways to reduce prejudice and improve attitudes towards an outgroup (i.e., a group that you do not identify yourself with; e.g., Allport, 1954; Pettigrew & Tropp, 2006). Given the important role that South African universities play in facilitating positive intergroup contact, the present study aimed to explore patterns of intergroup contact on campus and uncover the underlying mechanisms through which more positive attitudes towards other groups could be fostered.

The present study investigated the extent to which positive intergroup contact (specifically cross-group friendships) with coloured South African students at Stellenbosch University could improve attitudes towards coloured South Africans in general, amongst white South African students. Moreover, the present study also aimed to test whether these positive contact effects would generalise to include more positive attitudes towards black (African) South Africans in general (after controlling

for prior contact with black (African) South Africans). This generalisation of contact effects from one outgroup to another outgroup (that may not have been present in the original contact setting) is known as the secondary transfer effect (STE) of intergroup contact, which is a relatively new and understudied area within the contact literature (Pettigrew, 2009).

More importantly, the present study aimed to expand on the relatively sparse literature on the STE that exists, by investigating some of the mechanisms underlying the effect in order to uncover how this process operates. Two affective mechanisms underlying the STE, namely attitude generalisation and empathy generalisation, were investigated. The attitude generalisation hypothesis suggests that STE occurs via the generalisation of positive attitudes towards the primary outgroup towards more positive secondary outgroup attitudes. Similarly, the empathy generalisation hypothesis suggests that the STE occurs via the generalisation of empathy towards the primary outgroup towards greater empathy for the secondary outgroup. Very little research has been done to uncover the processes through which the STE occurs. The present study aimed to address this matter by providing evidence to support the mediation of the STE via these two forms of generalisation.

Chapter Overview

Chapter two provides a broad overview of the contact literature, describing the early research and support for the contact hypothesis (Allport, 1954). Particular attention will be given to a discussion of cross-group friendships as a potent dimension of contact. The South African contact literature research will also be discussed specifically. Then, I elaborate on the various factors that have been shown to enhance or inhibit the positive effects of contact (i.e., factors that moderate the effects of contact). This is followed by a discussion of how intergroup contact reduces prejudice (i.e., the mediators of the contact-prejudice relationship), paying particular attention to the role of empathy as a mediator of contact effects. Chapter two concludes with a discussion of the practical relevance of the contact theory, focusing on the broader generalisation of positive intergroup contact effects across situations and from the outgroup exemplar to the outgroup as a whole.

Chapter three will expand on the contact literature by focusing on a very ambitious type of generalisation of contact effects, namely the generalisation of the positive contact effects towards outgroups that are not directly involved in the contact situation (the secondary transfer effect; STE). Those factors that influence the STE, including the perceived similarity between outgroups and the social status amongst the outgroups, are discussed. Finally, of particular relevance to the present study, the potential mediating mechanisms underlying the STE, specifically attitude generalisation and empathy generalisation, are discussed in depth.

Chapter four provides an overview of the rationale for the present study, drawing on the relevant literature covered in earlier chapters. Moreover, this chapter provides an overview of the aims, objectives and methodology associated with the present study and includes a description of the data collection procedure and the materials that were used to collect the data, and an explanation of the data analysis techniques that were used. This chapter concludes with a report on the results of the present study.

Chapter five includes a detailed discussion of the results of the present study and in particular discusses the practical and theoretical contributions made by the present study. It concludes with a consideration of the limitations of the present study as well as offering directions for future research.

CHAPTER TWO

THE CONTACT-PREJUDICE RELATIONSHIP

With South Africa's cultural and ethnic diversity, and its long history of segregation and oppression, positive contact between diverse groups may be difficult to initiate in post-Apartheid South Africa. The social psychology literature, however, shows that positive intergroup contact may be an important component (although not the only component, or even the most important component) for social reconciliation within post-conflict societies. Intergroup contact has been shown to be one of the most effective ways to reduce prejudice and improve attitudes towards an outgroup (i.e., a group that you do not identify yourself with; e.g., Allport 1954; Pettigrew & Tropp, 2006).

Not only does intergroup contact reliably reduce prejudice towards racial/ethnic groups (e.g., Swart, Hewstone, Christ, & Voci, 2010), it has also been shown to reduce prejudice towards a wide range of stigmatised groups including the elderly (e.g., Caspi, 1984; Schwartz & Simmons, 2001), homosexuals (e.g., Herek & Capitano, 1996; Hodson, Harry, & Mitchell, 2009; Vonofakou, Hewstone, & Voci, 2007), the homeless (e.g., Lee, Farrell, & Link, 2004), immigrants (e.g., Dhont, Roets, & Van Hiel, 2011, Studies 4 and 5), refugees (e.g., Turner & Brown, 2008), people with mental disabilities (e.g., Desforges et al., 1991), people with HIV/AIDS (e.g., Werth & Lord, 1992), people with physical disabilities (e.g., Makas, 1993; Cameron & Rutland, 2006), the Amish (e.g., McGuigan & Scholl, 2007), computer programmers (e.g., McGinnis, 1990), and migrants (e.g., McLaren, 2003). The breadth of these studies illustrates that in the field of Social Psychology, the complex dynamics of intergroup contact has become an intensively studied area that has enjoyed increased research attention in recent years (e.g., see Pettigrew, Tropp, Wagner, & Christ, 2011).

Importantly, studies undertaken in contexts that are marked by conflict, such as those studies conducted by Hewstone and colleagues in Northern Ireland, which has experienced protracted conflict between Protestants and Catholics, have shown that contact between groups in a post-conflict societies are also associated with reduced outgroup prejudice (e.g., Hewstone, Cairns, Voci, Hamberger, & Niens, 2006; Paolini,

Hewstone, Cairns, & Voci, 2004; Tausch, Tam, Hewstone, Kenworthy, & Cairns, 2007; see also Al Ramiah & Hewstone, 2013). This could be a positive indication of the relevance of the contact theory in the post-conflict South African society.

In this chapter I provide a broad overview of the contact literature, demonstrating the importance of positive (high-quality) intergroup contact in a multi-cultural society such as South Africa. I begin with a brief history of the contact hypothesis, elaborating on some of the recent advances in the field. These advances include the investigation of those factors that have been shown to enhance or inhibit the positive effects of contact (i.e., factors that moderate contact effects; for a review see Tausch & Hewstone, 2010), including an individual's initial level of prejudice prior to contact, category salience, and group status. I pay special attention to the role of cross-group friendships as a potent variety of contact. I then consider those factors that explain how contact reduces prejudice (i.e., the mediators of the contact-prejudice relationship), before concluding with a look at the practical relevance of contact theory with a discussion of the generalisation of positive intergroup contact effects.

The Contact Hypothesis: Early Research and Support

Early American Contact Studies

With the emergence of Social Psychology as an academic discipline in the 1930-1940's, researchers observing intergroup conflict (mainly interracial conflict) in the United States became interested in understanding why people sometimes act in a prosocial way (e.g., helping, liking and/or loving members of other groups) while others display aggression and prejudice towards the same group. For example, they observed that some black and white citizens opposed each other in the riots during the Black Civil Rights movement in America (1920-1930), while other citizens who were close friends and/or neighbours were protective of each other (Lee, 1968). Consequently researchers started to question and investigate whether intergroup contact might have led to the reduction in prejudice.

Early studies did not report positive effects of contact (e.g., Sims & Patrick, 1936), however studies that examined contact under more favourable conditions generally reported more positive effects. Brophy (1946), for example, reported that

the racial attitudes of white seamen became more positive towards African-Americans as a result of an increase in the number of voyages (i.e., contact) between these two groups. Allport and Kramer (1946) also found that the attitudes of white students at Dartmouth College and Harvard University became more positive towards minority groups as a result of increased equal-status contact. Similarly, Singer (1948) found that the attitudes of white soldiers who fought alongside African-American soldiers during World War II were more positive compared to those white soldiers who had not.

In order to uncover the nature and context that led to the improved intergroup relations, Williams (1947) was asked by the Social Science Research Council to publish a review on the intergroup literature which at the time included 102 papers. In his findings, Williams (1947) suggested various conditions for optimal prejudice reduction to occur, including that contact would be maximally effective when group stereotypes are disconfirmed; the interactions are intimate; and the participants have equal status and share interests and tasks. His findings sparked research on the prejudice-reducing effects of contact, and stronger evidence in favour of the beneficial effects of intergroup contact emerged in a series of studies undertaken in New York, comparing racially segregated and desegregated public housing projects in the 1950's (e.g., Deutsch & Collins, 1951; Wilner, Walkley, & Cook, 1955). These studies, for example, revealed that the attitudes of white housewives living in desegregated areas, who had African-Americans as their neighbours, became more positive towards African-Americans if they had more intimate contact with their neighbours (Wilner et al., 1955).

Formulating the Contact Hypothesis

Based on Williams' (1947) work, and with the compelling evidence from the housing studies undertaken by Deutsch and Collins (1951), Allport (1954) introduced the contact hypothesis, in his influential volume, *The Nature of Prejudice*. Allport (1954) formulated this contact hypothesis as follows:

“Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal status contact between minority and majority groups in the pursuit of common goals. The effect is greatly

enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom or local atmosphere), and if it is of a sort that leads to the perception of common interests and common humanity between members of the two groups". (p. 281)

Allport (1954) provided the basis of the contact literature by spelling out the four optimal conditions for prejudice reduction to occur. Even today, 60 years after his formulation, research on intergroup contact is still inspired by his 'contact hypothesis' (Pettigrew, 1998; Pettigrew & Tropp, 2011). Early evidence emerged that demonstrated that prejudice reduction did indeed occur in the presence of Allport's (1954) optimal conditions, namely when there is equal status among the participants (e.g., Brewer & Kramer, 1985; Cohen & Lotan, 1995); intergroup cooperation towards a common goal (e.g., Aronson & Patnoe, 1997; Brown & Abrams, 1986; Sherif, 1966; Worchel, Andreoli, & Folger, 1977); and when contact is sanctioned by the relevant authorities (e.g., Landis, Hope, & Day, 1984).

Early Reviews of the Contact Hypothesis

Despite these positive results, early reviews of the contact literature yielded conflicting conclusions: some reviews showed support for the contact hypothesis, (e.g., Cook, 1984; Harrington & Miller, 1992; Jackson, 1993; Patchen, 1999; Pettigrew, 1986, 1998), while others either reached mixed conclusions, emphasising the various obstacles in the way of reducing prejudice through increased contact (e.g., Amir, 1969, 1976; Forbes, 1997; Stephan, 1987), or were downright critical, discarding the potential of contact to promote positive intergroup outcomes (e.g., Ford, 1986; McClendon, 1974).

According to Pettigrew and Tropp (2006) there are three major reasons for the conflicting conclusions reached by these reviews. Firstly, the samples included in these reviews were often incomplete, and no attempt was made to include the entire research base (including, on average, fewer than 60 articles in each review). Secondly, these reviews did not include strict inclusion criteria, often including studies with contrasting definitions of intergroup contact (e.g., using measures of intergroup proximity instead of face-to-face contact). Finally, many of these reviews did not use a quantitative assessment of the contact effects, and instead offered

subjective judgements based on their own readings of the small subset of the contact literature.

Meta-analytic Support for the Contact Hypothesis

Pettigrew and Tropp (2006) aimed to obtain a definitive answer to whether or not contact leads to the reduction of prejudice, and aimed to correct the problems of earlier research by conducting a meta-analysis of all the studies that could be located, published or unpublished, and that were conducted in the 20th century. In their meta-analysis, Pettigrew and Tropp (2006) defined intergroup contact as direct, face-to-face interaction between members of distinct groups, and from this definition studies were included based on four criteria: (1) intergroup contact had to act as the independent variable and intergroup prejudice as the dependent variable; (2) intergroup contact had to be between distinct groups to avoid examining interpersonal outcomes; (3) intergroup contact needed to be measured as direct, face-to-face contact (as opposed to contact opportunities) between groups; and (4) individuals had to be used as the unit of analysis, with prejudice scores examined as an outcome of the individual's contact experience and not as a collective outcome. There were 515 studies across a wide range of target groups and settings that met these inclusion criteria, yielding 1,383 individual tests across 714 independent samples, and more than 250,000 subjects.

Across all 515 studies, Pettigrew and Tropp (2006) found a highly significant negative relationship between contact and prejudice (mean $r = -.21$, $p < .001$). With the inclusion of such a large sample in their meta-analysis, Pettigrew and Tropp (2006) furthermore provided evidence for the universality of contact effects across a wide range of target groups and settings. The mean correlations between contact and prejudice for participants of varying ages were all significant, and ranged from $r = -.20$ to $r = -.24$. Similarly, the inverse contact-prejudice relationship was observed for males (mean $r = -.19$) and for females (mean $r = -.21$). The positive effects of contact also appear to be universal across nations. Pettigrew and Tropp (2006) found no significant differences in contact effects between samples in the U.S. (mean $r = -.22$, $p < .001$) and non-U.S. samples (mean $r = -.22$, $p < .001$).

Apart from testing whether intergroup contact is associated with more positive intergroup attitudes, Pettigrew and Tropp's (2006) meta-analysis investigated the role of Allport's (1954) optimal conditions in a contact situation. Their meta-analysis confirmed that the effect of contact was greater amongst those samples where the contact setting was structured to meet Allport's (1954) optimal contact conditions (mean $r = -.29$, $p < .001$). Importantly, however, Pettigrew and Tropp (2006) found that intergroup contact was significantly associated with reduced prejudice even in the absence of Allport's (1954) conditions (mean $r = -.20$, $p < .001$) suggesting that these conditions should be seen as facilitating but not essential for intergroup contact to achieve significant positive outcomes. This meta-analysis by Pettigrew and Tropp (2006) confirmed beyond any doubt that greater positive/high quality intergroup contact is reliably associated with the reduction in prejudice and the contact hypothesis has arguably now developed into an integrative theory (Hewstone & Swart, 2011).

Indeed, the prejudice-reducing effect of intergroup contact has also been demonstrated in a small but growing number of studies in South Africa. Holtman, Louw, Tredoux, and Carney (2005), for example, found within their sample of 1,119 learners at nineteen desegregated schools in Cape Town, that contact with individuals of other ethnic groups, both in and out of school, is a significant predictor of positive attitudes toward these groups. Self-reported contact with black (African) and coloured South Africans was significantly associated with reduced social distance and improved attitudes towards black (African) South African students as well as coloured South African students respectively, amongst white English- and Afrikaans-speaking South African high school students ($N = 484$) respectively. Moreover, self-reported contact with black (African) and English- and Afrikaans-speaking white South Africans was significantly associated with reduced social distance and improved attitudes towards black (African) South African students as well as English- and Afrikaans-speaking white South African students respectively, amongst coloured South African high school students ($N = 502$). A similar pattern of results was observed for black (African) South African students ($N = 93$) as regards the self-reported contact with, and attitudes towards both coloured and English- and Afrikaans-speaking white South African students.

Similar results were obtained by Finchilescu, Tredoux, Muianga, Mynhardt, and Pillay (2006), who conducted a study at four South African universities amongst a sample of 2,559 students. They found strong negative relationships (ranging from $r = -.23$ to $r = -.56$) between contact and prejudice in all subsamples. In a survey undertaken by Dixon et al. (2010), the negative perception of racial discrimination amongst black (African) South Africans ($N = 595$) became more favourable as intergroup contact with white South Africans increased. Moholola and Finchilescu (2006) also confirm that intergroup contact improves attitudes towards an outgroup when they found that black (African) South African learners who attended multiracial schools were significantly less prejudiced towards white South Africans than black (African) South African learners from an all-black school where contact with white South Africans was limited.

Together these studies provide strong support for the significant role that intergroup contact can play in South African society in reducing prejudice. However, it is important to point out that each of these South African studies, along with most of those contact studies included in the meta-analysis undertaken by Pettigrew and Tropp (2006), was cross-sectional in design. Cross-sectional studies are not suitable for studying the causal relationship between contact and prejudice. More recently, a number of longitudinal (e.g., Al Ramiah & Hewstone, 2012; Binder et al., 2009; Eller & Abrams, 2004; Levin, Van Laar, & Sidanius, 2003; Swart, Hewstone, Christ, & Voci, 2011) and experimental (e.g., Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001; Husnu & Crisp, 2010; Mazziotta, Mummendey, & Wright, 2011) studies have confirmed the causal pathway from intergroup contact to prejudice (as stated in the contact theory).

Outcomes Associated with Positive Intergroup Contact

Positive intergroup contact (namely contact high in quality) has been shown to reduce both subtle (e.g., Prestwich, Kenworthy, Wilson, & Kwan–Tat, 2008; Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006) and blatant (e.g., Christ et al., 2010; Mähönen, Jasinskaja-Lahti, & Liebkind, 2011) prejudice. Prejudice has also been studied within the contact literature in terms of its affective, (i.e., feelings and emotions), cognitive (i.e., stereotypes and beliefs), and behavioural components. Although all three components have been shown to be reduced by positive

intergroup contact, positive intergroup contact has the strongest effects on affective measures of prejudice (see Pettigrew et al., 2011; Tropp & Pettigrew, 2005).

In addition to prejudice reduction, positive intergroup contact has also been associated with a variety of other positive outcomes, including reduced anxiety and threat. Blascovich and colleagues (2001), for example, explored the physiological anxiety and threat reactions of participants during interracial interactions, and found that white American participants who reported more contact with African-Americans showed reduced physiological threat and anxiety reactions (e.g., sweating and increased heart rate). Intergroup contact has also been shown to be associated with greater outgroup trust and forgiveness in post-conflict societies (e.g., Cehajic, Brown, & Castano, 2008; Hewstone et al., 2006; Tam, Hewstone, Kenworthy, & Cairns, 2009). Even in the realm of political science, intergroup contact has been demonstrated to have positive outcome effects and has been shown to promote political tolerance when there is increased contact with people who have dissonant political opinions (Mutz, 2002).

Moderators of Contact Effects

Beyond demonstrating that intergroup contact significantly reduces various forms of prejudice between a variety of different outgroups, and in a variety of different contexts, research on intergroup contact has also focused on those factors that play a role in the strength of contact effects (i.e., the factors that moderate contact effects). As mentioned previously, Pettigrew and Tropp (2006) confirmed that the effects of contact will be stronger when Allport's (1954) optimal conditions are met (therefore these conditions can be seen to moderate contact effects). Three further moderators, namely individuals' initial level of prejudice, category salience, and group status are discussed in turn below.

Individuals' Initial Level of Prejudice

Since his formulation of the contact hypothesis, Allport (1954) recognised that the individual's initial level of prejudice could be a potential barrier to prejudice reduction. Indeed, some studies have found that contact with outgroup members among highly-prejudiced individuals results in impaired executive functioning, and that the pressure to suppress prejudice results in increased negative attitudes (e.g.,

Richeson & Shelton, 2003; Vorauer & Kumhyr, 2001). On the other hand, contact has been shown to be particularly effective amongst highly prejudiced participants who would not freely engage in intergroup contact when they were given the choice. Hodson (2008), for example, examined the effects of contact when people have no choice but to engage in intergroup contact. He conducted a study amongst black and white prisoners in a British prison. The prison context is one where dominance and conflict are widespread, and where participants have no choice but to participate in intergroup contact. The results revealed that white prisoners with high levels of social dominance orientation (SDO; i.e., who support group hierarchies and group inequality and who are therefore highly prejudiced; Sidanius & Pratto, 1999) exhibit significantly less ingroup bias and more favourable attitudes toward black inmates when positive intergroup contact (i.e., more pleasant personal interactions with black inmates) is increased (Study 1 and Study 2). White prisoners lower in SDO, on the other hand, did not demonstrate a significant change in their attitudes towards the outgroup when positive intergroup contact was increased (Study 1 and Study 2; see also, Hodson, 2011; Maoz, 2003). Similarly, Pettigrew and Tropp's (2006) meta-analysis revealed that contact situations where participants were given no choice whether to participate in intergroup contact yielded by far the largest positive contact effects for these more prejudiced, less motivated participants (mean $r = .28$) when compared to those contexts where participants had a choice as to whether to engage in intergroup contact or not (mean $r = .22$).

Category Salience

Hewstone and Brown (1986; see also Brown & Hewstone, 2005) argued that intergroup contact with an outgroup exemplar is most likely to lead to reduced prejudice towards the outgroup as a whole when the outgroup exemplar that is encountered by the ingroup member is perceived as being a sufficiently typical representative of the outgroup. In other words, the inverse contact-prejudice relationship is significantly stronger under conditions of high category salience (i.e., when the encounter is experienced as an intergroup encounter as opposed to an interpersonal encounter). There exists both cross-sectional (e.g., Voci & Hewstone, 2003) and experimental (e.g., Van Oudenhoven, Groenewoud, & Hewstone, 1996;

Wilder, 1984) evidence to support the moderation of contact effects via category salience.

According to Wilder (1984), one of the ways in which category salience could be achieved within the contact situation is to stress the typicality of the outgroup member during intergroup encounters. Van Oudenhoven and colleagues (1996) suggest, on the other hand, that category salience could be achieved by simply drawing the participants' attention to their respective group membership within the contact situation. However, a word of caution is warranted here: heightened category salience may have the undesired effect of reinforcing negative stereotypes and perceptions about the outgroup, leading to increased intergroup anxiety, which inhibits the generalisation of positive contact effects (Greenland & Brown, 1999; Islam & Hewstone, 1993). Nevertheless, when sufficient to ensure that the outgroup exemplar is seen as a representative member of his/her group, but not so strong as to seem entirely stereotypical, category salience remains an important moderator of the generalisation of positive contact effects from the outgroup member to the outgroup as a whole (see Brown & Hewstone, 2005, for a review).

Group Status

The social status of participants in a contact situation also influences the strength of the contact-prejudice relationship. Although equal status among participants would be an optimal condition according to Allport (1954), this is not always the case in reality. This is especially true for the post-Apartheid South African context where the minority- and majority-status group members have different histories and experiences within the society (see Tropp & Pettigrew, 2005; see chapter one). In South Africa, ascribing a group 'majority' or 'minority' status is not as clear cut because an individual's status shifts in terms of the context. For example, the black (African) South African population today holds the political power while the white South African population still have the socioeconomic advantage (Swart et al., 2011).

Intergroup contact appears to be less effective for minority-status group members (in their interactions with majority-status group members). Tropp and Pettigrew (2005) found substantial meta-analytic evidence to this effect, reporting

that the negative contact-prejudice relationship is significantly weaker for minority groups ($r = .18$; $p < .01$) compared to majority groups ($r = .23$; $p < .01$; see also Hopkins & Kahani-Hopkins, 2006). In some cases contact effects even seem to be non-significant for minority groups (e.g., Binder et al., 2009; but see Swart et al., 2010, 2011).

However, two studies undertaken by Swart and colleagues (2010, 2011) provide evidence that contact is able to reduce prejudice amongst both minority- and majority-status groups. For example, they found a significant negative contact-prejudice relationship between majority-status white and minority-status coloured South African high school students (Swart et al., 2010). More impressively, Swart et al. (2011) report significant longitudinal effects of intergroup contact on prejudice amongst a sample of minority-status coloured South Africans. But this study could not provide a comparative test of the size of contact-prejudice relationships in majority and minority samples, as only coloured school students took part.

To explain why these effects of contact vary so significantly as a function of group status, research suggests that members of minority/disadvantaged groups interpret intergroup interactions with majority/advantaged groups in different ways than the members of these majority/advantaged groups (Tropp, 2006). Minority groups members become more aware of their unequal (disadvantaged) status during contact, and are more likely to anticipate prejudice against them from members of advantaged groups because they recognize that they might be evaluated in terms of their disadvantaged group membership (e.g., Shelton, 2003; Tropp, 2006; Tropp & Pettigrew, 2005). Nevertheless, as illustrated by Tropp and Pettigrew's (2005) meta-analysis, intergroup contact is reliably associated with significant reductions in prejudice for members of both majority- and minority-status groups. I turn now to a discussion of the different types of contact which have been shown to be associated with reduced prejudice.

Dimensions of Direct Contact

Quantity and Quality of Intergroup Contact

Traditionally, most studies within the contact literature have measured contact in terms of quantity (i.e., measuring the frequency of direct contact between groups).

Allport's (1954) original formulation of the contact hypothesis emphasises increased frequency of intergroup contact for the reduction of prejudice, suggesting that more frequent intergroup contact would be associated with reduced prejudice. However, Allport's (1954) 'optimal' conditions acknowledge the importance of the quality of the intergroup contact experience, suggesting that quantity of contact alone, in the absence of quality, would be insufficient for reducing prejudice.

Islam and Hewstone (1993) undertook a study amongst Hindu (N = 65) and Muslim (N = 66) students, and found that both quantity and quality of contact were significantly associated with reduced prejudice towards the respective outgroup. However, they found that quality of contact between these two groups predicted the reduction of prejudice much better ($\beta = -.48, p < .001$) than quantity of contact ($\beta = -.12, p < .05$). More recently, similar results were obtained by McGuigan and Scholl (2007) who studied the effects of contact between non-Amish (N = 89) and Old Order Amish individuals. They found that quality of contact was significantly related to more positive attitudes towards the Amish ($r = .39, p < .01$), while casual/superficial contact (i.e., contact that is high in quantity but low in quality) had no significant effect on prejudice (see also Mähönen et al., 2011; Tausch et al., 2007, Study 2).

Ideally, intergroup contact situations should be structured in such a way that a greater quantity of high quality contact is experienced. In order to test this idea, researchers have used a multiplicative index of contact quantity and quality (i.e., quantity X quality index), and have found that this index is a significant predictor of reduced prejudice (see e.g., Cehajic et al., 2008; Tam et al., 2007). More recently, the contact literature has shown that friendships between members of different groups (i.e., cross-group friendships) offer an especially important means for experiencing regular (i.e., high frequency), high-quality contact with the outgroup.

Cross-group Friendships

Cross-group friendships typically include many of the factors that enhance the effects of intergroup contact, and provide a context for intergroup contact in which many of Allport's (1954) 'optimal' conditions might be met, including voluntary contact, equal status, common goals and cooperation (Pettigrew, 1998). Moreover,

cross-group friendships typically involve contact that is high in quality (i.e., the contact is intimate) as well as quantity (i.e., the contact occurs over an extended period of time and involves frequent contact in a variety of settings), each of which enhance intergroup contact effects (e.g., Islam & Hewstone, 1993; Pettigrew, 1997; Pettigrew & Tropp, 2006). Such is the value of cross-group friendships for the reduction of prejudice and the improvement of intergroup relations, via both the reduction of negative affect and the increase in positive affect that Pettigrew (1997, 1998) suggested that the fostering of cross-group friendships should be added as an additional 'optimal' condition for the contact situation.

Pettigrew (1997) explored the effects of intergroup contact on prejudice amongst 3,806 majority-group respondents in France, Germany, Great Britain, and the Netherlands. He found that contact, especially in the form of cross-group friendships, was significantly associated with reduced prejudice and more positive affect (i.e., positive feelings such as sympathy and admiration) towards minority-group members. Moreover, the positive relationship between cross-group friendships and affective prejudice was significantly larger ($r = -.22, p < .001$) in comparison to the relationship between contact as co-workers and prejudice ($r = -.03, p < .001$) or contact as neighbours and prejudice ($r = -.01, p < .001$). In other words, Pettigrew's (1997) study showed that cross-group friendships are significantly stronger predictors of reduced prejudice than more casual forms of intergroup contact, and therefore provides strong evidence for the importance of cross-group friendships as the optimal form of contact (i.e., compared with contact as co-workers and/or neighbours; see also Hamberger & Hewstone, 1997). Numerous studies have since been undertaken in a variety of contexts that illustrate the importance of cross-group friendships for the reduction of prejudice (e.g., Barlow, Louis, & Hewstone, 2009; Binder et al., 2009; De Tezanos-Pinto, Bratt & Brown, 2010; Eller & Abrams, 2004; Feddes, Noack, & Rutland, 2009; Hodson et al., 2009; Page-Gould, Mendoza-Denton, & Tropp, 2008; Swart et al., 2010, 2011; Turner, Hewstone, Voci, Paolini, & Christ, 2007a; Turner, Hewstone, Voci, & Vonofakou, 2008). Cross-group friendships have also been shown to reduce outgroup prejudice over time. For example, Levin and colleagues (2003) undertook a longitudinal study and collected data at five time points amongst white ($N = 311$), Asian ($N = 389$), Latino ($N = 252$) and African-American ($N = 67$) students at the University of California in Los Angeles. They found that students who reported

having more cross-group friendships in their second and third years of university also showed reduced outgroup prejudice during their fourth year at university. This study provides evidence of a positive and significant relationship between cross-group friendships and prejudice across various outgroups, and furthermore shows that cross-group friendships have the potential to improve attitudes towards an outgroup over time.

Of particular relevance to the present study, cross-group friendships have also been shown to reduce prejudice in post-conflict societies. Hewstone and colleagues (2006), for example, found that cross-group friendships between Catholic and Protestant rivals in Northern Ireland were associated with greater forgiveness and trust towards each other, fostering more positive outgroup attitudes. This could be a positive indication of the possible outcomes cross-group friendships might have in the post-conflict South African context. However, opportunities for intergroup contact across the different ethnic groups in South Africa remain limited, which has impacted the formation of close, interpersonal relationships (and especially cross-group friendships) between groups (see chapter one).

Gibson (2004), for example, reported that a large proportion of respondents from a national representative sample found it hard to ever imagine having an outgroup friend. Across all population groups, the majority of respondents reported that they do not have an outgroup friend at all (Gibson, 2004). More encouragingly however, where cross-group friendships have been reported in South African studies, they have been shown to be an important predictor of reduced prejudice. Crush (2000), for example, found that increased cross-group friendships with foreigners in South Africa, were associated with more positive attitudes towards foreigners among South Africans across all population groups. Moreover, he found that South Africans who only had casual and/or superficial interactions with foreigners were likely to have positive attitudes towards foreigners.

Two cross-sectional survey studies undertaken by Swart and colleagues (2010) provide strong evidence for the importance of facilitating cross-group friendships when aiming to reduce intergroup prejudice. In their first study, Swart et al. (2010) found that cross-group friendships with black (African) South Africans among white (N = 186) and coloured (N = 196) South African high school students were positively

and significantly associated with positive attitudes towards the black (African) South African outgroup in general in both samples. Swart et al. (2010) reported similar results in their second study, where cross-group friendships with white South Africans (among coloured South African participants; $N = 191$) and cross-group friendships with coloured South Africans (among white South African participants; $N = 171$) were positively and significantly associated with more positive attitudes towards the respective outgroup.

Arguably the strongest support for the importance of cross-group friendships as a dimension of intergroup contact comes from two meta-analyses conducted within the contact literature. The first meta-analysis, undertaken by Pettigrew and Tropp (2006), found that the 154 tests that included cross-group friendship as a measure of contact within the contact literature showed a significantly stronger ($p < .05$) negative relationship with prejudice (mean $r = -.25$, $p < .05$) than the 1,211 tests that did not use cross-group friendships as a measure of contact (mean $r = -.21$, $p < .05$). More recently, Davies, Tropp, Aron, Pettigrew, and Wright (2011) undertook a meta-analysis of 135 studies exploring whether the different measures used to define and operationalise cross-group friendships within the contact literature (such as the amount of time spent with outgroup friends, number of outgroup friends, self-disclosure to outgroup friends, closeness to outgroup friends, perceived inclusion of outgroup friends in the self, and percentage of friendship circle who are outgroup members) yield different effects on intergroup attitudes. Their meta-analysis, five years later than that of Pettigrew and Tropp (2006), included many new studies, of which a significant proportion were longitudinal, which was not the case in the earlier meta-analysis. Davies et al. (2011) found that cross-group friendships significantly predicted more positive attitudes towards the outgroup when these friendships were operationalised and measured in terms of the number of outgroup friends (mean $r = .22$, $p < .001$), closeness to outgroup friends (mean $r = .18$, $p < .001$), perceived inclusion of outgroup friends in the self (mean $r = .20$, $p < .001$), and the percentage of the friendship circle who are outgroup members (mean $r = .24$, $p < .001$). This meta-analysis not only highlights the importance of cross-group friendships as a dimension of contact, but also informs future contact studies (such as the present study) on the optimal measures of cross-group friendships within the study.

This section has attempted to establish the central role occupied by cross-group friendship as a dimension of contact in the contact literature. Given its importance, cross-group friendships were included as the main predictor variable in the present study. Below, I now discuss the mediating processes underlying the contact-prejudice relationship.

Mediators of the Contact Effect

With the prejudice-reducing effects of contact well established, research has moved from demonstrating *whether* contact reduces prejudice to understanding *how* or *why* it reduces prejudice (i.e., the mediators of contact effects; Baron & Kenny, 1986). Although the positive effects of contact might to some extent be due to 'mere exposure' (i.e., the principle that greater exposure/familiarity fosters liking and decreases uncertainty; e.g., Bornstein, 1989; Harmon-Jones & Allen, 2001; Lee, 2001) it is now understood that there are more sophisticated cognitive and affective mechanisms underlying the contact-prejudice relationship.

Outgroup knowledge was one of the earliest variables thought to mediate the relationship between intergroup contact and reduced prejudice. Allport (1954) suggested that increased knowledge about the outgroup will reduce uncertainty about the outgroup and reveal similarities between the groups, which would lead to improved outgroup attitudes. Since then, various other potential mediators of the contact-prejudice relationship have been identified. These include negative mediators that are reduced via positive intergroup contact, including intergroup anxiety (e.g., Dhont et al., 2011; Islam & Hewstone, 1993), threat (e.g., Hodson et al., 2009), and cognitions of rejections (e.g., Barlow et al., 2009), as well as positive mediators that are enhanced via positive intergroup contact, including affective empathy (e.g., Swart et al., 2010; 2011), perspective-taking (e.g., Aberson & Haag, 2007), self-disclosure (e.g., Turner et al., 2007a), self-other overlap (e.g., Cameron, Ruthland, Brown, & Douch, 2006; Turner et al., 2008), behaviour change (e.g., Eller & Abrams, 2004), ingroup and outgroup norms (e.g., Viki, Culmer, Eller, & Abrams, 2006), and outgroup trust (e.g., Moaz & McCauley, 2011; Tam et al., 2009).

Pettigrew and Tropp (2008) undertook a meta-analysis of the three most commonly studied mediators in the contact literature, namely outgroup knowledge,

intergroup anxiety, and empathy/perspective-taking. They found that, while all three variables were significant mediators of the contact-prejudice relationship, the affective variables were significantly stronger mediators of the contact prejudice relationship than the cognitive variable of outgroup knowledge. For the purposes of the present study, the role of empathy as a mediator of intergroup contact will be discussed in more depth below.

Empathy as a Mediator of Intergroup Contact

The empathic response is broadly characterised by two dimensions. The first is an emotional, or affective, response to the emotional state of another, and the second is a cognitive response to the situation of another (Davis, 1994). Affective empathy may be described as “an other-oriented emotional response congruent with another's perceived welfare; if the other is oppressed or in need, empathic feelings could include sympathy, compassion, and tenderness” (Batson et al., 1997, p.105). It includes experiencing feelings of genuine concern and emotional understanding of another's emotional state (Batson et al., 1997; Davis, 1994; for a review see Batson & Ahmad, 2009). The more cognitive dimension of empathy (also known as perspective taking; e.g., Galinsky & Moskowitz, 2000) is experienced when a person adopts another's psychological point of view by putting him/herself in another's 'shoes' or tries to see the world through another's 'eyes'.

Batson et al. (1997) created a three-step model to describe the relationship between affective and cognitive empathy. According to this model, perspective taking occurs in the first step, when the ingroup member puts him/herself in another's 'shoes' and imagines how the outgroup member is affected by their situation. In the second step, perspective taking leads to an affective empathic response and the ingroup member becomes more concerned with the well-being of the outgroup member. In the third and final step this affective response generalises towards the whole outgroup, such that the ingroup member becomes concerned about the wellbeing of the outgroup as a whole. This generalisation from the outgroup member to the whole outgroup is more likely to occur when group membership is psychologically salient (see Hewstone & Brown, 1986). Batson and colleagues (1997), for example, found that empathic feelings towards a member of a stigmatized group (Experiment 1: a woman with AIDS; Experiment 2: a homeless man; and Experiment 3: a convicted murderer)

improved attitudes toward the respective outgroups as a whole (i.e., people living with AIDS, homeless people and murders) in all three experiments. This model proposed by Batson et al. (1997) suggests that perspective taking precedes affective empathy, however this sequence has not been tested to date.

Both cognitive and affective forms of empathic responding have proved to be associated with positive outcomes in intergroup (as well as interpersonal) relations, where contact with an outgroup member predicts greater empathy towards the outgroup member (see Figure 1; path a), which in turn reduces prejudice towards the outgroup as a whole (see Figure 1; path b; e.g., Batson et al., 1997; Finlay & Stephan, 2000; Galinsky & Moskowitz, 2000; Miller & Eisenberg, 1988; Stephan & Finlay, 1999). As such, the empathic response mediates the direct relationship between intergroup contact and prejudice (see Figure 1, path c).

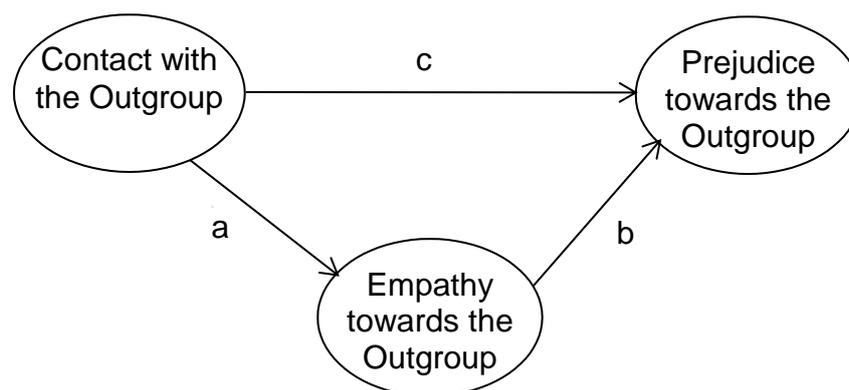


Figure 1. Path model illustrating the mediating role of empathy towards the outgroup in the contact-prejudice relationship.

Although the body of literature suggesting that empathy mediates the effects of intergroup contact on outgroup attitudes is relatively small (see Pettigrew & Tropp, 2008), there are a number of studies that provide evidence for this phenomenon (e.g., Aberson & Haag, 2007; Harwood, Hewstone, Paolini, & Voci, 2005; Pagotto, Voci & Maculan, 2010; Swart, et al., 2010, 2011; Shih, Wang, Bucher, & Stotzer,

2009; Tam et al., 2006; Turner, Hewstone, & Voci, 2007b; Vescio, Sechrist & Paolucci, 2003). Abersson and Haag (2007), for example, found that increased positive contact with African-Americans was associated with increased perspective taking amongst white undergraduate students (N = 53), which in turn, was associated with more positive attitudes and less intergroup anxiety and stereotype endorsement towards African-Americans in general. Similarly, Tam and colleagues (2006) found that increased positive contact between British university students and their grandparents was associated with increased empathy towards their grandparents, which was in turn associated with more positive attitudes towards the elderly in general.

Within the South African context, Swart and colleagues (2010) have also provided evidence showing that empathy mediates the contact-prejudice relationship. In their second study, they found that cross-group friendships with coloured South Africans (among white South African participants) was positively and significantly associated with affective empathy towards coloured South Africans in general, which, in turn, was positively and significantly associated with positive attitudes towards coloured South Africans in general. They reported similar findings amongst their coloured South African sample. Cross-group friendships with white South Africans were positively and significantly associated with affective empathy towards white South Africans in general, which, in turn, was positively and significantly associated with positive attitudes towards white South Africans in general. However, this study was cross-sectional in design, and therefore the causal relationships between variables could not be confirmed (MacCallum & Austin, 2000).

Accordingly, Swart and colleagues (2011) undertook an impressive three-wave longitudinal study - the first study to explore the longitudinal role of affective empathy in the contact-prejudice relationship. Their data were collected amongst 465 coloured South African high school students. They found that affective empathy significantly mediated the positive contact-prejudice relationship over time. Cross-group friendships with white South Africans at Time 1 were positively associated with affective empathy towards white South Africans at Time 2, which, in turn, was positively associated with positive attitudes towards the white South African outgroup

as a whole at Time 3. This study provides substantial evidence that empathy mediates the effects of intergroup contact on prejudice over time.

In their meta-analysis of the mediators of the contact-prejudice relationship Pettigrew and Tropp (2008) also found that empathy/perspective-taking is a significant mediator of intergroup contact effects. However, they were only able to report on 14 samples testing the mediation of contact effects via empathy/perspective-taking, illustrating that, compared to other mediators, relatively little attention has been given to the mediating effect of empathy in the contact literature (Pettigrew & Tropp, 2008). Given the sparse literature focusing on the mediating role of empathy in the contact-prejudice relationship, the present study included an investigation of the mediating role played by empathy in the secondary transfer effect of intergroup contact (described in more detail in the following chapter).

The Generalisation of Contact Effects

Intergroup contact is reliably associated with reduced prejudice (Pettigrew & Tropp, 2006). However, although positive intergroup contact reduces prejudice towards the outgroup individual being encountered, intergroup contact would be of little value as a means of improving intergroup relations if these prejudice-reducing effects were unable to generalise beyond the immediate contact situation or beyond the outgroup exemplar being encountered.

Pettigrew (1998) identifies three essential forms of generalisation of contact effects, namely the generalisation of contact effects across situations, the generalisation of contact effects beyond the outgroup exemplar (to include positive attitudes towards the outgroup as a whole), and the generalisation of contact effects from the encountered outgroup to other, uninvolved outgroups. There is substantial evidence supporting all three essential kinds of generalisation of contact effects, most notably the extensive meta-analysis undertaken by Pettigrew and Tropp (2006). They found that positive intergroup contact (namely high quality contact) effects are capable of generalising across situations (mean $r = -.24$, $p < .001$; see also Minard, 1952; Nesdale & Todd, 1998; Gaither & Sommers, 2013), from the outgroup member encountered in the contact situation to the outgroup as a whole (mean $r = -.21$,

$p < .001$; see also Brown & Hewstone, 2005), and from one outgroup to other uninvolved (or secondary) outgroups (mean $r = -.19$, $p < .001$; see also Eller & Abrams, 2004; Tausch et al., 2010). The latter generalisation effect is known as the secondary transfer effect of contact (STE; Lolliot et al., 2013; Pettigrew, 1997, 2009), and is of particular relevance within the context of the present study. I consider the secondary transfer effect of contact in more detail in the chapter that follows. Below I focus on arguably the most studied form of generalisation of contact effects in the contact literature, namely the generalisation of contact effects beyond the outgroup exemplar to the outgroup as a whole.

Generalising Contact Effects Beyond the Outgroup Exemplar

A key concern within the contact literature is identifying when the positive effects of contact are more likely to generalise. The nature of cognitive group representations during contact is an important aspect to take into consideration when examining the extent to which the prejudice-reducing effects of intergroup contact generalise beyond the immediate contact situation or beyond the outgroup exemplar that is encountered. To this end, there are three models describing the generalisation of contact effects, each focusing on the nature of group representations during contact. These are the decategorisation model (Brewer & Miller, 1984), the recategorisation model (Gaertner, Mann, Murrell, & Dovidio, 1989), and the categorisation model (Brown & Hewstone, 2005; Hewstone & Brown, 1986). Each of these three models is based upon Social Identity Theory (Tajfel & Turner, 1979).

Social Identity Theory suggests that people define themselves (in part) by the groups they consider themselves to be members of and therefore have a 'social identity' beyond their personal identity (Hogg & Ridgeway, 2003; Tajfel, 1982). This 'social identity' will match all the categories to which the individual belongs and not only describes how the individual defines themselves, but also informs their behaviour and evaluations of others so that it aligns with the norms of the groups they belong to (Hogg, Terry, & White, 1995). In order to make comparisons between the groups they belong to (ingroups) and those groups they do not belong to (outgroups), an individual will not only assign him- or herself to relevant categories but will also seek to assign other people to social categories. Individuals, as members of an ingroup, seek to enhance their self-image by finding negative aspects

of an outgroup (via negatively stereotyping the outgroup and ingroup bias, i.e., value-laden attributes and characteristics in favour of the ingroup). Therefore, when social identities become salient within the contact situation, our relationships with and perceptions of people in different categories could become competitive and discriminatory (Hogg & Ridgeway, 2003). In order to prevent these negative effects of contact from occurring and to enhance positive contact effects and the generalisation of these effects, three models have been proposed, which will be discussed next.

Three models of generalisation beyond the outgroup exemplar.

The decategorisation model argues that group identities should be de-emphasised within the contact setting, and that contact should be structured such that the group members engaging in the contact are viewed as separate individuals, and not as members of specific groups (Brewer & Miller, 1984; Wilder, 1986). It is thought that contact between individuals as opposed to between group members is more likely to increase the acquaintance potential within the contact setting (Cook, 1978), fostering the development of friendships between the individuals involved, without triggering any group-relevant stereotypes.

The recategorisation model (or 'common ingroup identity model'; Gaertner et al., 1989) argues that the contact situation should be structured to emphasise a common (super-ordinate) identity between the two individuals in the contact setting. This model argues for a shift in the cognitive group representations from two groups ('us' and 'them') to one inclusive superordinate category ('we'). According to this model, this shift will encourage more positive attitudes towards former outgroup members when the positive feelings felt towards ingroup members are redirected and generalised to the former outgroup members who are now part of a more inclusive ingroup (Seta, Seta, & Cluver, 2000; for a review see Gaertner and Dovidio, 2000).

Hewstone and Brown (1986) and Brown and Hewstone (2005) are somewhat critical of these two models, arguing that the individuation of encountered group members, as suggested by the decategorisation model, can distance the encountered outgroup member from the outgroup, inhibiting the generalisation of contact effects beyond the outgroup exemplar. Moreover, they argue that it is unlikely that the creation of a superordinate category, as suggested by the recategorisation

model, will overcome ethnic and racial categorisation. Hewstone and Brown (1986) address these shortcomings with their categorisation model, proposing that the respective group membership categories of the individuals involved in the contact setting should remain salient during contact if the positive effects of intergroup contact are to generalise from the outgroup exemplar to the outgroup as a whole. As discussed earlier in this chapter, there is substantial research supporting this view (e.g., Van Oudenhoven et al., 1996; Voci & Hewstone, 2003; Wilder, 1984; for a review see Brown & Hewstone, 2005). However, one of the risks of increased category salience is that such salience may result in the activation of negative outgroup stereotypes (Greenland & Brown, 1999; Islam & Hewstone, 1993; Stephan & Stephan, 1985). In recognition of the advantages and disadvantages associated with each of these three models, efforts have been made to integrate these different theoretical models in a manner that builds on their respective advantages and limits their disadvantages (see for example the dual identity theory developed by Gaertner, Rust, Dovidio, Bachman, & Anastasio, 1996) the three stage model of contact proposed by Pettigrew, 1998, and the integrative model proposed by Brown & Hewstone, 2005).

Summary

The overview of the contact literature reveals that intergroup contact is able to reliably reduce prejudice and improve attitudes towards an outgroup across various target groups and settings (e.g., Pettigrew & Tropp, 2006), including post-conflict societies such as South Africa (Hewstone & Swart, 2011). Cross-group friendships, in particular, have been shown to be an important dimension of contact because they embody some of the various factors within the contact situation that have been shown to enhance the positive effects of contact (Pettigrew, 1998). Furthermore, the literature suggests that affective factors, including empathy/perspective-taking mediate the contact-prejudice relationship significantly more strongly than cognitive factors (e.g., Pettigrew & Tropp, 2008). In the following chapter I focus on arguably one of the most important generalisation effects observed in the contact literature, namely the secondary transfer effect of contact.

CHAPTER THREE

THE SECONDARY TRANSFER EFFECT

The secondary transfer effect (STE) of intergroup contact describes the tendency for contact effects to generalise from positive attitudes towards one outgroup that has been encountered, to include positive attitudes towards other outgroups (some of which may not have been encountered). As such, the STE reflects the ability of positive (high-quality) intergroup contact to bring about a very broadly generalised reduction in prejudice towards multiple outgroups. It therefore offers arguably the most powerful manner in which contact effects are able to aid in the facilitation of creating a harmonious society, because opportunities for direct contact with various outgroups are limited in certain contexts. In South Africa in particular, as discussed in chapter one, the opportunities to directly interact with a variety of outgroups may be limited because of the ethnically segregated character of South African society (e.g., Dixon et al., 2008). However, when considering the important role that the STE could play in improving intergroup attitudes, it is concerning to find that there is a lack of studies addressing this effect, while there is such a remarkable amount of research exploring what we might term the primary intergroup contact effect (Pettigrew, 2009). In Pettigrew and Tropp's (2006) meta-analysis, for example, only 14 out of 515 studies tested the STE, clearly demonstrating that the examination of this type of generalisation has been largely neglected in contact research.

In this chapter I will provide a broad overview of the available literature that has explored the STE. I begin by reviewing the earliest available evidence for the STE, before considering more recent findings. Then, I move on to discuss the various alternative explanations of the STE that could threaten the validity of this effect. This is followed by a consideration of perceived outgroup similarity as a key moderator of the STE. I conclude this chapter by focusing on those factors that explain how or why the STE (i.e., mediators of the STE), focusing in particular on attitude and empathy generalisation.

Evidence of the Secondary Transfer Effect

Nearly 20 years after Allport (1954) formulated the contact hypothesis, evidence began to emerge indicating that the positive effects of intergroup contact could generalise to other groups that were not directly involved in the contact situation. One of the earliest empirical studies that documented the secondary transfer effect was conducted by Weigert (1976), who found that contact between black and white U.S soldiers, who were stationed in Germany, led to improved attitudes towards white soldiers (primary outgroup) but also to Germans (secondary outgroup) even after controlling for prior contact with Germans, demographics and ideological orientation.

Clément, Gardner and Smythe's (1977) study revealed that English-speaking Canadian 8th graders (N = 379) had more positive attitudes towards the French-speaking Canadians (primary outgroup) with whom they had contact during their excursion to Quebec City. Furthermore, these students also had more positive attitudes towards the European French (secondary outgroup), in comparison to the other learners who did not partake in the excursion (the control group) and/or learners who reported less contact with French-speaking Canadians during their excursion. Similarly, Wilson (1996) found that white, non-Jewish Americans held more positive attitudes towards black Americans (primary outgroup), whom they had contact with, which, in turn, fostered more positive attitudes towards other minority groups (e.g., Jewish people, Latinos and Asian Americans; secondary outgroups) that were not directly involved in the contact setting. Together, these studies provided preliminary evidence for the existence of the generalisation of positive contact effects to secondary outgroups.

More Recent Evidence of the Secondary Transfer Effect

Nearly twenty years after the initial evidence of the secondary transfer effect (STE) emerged, Pettigrew (1997) undertook the first detailed investigation into this form of generalisation. The results showed that contact (especially in the form of cross-group friendships) with immigrants/minority group members present in various countries such as France, Germany, Great Britain, and the Netherlands (primary outgroup) was associated with more positive attitudes towards the immigrant/minority group as a whole in the specific country, which in turn was associated with more

positive attitudes toward a variety of other immigrant groups (secondary outgroups) that were not present in the respondent's country (e.g., West Indians in Germany; Turks in France, and so forth). Although Pettigrew's (1997) study included a large sample size ($N = 3,806$) and impressively demonstrated the occurrence of the STE in various contexts and amongst different outgroups it is criticised for not specifying the precise group that was involved in the contact situation, while his study also did not control for the possibility that participants who have more contact with one outgroup might be prone to have more contact with other outgroups (also known as the secondary contact problem, Tausch, et al., 2010; to be discussed later).

Building on these initial findings, Pettigrew (2009) demonstrated the STE across two German national probability samples using a variety of outgroups, including Muslims, non-traditional women, the homeless, gay men and lesbians and Jews. The data were collected two years apart and the results are remarkably similar. The results for the first sample ($N = 2,559$; collected in 2002) showed that contact amongst Germans with foreign German residents (primary outgroup) not only reduced prejudice towards foreigners, but was also significantly negatively associated with prejudice towards a variety of secondary outgroups, including the homeless ($r = -.21$; $p < .01$), gay men and lesbians ($r = -.20$; $p < .01$) and Jewish people ($r = -.11$; $p < .05$). In the second sample ($N = 1,275$; collected in 2004) contact amongst Germans with foreign German residents (primary outgroup) was significantly associated with more positive attitudes towards foreigners, which was in turn significantly associated with more positive attitudes towards the homeless ($r = -.20$; $p < .01$), gay men and lesbians ($r = -.20$; $p < .01$), Jewish people ($r = -.06$; $p < .05$), as well as Muslims ($r = -.34$; $p < .01$) and non-traditional women ($r = -.20$; $p < .01$).

Various studies have since supported the operation of the STE, cross-sectionally (e.g., Schmid, Hewstone, Küpper, Zick, & Wagner, 2012), longitudinally (e.g., Eller & Abrams, 2004; Pettigrew, 2009; Tausch et al., 2010, Study 4; Van Laar, Levin, Sinclair & Sidanius, 2005), as well as experimentally (e.g., Harwood, Paolini, Joyce, Rubin, & Arroyo, 2011), and also amongst a wide range of target groups (e.g., immigrants, Harwood et al., 2011; Muslims, non-traditional women, the homeless,

gay men and lesbians, Pettigrew 2009) and settings. Of particular relevance to the present study, the STE has also been found within the South African context.

Swart (2008), for example, found that cross-group friendships with coloured South Africans improved the attitudes of white South Africans towards coloured South Africans ($\beta = .54, p < .001$) which, in turn, improved attitudes towards black (African) South Africans in general ($\beta = .44, p < .001$), even after controlling for contact with black (African) South Africans. Moreover, cross-group friendships with black (African) South Africans amongst white South Africans improved their attitudes towards black (African) South Africans in general ($\beta = .53, p < .001$), which in turn, improved attitudes towards coloured South Africans ($\beta = .42, p < .001$), even after controlling for contact with coloured South Africans. In spite of this growing body of evidence, Pettigrew (2009) cautions that there may be alternative explanations for the STE. Three of these alternative explanations are discussed below.

Alternative Explanations for the Secondary Transfer Effect

In order to provide rigorous evidence for the secondary transfer effect (STE), all other possible explanations should be ruled out. The three most commonly cited alternative explanations for the STE include secondary contact, social desirability, and selection bias.

The Secondary Contact Problem

One could ask whether the STE is not merely due to the fact that people who have more contact with one outgroup will tend to have more contact with other outgroups. This is also known as the secondary contact problem (Tausch et al., 2010). Pettigrew's (1997) study, for example, did not include control measures to rule out this possible explanation. Research therefore needs to control for prior contact with the secondary outgroup(s), or else the generalisation of positive contact effects towards the secondary outgroup(s) could be due to the fact that the participant who has more contact with one outgroup might have more contact with other outgroups as well. A number of studies (e.g., Tausch et al., 2010, Studies 2-4; Swart, 2008; Van Laar, et al., 2005; Weigret, 1976) included variables that controlled for secondary outgroup contact, and still found evidence supporting the STE. Tausch et al., (2010, Study 2), for example, found evidence supporting the STE, over and

above contact with the secondary outgroup in their sample from Northern Ireland ($N = 1,854$). The results showed that contact with an ethno-religious (primary) outgroup (Catholics or Protestants; primary outgroup) significantly predicted more positive attitudes towards the primary outgroup in general ($B = 5.57$, $SE = .42$, $\beta = .30$, $p < .001$), which, in turn, was significantly positively associated with more positive attitudes toward racial minorities as well (secondary outgroup; $B = 2.49$, $SE = .50$, $\beta = .11$, $p < .001$), even after contact with racial minorities was controlled for.

The Social Desirability Problem

Positive effects of contact might occur and generalise towards secondary outgroups merely because some people might respond in a socially desirable way to the survey questions and therefore report highly positive attitude scores for both the primary and the secondary groups. This is also known as the social desirability problem. Tausch et al. (2010, Study 3), for example, significantly controlled for social desirability factors by means of the inclusion of the 40-item Balanced Inventory of Desirable Responding (Paulhus, 1984), which has been demonstrated to be a valid measure of social desirable responding (Paulhus, 1991). Tausch et al. (2010, Study 3) undertook their study in North Texas and examined the effects of cross-group friendships with Hispanics (primary outgroup) amongst white- ($N = 199$) and African-American ($N = 76$) college students ($N = 275$). The results revealed that friendships with Hispanics not only improved attitudes towards Hispanics in general ($B = 6.89$, $SE = 1.65$, $\beta = .27$, $p < .001$), but these positive attitudes generalised towards the Vietnamese/Asian Indian secondary outgroup as well ($B = 5.11$, $SE = 1.55$, $\beta = .21$, $p < .001$) even after controlling for both the number of close friends with the secondary outgroup, as well as socially desirable responding. These findings offer strong evidence in favour of the STE, and suggest that it is not a merely a product of either social desirability factors or contact with the secondary outgroup.

Selection Bias and the Causal Sequence Problem

The third alternative explanation for the STE that would reduce the validity of this phenomenon is that contact with the primary outgroup does not facilitate positive attitudes towards a secondary outgroup, but rather that a generally lower prejudiced-

disposition might mean people engage in more intergroup contact. The influence of this selection bias on the interpretation of the contact-prejudice relationship is also known as the causal sequence problem (Pettigrew, 1997, 1998, 2009). The causal sequence problem is a concern in most research relating to intergroup contact, and can generally only be ruled out using experimental research (Finkel, 1995).

Unfortunately, the majority of studies testing the STE have made use of cross-sectional designs (e.g., Pettigrew, 2009; Schmid, et al., 2012; Tausch, et al., 2010, Studies 1-3), as is true for the field of intergroup contact research as a whole (see Pettigrew & Tropp, 2006), which are not capable of rigorously testing causal hypotheses.

Longitudinal contact research has shown that although a bidirectional relationship (from intergroup contact to prejudice reduction and vice versa) appears to operate, the negative path from contact to prejudice is stronger than the pathway from prejudice to contact (e.g., Binder et al., 2009; Pettigrew, 1997; Pettigrew & Tropp, 2006; Swart et al., 2011). Recently, more longitudinal studies into the STE have started to appear, adding to the body of literature on the STE and providing more confidence in the causal pathways described by the STE (e.g., Bowman & Griffen, 2012; Van Laar et al., 2005).

Van Laar and colleagues (2005), for example, studied the effects of having a white, Latino, African-American, or Asian-American roommate at the University of California, Los Angeles (UCLA; $N = 2,100$) over a period of five years. They found that intergroup contact amongst white participants with Latinos was associated with a reduction in prejudice and an improvement in attitudes towards Latinos (primary outgroup) in participants' fourth year, after living with a Latino roommate in their second and third year at UCLA. These positive effects generalised towards African-Americans (secondary outgroup; $\beta = .08$, $p = .02$) even after controlling for prior contact with and attitude towards African-Americans. Similarly, white participants who lived with an African-American roommate in their second and third year of study not only reported more positive attitudes towards African-Americans in their fourth year of study, but also towards Latinos as well (secondary outgroup; $\beta = .06$, $p = .05$), after controlling for prior contact with and attitudes towards Latinos.

More recent longitudinal evidence in support of the STE is provided by Tausch et al. (2010, Study 4) who conducted a two-wave longitudinal study amongst Catholics and Protestants in Northern Ireland ($N = 411$). They found that contact with the Protestant/Catholic (primary) outgroup significantly improved the attitudes towards this outgroup at Time 1 ($B = .42$, $SE = .05$, $\beta = .11$, $p = .040$), which in turn, was significantly associated with more positive attitudes towards racial minorities (secondary outgroup) one year later at Time 2 ($B = 1.94$, $SE = .73$, $\beta = .12$, $p = .009$), even after controlling for prior contact with the secondary outgroup. Furthermore, Tausch and colleagues (2010, Study 4) tested the reverse causal order (i.e., whether positive attitudes predict an increase in intergroup contact) and found that attitudes at Time 1 did not predict contact with members of the primary and/or secondary outgroups at Time 2). From these results it would seem that the STE cannot be explained by the fact that more tolerant people (who harbour more positive attitudes) are likely to engage in more contact with different outgroups over time, and therefore the alternative explanation (that the STE is merely due to more tolerant people who engage in more intergroup contact) can be ruled out.

Together, these results appear to rule out the possibility that the STE is a spurious phenomenon that can be explained away through alternative explanations. These findings are indeed encouraging. However, there remains a need for further studies to uncover the processes underlying the STE, specifically within the South African context.

Perceived Similarity as a Moderator of the Secondary Transfer Effect

Although the body of literature on the secondary transfer effect (STE) is relatively sparse (especially in South Africa), it does provide significant support for the validity of the STE (i.e., that positive contact effects have the potential to generalise to groups that are not directly involved in the contact situation; Lolliot et al., 2013; Pettigrew 2009). However, the STE is not a consistently observed phenomenon.

For example, Swart (2008) observed the STE amongst his white South African participants (where contact with coloured South Africans predicted more positive attitudes towards black (African) South Africans, and contact with black (African)

South African predicted more positive attitudes towards coloured South Africans; as described previously), although he did not find evidence supporting the STE amongst his coloured South African participants. Amongst these coloured South African participants, cross-group friendships with white South Africans predicted more positive attitudes towards white South Africans in general. However, these positive attitudes towards white South Africans in general did not predict more positive attitudes towards black (African) South Africans after controlling for prior contact with black (African) South Africans. Similarly, while cross-group friendships with black (African) South Africans predicted more positive attitudes towards black (African) South Africans in general, these positive attitudes towards black (African) South Africans did not predict more positive attitudes towards white South Africans after controlling for prior contact with white South Africans

In order to explain why it is that a non-significant STE is only sometimes found, and to understand when the STE is most likely to occur, researchers have recently started to explore those factors that moderate the STE. One of the most promising moderators of the STE is that of perceived similarity between the primary and the secondary outgroup.

Many studies in the psychological literature have shown that attitudes are more likely to generalise across objects when these objects appear similar to each other (e.g., Fazio, Eiser, & Shook, 2004). This effect has been demonstrated, for example, in judgments about abstract objects in a computer game (Fazio et al., 2004; Shook, Fazio, & Eiser, 2007) and perceptions of consumer products (Roman, 1969). Similarly, it has been shown in the contact literature that the generalisation of contact effects from the outgroup member to the outgroup as a whole is more likely to occur when the outgroup member is perceived as a typical representative of the outgroup, or similar to the outgroup (recall Hewstone & Brown's, 1986, categorisation model described in chapter two). Swart (2008) ascribed his inconsistent findings regarding the STE to the fact that the white South African participants arguably viewed the coloured and black (African) South African outgroups as very similar to one another (given their shared history of oppression under Apartheid), while the coloured South African participants did not view the white and black (African) South African outgroups as sufficiently similar to one another for the STE to occur. Similarly, Van

Laar et al. (2005) attributed the STE observed in their study to the lower social status shared by the two outgroups (Latinos and African Americans). Unfortunately, neither Swart (2008) nor Van Laar et al. (2005) included a measure of perceived outgroup similarity to test this similarity hypothesis.

More recently, there have been a number of studies examining the STE effect that have also demonstrated that it is stronger when the primary and the secondary outgroups are perceived to be similar to one another (e.g., Pettigrew, 2009; Schmid et al., 2012). Asbrock, Christ, Hewstone, Pettigrew, and Wagner (2011), for example, found that the STE was stronger between primary and secondary outgroups that were rated similar on the warmth and competence dimensions described in the Stereotype Content Model (Fiske, Cuddy, Click, & Xu, 2002; see also Harwood et al., 2011).

While perceived similarity between outgroups has been shown to enhance the STE, there have been studies that have reported significant secondary transfer effects between very dissimilar groups (e.g., Harwood, et al., 2011; Tausch, et al., 2010; Pettigrew, 2009; Vezzali & Giovanni, 2011). For example, significant secondary transfer effects have been reported between ethnic outgroups and homosexual men (e.g., Lolliot et al., 2013; Schmid, et al., 2011; Tausch et al., 2010) which do not share any obvious similarities.

Goffman's (1963) typology of social stigma offers a potential explanation for this effect. Goffman (1963) identified three forms of social stigma, namely 'tribal stigma' (also known as 'category stigma' e.g., ethnic or religious groups), 'physical stigma' (also referred to as 'abomination of the body' e.g., physically disabled group), 'character stigma' (also known as 'blemishes of individual character' e.g., homosexuals, homeless, drug-addicts). In order to explain why the positive contact effects are still able to generalise between seemingly unrelated groups, researchers have argued that there is likely to be a common superordinate theme between these dissimilar objects or groups (see, e.g., Martin & Hewstone, 2008; Martin, Laing, Martin & Michell, 2005). For example it might be that ethnic outgroups and homosexual men both share the same level of discrimination within the context in which contact occurred although they differ according to category and/or character.

They may be considered similar outgroups in the sense that they are both affected by socially salient stigmas.

In spite of these seemingly contradictory findings, there is growing evidence that perceived similarity enhances the strength of the STE. Importantly, it appears that perceived outgroup similarity is a facilitating factor as opposed to an essential precondition for the STE. More recently, contact researchers have turned their attention towards understanding *how* or *why* the STE, focusing on the mediators of the STE.

Mediators of the Secondary Transfer Effect

Contact research has recently started to unveil the processes through which the secondary transfer effect (STE) is achieved, moving beyond *whether* the STE occurs towards understanding *how* this generalisation effect occurs. Pettigrew (1997) proposed three potential processes that mediate the generalisation of contact effects from one outgroup towards other outgroups, namely deprovincialisation, attitude generalisation, and empathy generalisation. These three processes suggest that there might be both cognitive (e.g., the process of deprovincialisation) as well as affective mechanisms (e.g., attitude generalisation and empathy generalisation) underlying the STE. Each of these three processes is discussed below in turn.

Deprovincialisation

Deprovincialisation refers to the process where ingroup members increasingly see that their ingroup norms, customs, and lifestyles are not the only acceptable way to manage the social world (Pettigrew, 1997). Intergroup contact facilitates this process because, as per Allport's (1954) initial suggestion, contact with an outgroup member will increase knowledge about the outgroup as whole, which will reduce uncertainty and reveal similarities between the groups. Together, Allport (1954) argued, this would lead to improved outgroup attitudes (see also Pettigrew, 1998).

The deprovincialisation hypothesis expands on the operation of the cognitive mediating process of outgroup knowledge, by suggesting that the increased knowledge about the outgroup that is generated through intergroup contact also encourages the ingroup member to re-evaluate their worldview and to imagine what

the norms, customs and lifestyles of other groups are like. As such intergroup contact, via the process of deprovincialisation, leads to a broadening of the perspective of ingroup members, and allows them to become less 'provincial' in their view of the world and their approach to intergroup relations, promoting more positive attitudes towards both the encountered outgroup as well as other outgroups (Pettigrew, 1997; Reed, 2011).

The deprovincialisation hypothesis has received mixed support within the contact literature, with some studies showing that deprovincialisation mediates the STE (e.g., Pettigrew, 2009; Tausch et al., 2010, Study 1), and others not (e.g., Tausch et al., 2010, Studies 2-4). Pettigrew (2009) provided the first evidence for the deprovincialisation hypothesis. He found that identification with Germany significantly negatively mediated the relationship between Germans' positive contact with German immigrants (primary outgroup) and their attitudes towards homosexuals and the homeless (secondary outgroup). Pettigrew (2009) did concede, however, that German identity was a weaker mediator of the STE than attitude generalisation.

Similarly, Tausch et al. (2010, Study 1) also reported evidence for the deprovincialisation hypothesis and found that ingroup attitudes (operationalised as private collective self-esteem) negatively mediated the relationship between contact with the Turkish/Greek Cypriots (primary outgroup) and attitudes towards mainland Turks/Greeks (secondary outgroup). These findings strongly contrast the mediation effects of attitude generalisation and deprovincialisation amongst this sample. Moreover, Tausch et al. (2010, Study 1) were able to replicate Pettigrew's (2009) findings in that they found that attitudes towards the primary outgroup were a stronger mediator of the secondary transfer effect than were ingroup attitudes.

These findings argue strongly for the important role played by affective mediators in the STE and, more recently, Verkuyten, Thijs and Bekhuis (2010) have suggested that the process of deprovincialisation also includes an affective component, which could be conceptualised as 'ingroup feelings'. Across three studies to test this idea, they found that positive contact with an ethnic outgroup (primary outgroup) led to a higher endorsement of multiculturalism, which, in turn, stimulated stronger distancing from the ingroup (conceptualised as ingroup identification and ingroup feelings) and fostered more positive attitudes towards the

primary outgroup. Although this study did not test whether these positive attitudes would be able to generalise towards a secondary outgroup, it shows that the affective component in the more 'cognitive' mediator of the STE cannot be ignored. These findings, therefore, correspond with the findings reported by Pettigrew (2009) and Tausch et al. (2010, Study 1), in that we can argue that affect (such as attitudes and/or ingroup feelings) may be an important component of the processes underlying the STE.

Attitude Generalisation

The attitude generalisation hypothesis suggests that the STE occurs via the generalisation of positive attitudes from the primary outgroup to positive attitudes towards the secondary outgroup, even after controlling for prior contact with the secondary outgroup (see Figure 2). This type of generalisation goes beyond the primary transfer effect, where contact with the primary outgroup member stimulates positive attitudes towards the primary outgroup as whole (path a), to describe a situation where positive attitudes towards the primary outgroup stimulates positive attitudes towards the secondary outgroup as well (path b). This type of generalisation is most likely to occur when the two objects or, in this case, outgroups appear sufficiently similar to one another, as previously noted (e.g., Asbrock et al., 2011; Fazio, et al., 2004; Pettigrew, 2009; Schmid et al., 2012; Shook et al., 2007; Tausch et al., 2010; Walther, 2002).

The attitude generalisation hypothesis has thus far received robust support, and has been demonstrated using cross-sectional (e.g., Al Ramiah, 2009; Pettigrew, 2009; Schmid et al., 2012; Swart, 2008; Tausch et al., 2010, Studies 1-3), longitudinal (e.g., Eller & Abrams, 2004; Tausch et al., 2010, Study 4) as well as experimental (e.g., Harwood et al., 2011) study designs. Pettigrew (2009) analysed data from two German national probability samples (Sample 1: N = 2,559; Sample 2: N = 1,275) in Germany. The data included measures of cross-group friendships with, and attitudes towards a variety of outgroups (including immigrants, foreigners, Muslims, the homeless, gay men and lesbians, non-traditional women, and Jews). In each instance, Pettigrew (2009) found a significant negative contact-prejudice relationship with respect to the primary outgroups. Furthermore, in both samples, Pettigrew (2009) found that cross-group friendships with immigrants were

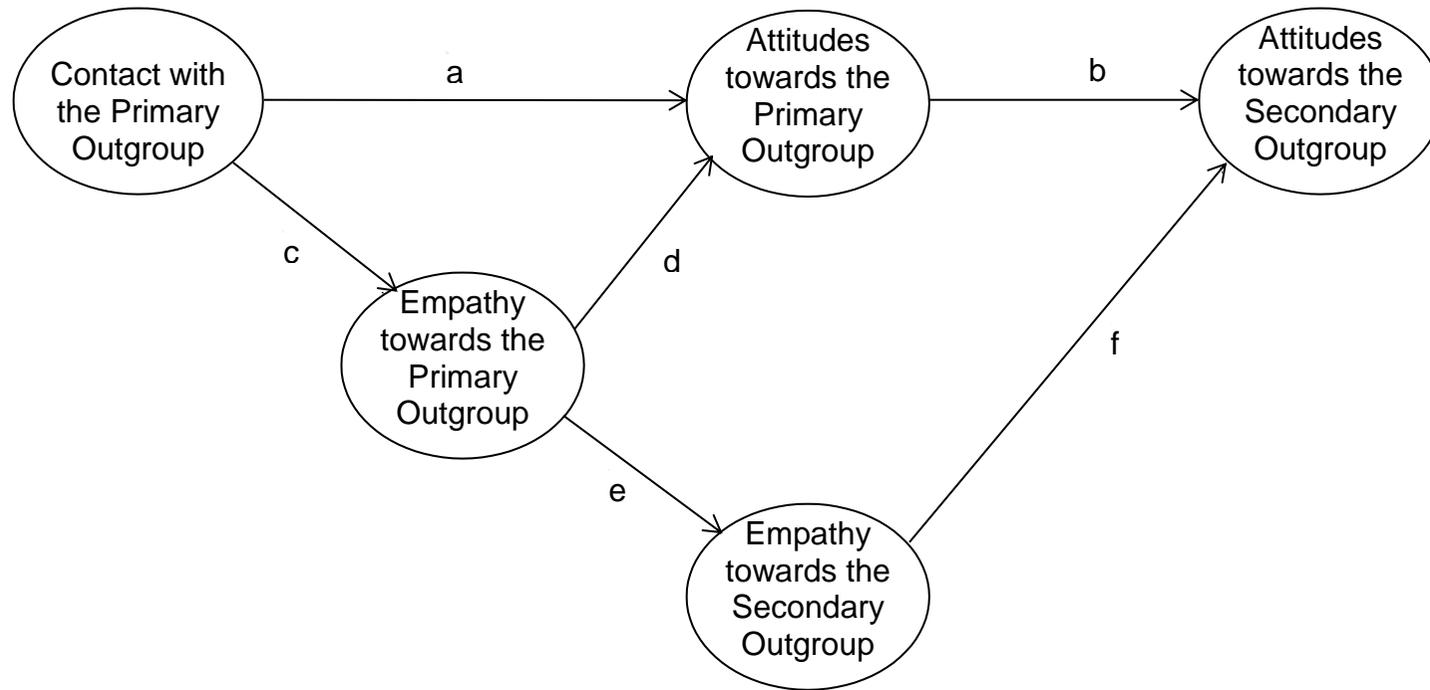


Figure 2. Structural model illustrating the secondary transfer effect of intergroup contact via attitude and empathy generalisation.

significantly associated with more positive attitudes towards immigrants in Germany, and that these positive attitudes generalised towards two secondary outgroups, namely homosexuals and the homeless, confirming the STE. Specifically, the relationship between contact with the primary outgroup (immigrants) and attitudes towards the secondary outgroups (homosexuals and the homeless) was mediated by attitudes towards the primary outgroup (immigrants), confirming operation of the STE via the process of attitude generalisation.

Tausch and colleagues (2010) provided substantial support for the attitude generalisation hypothesis. They undertook three cross-sectional studies in three diverse contexts. In the first study (amongst 1,653 Greek and Turkish Cypriots in Cyprus), contact with the Greek Cypriot outgroup was significantly associated with more positive attitudes towards mainland Greeks (secondary outgroup), while contact with the Turkish Cypriot outgroup was significantly associated with more positive attitudes towards mainland Turks (secondary outgroup). In each instance, the STE was mediated by attitudes towards the primary outgroup (Greek/Turkish Cypriots). In the second study (amongst 1,973 Catholics and Protestants in Northern Ireland), Tausch and colleagues (2010) found that contact with Protestants/Catholics was significantly associated with more positive attitudes towards racial minorities (secondary outgroup). Once again, the STE was mediated by attitudes towards the primary outgroup (Protestants/Catholics). In their third study (amongst 275 American students), Tausch et al. (2010) confirmed the mediation of the STE via attitude generalisation once again. They found that contact with Hispanics was significantly associated with more positive attitudes towards Hispanics, which, in turn, was associated with positive attitudes towards two secondary outgroups, namely the Vietnamese and Asian Indians. One potential shortcoming of these studies is that the measure of outgroup attitudes towards the various outgroups was identical. This raises the possibility of shared method variance - participants are likely to respond in an identical manner to identical measures, creating spurious correlations between the measures (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Schmid and colleagues (2012) undertook a study that aimed to eliminate the potential for shared-method variance by testing the STE from measures of prejudice towards the primary outgroup towards more positive attitudes towards two secondary

outgroups (i.e., they used different outcome measures for the primary and secondary outgroups). Their study included an impressive sample ($N = 7,042$) spread across eight European countries. They found that cross-group friendships with immigrants (primary outgroup) were significantly associated with less anti-immigrant prejudice, which in turn was directly and significantly associated with more positive attitudes towards two secondary outgroups, namely homosexuals, and Jews, even after controlling for demographic variables such as political orientation. Moreover, Schmid et al. (2012) found reduced prejudice towards the primary outgroup significantly mediated the relationship between contact with the primary outgroup and positive attitudes towards each of the two secondary outgroups.

Support for the attitude generalisation hypothesis has also been found longitudinally. For example, Eller and Abrams (2004, Study 1) undertook a two-wave longitudinal study amongst a small British undergraduate student sample ($N = 34$). The results indicated that positive intergroup contact (namely cross-group friendships) with French exchange students (primary outgroup) was associated with more positive attitudes towards the French in general at Time 1 which, in turn, predicted more positive attitudes towards Algerians (secondary outgroup) six months later at Time 2. Unfortunately, however, their longitudinal analysis suffered a number of flaws: it was based on a very small sample, they did not include any control measures, and ultimately, the mediation did not reach significance.

Tausch et al. (2010, Study 4), however, provided more robust longitudinal evidence in support of the attitude generalisation hypothesis. They undertook a two-wave longitudinal study amongst Catholics and Protestant in Northern Ireland ($N = 411$). They found that contact with the Protestant/Catholic (primary) outgroup at Time 1 was significantly associated with more positive attitudes towards racial minorities (secondary outgroup) one year later at Time 2. This longitudinal STE was mediated by attitudes towards the primary outgroup at Time 1, even after controlling for prior contact with and attitudes towards the secondary outgroup. Together, these findings offer robust support for the attitude generalisation hypothesis. Next, I will discuss empathy generalisation as a possible mediator of the STE.

Empathy Generalisation

As illustrated in chapter two, empathy is an important mediator of the effects of intergroup contact on outgroup attitudes (e.g., Aberson & Haag, 2007; Harwood et al., 2005; Hodson, 2008; Pettigrew & Tropp, 2008; Pagotto, Voci, & Maculan, 2010; Swart et al., 2010, 2011). Lolliot et al. (2013) suggest that outgroup empathy might also have an important role to play in mediating the secondary transfer effect of contact. However, they were not the first to do so.

In his initial study of the secondary transfer effect, Pettigrew (1997) stressed the importance of the affective mediators of the contact-prejudice relationship, and argued that cross-group friendships in particular enhance perspective taking (i.e., the ability to adopt another's psychological point of view by putting yourself in another's shoes; the cognitive dimension of empathy; e.g., Galinsky & Moskowitz, 2000). It has since been shown that the affective dimension of empathy (where a person experiences feelings of genuine concern and emotional understanding of another's emotional state) also plays a vital role in mediating the contact prejudice relationship (e.g., Swart et al., 2010, 2011). Pettigrew (1997), however, did not explain *how* empathy/perspective taking might mediate the secondary transfer effect (STE).

Lolliot et al. (2013) suggest that empathy could mediate the STE via two pathways (see Figure 2). Firstly, empathy towards the primary outgroup could influence attitudes towards the secondary outgroup via attitudes towards the primary outgroup. In other words, expanding on the attitude generalisation hypothesis (as described in the previous section; paths a and b), contact with a primary outgroup could stimulate greater empathy towards the primary outgroup (path c), which predicts more positive attitudes towards the primary outgroup (path d) that will in turn predict more positive attitudes towards the secondary outgroup (path b). The second pathway suggested by Lolliot et al. (2013) describes the empathy generalisation hypothesis (see Figure 2). Contact with a primary outgroup member predicts greater empathy towards the primary outgroup (path c), which in turn stimulates greater empathy towards the secondary outgroup (path e), which then predicts more positive attitudes towards the secondary outgroup (path f). To date, very little research has been done to test these mediation paths, and only three studies were found in the

literature testing empathy as mediator of the STE, each of which provides evidence for the empathy generalisation hypothesis.

Galinsky and Moskowitz (2000, Study 1) asked participants to adopt an imagine-self perspective (i.e., imagine what you would feel like in someone else's situation) while writing an essay on a day in the life of an elderly person. Their results showed that greater perspective taking towards the elderly not only predicted more positive attitudes towards the elderly (primary outgroup) but also towards African-Americans (secondary outgroup) as well.

Vezzali and Giovannini (2011) collected evidence for both of these mediated paths and assessed whether increased perspective taking towards the primary outgroup mediates the relationship between primary outgroup contact and secondary outgroup attitudes amongst Italian high school students (N = 175). They found that contact with immigrants (primary outgroup) increased empathy towards immigrants (primary outgroup), which in turn was associated with less social distance/more positive attitudes towards immigrants (primary outgroup). These positive attitudes generalised and fostered more positive attitudes/less social distance towards the disabled and homosexuals (secondary outgroups). The results were significant even after contact and perspective taking towards the secondary outgroups were controlled for. Moreover, Vezzali and Giovanni (2011) found evidence for the mediation of the STE via empathy generalisation. They found that contact with immigrants (primary outgroup) was associated with greater empathy towards immigrants (primary outgroup), which was in turn associated with greater empathy towards the disabled as well as homosexuals (secondary outgroups), which predicted more positive attitudes/less social distance towards both secondary outgroups.

This study is unique in that it was the first to show this double mediation path and also the first to provide evidence for perspective taking as a mediator of the STE. However, Vezzali and Giovannini (2011) relied on a cross-sectional design, and it is therefore not possible to interpret the causal relationships between these various variables with confidence.

Finally, Vezzali, Stathi, Giovannini, Capozza and Trifiletti (2014) conducted three studies to test whether indirect contact in the form of extended contact (i.e., the process of knowing an ingroup member who has contact with outgroup members; Wright et al., 1997) improves attitudes towards (primary) stigmatised groups as well as real-world (secondary) outgroups. Prior to testing these effects, participants were asked to read the popular Harry Potter novels. Vezzali et al. (2014) were interested in seeing whether the indirect contact of a fantasy character (i.e., Harry Potter) with a member of a fantasy stigmatised group (e.g., Hermione Granger, who belongs to the stigmatised group called 'Mudbloods') would improve the participants' attitudes towards this fantasy stigmatised outgroup (i.e., 'Mudbloods') and whether these positive attitudes would generalise towards secondary, 'real world' outgroups.

In the first study (an experimental study amongst 34 elementary school children), extended contact not only predicted more positive attitudes towards the primary outgroup ('Mudbloods'), but also predicted more positive attitudes towards immigrants. Similar results were found in the second (N = 117 high school students) and third (N = 71 university students) studies, with the STE observed from the primary outgroup ('Mudbloods') towards the secondary outgroups of homosexuals (Study 2) and refugees (Study 3). Furthermore, Vezzali et al. (2014) found that greater perspective-taking mediated the relationship between extended contact and secondary outgroup attitudes relationship - extended contact predicted greater perspective-taking towards the primary outgroup, which then predicted greater perspective-taking towards the secondary outgroup, which finally predicted more positive attitudes towards the secondary outgroup. Taken together, while limited, the emerging body of literature shows encouraging support for the empathy generalisation hypothesis, though more research is clearly needed.

Summary

Recent advances in contact theory include a focus on understanding when contact effects are most likely to generalise across multiple outgroups, as well as understanding the processes underlying, or mediating, the secondary transfer effect (STE). There is now a growing body of literature that confirms that this effect is indeed a real phenomenon, over-and-about the possible alternative explanations for the STE. There is encouraging evidence supporting the mediation of the STE via

both attitude and empathy generalisation. The present study aimed to add to this growing body of literature on mediating process underlying the STE. In the next chapter I describe the rationale, aims, and hypotheses associated with the present study, before presenting a summary of the results that were obtained in the present study.

CHAPTER FOUR:

TESTING ATTITUDE AND EMPATHY GENERALISATION AS MEDIATORS OF THE STE

Intergroup contact reliably leads to the reduction of intergroup prejudice, and cross-group friendships are a potent form of high quality contact (e.g., Pettigrew & Tropp, 2006). These positive effects of contact have been shown to generalise to outgroups that are not directly involved in the contact situation, a phenomenon that describes the secondary transfer effect (STE) of intergroup contact (Lolliot et al., 2013; Pettigrew, 2009). Advances in contact theory include the identification of attitude generalisation and empathy generalisation as two important mediators of the STE (for a review see Lolliot et al., 2013). However, the literature on the STE remains relatively limited (especially within the South African context) and more research is needed in this regard.

The Present Study

The present study aimed to contribute to the body of literature exploring the STE and, given the lack of research, aimed to fill the gap in the literature on the processes mediating this effect. Understanding *how* contact effects are able to generalise to multiple outgroups could offer practical insights for intergroup contact interventions that aim to reduce prejudice and improve intergroup relations.

The present study was undertaken at Stellenbosch University, a higher education institution in South Africa that has experienced rapid changes in its diversity profile since the end of Apartheid. White South African students comprise the numerical majority at Stellenbosch University (18,424 or 65.44%), followed by a minority of black (African) South African students (4,597 or 16.33%) and coloured South African students (4,492 or 15.95%; Stellenbosch University, 2013). Most of the students at Stellenbosch University (18,048 or 64.10%) come from the Western Cape Province of South Africa (Stellenbosch University, 2013).

The present study remained true to the strict definition of the STE provided by Pettigrew (2009). In other words, the present study only investigated whether the positive effects of contact with a primary outgroup (the group with whom the ingroup

member has (more regular) contact with) are able to generalise towards a (relatively less encountered, or even unencountered) secondary outgroup, and not vice versa. This definition influenced the designation of primary and secondary outgroups in the present study (i.e., coloured South Africans as the primary outgroup and black (African) South Africans as the secondary outgroup).

Given their numerical majority at the University, white South African undergraduate students were chosen as the target group of the study. Coloured South Africans were selected as the primary outgroup for two reasons. Firstly, even though their numerical representation at Stellenbosch University is fractionally lower than that of black (African) South African students, most of the black (African) students at Stellenbosch University are graduate students, while the coloured South African students at the University are more evenly spread across undergraduate and graduate studies. Since the data were collected amongst white South African undergraduate students, it seems plausible that these white undergraduate students would have more opportunities to engage in intergroup contact with coloured South African students (2,980 undergraduate / 1,453 postgraduate coloured South African students; SU, 2013) than they would black (African) South African students (1,661 undergraduate / 2,764 postgraduate black (African) South African students; SU, 2013). Secondly, coloured South Africans comprise a numerical majority in the Western Cape Province of South Africa (48.80% coloured-, 32.90% black (African)-, 15.70% white-, and 1.00% Indian/Asian South Africans; Statistics South Africa, 2012), and it is therefore more likely that white South African students will have engaged in a significant amount of prior contact with coloured South Africans relative to their contact with black (African) South Africans.

The present study explored the secondary transfer effect of intergroup contact via empathy and attitude generalisation amongst students studying at Stellenbosch University. More specifically, the present study investigated whether cross-group friendships with coloured South Africans students (primary outgroup) would predict more positive attitudes towards black (African) South Africans in general (secondary outgroup), while controlling for prior general contact with black (African) South Africans. Moreover, the present study explored whether this STE, if present, was mediated via the processes of attitude and/or empathy generalisation.

Finally, the present study also aimed to test Batson et al.'s (1997) three-step model, which suggests that perspective-taking precedes affective empathy. To this end, I investigated whether the process of empathy generalisation in the STE would be described by a generalisation of greater perspective-taking towards coloured South Africans in general to greater affective empathy towards black (African) South Africans in general.

Predictions

The primary prediction that was tested in the present study relates to the presence of the secondary transfer effect. This prediction can be stated as follows: Cross-group friendships with coloured South African students will be positively and significantly associated with more positive attitudes towards black (African) South Africans, via the processes of empathy and attitude generalisation, after controlling for prior contact with, and affective empathy towards, black (African) South Africans in general. This broad prediction can be broken down into the following, more specific predictions:

1. Contact with coloured South African students at Stellenbosch University will be positively and significantly associated with more positive attitudes and greater perspective-taking towards coloured South Africans in general (i.e., a primary transfer effect);
2. Perspective-taking towards coloured South Africans in general will be positively and significantly associated with more positive attitudes towards coloured South Africans in general, and will be positively and significantly associated with greater affective empathy towards black (African) South Africans in general;
3. Positive attitudes towards coloured South Africans in general will be significantly negatively associated with social distance towards black (African) South Africans in general; and
4. Affective empathy towards black (African) South Africans in general will be negatively and significantly associated with social distance towards black (African) South Africans in general.

Each of the predictions relating to the STE was investigated while controlling for prior general contact with black (African) South Africans in general.

Method

Procedure

The present study used a quantitative, cross-sectional research design. Participants were asked to answer an online survey during the fourth academic term of 2014. Prior to the commencement of the data collection ethical clearance for this study was obtained from the Research Ethics Committee (Faculty: Arts and Social Sciences) at Stellenbosch University (REC clearance number: HS1051/2014), and Institutional clearance was obtained from Stellenbosch University to allow access to the email addresses of prospective participants.

Electronic (e-mail) invitations were sent out to 14,380 South African undergraduate students studying on the Main Campus at Stellenbosch University (including 10,594 white South African students), inviting them to participate in the study (see Appendix A). Each e-mail invitation contained a unique Uniform Resource Locator (URL) that allowed prospective participants to access the electronic informed consent form (Appendix B). The informed consent form described the purpose and procedures of the study and explained to prospective participants their various rights as research participants (including the opportunity to withdraw their participation from the study at any given point, that their data would be treated confidentially, and that their participation in the present study was anonymous). Participants who chose to 'Agree' to these terms and conditions were directed to the online survey and those who chose not to participate in the survey exited from the survey portal. Participants who completed the survey were entered into a Cash Prize Draw to the value of R1,000.00. Participants who agreed to participate in the study were first presented with biographical and demographic questions (see Appendix C), followed by the main survey (see Appendix D). All materials were presented to participants in both English and Afrikaans.

Biographical and demographic information obtained included the respondent's gender, age, first (home) language, the number of years they have been studying at SU, and whether they make use of university (hostel or university housing) or private

(see Appendix C) accommodation. Respondents were also asked to indicate whether they identify themselves as a white South African, black (African) South African, coloured South African, Indian South African or Asian South African. Only the data of participants who identified themselves as white South Africans were included in the analyses presented below.

Questionnaire

The main survey (Appendix D) explored (1) general intergroup contact and cross-group friendships with coloured and black (African) South Africans, (2) affective empathy towards black (African) South Africans, and perspective-taking towards coloured South Africans, and (3) positive outgroup attitudes towards coloured South Africans, and social distance towards black (African) South Africans. Each of the constructs was derived from previous studies where they have proven to have factorial validity and suitable reliability amongst majority-status samples internationally (e.g., Batson et al., 1997; Davis, 1994; Turner et al., 2007b; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) and/or in the South African context when administered amongst white South Africans (e.g., Swart, 2008; Swart et al., 2010; 2011). Moreover, in an attempt to limit the potential impact of shared method variance on the data, two different measures of contact, empathic responding, and prejudice were used to measure each respective construct for the primary and secondary outgroup respectively.

General contact with coloured and black (African) South Africans.

General intergroup contact was measured using three items (adapted from Swart, 2008; Swart et al., 2010; 2011). Participants were asked to indicate how regularly they have direct, face-to-face interactions (e.g., conversations) with [outgroup] South Africans in general, in social settings, as part of the same sports team/social club/campus society, and during lectures, practicals, and/or tutorials. Each item was scaled from 0 = *Never* to 4 = *All the time*. This three-item measure of general contact with coloured and black (African) South Africans showed adequate scale reliability (Cronbach's alpha) amongst white South African participants, with $\alpha = .74$ and $\alpha = .69$, respectively.

Cross-group friendships with coloured and black (African) South Africans.

Cross-group friendships were measured using three items (adapted from Swart, 2008; Swart et al., 2010; 2011). Participants were asked to indicate how many [outgroup] South African friends they had at Stellenbosch University (scaled as follows: 0 = *None*, 1 = *1*, 2 = *2-3 friends*, 3 = *4-5 friends*, and 4 = *More than five friends*), how often they spend time with their [outgroup] South African friends at Stellenbosch University in general, and how often they spend time with their [outgroup] South African friends at Stellenbosch University at social activities (both scaled from 0 = *Never* to 4 = *All the time*). This three- item measure of cross-group friendships with coloured and black (African) South Africans had good scale reliability amongst white South African participants, with $\alpha = .87$ and $\alpha = .88$, respectively.

Perspective-taking towards coloured South Africans.

Perspective-taking towards coloured South Africans was measured using two items (adapted from Batson et al., 1997; Davis, 1994). Participants were asked to indicate the extent to which they agreed or disagreed with each of two statements, namely “I can generally put myself in the shoes of a coloured South African and imagine what life is like for him/her” and “I try to think about the issues we face in South Africa from the perspective of coloured South Africans”. Each statement was scaled from 1 = *Completely Disagree* to 5 = *Completely Agree*. The bivariate correlation between these two items was significant ($r = .32$; $p < .01$), reflecting that both items measure a related underlying construct, and suggesting good construct reliability.

Affective empathy towards black (African) South Africans.

Affective empathy towards black (African) South Africans was measured using two items (adapted from Swart et al., 2011; Turner et al., 2007b). Participants were asked to indicate the extent to which they agreed or disagreed with each of two statements, namely “If I heard/saw that a black (African) South African was upset and suffering in some way, it would bother me and make me feel unhappy” and “I would feel sad knowing that a black (African) South African person that I knew was feeling sad”. Each statement was scaled from 1 = *Completely Disagree* to 5 = *Completely Agree*. The bivariate correlation between these two items was significant ($r = .51$,

$p < .01$), reflecting that both items measure a related underlying construct, and suggesting good construct reliability.

Positive outgroup attitudes towards coloured South Africans.

Positive outgroup attitudes towards coloured South Africans in general were measured using four items (adapted from Swart et al., 2011; Wright, et al., 1997). Participants were asked to indicate the extent to which they agree or disagree with each of four statements, namely “When I think about coloured South Africans in general, I have positive feelings towards them”, “When I think about coloured South Africans in general, I admire them”, “When I think about coloured South Africans in general, I am filled with respect for them”, and “When I think about coloured South Africans in general, I have negative feelings towards them” (reverse scored). Each of these statements was scaled from 1 = *Completely Disagree* to 5 = *Completely Agree*. This four-item measure of positive outgroup attitudes towards coloured South Africans had good scale reliability amongst white South African participants ($\alpha = .81$).

Social distance towards black (African) South Africans.

Social distance towards black (African) South Africans in general was measured using four items (adapted from Swart et al. 2011; Wright et al., 1997). Participants were asked to answer the following four questions: “To what extent would you be happy to have black (African) South Africans attending the same classes as you?”, “To what extent would you be happy to have black (African) South Africans in your residence (res)/apartment block / neighbourhood?”, “To what extent would you be happy to have a black (African) South African as your roommate / flatmate / housemate?”, and “To what extent would you be happy to have a black (African) South African as an intimate partner (i.e., boyfriend/girlfriend)?”. Each question was scaled from 1 = *Not at all* to 5 = *Completely*. Each of these constructs was scored such that higher scores reflected more general contact and cross-group friendships, greater perspective-taking and affective empathy towards the outgroup, more positive outgroup attitudes, and greater desired social distance with the outgroup. This four-item measure of social distance towards black (African) South Africans had good scale reliability amongst white South African participants ($\alpha = .84$).

Participants

The final sample included 551 participants (N = 295 females, N = 256 males), whose ages ranged between 17 and 31 years ($M_{\text{age}} = 20.50$ years, $SD = 1.67$ years). Of the 551 participants 58.40% (N = 322) indicated that Afrikaans was their first language and 41.60% (N = 229) indicated that English was their first language. One hundred and sixty eight participants indicated that they were first-year students, 142 indicated that they were second-year students, and 129 indicated that they were third-year students (the remainder, N = 112, indicated that they had been students at Stellenbosch for four or more years). The average number of years spent studying at Stellenbosch University amongst this sample was 2.39 years ($SD = 1.28$ years). Just more than half of the participants in the present study indicated that they lived in private accommodation (57.9%; N = 319).

Results

Preliminary Data Analyses

The data was exported to SPSS for further analyses. First, the data was tested to see if it met the necessary parametric assumptions. The frequency distribution of the items was investigated via an analysis of item skewness and kurtosis. The boundaries for skewness (between +2.00 and -2.00) and kurtosis (between +7.00 and -7.00) recommended by West, Finch and Curran (1995) were used as a guideline for determining whether the items were sufficiently normally distributed to warrant more sophisticated parametric analyses. All the items fell within the ranges suggested by West et al. (1995) for skewness ($Min_{\text{skew.}} = -2.09$, $Max_{\text{skew.}} = 1.47$, $M_{\text{skew.}} = -0.31$, $SD_{\text{skew.}} = 0.82$) and kurtosis ($Min_{\text{kurt.}} = -1.33$, $Max_{\text{kurt.}} = 4.01$, $M_{\text{kurt.}} = -0.03$, $SD_{\text{kurt.}} = 1.36$).

An exploratory factor analysis using a maximum likelihood method of extraction and direct oblimin rotation was conducted for each construct to test the unidimensionality of each construct. Direct oblimin rotation was used because of the assumption that, if more than a single factor were to emerge from the data for a given construct, those factors would share common variance (i.e., be related to one another). This assumption is tenable because each measure was originally designed

to include content that would support the face validity of a single factor (unidimensional) construct. A minimum factor loading of 0.40 was set as the threshold for retaining items on the first factor (Field, 2010). The exploratory factor analyses confirmed that each construct was unidimensional. Next, a reliability analysis was undertaken for each multi-item construct using the conventional Cronbach's alpha criterion of .70. Bivariate (Pearson's product-moment) correlations were computed for two-item measures as a means of assessing their reliability. In each instance, both multi-item and two-item measures showed adequate reliability. Finally, composite scores, comprising the mean of each construct, were created and the bivariate correlations (Pearson's product-moment correlation) between these composite measures were explored. The Pearson's product-moment correlations between the mean-level composite variables, as well as the construct reliability, means and standard deviations (*SD*) of each of the mean-level composite variables are summarised in Table 1.

A paired samples t-test was run to compare the general amount of contact that the white South African participants reported having with coloured and black (Africans) in general. This analysis was undertaken to confirm whether the primary and secondary outgroups had been correctly assigned. The paired samples t-test confirmed that the white South African participants reported significantly more general contact with coloured South Africans ($M = 2.42$, $SD = 0.94$) than with black (African) South Africans ($M = 2.10$, $SD = 0.89$; $t(550) = 9.75$, $p < .001$). A stricter comparison between contact with coloured and black (African) South Africans, namely a comparison of cross-group friendships, confirmed that the white South African participants reported significantly more cross-group friendships with coloured South Africans at Stellenbosch University ($M = 2.21$, $SD = 1.04$) than with black (African) South Africans at Stellenbosch University ($M = 1.90$, $SD = 1.03$; $t(550) = 7.60$, $p < .001$). Together, these findings support the a priori designation of coloured South Africans as the primary outgroup and black (African) South Africans as the secondary outgroup for the main analyses below.

Table 1.

Pearson Product-Moment Correlations between Composite Variables, and Construct Reliability, Mean, and Standard Deviation (SD)

	1	2	3	4	5	6	7	8	Reliability (α)	Mean (SD)
1. General Contact with black (African) South Africans (3-items)	-								.69	2.10 (0.89)
2. General Contact with coloured South Africans (3-items)	.66***	-							.74	2.42 (0.94)
3. Cross-group Friendships with black (African) South Africans (3-items)	.69***	.44***	-						.88	1.90 (1.03)
4. Cross-group Friendships with coloured South Africans (3-items)	.46***	.70***	.57***	-					.87	2.21 (1.04)
5. Perspective-taking toward coloured South Africans (2-items)	.20***	.22***	.26***	.20***	-				.32**†	3.51 (0.90)
6. Affective Empathy toward black (African) South Africans (2-items)	.21***	.14**	.29***	.15**	.33***	-			.51**†	4.35 (0.86)
7. Positive Attitudes toward coloured South Africans (4-items)	.27***	.34***	.27***	.39***	.29***	.27***	-		.81	3.58 (0.77)
8. Social Distance toward black (African) South Africans (4-items)	-.37***	-.24***	-.46***	-.26***	-.25***	-.36***	-.39**	-	.84	2.65 (1.05)

† Bivariate correlations (Pearson's r) for construct comprised of only 2-items.* $p < .05$, ** $p < .01$, *** $p < .001$

Note. All scales calibrated such that higher mean values denote higher levels of a particular construct. Scales of measurement: General Contact and Cross-group Friendships with black (African) and coloured South Africans were scaled from 0 to 4; Perspective-taking towards coloured South Africans, Affective Empathy towards black (African) South Africans, and Positive Attitudes towards coloured South Africans were scaled from 1 to 5; Social Distance towards black (African) South Africans were scaled from 1 to 5.

Main Analyses

A series of multiple regressions with bootstrap estimates (1,000 resamples) were undertaken to explore the predicted relationship between variables. In the first regression analysis, social distance towards black (African) South Africans were regressed onto general contact with black (African) South Africans (control variable), affective empathy towards black (African) South Africans, and positive attitudes towards coloured South Africans. In the second regression analysis, affective empathy towards black (African) South Africans were regressed onto general contact with black (African) South Africans (control variable) and perspective taking towards coloured South Africans. In the third regression analysis, positive attitudes towards coloured South Africans were regressed onto cross-group friendships with coloured South Africans and perspective taking towards coloured South Africans. In the fourth and final regression analysis, perspective taking towards coloured South Africans was regressed onto cross-group friendships with coloured South Africans. The results of these analyses are summarised in Figure 3.

As shown in Figure 3 below, general contact with black (African) South Africans in general was positively and significantly associated with affective empathy towards black (African) South Africans ($b = .15, p < .001$), which was, in turn, negatively associated with social distance towards black (African) South Africans ($b = -.29, p < .001$). Cross-group friendships with coloured South Africans at Stellenbosch University were positively and significantly associated with perspective-taking towards coloured South Africans in general ($b = .17, p < .001$), which was, in turn, positively and significantly associated with positive attitudes towards coloured South Africans in general ($b = .19, p < .001$). Perspective-taking towards coloured South Africans in general was positively and significantly associated with affective empathy towards black (African) South Africans in general ($b = .29, p < .001$), while positive attitudes towards coloured South Africans in general were negatively and significantly associated with social distance towards black (African) South Africans in general ($b = -.35, p < .001$).

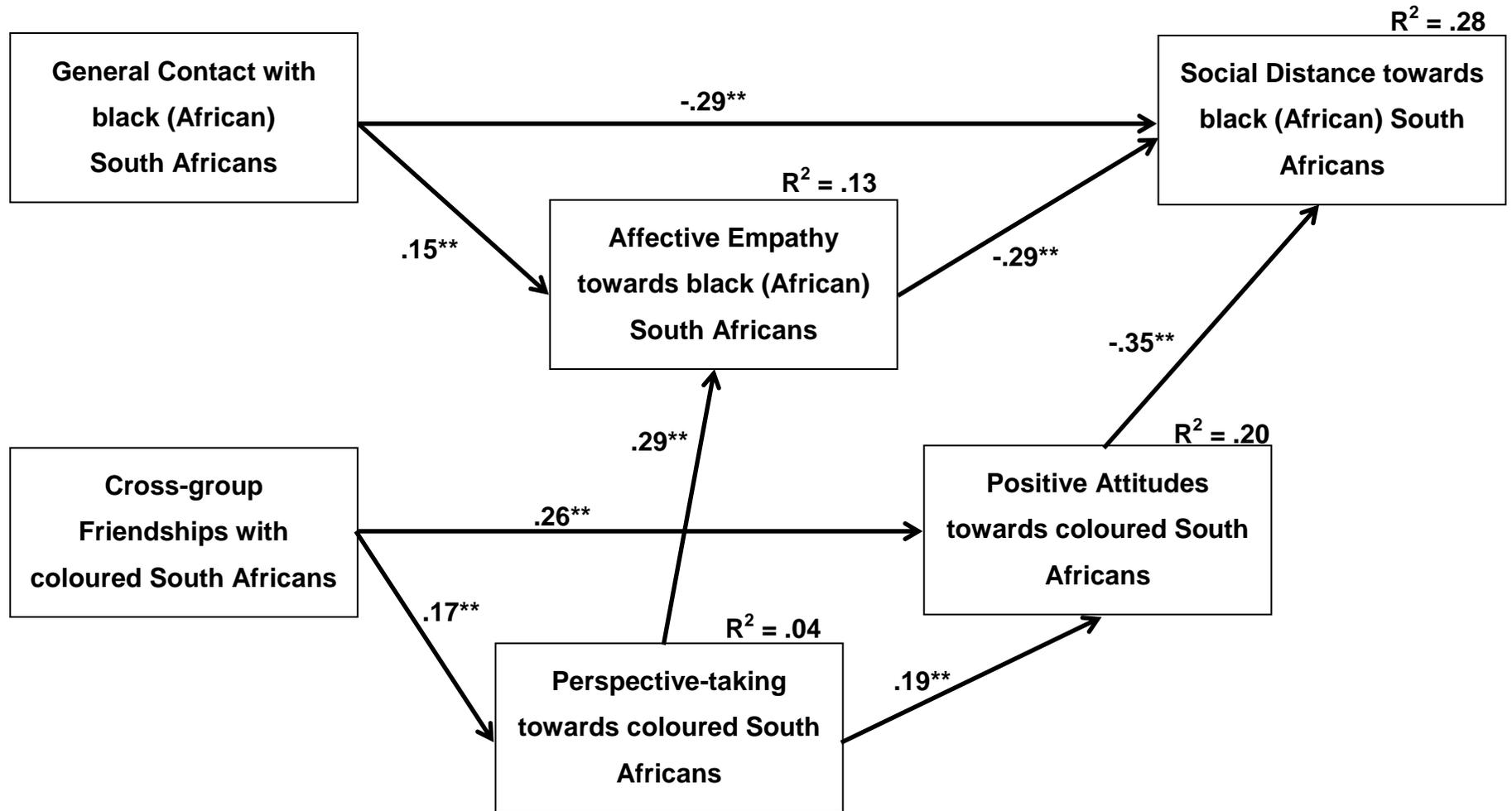


Figure 3. Regression model illustrating the secondary transfer effect via attitude and empathy generalisation amongst white South African students at Stellenbosch University (N = 551).

* $p < .05$; ** $p < .01$. Unstandardised bootstrapped regression coefficients.

Testing for mediation effects.

A series of bootstrap mediation tests (Preacher & Hayes, 2004, 2008) were run to test whether any of the predicted indirect relationships (mediation effects) were significant (Baron & Kenny, 1986). These tests confirmed that general contact with black (African) South Africans had a significant indirect effect on social distance towards black (African) South Africans via affective empathy towards black (African) South Africans ($z = 4.01, p < .001$). Moreover, perspective-taking towards coloured South Africans in general significantly mediated the indirect effects of cross-group friendships with coloured South Africans at Stellenbosch University on positive attitudes towards coloured South Africans in general ($z = 3.52, p < .001$).

Cross-group friendships with coloured South Africans at Stellenbosch University had a significant indirect effect on social distance towards black (African) South Africans in general, via positive attitudes towards coloured South Africans in general ($z = -5.11, p < .001$). Perspective-taking towards coloured South Africans in general was also a significant mediator of the relationship between cross-group friendships with coloured South Africans at Stellenbosch University and affective empathy towards black (African) South Africans in general ($z = 3.74, p < .001$). Affective empathy towards black (African) South Africans significantly mediated the indirect effect of perspective-taking towards coloured South Africans on social distance towards black (African) South Africans ($z = -4.48, p < .001$), while perspective-taking towards coloured South Africans also had a significant indirect effect on social distance towards black (African) South Africans via positive attitudes towards coloured South Africans ($z = -4.24, p < .001$). This model explained 4% of the variance (R^2) in perspective-taking towards coloured South Africans, 20% of the variance in positive attitudes towards coloured South Africans, 13% of the variance in affective empathy towards black (African) South Africans, and 28% of the variance in social distance towards black (African) South Africans. In each instance this constituted a significant proportion of the explained variance ($p < .001$).

Summary of Findings

The main a priori prediction of the present study received full support: cross-group friendships with coloured South Africans at Stellenbosch University were positively and significantly associated with more positive attitudes towards black

South Africans in general, via the processes of empathy and attitude generalisation, after controlling for prior general contact with, and empathy towards, black South Africans. Moreover, support was also found for each of the four, more specific predictions.

Firstly, cross-group friendships with coloured South Africans at Stellenbosch University were positively and significantly associated with greater perspective-taking towards coloured South Africans in general. Secondly, perspective-taking towards coloured South Africans in general was positively and significantly associated with more positive attitudes towards coloured South Africans in general, and positively and significantly associated with greater affective empathy towards black (African) South Africans (illustrating the process of empathy generalisation), controlling for prior contact with black (African) South Africans. This finding also offers tentative support for the causal sequencing of perspective-taking and affective empathy suggested by Batson et al. (1997).

Thirdly, more positive attitudes towards coloured South Africans in general were significantly negatively associated with social distance towards black (African) South Africans (illustrating the process of attitude generalisation), controlling for prior general contact with black (African) South Africans. Finally, affective empathy towards black (African) South Africans was negatively and significantly associated with social distance towards black (African) South Africans, controlling for prior contact with black (African) South Africans. In the chapter that follows I offer a discussion of these findings against the backdrop of the existing contact literature.

CHAPTER FIVE

DISCUSSION

The secondary transfer effect (STE) of contact has only recently begun to receive attention in the contact literature (Lolliot et al., 2013; Pettigrew, 2009; Schmid et al., 2012; Tausch et al., 2010), and more research is required into the mechanisms underlying this effect (Lolliot et al., 2013). The emerging literature on the STE confirms that this effect is indeed a real phenomenon, and not an artefact of secondary outgroup contact, social desirability, or selection bias (see Tausch et al., 2010). Moreover, there is now literature suggesting that the STE might be driven by attitude and empathy generalisation (for a review see Lolliot et al., 2013).

Given the scarcity of the available literature on the STE, the present study aimed to explore whether the STE of intergroup contact would occur via the processes of attitude and empathy generalisation amongst students studying at Stellenbosch University. More specifically, the present study tested whether self-reported contact with coloured South African students (primary outgroup) would predict more positive attitudes towards coloured South Africans amongst white South Africans students, and whether these effects would generalise towards black (African) South Africans (secondary outgroup) via the processes of attitude and empathy generalisation.

The main prediction that was tested in the present study was that contact with coloured South Africans would be positively and significantly associated with more positive attitudes towards black (African) South Africans amongst white South African students, a relationship mediated by the processes of empathy and attitude generalisation. This prediction was developed on the grounds of a recent review of the emerging contact literature on the secondary transfer effect (see Lolliot et al., 2013). The overall results of the present study provide firm support for this prediction.

This chapter offers a discussion of the results of the present study by focusing on the three core features of the main prediction, namely evidence of the STE, and evidence of the mediation of the STE via both attitude generalisation and empathy generalisation. I begin with a discussion of the results from the present study that

illustrate the generalisation of positive contact effects from the primary outgroup exemplar to the outgroup as a whole, and the further generalisation of these effects to a secondary outgroup (not involved in the contact situation; i.e., the STE). This is followed by a discussion of the two processes that were observed to mediate the STE in the present study, namely attitude generalisation and empathy generalisation. Throughout this discussion I will focus on the relevance of the present findings for shaping interventions that aim to improve attitudes and lessen prejudice between different groups. Furthermore, I will also consider the theoretical contributions made by the present study to the contact literature. I conclude this chapter with a brief discussion of the limitations of the present study, and offer suggestions for future research.

The Secondary Transfer Effect of Intergroup Contact

Two primary contact effects were observed in the present study. Firstly, general contact with black (African) South Africans in general was significantly negatively associated with social distance towards black (African) South Africans in general. Secondly, cross-group friendships with coloured South African students were significantly positively associated with more positive attitudes towards coloured South Africans in general. These results are in line with the numerous studies confirming the contact hypothesis (Allport, 1954), which states that positive intergroup contact with an outgroup member improves attitudes towards the outgroup as a whole (e.g., Hewstone & Swart, 2011; Pettigrew, 1997; Pettigrew & Tropp, 2006). These primary contact effects, though not the central focus of the present study, are an important precondition for the STE; contact effects first need to generalise from the outgroup exemplar to the outgroup as a whole (i.e., the primary contact effect) before the STE can occur, whereby positive attitudes towards one outgroup generalise towards another outgroup (Pettigrew, 2009).

The present study was principally concerned with the STE. In assigning the outgroups in the study as the primary or secondary outgroup, the frequency of contact with the members of the outgroups indicated that white South African students in general had significantly less general contact with black (African) South Africans and significantly more general contact with coloured South Africans (these differences included differences in cross-group friendships with members of each of

these groups). As such, for the purposes of testing the STE, coloured South Africans were chosen as the primary outgroup and black (African) South Africans as the secondary outgroup, in spite of the fact that contact with each of the outgroups revealed positive primary contact effects.

Importantly, the data are able to rule out two alternative explanations for the STE that was observed, namely secondary outgroup contact effects and socially desirable responding (see Tausch et al., 2010). Firstly, the potential influence of the secondary outgroup contact effects was controlled for by adding contact with the secondary outgroup as a control variable in the regression model. The STE occurred while controlling for the possible influence of prior contact with black (African) South Africans in general, which effectively rules out secondary outgroup contact effects as a viable alternative explanation for the STE that was observed. Contact with the primary outgroup predicted attitudes towards the secondary outgroup over-and-above the effects of contact with the secondary outgroup, offering strong support for Pettigrew's (1997) generalisation hypothesis (see also Pettigrew, 2009).

The second alternative explanation of the STE – socially desirable responding – is also an unlikely explanation for the present results. A closer look at the mean scores on each of the main predictor (cross-group friendships with coloured South Africans and general contact with black (African) South) and dependent variables (positive attitudes towards coloured South Africans and social distance towards black (African) South Africans) suggests that respondents did not report either very high or very low scores on either of these measures. In other words, no ceiling or floor effects were found in the data, which argues against the possibility that participants responded to the survey in a socially desirable way. There are only a few studies on the secondary transfer effect that have included control measures for contact (e.g., Tausch et al., 2010, Studies 2-4; Van Laar, et al., 2005; Weigret, 1976) and social desirability factors (e.g., Tausch et al., 2010, Study 3). The present study adds to this body of literature in providing rigorous evidence for the secondary transfer effect.

These findings also highlight two reasons for the particular importance of fostering cross-group friendships within a contact setting. Firstly, cross-group friendships with the primary outgroup significantly predicted greater perspective-

taking and more positive attitudes towards the primary outgroup. This is consistent with the contact literature, arguing that cross-group friendships are a potent form of intergroup contact, which typically involve direct contact that is high in quality, frequency and duration, and which provide a context for contact in which many of Allport's (1954) optimal conditions (i.e., voluntary contact, equal status and common goals and interests among individuals) can be met (Pettigrew, 1998). Moreover, as observed in the present study, cross-group friendships with the primary outgroup have the potential for impacting attitudes towards a secondary outgroup as well, over-and-above any general contact one may have had with the secondary outgroup.

The present findings yield important insights that could practically shape interventions that aim to promote more positive attitudes between diverse groups. These findings suggest that prejudice-reducing interventions do not need to include a wide variety of outgroups. Rather, positive (high-quality) contact (specifically in the form of cross-group friendships) with members of even *one* outgroup can have far-reaching positive effects on other outgroups that are not involved in the contact situation as well. In other words, positive intergroup contact with members of one outgroup friend (specifically cross-group friendships) could be sufficient to improve a person's attitude towards other outgroups with whom he/she may have limited contact with. This could be of significant advantage within diverse societies such as South Africa, where large-scale segregation limits contact between groups, and there is a wide diversity of ethnic groups. Intergroup interventions at Stellenbosch University should therefore be focused on fostering high-quality intergroup contact (that generates substantial acquaintance potential for the development of cross-group friendships) within a contact setting.

Mediators of the Secondary Transfer Effect

After revealing that the positive effects of intergroup contact are able to generalise from the primary outgroup to the secondary outgroup, the present study aimed to uncover the processes through which this effect is achieved, to understand *how* this generalisation effect occurs (i.e., processes that mediate the secondary transfer effect; Baron & Kenny, 1986). In this study, two affective mechanisms, namely attitude generalisation and empathy generalisation, were explored. Both

were shown to significantly mediate the STE. This supports Pettigrew's (2009) suggestion that the STE might be largely due to affective factors (see also Eller & Abrams, 2004; Van Laar et al., 2005). In other words, cross-group friendships not only promote more positive attitudes towards the primary outgroup, but also increase empathy towards the primary outgroup, both of which can then be generalised towards an outgroup that is not directly involved in the contact situation. These findings suggest that interventions aimed at reducing prejudice towards various outgroups should be structured to increase *positive affect* (i.e., positive feelings and emotions) rather than being focused on only addressing the negative stereotypes and beliefs that an individual holds (i.e., the cognitive component of prejudice; Pettigrew & Tropp, 2008).

The methodology employed in the present study also served to rule out a third potential explanation for the secondary transfer effects that were observed, namely shared method variance (Podsakoff et al., 2003). When identical measures are used to measure the same underlying construct across two groups, the relationship between the variables under consideration could become artificially inflated due to the common sources of variance operating on them, making it difficult to argue for a relationship between those variables (Podsakoff et al., 2003). As such, the present study used different measures to measure contact, empathy, and prejudice towards the primary and secondary outgroups. The STE via both attitude and empathy generalisation was found even though different measurement scales were used to measure outgroup prejudice (positive outgroup attitudes and social distance) and outgroup empathy (perspective-taking and affective empathy) for each of the two outgroups. It is therefore possible to argue with a fair degree of confidence that the secondary transfer effects that were observed are unlikely to be the results of spuriously inflated relationships between the variables concerned. This methodology significantly adds to the contact literature by providing rigorous evidence for both mediation hypothesis of the STE, especially since most of the research on the STE has relied on using the same measures to assess identical constructs for the primary and the secondary outgroup (Al Ramiah, 2009; Harwood et al., 2011; Lolliot et al., 2013; Swart, 2008; Tausch et al., 2010; for exceptions see Pettigrew, 2009).

Attitude Generalisation

The results of the present study supported the attitude generalisation hypothesis of the STE (i.e., that attitudes towards the primary outgroup are able to generalise towards the secondary outgroup). Attitude generalisation was observed in the present study to go beyond the primary transfer effect (i.e., where contact with the primary outgroup member stimulates positive attitudes towards the primary outgroup as whole), and to generalise towards the secondary outgroup (i.e., the STE) even after controlling for prior contact with the secondary outgroup. Moreover, attitude generalisation was observed in the data over-and-above the effects of full empathy generalisation (the impact of affective-empathy towards the secondary outgroup on social distance towards the secondary outgroup was controlled for while testing the attitude generalisation hypothesis; discussed in more detail in the following section).

These findings are consistent with previous cross-sectional research exploring attitude generalisation as a mediator of the STE (e.g., Al Ramiah, 2009; Pettigrew, 2009; Schmid et al., 2012; Swart, 2008; Tausch et al., 2010, Studies 1-3), and significantly adds to the sparse body of literature exploring the mediators of the STE. What makes this replication more unique is that the present study ruled out three alternative explanations for this attitude generalisation (namely secondary contact effects, social desirability, and shared method variance), providing strong support for the prediction that the positive attitudes towards the primary outgroup generalise towards the secondary outgroup. In essence this means that interacting with one's cross-group friends not only promotes more positive attitudes toward that friend and the outgroup the friend belongs to, but also improves attitudes towards other outgroups that one has more limited intergroup contact with. This broad effect of intergroup contact could have a significant benefit in reducing prejudice between different groups, especially in diverse societies such as South Africa.

One of the primary moderators of attitude generalisation is thought to be that of perceived outgroup similarity (e.g., Lolliot et al., 2013; Pettigrew, 2009). Attitudes towards the primary outgroup are more likely to generalise towards secondary outgroup attitudes when the primary and secondary outgroups are perceived to be sufficiently similar to one another. Unfortunately, the present research did not include

a measure of perceived similarity to test this moderation hypothesis. However, within the South African context and the shared socio-political history of oppression experienced by black (African) and Indian South Africans under Apartheid, it does seem plausible that the STE observed via attitude generalisation may be driven by perceptions of outgroup similarity. In this regard, the present findings closely resemble those reported by Swart (2008), who found that cross-group friendships with black (African) South Africans predicted more positive attitudes towards black (African) South Africans amongst white high school students, which in turn generalised to include more positive attitudes towards coloured South Africans in general.

Accordingly, this means that contact interventions that aim to improve attitudes towards different outgroups at Stellenbosch University or in South Africa in general, should be structured in order to facilitate high-quality intergroup encounters with acquaintance potential. This should be done in such a manner as to promote more positive attitudes towards the outgroup, by incorporating Allport's (1954) optimal conditions in the contact setting. Firstly, the contact interventions should focus on facilitating self-disclosure, where participants would then be able to uncover common interests. Secondly, the contact interventions should aim to facilitate cooperation between groups, by including, for example, enjoyable tasks when groups come together. Lastly, these contact interventions should be structured in such a way that equal status among participants is maintained. These contact interventions should also take place within the context of institutional support from Stellenbosch University when conducted on campus, or they should receive support from the relevant authorities when conducted in another setting, in order for the intervention to optimally reduce prejudice. Perhaps such interventions could also include an element where participants consider those things that various South African groups have in common, to heighten the perceived outgroup similarity across groups. A further element that could prove crucial in such contact interventions is that these interventions facilitate the development of perspective-taking and affective empathy towards the outgroup. The present study showed that empathic responding is an important mediator of the STE.

Empathy Generalisation

In addition to investigating whether attitude generalisation mediates the STE, the present study also explored whether empathy generalisation mediates the STE. In order to confirm empathy generalisation as a mediator of the STE, it is first of all important to determine whether empathy mediates the primary transfer effect (i.e., whether contact with an outgroup exemplar improves attitudes towards the encountered outgroup as a whole via increased empathy).

In the present study, empathy mediated the contact-prejudice relationship in two ways. Firstly, general contact with black (African) South Africans in general was negatively and significantly associated with social distance towards black (African) South Africans via greater affective empathy towards black (African) South Africans. Secondly, cross-group friendships with coloured South Africans was positively associated with more positive attitudes towards coloured South Africans in general via increased perspective-taking towards coloured South Africans in general. Although this second mediation of empathy was also found to be significant the explained variance in perspective taking towards coloured South Africans was low in comparison to the amount of variance explained in the other outcome variables. A possible explanation for the low amount of explained variance for this outcome variable is that perspective taking towards coloured South Africans was only predicted in the model by a single construct (cross-group friendships with coloured South Africans), whereas all other outcome variables were predicted by multiple constructs (e.g., affective empathy towards blacks (African) South Africans was predicted by two constructs, namely general contact with black (African) South Africans and perspective taking towards coloured South Africans, and so forth).

These two pathways highlighted by the the present study through which empathy mediates the contact-prejudice relationship named above are in line with previous studies illustrating the mediation effects of intergroup contact via perspective-taking (e.g., Aberson & Haag, 2007) and affective empathy (e.g., Swart et al., 2010, 2011). As such, the study significantly contributes to the limited available research in the contact literature on the role of empathy as a mediator of the primary effects of intergroup contact (Pettigrew & Tropp, 2008). Furthermore, the present

findings confirm that both cognitive and affective forms of empathic responding are associated with positive intergroup contact outcomes.

Moving beyond empathy as a mediator of the primary contact effects, the present study paid particular attention to whether empathy generalisation mediates the STE. Both of the possible pathways through which empathy might mediate the STE (highlighted by Lolliot et al., 2013) were tested in the data.

Recall from the discussion in chapter three that the first of these pathways represents what might be described as partial empathy generalisation, and is really an extension on the attitude generalisation hypothesis. According to the model described by this pathway, empathy influences attitudes towards the secondary outgroup via the mediation effect of attitudes towards the primary outgroup. The present study offered full support for this predicted pathway: cross-group friendships with coloured South Africans students at Stellenbosch University were positively and significantly associated with greater perspective-taking towards coloured South Africans in general (prediction 1a), which was in turn indirectly associated with reduced social distance towards black (African) South Africans (controlling for prior general contact with black (African) South Africans) via more positive outgroup attitudes towards coloured South Africans.

The second pathway suggested by Lolliot et al. (2013) describes the full empathy generalisation hypothesis (which offers a stricter test of the empathy generalisation hypothesis compared to the first pathway described above). The model described by this second pathway suggests that contact with a primary outgroup member leads to greater empathy towards the primary outgroup, which then generalises towards increased empathy towards the secondary outgroup, which in turn stimulates more positive attitudes towards the secondary outgroup. This second pathway was tested in the present study with two further, related objectives in mind. The first objective was to eliminate, as far as possible, the potential influence of shared method variance on the relationships underlying this STE. To this end, this study used two different measures of the empathic response, namely affective empathy and perspective-taking. These measures assessed the empathic response along both affective and cognitive dimensions. The second objective was to test the relationship between these two dimensions of the empathic response

described by Batson et al. (1997). Batson et al.'s (1997) three-step model (suggesting that perspective-taking precedes affective empathy) offered the necessary guidance for identifying the 'causal' order in which to arrange these two dimensions of empathy in this empathy generalisation model. As such, perspective-taking towards coloured South Africans in general was purposely included as a predictor of affective-empathy towards black (African) South Africans.

Overall, the results of the present study supported the full empathy generalisation hypothesis described by the second pathway. Cross-group friendships with coloured South African students at Stellenbosch University were positively and significantly associated with greater perspective-taking towards coloured South Africans in general. Perspective-taking towards coloured South Africans in general was positively and significantly associated with greater affective empathy towards black (African) South Africans (controlling for prior general contact with black (African) South Africans), which was in turn significantly negatively associated with social distance towards black (African) South Africans (controlling for both prior contact with black (African) South Africans and positive outgroup attitudes towards coloured South Africans).

These findings are notable for three important reasons. Firstly, the full empathy generalisation received strong support over-and-above the operation of attitude generalisation in this model (the effect of positive outgroup attitudes towards coloured South Africans in general was controlled for – partialled out – during the course of fitting these regressions), as well as prior contact with the secondary outgroup. As such, these findings cannot be explained away as an artefact of secondary outgroup contact or as an artefact of the presence of the attitude generalisation effect. Secondly, the pattern of relationships observed is unlikely to be accounted for by the operation of shared method variance because two, very different measures of contact, empathy and prejudice were used to measure these constructs in relation to the primary and secondary outgroup. Thirdly, these findings offer evidence that is consistent with Batson et al.'s (1997) hypothesised causal ordering of perspective-taking and affective empathy. I could not find any research in the existing literature that has explored the causal sequencing between perspective-taking and affective empathy before, and so these are likely the first results of their kind. An important caveat should be noted here: the cross-sectional design is not at

all appropriate for adequately testing causal relationships, and so the findings of the present study should be interpreted with caution. This is a point elaborated upon below.

These findings also offer support for Pettigrew's (1997) suggestion that cross-group friendships, in particular, are able to enhance perspective-taking towards the outgroup far better than more casual forms of intergroup contact, and that such perspective-taking is an important mediator of the STE (via the process of deprovincialisation). However, Pettigrew (1997) did not explain how perspective-taking mediates the STE. The present study suggests that it does so via the increase in affective empathy towards the secondary outgroup.

The present study, therefore, offers numerous important theoretical contributions. First of all, these findings provide evidence that empathy indeed mediates the STE. Very little research has been done to provide evidence for this mediational effect (but see Galinsky & Moskowitz, 2000, Study 1; Vezzali & Giovannini, 2011; Vezzali et al., 2014). Secondly, and more significantly, very little research has been done to test both mediation pathways as predicted by Lolliot et al. (2013; but see Vezzali & Giovannini, 2011). Thirdly, the present findings report evidence for the empathy generalisation hypothesis while also ruling out the potential effects of alternative explanations for these results, including secondary outgroup contact, shared method variance, and attitude generalisation. The present findings, therefore, are rather compelling, in spite of their cross-sectional nature. Finally, the present study provides evidence consistent with Batson et al.'s (1997) three-step model that describes the relationship between cognitive and affective empathy.

Beyond these theoretical contributions, the present findings also offer important suggestions for interventions aimed at fostering generalised positive intergroup relations. These results suggest that intergroup contact interventions amongst Stellenbosch University students should not only focus on creating high-quality contact experiences with acquaintance potential, but should also be structured so as to promote greater understanding across social groups by engendering affective empathy and perspective-taking. Specifically, such interventions should include activities that encourage ingroup members to try to understand the world from the point-of-view of marginalised outgroup members (i.e., perspective-taking), as well as

to encourage an empathic emotional response to the inequalities experienced by marginalised outgroup members (i.e., affective empathy). However, the results suggest that interventions should perhaps first focus on developing perspective-taking amongst participants as opposed to affective empathy, because greater perspective-taking might be a prerequisite for the development of affective empathy (Batson et al., 1997). It is most encouraging that the present findings suggest that interventions aimed at promoting greater perspective-taking towards one outgroup (participating in the intervention) might also succeed in stimulating empathy towards other, secondary outgroups as well (i.e., outgroups not participating in the contact intervention).

Limitations of the Present Study

The present study has made significant contributions to the intergroup contact literature in various ways. Nevertheless, there are a number of limitations associated with the present study that should be acknowledged. Firstly, the present study employed a cross-sectional survey design to test causal predictions. Cross-sectional survey designs are not suitable for testing the causal relationships between variables (MacCallum & Austin, 2000). Only experimental designs are able to adequately test causal predictions because of the high-level of internal validity that such designs possess. As such, experimental designs are able to rule out competing explanations for a given result, something that cross-sectional designs cannot do. To try to mitigate this weakness of the cross-sectional survey design that was employed, very strict (precise) a priori predictions were tested in the present study (each derived from a careful review of the literature). Moreover, alternative paths describing alternative 'causal' relationships between the data were not tested given (a) the weakness of the cross-sectional design, and (b) the strong support that was found for the a priori, theory-driven model that was tested. Relatedly, the present study made use of a series of independent regressions to test the a priori predictions, whereas running a single path analysis using a structural equation modelling program would arguably have been more appropriate when testing the complex relationships described by the hypotheses.

While the high internal validity of experimental designs make them the most appropriate means for testing causal relationships, experimental designs typically

lack external validity. In other words, the manipulations used to test hypotheses within the carefully controlled laboratory environment rarely correspond with the conditions prevailing beyond the laboratory, in the 'real-world'. In this regard, the cross-sectional design that was employed arguably possesses greater external validity, and with data that offer a more accurate representation of what is taking place in the 'real-world', than an experimental design. One means of attempting to increase the internal validity of such research designs without sacrificing too much external validity is through the use of longitudinal research designs. Such designs have greater internal validity than cross-sectional designs (though not as much as experimental designs) because they are able to control for the autoregressive effects of variables over time (Cole & Maxwell, 2007; Swart et al., 2011), while they retain the external validity associated with cross-sectional designs. Moreover, longitudinal designs allow one to assess whether effects are stable (generalisable) over time, something cross-sectional 'snapshots' are unable to do.

However, even longitudinal research designs are not as useful for testing causal hypotheses as experimental designs are. Moreover, both experimental and longitudinal research designs are resource intensive, requiring far more time to complete than cross-sectional research. As such, the present study's research design was appropriate because it was conducted within a 'real-world' context, and practical, given the time constraints of a Masters thesis, because it did not require substantial resources or time. Despite the fact the present study was cross-sectional in nature the findings are still valuable and contribute significantly to the body of intergroup contact literature because of the lack of research exploring the secondary transfer effect and more importantly, the mechanisms underlying this effect.

The second limitation associated with the present study relates to the generalisability of the findings (a) beyond the sample that participated in the study, (b) beyond Stellenbosch University, (c) beyond the ingroup-primary outgroup-secondary outgroup combinations studied in this study, and (d) over time (which has already been discussed above). The findings of the present study should be interpreted with caution because they may well not generalise beyond the white South African undergraduate sample that was studied. It is important to note that only 551 students (out of more than 10,000 prospective participants) completed the online survey. It is therefore not clear to what extent these 551 participants

accurately reflect the white undergraduate population at Stellenbosch University in general, or whether there are self-selection effects at work. Moreover, it is not clear whether this pattern of results would also be found for white South Africans from the general population (i.e., non-university students), or even for white South African students studying at other universities. It may also not be possible to generalise the present findings to different ingroup-primary outgroup-secondary outgroup combinations from that studied in the present study. It may be that the pattern of results that was observed is particular to this sample, students at Stellenbosch University, and/or this particular combination of ingroups and outgroups.

Finally, a key consideration in the design of the present study was to limit the overall number of questions in the online survey so as to keep the amount of time required to complete the survey to a minimum, as a means of reducing participant non-participation. However, this meant that the present study did not include a number of potentially moderating or mediating variables that might have contributed towards better understanding the pattern of results that was observed. Chief amongst the moderating variables that might have also been included is that of perceived outgroup similarity. It is therefore not clear whether the attitude and empathy generalisation effects are perhaps moderated by greater perceived outgroup similarity or not. Amongst the potential mediators of the STE, the present study did not include variables measuring deprovincialisation, intergroup anxiety, or perceived outgroup threat (Stephan & Stephan, 2000), each of which may be relevant when considering the STE within the South African context.

Directions for Future Research

The limitations of the present study that are presented above offer ideas for future studies on the STE. Firstly, future studies should incorporate an experimental and/or longitudinal research design, running a single path analysis using a structural equation modelling program, in order to test the underlying causal relationships of the STE and the mediators of this effect. Secondly, future studies could improve on the limitation of the present study's sample, target group and setting that are mentioned above by using a randomised probability sample in order to heighten the generalisability of the results. Future studies should also include members of more than one ingroup in order to explore whether these findings replicate amongst other

groups as well. Studies should also be conducted in other universities and settings within South Africa to test whether these findings would replicate amongst white South Africa students from other universities, and to white South Africans in the general population. Lastly, future studies should include various measures that were not included in the present study, but that have been shown to have an influence on the effect outcomes.

For example, the inclusion of perceived outgroup similarity within future South African studies on the secondary transfer effect would enable a more thorough investigation of when the STE is most likely to occur within the South African context. Future studies could also provide more insight into the processes underlying the STE by investigating alternative potential mediators of the STE to those of attitude and empathy generalisation. These alternatives include, for example, deprovincialisation and intergroup anxiety (see Lolliot et al., 2013).

Relatedly, most studies on the STE, including the present study, have used direct measures of contact (especially measuring cross-group friendships; e.g., Pettigrew, 1997; Swart, 2008). Future research is needed to test whether the STE could occur using more indirect forms of contact (i.e., extended contact or imagined contact; see Harwood et al., 2011; Verzzali et al., 2014). Indirect forms of contact could be a possible way to facilitate positive intergroup contact effects when there is a lack of direct contact opportunities and/or when individuals do not make use of intergroup contact opportunities when they are presented, but rather show contact avoidance, which occurs in the South African context in particular (see also, Pettigrew, Wagner, Christ, & Stellmacher, 2007).

The STE is unlikely to occur, or to be as pronounced, without direct intergroup contact with one or more members of at least one outgroup. Research is therefore also needed to uncover those negative factors operating in some contact situations that led to contact avoidance - intergroup anxiety, distrust, prior negative intergroup contact, fear of being perceived as prejudiced, or the fear of being the target of prejudice, language barriers, personality factors like introversion, and so forth. Conversely, research is also needed to further study those positive factors that facilitate the likelihood that individuals will make use of opportunities to engage in intergroup contact. These include, for example, prior positive intergroup contact,

common interests, authority support, positive social norms, personality factors like extraversion, and so forth. In other words, future research (particularly in the South African context) needs to focus on how contact avoidance could be successfully discouraged and how to promote the translation of opportunities for contact into actual face-to-face contact. The present study shows encouraging evidence that when such positive, face-to-face encounters do occur within the South African context, they are likely to bring about generalised prejudice reduction towards a variety of outgroups beyond the primary outgroup encountered.

Conclusion

The present study contributes significantly to the body of literature exploring the STE. Beyond presenting evidence in support of the STE within the South African context, the present study also highlights two affective mechanisms that mediate the STE, namely attitude and empathy generalisation. The present study, therefore, also has practical relevance in demonstrating that intergroup contact (especially in the form of cross-group friendships) could have far-reaching positive effects at Higher Education Institutions in South Africa such as Stellenbosch University, and within the broader South African context in general. The present study supports the importance of cross-group friendships as a means of fostering positive outgroup attitudes within the contact situation, and also reducing prejudice towards a variety of outgroups beyond the contact situation. These findings support the value of positive (high-quality) intergroup contact for the creation of a more tolerant, harmonious South African society.

REFERENCES

- Aberson, C. L., & Haag, S. C. (2007). Contact, perspective taking, and anxiety as predictors of stereotype endorsement, explicit attitudes, and implicit attitudes. *Group Processes and Intergroup Relations, 10*, 179-201. doi: 10.1177/1368430207074726
- Alexander, L., & Tredoux, C. (2010). The spaces between us: A spatial analysis of informal segregation at a South African university. *Journal of Social Issues, 66*, 367-386. doi:10.1111/j.1540-4560.2010.01650.x
- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Perseus Books.
- Allport, G. W., & Kramer, B. M. (1946). Some roots of prejudice. *Journal of Psychology, 22*, 9-39.
- Al Ramiah, A. (2009). *Intergroup relations in Malaysia: Identity, contact and threat* (Unpublished doctoral dissertation). Oxford University, Oxford.
- Al Ramiah, A., & Hewstone, M. (2012). "Rallying around the flag": Can an intergroup contact intervention promote national unity? *British Journal of Social Psychology, 51*, 239-256. doi:10.1111/j.2044-8309.2011.02041.x
- Al Ramiah, A., & Hewstone, M. (2013). Intergroup contact as a tool for reducing, resolving and preventing intergroup conflict: Evidence, limitations, and potential. *American Psychologist, 68*, 527-542. doi:10.1037/a0032603
- Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71*, 319-342.
- Amir, Y. (1976). The role of intergroup contact in change of prejudice and race relations. In P. Katz & D. A. Taylor (Eds.), *Towards the elimination of racism* (pp. 245-308). New York, NY: Pergamon Press.
- Aronson, E., & Patnoe, S. (1997). *The jigsaw classroom*. New York, NY: Longman.

- Asbrock, F., Christ, O., Hewstone, M., Pettigrew, T. F., & Wagner, U. (2011). *Comparing the secondary transfer effect of direct and extended intergroup contact: The generalization of positive attitudes and its limitations*. Manuscript submitted for publication.
- Attwell, M. (1986). *South Africa: Background to the crisis*. London, England: Sidgewick & Jackson.
- Barlow, F. K., Louis, W. R., & Hewstone, M. (2009). Rejected! Cognitions of rejection and intergroup anxiety as mediators of the impact of cross-group friendships on prejudice. *British Journal of Social Psychology, 48*, 389-405.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182. doi:10.1037/0022-3514.51.6.1173
- Batson, C. D., & Ahmad, N. Y. (2009). Using empathy to improve intergroup attitudes and relations. *Social Issues and Policy Review, 3*, 141-177.
- Batson, C. D., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H. J., Mitchener, E. C., Bednar, L. L., Klein, T. R., & Highberger, L. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology, 72*, 105-118.
- Binder, J., Zagefka, H., Brown, R., Funke, F., Kessler, T., Mummendey, A., & Leyens, J. P. (2009). Does contact reduce prejudice or does prejudice reduce contact? A longitudinal test of the contact hypothesis amongst majority and minority groups in three European countries. *Journal of Personality and Social Psychology, 96*, 843-856. doi: 10.1037/a0013470
- Blascovich, J., Mendes, W. B., Hunter, S. B., Lickel, B., & Kowai-Bell, N. (2001). Perceiver threat in social interactions with stigmatized others. *Journal of Personality and Social Psychology, 80*, 253-267.

- Bornstein, R. F. (1989). Exposure and affect: Overview and meta-analysis of research, 1968-1987. *Psychological Bulletin*, *106*, 263-289.
- Bowman, N. A., & Griffin, T. M. (2012). Secondary transfer effects of interracial contact: The moderating role of social status. *Cultural Diversity and Ethnic Minority Psychology*, *18*, 35-44.
- Brewer, M. B., & Kramer, R. M. (1985). The psychology of intergroup attitudes and behaviour. *Annual Review of Social Psychology*, *36*, 219-243.
- Brewer, M. B., & Miller, N. (1984). Beyond the contact hypothesis: Theoretical perspectives on desegregation. In N. Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of desegregation* (pp. 281-302). Orlando, FL: Academic Press.
- Brits, J. P. (1994). *Op die vooraand van Apartheid: Die rassevraagstuk en die blankepolitiek in Suid-Afrika 1939-1948*. Pretoria: University of South Africa.
- Brophy, I. N. (1946). The luxury of anti-Negro prejudice. *Public Opinion Quarterly*, *9*, 456-466.
- Brown, R., & Abrams, D. (1986). The effects of intergroup similarity and goal interdependence on intergroup attitudes and task performance. *Journal of Experimental Social Psychology*, *22*, 78-92.
- Brown, R., & Hewstone, M. (2005). An integrated theory of intergroup contact. In M. Zanna (Ed.), *Advances in experimental social psychology* (pp. 255-343). San Diego, CA: Academic Press.
- Cameron, L., & Rutland, A. (2006). Extended contact through story reading in school: Reducing children's prejudice toward the disabled. *Journal of Social Issues*, *62*, 469-488.
- Cameron, L., Rutland, A., Brown, R., & Douch, R. (2006). Changing children's intergroup attitudes toward refugees: Testing different models of extended contact. *Child Development*, *77*, 1208-1219.

- Caspi, A. (1984). Contact hypothesis and inter-age attitudes: A field study of cross-age contact. *Social Psychology Quarterly*, 47, 74-80.
- Cehajic, S., Brown, R., & Castano, E. (2008). Forgive and forget? Antecedents and consequences of intergroup forgiveness in Bosnia and Herzegovina. *Political Psychology*, 29, 351-367.
- Chisholm, L., & Nkomo, M. (2005). *Bringing the South African rainbow into schools*. HSRG Review, 3 (September, 2005), 15-16. Retrieved from <http://www.hsrc.ac.za/about/HSRCReview/Vol3No3/HSRCReview.pdf>
- Christ, O., Hewstone, M., Tausch, N., Wagner, U., Voci, A., Hughes, J., & Cairns, E. (2010). Direct contact as a moderator of extended contact effects: Cross-sectional and longitudinal impact on outgroup attitudes, behavioral intentions, and attitude certainty. *Personality and Social Psychology Bulletin*, 36, 1662-1674.
- Clack, B., Dixon, J., & Tredoux, C. (2005). Eating together apart: Patterns of segregation in a multi-ethnic cafeteria. *Journal of Community and Applied Social Psychology*, 15, 1-16. doi:10.1002/casp.787
- Clement, R., Gardner, R. C., & Smythe, P. C. (1977). Interethnic contact: Attitudinal consequences. *Canadian Journal of Behavioral Science*, 9, 205-215.
- Cohen, E. G., & Lothan, R. A. (1995). Producing equal status interaction in the heterogeneous classroom. *American Educational Research Journal*, 32, 99-120.
- Cole, D. A., & Maxwell, S. E. (2003). Testing mediational models with longitudinal data: Questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology*, 112, 558-577. doi:10.1037/0021-843X.112.4.558
- Cook, S. W. (1984). Cooperative interaction in multiethnic contexts. In N. Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of desegregation* (pp. 155-185). Orlando, FL: Academic Press.

- Crush, J. (2000). The dark side of democracy: Migration, xenophobia, and human rights in South Africa. *International Migration*, 38, 103-133.
- Davies, K., Tropp, L. R., Aron, A., Pettigrew, T. F., & Wright, S. C. (2011). Cross-group friendships and intergroup attitudes: A meta-analytic review. *Personality and Social Psychology Review*, 15, 332-351.
- Davis, M. H. (1994). *Empathy: a social psychological approach*. Wisconsin, MA: Brown & Benchmark.
- De Reuck, J. (1999). Social suffering and the politics of pain: Observations on the concentration camps in the Anglo-Boer War 1899-1902. *English in Africa*, 2, 69-88. <http://www.jstor.org/stable/40238883>
- Desforges, D. M., Lord, C. G., Ramsey, S. L., Mason, J. A., Van Leeuwen, M. D., West, S. C., & Lepper, M. R. (1991). Effects of structured cooperative contact on changing negative attitudes towards stigmatized social groups. *Journal of Personality and Social Psychology*, 72, 105-118.
- De Tezanos-Pinto, P., Bratt, C., & Brown, R. (2010). What will the others think? Ingroup norms as a mediator of the effects of intergroup contact. *British Journal of Social Psychology*, 49, 507-523.
- Deutsch, M., & Collins, M. E. (1951). *Interracial housing: A psychological evaluation of a social experiment*. Minneapolis, MN: University of Minnesota Press.
- Dhont, K., Roets, A., & Van Hiel, A. (2011). Opening closed minds: The combined effects of intergroup contact and need for closure on prejudice. *Personality and Social Psychology Bulletin*, 37, 514-528.
- Dixon, J. A., & Durrheim, K. (2003). Contact and the ecology of racial division: Some varieties of informal segregation. *British Journal of Social Psychology*, 42, 1-23.
- Dixon, J. A., & Durrheim, K. (2010). Racial contact and change in South Africa. *Journal of Social Issues*, 66, 273-288.

- Dixon, J. A., Durrheim, K., & Tredoux, C. (2005). Beyond the optimal contact strategy: A reality check for the contact hypothesis. *American Psychologist, 60*, 697-711.
- Dixon, J., Durrheim, K., Tredoux, C., Tropp, L., Clack, B., & Eaton, L. (2010). A paradox of integration? Interracial contact, prejudice reduction, and perceptions of racial discrimination. *Journal of Social Issues, 66*, 401-416.
- Dixon, J. A., & Reicher, S. (1997). Intergroup contact and desegregation in the new South Africa. *British Journal of Social Psychology, 36*, 361-381.
- Dixon, J. A., Tredoux, C., Durrheim, K., Finchilescu, G., & Clack, B. (2008). The inner citadels of the color line: Mapping the micro-ecology of racial segregation in everyday life spaces. *Social and Personality Psychology Compass, 2*, 1547-1569. doi:10.1111/j.1751-9004.2008.00123.x
- Durrheim, K., Tredoux, C., Foster, D., & Dixon, J. (2011). Historical trends in South African race attitudes. *South African Journal of Psychology, 41*, 263-278.
- Eades, L. M. (1999). *The end of Apartheid in South Africa*. Westport, CT: Greenwood Press.
- Eller, A., & Abrams, D. (2004). Come together: Longitudinal comparisons of Pettigrew's reformulated intergroup contact model and the common ingroup identity model in Anglo-French and Mexican-American contexts. *European Journal of Social Psychology, 34*, 229-256.
- Fazio, R. H., Eiser, J. R., & Shook, N. J. (2004). Attitude formation through exploration: Valence asymmetries. *Journal of Personality and Social Psychology, 87*, 293-311.
- Feddes, A. R., Noack, P., & Rutland, A. (2009). Direct and extended friendship effects on minority and majority children's interethnic attitudes: A longitudinal study. *Child Development, 80*, 377-390.

- Field, A. P. (2010). *Discovering statistics using SPSS* (3rd ed.). London, England: Sage Publishers.
- Finchilescu, G., Tredoux, C., Muianga, L., Mynhardt, J., & Pillay, J. (2006). *Testing contact theory in South African: A study of four universities*. Paper presented at the conference, "Contact and Intergroup Relations: 50 Years On", held at Ithala Game Lodge, South Africa, 6-9 July.
- Finchilescu, G., Tredoux, C., Mynhardt, J., Pillay, J., & Muianga, L. (2007). Accounting for lack of interracial mixing amongst South African university students. *South African Journal of Psychology*, 37, 720-737.
- Finkel, S. E. (1995). *Causal analysis with panel data*. London, England: Sage.
- Finlay, K. A., & Stephan, W. G. (2000). Improving intergroup relations: The effects of empathy on racial attitudes. *Journal of Applied Social Psychology*, 20, 1720-1737.
- Fiske, S. T., Cuddy, A. J. C., Click, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82, 878-902. doi: 10.1037//0022-3514.82.6.878
- Forbes, H. D. (1997). *Ethnic conflict: Commerce, culture, and the contact hypothesis*. New Haven, CT: Yale University Press.
- Ford, W. S. (1986). Favorable intergroup contact may not reduce prejudice: Inconclusive journal evidence, 1960-1984. *Sociology and Social Research*, 70, 256-258.
- Foster, D., & Finchilescu, G. (1986). Contact in a non-contact society: The case of South Africa. In M. Hewstone & R. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 119-136). Oxford, UK: Basil Blackwell.
- Gaertner, S. L., & Dovidio, J. (2000). *Reducing intergroup bias: The common ingroup identity model*. Hove: Psychology Press.

- Gaertner, S. L., Mann, J. A., Murrell, A. J., & Dovidio, J. F. (1989). Reducing intergroup bias: The benefits of recategorization. *Journal of Personality and Social Psychology, 57*, 239-249.
- Gaertner, S. L., Rust, M. C., Dovidio, J. F., Bachman, B. A., & Anastasio, P. A. (1996). The Contact Hypothesis: The role of a common ingroup identity on reducing intergroup bias among majority and minority group members. In J. L. Nye & A. M. Brower (Eds.), *What's social about social cognition?* (pp. 230-260). Newbury Park, CA: Sage Publications.
- Gaither, S. E., & Sommers, S. R. (2013). Living with an other-race roommate shapes Whites' behavior in subsequent diverse settings. *Journal of Experimental Social Psychology, 49*, 272-276. doi:10.1016/j.jesp.2012.10.020.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective-taking: decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology, 78*, 708-724.
- Gibson, J. L. (2004). *Overcoming Apartheid: Can truth reconcile a divided nation?* New York, NY: Russell Sage Foundation.
- Gibson, J. L., & Claassen, C. (2010). Racial reconciliation in South Africa: Interracial contact and changes over time. *Journal of Social Issues, 66*, 255-272.
- Goffman, E. (1963). *Stigma: Notes on the Management of Spoiled Identity*. Englewood Cliffs, NJ: Prentice Hall.
- Greenland, K., & Brown, R. (1999). Categorization and intergroup anxiety in contact between British and Japanese nationals. *European Journal of Social Psychology, 18*, 492-411.
- Hamberger, J., & Hewstone, M. (1997). Inter-ethnic contact as a predictor of blatant and subtle prejudice: tests of a model in four West European nations. *British Journal of Social Psychology, 36*, 173-190.

- Harmon-Jones, E., & Allen, J. J. B. (2001). The role of affect in the mere exposure effect: Evidence from physiological and individual differences approaches. *Personality and Social Psychology Bulletin*, 27, 889-898.
- Harrington, H. J., & Miller, N. (1992). Research and theory in intergroup relations: Issues of consensus and controversy. In J. Lynch, C. Modgil, & S. Modgil (Eds.), *Cultural diversity and the schools* (pp. 159-178). London, England: Falmer.
- Harwood, J., Hewstone, M., Paolini, S., & Voci, A. (2005). Grandparent-grandchild contact and attitudes toward older adults: Moderator and mediator effects. *Personality and Social Psychology Bulletin*, 31, 393-406.
doi: 10.1177/0146167204271577
- Harwood, J., Paolini, S., Joyce, N., Rubin, M., & Arroyo, A. (2011). Secondary transfer effects from imagined contact: Group similarity affects the generalization gradient. *British Journal of Social Psychology*, 50, 180-189.
- Herek, G. M., & Capitanio, J. P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin*, 22, 412-424.
- Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the 'contact hypothesis'. In M. Hewstone & R. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 1-44). Oxford: Basil Blackwell.
- 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, 99-120.
- Hewstone, M., & Swart, H. (2011). Fifty-odd years of inter-group contact: From hypothesis to integrated theory. *British Journal of Social Psychology*, 50, 374-386.

- Hodson, G. (2008). Interracial prison contact: The pros for (socially dominant) cons. *British Journal of Social Psychology, 47*, 325-351.
- Hodson, G. (2011). Do ideologically intolerant people benefit from intergroup contact? *Current Directions in Psychological Science, 20*, 154-159.
- Hodson, G., Harry, H., & Mitchell, A. (2009). Independent benefits of contact and friendship on attitudes toward homosexuals among authoritarians and highly identified heterosexuals. *European Journal of Social Psychology, 39*, 509-525.
- Hogg, M. A., & Ridgeway, C. (2003). Social identity: Sociological and social psychological perspectives. *Social Psychology Quarterly, 66*, 97-100.
- Hogg, M. A., Terry, D. J., & White, K. M. (1995). A tale of two theories: A critical comparison of Identity Theory with Social Identity Theory. *Social Psychology Quarterly, 58*, 255-269.
- Holtman, Z., Louw, J., Tredoux, C., & Carney, T. (2005). Prejudice and social contact in South Africa: A study of integrated schools ten years after apartheid. *South African Journal of Psychology, 35*, 473-493.
- Hopkins, N., & Kahani-Hopkins, V. (2006). Minority group members' theories of intergroup contact: A case study of British Muslims' conceptualisations of 'Islamophobia' and social change. *British Journal of Social Psychology, 45*, 245-264. doi:10.1348/014466605X48583
- Hulme, T. S. (1984). White ideologies and non-European participation in the Anglo-Boer War, 1899-1902. *Journal of Black Studies, 15*, 223-234. Retrieved from <http://www.jstor.org/stable/2784010>
- Husnu, S., & Crisp, R. J. (2010). Elaboration enhances the imagined contact effect. *Journal of Experimental Social Psychology, 46*, 943-950. doi: 10.1016/j.jesp.2010.05.014

- Institute for Justice and Reconciliation. (2013). *Confronting Exclusion: Time for Radical Reconciliation. SA Reconciliation Barometer Survey: 2013 Report*. Retrieved from: <http://reconciliationbarometer.org/wp-content/uploads/2013/12/IJR-Barometer-Report-2013-22Nov1635.pdf>
- Islam, M. R., & Hewstone, M. (1993). Dimensions of contact as predictors of intergroup anxiety, perceived out-group variability, and out-group attitude: An integrative model. *Personality and Social Psychology Bulletin*, 19, 700-710. doi: 10.1177/0146167293196005
- Jackson, J. W. (1993). Contact theory of intergroup hostility: A review and evaluation of the theoretical and empirical literature. *International Journal of Group Tensions*, 23, 43-65.
- Karris, T. G. & Gerhart, G. M. (1997). *From protest to challenge*. Pretoria: Unisa Press.
- Kinloch, G. (1985). Racial attitudes in South Africa: A review. *Genetic, Social, and General Psychology Monographs*, 11, 261-281.
- Landis, D., Hope, R. O., & Day, H. R. (1984). Training for desegregation in the military . In N. Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of desegregation* (pp. 257-278). Orlando, FL: Academic Press.
- Lee, A. M. (1968). *Race riot, Detroit 1943*. New York, NY: Octagon Books.
- Lee, A. Y. (2001). The mere exposure effect: An uncertainty reduction explanation revisited. *Personality and Social Psychology Bulletin*, 27, 1255-1266.
- Lee, B., Farrell, C. R., & Link, B. G. (2004). Revisiting the contact hypothesis: The case of public exposure to homelessness. *American Sociological Review*, 69, 40-63.
- Le May, G. H. L. (1965). *British supremacy in South Africa, 1899-1907*. Oxford: Clarendon.

- Le May, G. H. L. (1971). *Black and White in South Africa: The politics of survival*. London, England: B.P.C.
- Lemon, A. (1976). *Apartheid: A geography of separation*. Hants, UK: Saxon House.
- Lemon, A. (1987). *Apartheid in transition*. Hants, UK: Gower.
- Levin, S., Van Laar, C., & Sidanius, J. (2003). The effects of ingroup and outgroup friendships on ethnic attitudes in college: A longitudinal study. *Group Processes and Intergroup Relations*, 6, 76-92.
- Lolliot, S., Schmid, K., Hewstone, M., Al Ramiah, A., Tausch, N., & Swart, H. (2013). Generalized effects of intergroup contact: The secondary transfer effect. In G. Hodson & M. Hewstone (Eds.), *Advances in intergroup contact* (pp.81-112). New York, NY: Psychology Press.
- Louw, D. A. (1984). *Menslike ontwikkeling*. Pretoria: HAUM-Tersiêr.
- MacCallum, R. C., & Austin, J. T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of Psychology*, 51, 201-226.
- Mähönen, T. A., Jasinskaja-Lahti, I., & Liebkind, K. (2011). The impact of perceived social norms, gender, and intergroup anxiety on the relationship between intergroup contact and ethnic attitudes of adolescents. *Journal of Applied Social Psychology*, 41, 1877-1899.
- Makas, E. (1993). Getting in touch: The relationship between contact with and attitudes toward people with disabilities. In M. Nagler (Ed.), *Perspectives on disability* (pp. 121-136). Palo Alto, CA: Health Market Research.
- Maoz, I. (2003). Peace-building with the hawks: Attitude change of Jewish-Israeli hawks and doves following dialogue encounters with Palestinians. *International Journal of Intercultural Relations*, 27, 701-714.

- Martin, R., & Hewstone, M. (2008). Majority versus minority influence, message processing and attitude change: The source-context-elaboration model. *Advances in Experimental Social Psychology, 40*, 237-326.
- Martin, P. Y., Laing, J., Martin, R., & Mitchell, M. (2005). Caffeine, cognition, and persuasion: Evidence for caffeine increasing the systematic processing of persuasive messages. *Journal of Applied Social Psychology, 35*, 160-182.
- Mazziotta, A., Mummendey, A., & Wright, S. C. (2011). Vicarious intergroup contact effects: Applying social-cognitive theory to intergroup contact research. *Group Processes and Intergroup Relations, 14*, 255-274.
- McClendon, M. J. (1974). Interracial contact and the reduction of prejudice. *Sociological Focus, 7*, 47-65.
- McGinnis, S. P. (1990). *Descriptive and evaluative components of stereotypes of computer programmers and their determinants* (Unpublished doctoral dissertation). New York City University.
- McGuigan, W. M., & Scholl, C. (2007). The effect of contact on attitudes toward old order Amish. *Journal of Applied Social Psychology, 37*, 2642-2659.
doi: 10.1111/j.1559-1816.2007.00274.x
- McLaren, L. M. (2003). Anti-immigrant prejudice in Europe: Contact, threat perception, and preferences for the exclusion of migrants. *Social Forces, 81*, 909-936.
- Miller, P. A., & Eisenberg, N. (1988). The relation of empathy to aggressive and externalizing/antisocial behaviour. *Psychological Bulletin, 103*, 324-344.
- Minard, R. D. (1952). Race relationships in the Pocahontas coal field. *Journal of Social Issues, 8*, 29-44.

- Moaz, I., & McCauley, C. (2011). Explaining support for violating out-group human rights in conflict: Attitudes towards principles of human rights, trust in the out-group, and intergroup contact. *Journal of Applied Social Psychology, 41*, 891-905.
- Moholola, F., & Finchilescu, G. (2006). Intergroup attitudes of Black South African students attending multiracial and single race schools. Paper presented at the conference, "Contact and Intergroup Relations: 50 Years On", held at Ithala Game Lodge, South Africa, 6-9 July.
- Morgan, K. O. (2002). The Boer War and the media (1899-1902). *Twentieth Century British History, 13*, 1-16. doi:10.1093/tcbh/13.1.1
- Mutz, D. C. (2002). Cross-cutting social networks: Testing democratic theory in practice. *American Political Science Review, 96*, 111-126.
- Nesdale, D., & Todd, P. (1998). Intergroup ratio and the contact hypothesis. *Journal of Applied Social Psychology, 28*, 1196-1217.
- O' Meara, D. (1996). *Forty lost years*. South Africa: Ravan Press.
- Page-Gould, E., Mendoza-Denton, R., & Tropp, L. R. (2008). With a little help from my cross-group friend: Reducing anxiety in intergroup contexts through cross-group friendship. *Journal of Personality and Social Psychology, 95*, 1080-1094.
- Pagotto, L., Voci, A., & Maculan, V. (2010). The effectiveness of intergroup contact at work: Mediators and moderators of hospital workers' prejudice towards immigrants. *Journal of Community and Applied Social Psychology, 20*, 317-330.
- Paolini, S., Hewstone, M., Cairns, E., & Voci, A. (2004). Effects of direct and indirect cross-group friendships on judgements of Catholics and Protestants in Northern Ireland: the mediating role of an anxiety-reduction mechanism. *Personality and Social Psychology Bulletin, 30*, 770-786.

- Patchen, M. (1999). *Diversity and unity: Relations between racial and ethnic groups*. Chicago: Nelson-Hall.
- Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology*, *46*, 598-609.
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). New York, NY: Academic Press.
- Pettigrew, T. F. (1986). The contact hypothesis revisited. In H. Hewstone & R. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 169-195). Oxford, England: Basil Blackwell.
- Pettigrew, T. F. (1997). Generalized intergroup contact effects on prejudice. *Personality and Social Psychology Bulletin*, *23*, 173-185.
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology*, *49*, 65-85.
- Pettigrew, T. F. (2009). Secondary transfer effect of contact: Do intergroup contact effects spread to noncontacted outgroups? *Social Psychology*, *40*, 55-65.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, *90*, 751-783.
- 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*, 922-934. doi: 10.1002/ejsp.504
- Pettigrew, T. F., & Tropp, L. R. (2011). *When groups meet: The dynamics of intergroup contact*. Philadelphia, PA: Psychology Press.
- Pettigrew, T. F., Tropp, L. R., Wagner, U., & Christ, O. (2011). Recent advances in intergroup contact theory. *International Journal of Intercultural Relations*, *35*, 271-280. doi: 10.1016/j.ijintrel.2011.03.001

- Pettigrew, T. F., Wagner, U., Christ, O., & Stellmacher, J. (2007). Direct and indirect intergroup contact effects on prejudice: A normative interpretation. *International Journal of Intercultural Relations*, 31, 411-425.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviour Research Methods, Instruments, & Computers*, 36(4), 717-731.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behaviour Research Methods*, 40, 879-891. doi:10.3758/BRM.40.3.879
- Prestwich, A., Kenworthy, J., Wilson, M., & Kwan-Tat, N. (2008). Differential relations between two types of contact and implicit and explicit racial attitudes. *British Journal of Social Psychology*, 47, 575-588.
- Reed, G. G. (2011). The complexity of moral learning: Diversity, deprovincialisation and privilege. *Journal of Moral Education*, 40, 359-367.
- Richeson, J. A., & Shelton, J. N. (2003). When prejudice does not pay: Effects of interracial contact on executive function. *Psychological Science*, 14, 287-290.
- Roman, H. S. (1969). Semantic generalization in formation of consumer attitudes. *Journal of Marketing Research*, 6, 369-373.
- Schmid, K., Hewstone, M., Küpper, B., Zick, A., & Wagner, U. (2012). Secondary transfer effects of intergroup contact: A cross-national comparison in Europe. *Social Psychology Quarterly*, 75, 28-51. doi: 10.1177/0190272511430235
- Schrieff, L., Tredoux, C., Dixon, J., & Finchilescu, G. (2005). Patterns of racial segregation in university residence dining-halls. *South African Journal of Psychology*, 35, 433-443.

- Schrieff, L. E., Tredoux, C. G., Finchilescu, G., & Dixon, J. A. (2010). Understanding the seating patterns in a residence-dining hall: A longitudinal study of intergroup contact. *South African Journal of Psychology*, *40*, 5-17.
- Schwartz, L. K., & Simmons, J. P. (2001). Contact quality and attitudes toward the elderly. *Educational Gerontology*, *27*, 127-137.
doi: 10.1080/03601270151075525
- Seta, C., Seta, J. J., & Culver, J. (2000). Recategorization as a method for promoting intergroup cooperation: Group status matters. *Social Cognition*, *18*, 354-376.
- Shelton, J. N. (2003). Interpersonal concerns in social encounters between majority and minority group members. *Group Processes and Intergroup Relations*, *6*, 171-185. doi: 10.1177/1368430203006002003
- Sherif, M. (1966). *Group conflict and cooperation: Their social psychology*. London: Routledge and Kegan Paul.
- Shih, M., Wang, E., Bucher, A. T., & Stotzer, R. (2009). Perspective taking: Reducing prejudice towards general outgroups and specific individuals. *Group Processes & Intergroup Relations*, *12*, 565-577.
- Shook, N. J., Fazio, R. H., & Eiser, J. R. (2007). Attitude generalization: Similarity, valence, and extremity. *Journal of Experimental Social Psychology*, *43*, 641-647.
- Sidanius, J., & Pratto, F. (1999). *Social dominance*. Cambridge, UK: Cambridge University Press.
- Sims, V. M., & Patrick, J. R. (1936). Attitude toward the Negro of northern and southern college students. *Journal of Social Psychology*, *7*, 192-204.
- Singer, H. A. (1948). The veteran and race relations. *Journal of Educational Sociology*, *21*, 397-408.

Statistics South Africa. (2012). *Census 2011: Statistical release P0301.4 (Revised)*. Retrieved from <http://www.statssa.gov.za/publications/p03014/p030142011.pdf>

Stellenbosch University. (2013). *Facts and Statistics*. Retrieved from http://www.sun.ac.za/english/Documents/About/FactsAndStats/JH15705_Kitsfeite_Eng_PRINT.pdf

Stephan, W. G. (1987). The contact hypothesis in intergroup relations. In C. Hendrick (Ed.), *Review of personality and social psychology: Group processes and intergroup relations* (pp. 13-40). Newbury Park, CA: Sage.

Stephan, W. G., & Finlay, K. (1999). The role of empathy in improving intergroup relations. *Journal of Social Issues, 55*, 729-743.

Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social Issues, 41*, 157-175.

Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination. "The Claremont Symposium on Applied Social Psychology"* (pp. 23-45). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Swart, H. (2008). *Affective mediators of intergroup contact: Cross-sectional and longitudinal analyses in South Africa* (Unpublished doctoral dissertation). Oxford University, Oxford, England.

Swart, H., Hewstone, M., Christ, O., & Voci, A. (2010). The impact of cross-group friendships in South Africa: Affective mediators and multigroup comparisons. *Journal of Social Issues, 66*, 309-333.

Swart, H., Hewstone, M., Christ, O., & Voci, A. (2011). Affective mediators of intergroup contact: A three-wave longitudinal study in South Africa. *Journal of Personality and Social Psychology, 101*, 1221-1238. doi: 10.1037/a0024450

Tajfel, H. (1982). The social psychology of intergroup relations. *Annual Review of Psychology, 33*, 1-39.

- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behaviour. In S. Worchel, & W. G. Austen (Eds.), *Psychology of intergroup relations* (pp. 7-24). Chicago, IL: Nelson-Hall.
- Tam, T., Hewstone, M., Cairns, E., Tausch, N., Maio, G., & Kenworthy, J. (2007). The impact of intergroup emotions on forgiveness in Northern Ireland. *Group Processes and Intergroup Relations*, *10*, 119-136.
- Tam, T., Hewstone, M., Harwood, J., Voci, A., & Kenworthy, J. (2006). Intergroup contact and grandparent-grandchild communication: the effects of self-disclosure on implicit and explicit biases against older people. *Group Processes and Intergroup Relations*, *9*, 413-429.
doi: 10.1177/1368430206064642
- Tam, T., Hewstone, M., Kenworthy, J., Cairns, E. (2009). Intergroup trust in Northern Ireland. *Personality and Social Psychology Bulletin*, *35*, 45-59.
doi:10.1177/0146167208325004
- Tausch, N., & Hewstone, M. (2010). Intergroup contact and prejudice. In J. F. Dovidio, M. Hewstone, P. Glick, & V. M. Esses (Eds.), *The Sage handbook of prejudice, stereotyping, and discrimination* (pp. 544-560). Newburg Park, CA: Sage.
- Tausch, N., Hewstone, M., Kenworthy, J., Psaltis, C., Schmid, K., Popan, J. R., Cairns, E., & Hughes, J. (2010). Secondary transfer effects of intergroup contact: Alternative accounts and underlying processes. *Journal of Personality and Social Psychology*, *99*, 282-302.
- Tausch, N., Tam, T., Hewstone, M., Kenworthy, J., & Cairns, E. (2007). Individual-level and group-level mediators of contact effects in Northern Ireland: The moderating role of social identification. *British Journal of Social Psychology*, *46*, 541-556.
- Tredoux, C., & Dixon, J. A. (2009). Mapping the multiple contexts of racial isolation: The case of Long Street, Cape Town. *Urban Studies*, *46*, 761-777.

- Tredoux, C., & Finchilescu, G. (2010). Mediators of the contact-prejudice relation among South African students on four university campuses. *Journal of Social Issues, 66*, 289-308.
- Tropp, L. R. (2006). Stigma and intergroup contact among members of minority and majority status groups. In S. Levin & C. van Laar (Eds.), *Stigma and group inequality: Social psychological perspectives* (pp. 171-191). Mahwah, NJ: Erlbaum.
- Tropp, L. R., & Pettigrew, T. F. (2005). Differential relationships between intergroup contact and affective and cognitive dimensions of prejudice. *Personality and Social Psychology Bulletin, 31*(8), 1145-1158.
- Turner, R. N., & Brown, R. (2008). Improving children's attitudes toward refugees: An evaluation of a school-based multicultural curriculum and an anti-racist intervention. *Journal of Applied Social Psychology, 38*, 1295-1328.
- Turner, R. N., Hewstone, M., & Voci, A. (2007a). Reducing explicit and implicit prejudice via direct and extended contact: The mediating role of self-disclosure and intergroup anxiety. *Journal of Personality and Social Psychology, 93*, 369-388. doi:10.1037/0022-3514.93.3.369
- Turner, R. N., Hewstone, M., Voci, A., Paolini, S., & Christ, O. (2007b). Reducing prejudice via direct and extended cross-group friendship. In W. Stroebe & M. Hewstone (Eds.), *European review of social psychology* (Vol. 18, pp. 212-255). Hove, UK: Psychology Press. doi:10.1080/10463280701680297
- Turner, R. N., Hewstone, M., Voci, A., & Vonofakou, C. (2008). A test of the extended intergroup contact hypothesis: The mediating role of intergroup anxiety, perceived ingroup and outgroup norms, and inclusion of the outgroup in the self. *Journal of Personality and Social Psychology, 95*, 843-860.
- Van Laar, C., Levin, S., Sinclair, S., & Sidanius, J. (2005). The effect of college roommate contact on ethnic attitudes and behaviors. *Journal of Experimental and Social Psychology, 41*, 329-345.

- Van Oudenhoven, J. P., Groenewoud, J. T., & Hewstone, M. (1996). Cooperation, ethnic salience and generalization of interethnic attitudes. *European Journal of Social Psychology, 15*, 538-551.
- Verkuyten, M., Thijs, J., & Bekhuis, H. (2010). Intergroup contact and ingroup reappraisal: Examining the deprovincialisation hypothesis. *Social Psychology Quarterly, 73*, 398-416.
- Vescio, T. K., Sechrist, G. B., & Paolucci, M. P. (2003). Perspective taking and prejudice reduction: The mediational role of empathy arousal and situational attributions. *European Journal of Social Psychology, 33*, 455-472.
- Vezzali, L., & Giovannini, D. (2011). Secondary transfer effect of intergroup contact: The role of intergroup attitudes, intergroup anxiety, and perspective taking. *Journal of Community and Applied Social Psychology, 22*, 125-144.
doi: 10.1002/casp.1103
- Vezzali, L., Stathi, S., Giovannini, D., Capozza, D., & Trifiletti, E. (2014). The greatest magic of Happy Potter: Reducing prejudice. *Journal of Applied Social Psychology*. Advance online publication. doi: 10.1111/jasp.12279
- Viki, G. T., Culmer, M. J., Eller, A., & Abrams, D. (2006). Race and willingness to cooperate with the police: The roles of quality of contact, attitudes towards the behaviour and subjective norms. *British Journal of Social Psychology, 45*, 285-302.
- Voci, A., & Hewstone, M. (2003). Intergroup contact and prejudice toward immigrants in Italy: The mediational role of anxiety and the moderational role of group salience. *Group Processes and Intergroup Relations, 6*, 37-54.
- Vonofakou, C., Hewstone, M., & Voci, A. (2007). Contact with out-group friends as a predictor of meta-attitudinal strength and accessibility of attitudes toward gay men. *Journal of Personality and Social Psychology, 92*, 804-820.

- Vorauer, J. D., & Kumhyr, S. M. (2001). Is this about you or me? Self-versus other-directed judgements and feelings in response to intergroup interaction. *Personality and Social Psychology Bulletin*, 27, 706-719.
- Walther, E. (2002). Guilt by mere association: Evaluative conditioning and the spreading attitude effect. *Journal of Personality and Social Psychology*, 82, 919-934.
- Weigert, K. M. (1976). Intergroup contact and attitudes about a third group: A survey of Black soldiers' perceptions. *International Journal of Group Tensions*, 6, 110-124.
- Welsh, D., & Spence, J. E. (2011). *Ending Apartheid*. Harlow: Longman.
- Werth, J. L., & Lord, C. G. (1992). Previous conceptions of the typical group member and the contact hypothesis. *Basic and Applied Social Psychology*, 13, 351-369.
- West, S. G., Finch, J. F., & Curran, P.J. (1995). Structural equation models with non-normal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues and applications* (pp. 56-75). Thousand Oaks, CA: Sage Publications.
- Wilder, D. A. (1984). Intergroup contact: The typical member and the exception to the rule. *Journal of Experimental Social Psychology*, 20, 177-194.
- Williams, R. M. (1947). *The reduction of intergroup tensions*. New York, NY: Social Science Research Council.
- Wilner, D. M., Walkley, R. P., & Cook, S. W. (1955). *Human relations in interracial housing: A study of the contact hypothesis*. Minneapolis, MN: University of Minnesota Press.
- Wilson, T. C. (1996). Prejudice reduction or self-selection? A test of the contact hypothesis. *Sociological Spectrum*, 16, 43-60.
doi:10.1080/02732173.1996.9982119

Worchel, S., Andreoli, V. A., & Folger, R. (1977). Intergroup cooperation and intergroup attraction: The effect of previous interaction and outcome of combined effort. *Journal of Experimental Social Psychology, 13*, 131-140.

Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology, 73*, 73-90.

Appendix A

Electronic Survey Invitation

Dear Student

You are invited to participate in a short survey being run by Dr Hermann Swart, Department of Psychology, Stellenbosch University. It explores the social experiences and opinions of students studying at Stellenbosch University (Research Ethics Number: HS1051/2014), and will take approximately ten to fifteen minutes to complete.

Your participation in this survey is completely confidential and anonymous. Students who submit a completed survey will be entered into a cash prize draw to the value of R1,000.00. Please click on the link below for further information on the survey and to access the survey itself.

Geagte Student

U word uitgenooi om deel te neem aan 'n kort opname wat uitgevoer word deur Dr. Hermann Swart, Departement Sielkunde, Universiteit Stellenbosch. Hierdie opname ondersoek die sosiale ervarings en opinies van studente wat studeer by Universiteit Stellenbosch (Navoringsingsetiesenummer: HS1051/2014), en sal ongeveer tien tot vyftien minute neem om te voltooi.

U deelname aan hierdie opname is heeltemal vertroulik en anoniem. Studente wie die opname voltooi sal vir 'n kontantprystrekking ter waarde van R1,000.00 ingeskryf word. Klik asseblief op die volgende skakel vir verdere ingligting oor die opname en om die opname te voltooi.

Sincerely / *Vriendelike Groete,*

Dr. Hermann Swart

Dept. Psychology / Sielkunde

Universiteit * Stellenbosch * University

Appendix B

Informed Consent Form



UNIVERSITEIT • STELLENBOSCH • UNIVERSITY
jou kennisvenoot • your knowledge partner

Informed Consent to Participate in this Study / Inwilliging om Deel te Neem aan Hierdie Studie

Social Opinions and Experiences of Stellenbosch University Students

You are asked to participate in a research study conducted by Dr Hermann Swart, Department of Psychology at Stellenbosch University on the **Social Opinions and Experiences of Stellenbosch University Students**. This research has received the necessary ethical clearance from the Research Ethics Committee (Humanities) at Stellenbosch University (REC clearance number: HS1051/2014), 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 at Stellenbosch University.

1. PURPOSE OF THE STUDY

The purpose of this study is to gather information from students about some of their social experiences on campus and on specific social attitudes and opinions of students, and how these experiences and opinions develop over time. This survey forms part of a series of four studies that we are conducting over the course of the next year that aims to study and compare the social opinions and experiences of students across the four largest communities represented on campus (namely white, coloured, black (African), and Indian South African students). Your participation in this survey will make a valuable contribution to our understanding of the range of social opinions and experiences of students attending Stellenbosch University.

2. PROCEDURES

Should you agree to participate in this survey, you will be asked to read through and answer a range of questions relating to your social opinions and experiences on campus. In order to submit the survey, all the questions that are posed to the participants require an answer. Should you feel that there is a question that you do not wish to answer, you are free to withdraw your participation (see below). It should not take you longer than ten to fifteen minutes to complete the survey, and you can complete this survey anywhere and at any time so long as you have access to a computer and an internet connection. Please note that the completed surveys for participants that choose to participate in more than one of the four studies that comprise this research will be matched over time using an anonymous, unique identifier provided by each participant, thereby ensuring the anonymity of all participants.

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 Centre 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 social attitudes amongst Stellenbosch students. This information could contribute to the promotion of more positive attitudes and friendships amongst Stellenbosch University students, as well as contributing to the knowledge base of Social Psychology. The findings from this research will be published in peer-reviewed, accredited scientific journals.

5. PAYMENT FOR PARTICIPATION

Participants that submit a complete survey will be eligible to enter themselves into the Cash Prize Draw for R1,000.00. 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. Participants that take part in all four surveys over the duration of the study will be entered into an additional Cash Prize Draw for R1,000.00.

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 principle researcher, Dr Hermann Swart, will have access to the data that you provide.

No personal or identifying information will be collected from you. Each survey will be assigned a unique identifier that will not be traceable to the personal identity of any one participant. Your participation in this study will therefore be anonymous.

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 (Principle 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.

Sosiale Opinies en Ervarings van Studente aan Stellenbosch Universiteit

U word gevra om deel te neem aan 'n navorsingstudie wat uitgevoer word deur Dr. Hermann Swart, Departement van Sielkunde by Stellenbosch Universiteit oor die **Sosiale Opinies en Ervarings van Suid-Afrikaanse Studente**. Hierdie navorsing het die nodige etiese klaring ontvang van die Navorsingsetiese komitee (Humaniora) by Stellenbosch Universiteit (NEK klaringsnommer: HS1051 / 2014), sowel as die nodige Institusionele klaring vanaf Stellenbosch Universiteit. U is gekies as 'n moontlike deelnemer aan hierdie studie, want u is 'n geregistreerde student aan Stellenbosch Universiteit.

1. DOEL VAN DIE STUDIE

Die doel van die studie is om inligting in te samel van studente oor hulle sosiale ervarings op kampus en oor spesifieke sosiale houdings en opinies van studente en hoe hierdie ervarings en opiniess ontwikkel oor tyd. Hierdie opname vorm deel van 'n reeks van vier studies wat ons sal uitvoer oor die verloop van die volgende jaar wat daarop gemik is om die sosiale opinies en ervarings van studente vanuit die vier grootste verteenwoordigende populasiegroepe op kampus (naamlik wit, bruin/kleurling, swart, en Indiese Suid-Afrikaanse studente) met mekaar te vergelyk. U deelname aan hierdie studie sal 'n waardevolle bydrae maak tot ons begrip van die omvang van sosiale menings en ervarings van studente aan Stellenbosch Universiteit.

2. PROSEDURES

Indien u instem om deel te neem aan die studie, sal u gevra word om 'n reeks vrae deur te lees en te beantwoord oor u sosiale menings en ervarings op kampus. Om hierdie opname te voltooi word vereis dat al die vrae wat aan die deelnemers gestel word, beantwoord word. Indien u voel dat daar 'n vraag is wat u nie wil antwoord nie, is u vry om u deelname aan hierdie studie te onttrek (sien hieronder). Dit behoort u nie langer as tien tot vyftien minute te neem om die opname te voltooi nie en u kan hierdie opname enige plek en op enige tyd voltooi solank u toegang tot 'n rekenaar en internet-toegang het. Let asseblief daarop dat die voltooide opnames van die deelnemers wat kies om deel te neem aan meer as een van die vier studies in hierdie navorsingsprojek met mekaar verbind sal word oor tyd met behulp van 'n

anonieme, unieke identifiseerder wat deur elke deelnemer voorsien word, en sodoende word die anonimiteit van alle deelnemers verseker.

3. POTENSIËLE RISIKO'S EN ONGEMAK

Hierdie studie hou geen voorsienbare risiko's of ongemak in nie, maar indien u op enige tyd ontsteld voel het u die reg om van hierdie studie te onttrek op enige tyd. Indien u enige sielkundige ongemak ervaar kan u gratis toegang kry tot beradingsdienste by die Stellenbosch Universiteit Sentrum vir Studentevoorigting en Ontwikkeling geleë in Victoriastraat 37, Stellenbosch (Tel: 021 808 4707).

4. POTENSIËLE VOORDELE VIR DEELNEMERS EN/OF DIE SAMELEWING

U deelname aan hierdie studie kan lei tot verbeterde kennis oor sosiale houdings onder Stellenbosch-studente. Hierdie inligting kan bydra tot die bevordering van meer positiewe houdings en vriendskappe onder Stellenbosch Universiteit se studente, sowel as om by te dra tot die kennis van Sosiale Sielkunde. Die bevindinge van hierdie navorsing sal gepubliseer word in eweknie-beoordeelde, geakkrediteerde wetenskaplike tydskrifte.

5. BETALING VIR DEELNAME

Deelnemers wat 'n volledige opname indien sal in aanmerking kom om hulself in te skryf vir die kontantprys trekking van R1,000.00. U sal gevra word om 'n geldige telefoonnommer te voorsien waar u dalk gekontak mag word in die geval waar u die wenner van die kontantprys is. Deelnemers wat deelneem aan al vier opnames oor die duur van die studie sal in aanmerking kom vir 'n bykomende kontantprys trekking van R1,000.00.

6. VERTROULIKHEID EN ANONIMITEIT

U deelname aan hierdie studie is heeltemal vertroulik. Geen ander student of personeellid aan die Universiteit sal toegang tot hê tot u antwoorde nie. Slegs die hoofnavorser, Dr. Hermann Swart, sal toegang tot die data hê wat u verskaf het. Geen persoonlike of identifiserende inligting sal van u ingesamel word nie. Aan elke opname sal daar 'n unieke identifiseerder toegeken word wat nie teruggelei kan word na die persoonlike identiteit van enige een van die deelnemers nie. U deelname aan hierdie studie sal dus anoniem wees.

7. DEELNAME EN ONTTREKKING EN REGTE VAN DEELNEMERS

U kan u toestemming en deelname onttrek van hierdie studie op enige tyd sonder enige negatiewe gevolge. Daar is 'n 'verlaat'-knoppie op elke bladsy wat u sal toelaat om die opname te verlaat op enige tyd. Die hoofnavorsers mag u onttrek van hierdie studie indien omstandighede dit regverdig. Deur u deelname aan hierdie navorsingstudie, doen u geensins afstand van enige wettige eise, regte of regsmiddele tot u beskikking nie. Indien u enige vrae het oor u regte as 'n navorsingsdeelnemer kan u vir Me. Maléne Fouché (mfouche@sun.ac.za; 021 808 4622) by die Afdeling vir Navorsingsontwikkeling kontak.

8. IDENTIFIKASIE VAN DIE NAVORSERS

Indien u enige vrae of kommerntaar oor die navorsing het, voel asseblief vry om vir Dr. Hermann Swart (Hoofnavorsers) te kontak: hswart@sun.ac.za / 021 808 9061
Indien u instem tot hierdie terme en voorwaardes, kies asseblief die "**Ek stem in**"-ikoon onder aan die bladsy. So sal u u toestemming gee om deel te neem aan hierdie studie en sal u na die opname herlei word. Indien u nie instem tot hierdie terme en voorwaardes nie, kies asseblief die "**Ek stem nie in nie**"-ikoon onder aan die bladsy en u sal hierdie portaal verlaat.

I have read the terms and conditions above and

Ek het die bepalings en voorwaardes hier bo gelees en

- AGREE to participate in this survey / STEM IN vir deelname aan die opname
 - DO NOT AGREE to participate in this survey / STEM NIE IN vir deelname aan hierdie opname nie
-

Appendix C

Biographic and Demographic Questionnaire

Please answer each of the following questions relating to your Biographic and Demographic information below as accurately as possible. / *Beantwoord asseblief elkeen van die volgende vrae oor u Biografiese en Demografiese inligting so akkuraat as moontlik*

1.1. How old are you today? / *Hoe oud is u vandag?* _____

1.2. Please indicate your gender / *Dui asseblief u geslag aan:*

Female / Vroulik
0

Male / Manlik
1

1.3. Please indicate your first (home) language / *Dui asseblief u eerste- (huis-) taal aan:*

Afrikaans
1

English
2

isiXhosa
3

isiZulu
4

Other / Ander
5

1.4. How many years (including this year) have you been studying at Stellenbosch University (SU)? "In total, this is my...": / *Hoeveel jare (insluitend hierdie jaar) studeer u al aan die Universiteit Stellenbosch (US)? " In totaal is dit my..."*

1 st /1 ^{ste}	2 nd /2 ^{de}	3 rd /3 ^{de}	4 th /4 ^{de}	5 th /5 ^{de}	6 th /6 ^{de}	7 th /7 ^{de}	8 th + / 8 ^{ste} +
year/jaar	year/jaar	year/jaar	year/jaar	year/jaar	year/jaar	year/jaar	year/jaar
1	2	3	4	5	6	7	8

1.5. Please indicate whether you live in residence or in private accommodation / *Bly u tans in US-huisvesting (koshuis, studentehuis) of privaat huisvesting?*

Hostel / <i>Koshuis</i>	Student House / <i>Studentehuis</i>	Private Accommodation / <i>Privaat Huisvesting</i>
1	2	3

1.6. Please indicate which of the following categories below describes you best*: / *Dui asseblief aan watter een van die volgende kategorieë u die beste beskryf*:*

white South African <i>wit</i> Suid-Afrikaner	black (African) South African <i>swart</i> Suid-Afrikaner	coloured South African <i>bruin/kleurling</i> Suid-Afrikaner	Indian South African <i>Indiese</i> Suid-Afrikaner	Asian South African <i>Asiër</i> Suid-Afrikaner
1	2	3	4	5

*Disclaimer: The Department of Psychology does not acknowledge or endorse the legitimacy of these artificial categories, 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 on campus, 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. / **Ontkenning: Die Departement Sielkunde erken of onderskryf nie die geldigheid van hierdie kunsmatige kategorieë nie, en aanvaar dat individue hulle op verskeie maniere, of nie nét volgens etnisiteit nie, klassifiseer. Hierdie opname poog egter om die sienings en ervarings van individue uit al die etniese groepe op kampus te vergelyk, en daarom is dit belangrik dat 'n individu se antwoorde binne die verband van 'n bepaalde etniese groep geplaas kan word. Dit beteken geensins dat die individu hom/haar met die kategorie vereenselwig óf dit onderskryf nie, maar bied bloot 'n konteks waarin sy/haar siening of ervaring begryp kan word.*

Appendix D

Main Survey Questionnaire

1. General intergroup contact with black (African) South Africans (adapted from Swart, 2008; Swart et al., 2010; 2011)

The following questions ask about your daily interactions with black (African) South Africans. Please read each question carefully and answer them as honestly as possible. There are no right or wrong answers, we are simply interested to hear about your experiences. Do not think too long on the answers, rather give the first answer that comes to mind. / *Die volgende vrae handel oor u daaglikse interaksies met swart Suid-Afrikaners. Lees asseblief elke vraag versigtig deur en beantwoord hulle so eerlik as moontlik. Daar is nie 'n regte of verkeerde antwoord nie, ons stel slegs in u eie ervarings belang. Moenie te lank aan u antwoorde dink nie, gee liewers die eerste antwoord wat by u op kom.*

1.1. In general, how regularly do you have direct, face-to-face interactions (e.g., conversations) in **social settings** with black (African) South Africans? / *Oor die algemeen, hoe gereeld het u direkte, van aangesig-tot-aangesig **sosiale interaksie** (bv. gesprekke) met swart Suid-Afrikaners?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

1.2. In general, how regularly do you have direct, face-to-face interactions (e.g., conversations) with black (African) South Africans as part of the same **sports team / social club / campus society**? / *Oor die algemeen, hoe gereeld het u direkte, van aangesig-tot-aangesig interaksie (bv. gesprekke) met swart Suid-Afrikaners as deel van dieselfde **sportspan / sosiale klub / kampusvereniging**?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

1.3. In general, how regularly do you have direct, face-to-face interactions (e.g., conversations) with black (African) South Africans during **lectures, practicals, and/or tutorials**? / *Oor die algemeen, hoe gereeld het u direkte, van aangesig-tot-aangesig interaksie (bv. gesprekke) met swart Suid-Afrikaners tydens **lesings / tutoriale klasse / praktiese klasse**?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

1.4. How many black (African) South African friends do you have? / *Hoeveel swart Suid-Afrikaanse vriende/vriendinne het u?*

None / <i>Geen</i>	1	2-3	4-5	More than 5 / <i>Meer as 5</i>
0	1	2	3	4

2. General intergroup contact with coloured South Africans (Swart, 2008; Swart et al., 2010; 2011)

The following questions ask about your daily interactions with coloured South Africans. Please read each question carefully and answer them as honestly as possible. There are no right or wrong answers, we are simply interested to hear about your experiences. Do not think too long on the answers, rather give the first answer that comes to mind. / *Die volgende vrae handel oor u daaglikse interaksies met bruin/kleurling Suid-Afrikaners. Lees asseblief elke vraag versigtig deur en beantwoord hulle so eerlik as moontlik. Daar is nie 'n regte of verkeerde antwoord nie, ons stel slegs in u eie ervarings belang. Moenie te lank aan u antwoorde dink nie, gee liewers die eerste antwoord wat by u op kom.*

2.1. In general, how regularly do you have direct, face-to-face interactions (e.g., conversations) in **social settings** with coloured South Africans? / *Oor die algemeen, hoe gereeld het u direkte, van aangesig-tot-aangesig **sosiale interaksie** (bv. gesprekke) met bruin/kleurling Suid-Afrikaners?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

2.2. In general, how regularly do you have direct, face-to-face interactions (e.g., conversations) with coloured South Africans as part of the same **sports team / sports club / campus society**? / *In die algemeen, hoe gereeld het u direkte, van aangesig-tot-aangesig interaksie (bv. gesprekke) met bruin/kleurling Suid-Afrikaners as deel van dieselfde **sportspan / sosiale klub / kampusvereniging**?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

2.3. How regularly do you have direct, face-to-face interactions with coloured South Africans in general during **lectures, practicals, and/or tutorials**? / *Oor die algemeen, hoe gereeld het u direkte, van aangesig-tot-aangesig interaksie (bv. gesprekke) met bruin/kleurling Suid-Afrikaners tydens **lesings / tutoriale klasse / praktiese klasse**?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

2.4. How many coloured South African friends do you have? / *Hoeveel bruin/kleurling Suid-Afrikaanse vriende/vriendinne het u?*

None / <i>Geen</i>	1	2-3	4-5	More than 5 / <i>Meer as 5</i>
0	1	2	3	4

3. Cross-group friendships with black (African) South Africans (adapted from Swart, 2008; Swart et al., 2010; 2011)

The following questions ask about your friendships with black (African) South Africans. Please read each question carefully and answer them as honestly as possible. There are no right or wrong answers, we are simply interested to hear about your experiences. Do not think too long on the answers, rather give the first answer that comes to mind. / *Die volgende vrae handel oor u vriendskappe met swart Suid-Afrikaners. Lees asseblief elke vraag versigtig deur en beantwoord hulle so eerlik as moontlik. Daar is nie 'n regte of verkeerde antwoord nie, ons stel slegs in u eie ervarings belang. Moenie te lank aan u antwoorde dink nie, gee lievers die eerste antwoord wat by u op kom.*

3.1. In general, how often do you spend time with your black (African) South African friend(s)? / *Oor die algemeen, hoe gereeld bring u tyd saam met u swart Suid-Afrikaanse vriend(e)/vriendin(ne) deur?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

3.2. How often do you spend time with your black (African) South African friend(s) at **social activities**? / *Hoe gereeld bring u tyd saam met u swart Suid-Afrikaanse vriend(e)/vriendin(ne) by sosiale geleenthede deur?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

4. Cross-group friendships with coloured South Africans (adapted from Swart, 2008; Swart et al., 2010; 2011)

The following questions ask about your friendships with coloured South Africans. Please read each question carefully and answer them as honestly as possible. There are no right or wrong answers, we are simply interested to hear about your experiences. Do not think too long on the answers, rather give the first answer that comes to mind. / *Die volgende vrae handel oor u vriendskappe met bruin/kleurling Suid-Afrikaners. Lees asseblief elke vraag versigtig deur en beantwoord hulle so eerlik as moontlik. Daar is nie 'n regte of verkeerde antwoord nie, ons stel slegs in u eie ervarings belang. Moenie te lank aan u antwoorde dink nie, gee liewers die eerste antwoord wat by u op kom.*

4.1. In general, how often do you spend time with your coloured South African friends? / *Oor die algemeen, hoe gereeld bring u tyd saam met u bruin/kleurling Suid-Afrikaanse vriende/vriendinne deur?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

4.2. How often do you spend time with your coloured South African friend(s) at **social activities**? / *Hoe gereeld bring u tyd saam met u bruin/kleurling Suid-Afrikaanse vriend(e)/vriendin(ne) by sosiale geleenthede deur?*

Never	Rarely	Every now and then	Very often	All the time
<i>Nooit</i>	<i>Selde</i>	<i>Elke nou-en-dan</i>	<i>Baie Gereeld</i>	<i>Deurgaans</i>
0	1	2	3	4

5. Perspective-taking towards coloured South Africans (adapted from Batson et al.,1997: Davis, 1994)

The following statements relate to coloured South Africans in general. Please indicate the extent to which you agree or disagree with each statement. Please answer each statement as honestly as possible. There are no right or wrong answers, we are simply interested to hear about your opinion. Do not think too long on the answers, rather give the first answer that comes to mind. / *Die volgende stellings hou verband met bruin/kleurling Suid-Afrikaners oor die algemeen. Dui asseblief aan tot hoe 'n mate u met elke stelling saamstem al dan nie. Beantwoord asseblief elke stelling so eerlik as moontlik. Daar is nie 'n regte of verkeerde antwoord nie, ons stel slegs in u eie opinie belang. Moenie te lank aan u antwoorde dink nie, gee liewers die eerste antwoord wat by u op kom.*

5.1. I can generally put myself in the shoes of a coloured South African and imagine what life is like for him/her. / *Ek kan my oor die algemeen in die skoene van 'n bruin/kleurling Suid-Afrikaner plaas en my indink oor hoe sy/haar lewe moet wees.*

Completely Disagree	Slightly Disagree	Unsure	Slightly Agree	Completely Agree
<i>Stem glad nie saam nie</i>	<i>Stem nie heel- temal saam nie</i>	<i>Onseker</i>	<i>Stem 'n bietjie saam</i>	<i>Stem heel- temal saam</i>
1	2	3	4	5

5.2. I try to think about the issues we face in South Africa from the perspective of coloured South Africans. / *Ek probeer dink aan die uitdagings wat ons in Suid-Afrika in die gesig staar uit die perspektief van bruin/kleurling Suid-Afrikaners.*

Completely Disagree	Slightly Disagree	Unsure	Slightly Agree	Completely Agree
<i>Stem glad nie saam nie</i>	<i>Stem nie heel- temal saam nie</i>	<i>Onseker</i>	<i>Stem 'n bietjie saam</i>	<i>Stem heel- temal saam</i>
1	2	3	4	5

6. Affective empathy towards black (African) South Africans. (adapted from Swart et al., 2011; Turner et al., 2007b).

The following statements relate to black (African) South Africans in general. Please indicate the extent to which you agree or disagree with each statement. Please answer each statement as honestly as possible. There are no right or wrong answers, we are simply interested to hear about your opinion. Do not think too long on the answers, rather give the first answer that comes to mind. / *Die volgende stellings hou verband met swart Suid-Afrikaners oor die algemeen. Dui asseblief aan tot hoe 'n mate u met elke stelling saamstem al dan nie. Beantwoord asseblief elke stelling so eerlik as moontlik. Daar is nie 'n regte of verkeerde antwoord nie, ons stel slegs in u eie opinie belang. Moenie te lank aan u antwoorde dink nie, gee liewers die eerste antwoord wat by u op kom.*

6.1. If I heard/saw that a black (African) South African was upset and suffering in some way, it would bother me and make me feel unhappy. / *As ek gehoor/gesien het dat 'n swart Suid-Afrikaner ontsteld was en op een of ander manier gely het, sal dit my pla en my ongelukkig laat voel.*

Completely Disagree	Slightly Disagree	Unsure	Slightly Agree	Completely Agree
<i>Stem glad nie saam nie</i>	<i>Stem nie heel- temal saam nie</i>	<i>Onseker</i>	<i>Stem 'n bietjie saam</i>	<i>Stem heel- temal saam</i>
1	2	3	4	5

6.2. I would feel sad knowing that a black (African) South African person that I knew was feeling sad. / *As 'n swart Suid-Afrikaner wat ek ken hartseer is, sou ek ook hartseer voel.*

Completely Disagree	Slightly Disagree	Unsure	Slightly Agree	Completely Agree
<i>Stem glad nie saam nie</i>	<i>Stem nie heel- temal saam nie</i>	<i>Onseker</i>	<i>Stem 'n bietjie saam</i>	<i>Stem heel- temal saam</i>
1	2	3	4	5

7. Positive outgroup attitudes towards coloured South Africans (adapted from Swart et al. 2011; Wright et al., 1997)

The following statements relate to coloured South Africans in general. Please indicate the extent to which you agree or disagree with each statement. Please answer each statement as honestly as possible. There are no right or wrong answers, we are simply interested to hear about your opinion. Do not think too long on the answers, rather give the first answer that comes to mind. / *Die volgende stellings hou verband met bruin/kleurling Suid-Afrikaners oor die algemeen. Dui asseblief aan tot hoe 'n mate u met elke stelling saamstem al dan nie. Beantwoord asseblief elke stelling so eerlik as moontlik. Daar is nie 'n regte of verkeerde antwoord nie, ons stel slegs in u eie opinie belang. Moenie te lank aan u antwoorde dink nie, gee liewers die eerste antwoord wat by u op kom.*

7.1. When I think about coloured South Africans **in general**, I have **positive feelings towards them**. / *Wanneer ek aan bruin/kleurling Suid-Afrikaners **oor die algemeen** dink, het ek **positiewe gevoelens teenoor hulle**.*

Completely Disagree	Slightly Disagree	Unsure	Slightly Agree	Completely Agree
<i>Stem glad nie saam nie</i>	<i>Stem nie heeltemal saam nie</i>	<i>Onseker</i>	<i>Stem 'n bietjie saam</i>	<i>Stem heeltemal saam</i>
1	2	3	4	5

7.2. When I think about coloured South Africans **in general**, I **admire them**. / *Wanneer ek aan bruin/kleurling Suid-Afrikaners **oor die algemeen** dink, **bewonder ek hulle**.*

Completely Disagree	Slightly Disagree	Unsure	Slightly Agree	Completely Agree
<i>Stem glad nie saam nie</i>	<i>Stem nie heeltemal saam nie</i>	<i>Onseker</i>	<i>Stem 'n bietjie saam</i>	<i>Stem heeltemal saam</i>
1	2	3	4	5

7.3. When I think about coloured South Africans **in general**, I am **filled with respect** for them. / *Wanneer ek aan bruin/kleurling Suid-Afrikaners **oor die algemeen** dink, is ek **vol respek** vir hulle.*

Completely Disagree	Slightly Disagree	Unsure	Slightly Agree	Completely Agree
<i>Stem glad nie saam nie</i>	<i>Stem nie heeltemal saam nie</i>	<i>Onseker</i>	<i>Stem 'n bietjie saam</i>	<i>Stem heeltemal saam</i>
1	2	3	4	5

7.4. When I think about coloured South Africans **in general**, I have **negative feelings towards them**. / *Wanneer ek aan bruin/kleurling Suid-Afrikaners dink oor die algemeen, het ek negatiewe gevoelens teenoor hulle.*

Completely Disagree	Slightly Disagree	Unsure	Slightly Agree	Completely Agree
<i>Stem glad nie saam nie</i>	<i>Stem nie heel- temal saam nie</i>	<i>Onseker</i>	<i>Stem 'n bietjie saam</i>	<i>Stem heel- temal saam</i>
1	2	3	4	5

8. Social distance towards black (African) South Africans (adapted from Bogardus, 1933)

The following questions relate to black (African) South Africans in general. Please answer each question as honestly as possible. There are no right or wrong answers, we are simply interested to hear about your opinion. Do not think too long on the answers, rather give the first answer that comes to mind. / *Die volgende vrae hou verband met swart Suid-Afrikaners oor die algemeen. Beantwoord asseblief elke vraag so eerlik as moontlik. Daar is nie 'n regte of verkeerde antwoord nie, ons stel slegs in u eie opinie belang. Moenie te lank aan u antwoorde dink nie, gee liewers die eerste antwoord wat by u op kom.*

8.1. To what extent would you be happy to have black (African) South Africans attending the **same classes** as you? / *Tot watter mate sal u gelukkig wees om swart Suid-Afrikaners te hê wat dieselfde klasse as u loop?*

Not at all	A little	Unsure	Quite a lot	Completely
<i>Glad nie</i>	<i>'n Bietjie</i>	<i>Onseker</i>	<i>Redelik baie</i>	<i>Heeltemal</i>
1	2	3	4	5

8.2. To what extent would you be happy to have black (African) South Africans in **your residence (res) / apartment block / neighbourhood?** / *Tot watter mate sal u gelukkig sal wees om swart Suid-Afrikaners te hê in u **koshuis** / woonstelblok / woonbuurt?*

Not at all	A little	Unsure	Quite a lot	Completely
<i>Glad nie</i>	<i>'n Bietjie</i>	<i>Onseker</i>	<i>Redelik baie</i>	<i>Heeltemal</i>
1	2	3	4	5

8.3. To what extent would you be happy to have a black (African) South African as **your roommate / flatmate / housemate?** / *Tot watter mate sal u gelukkig wees om 'n swart Suid-Afrikaner te hê as u **kamermaat** / woonstelmaat / huismaat?*

Not at all	A little	Unsure	Quite a lot	Completely
<i>Glad nie</i>	<i>'n Bietjie</i>	<i>Onseker</i>	<i>Redelik baie</i>	<i>Heeltemal</i>
1	2	3	4	5

8.4. To what extent would you be happy to have a black (African) South African as an **intimate partner** (i.e., boyfriend/girlfriend)? / *Tot watter mate sal u gelukkig sal wees om 'n swart Suid-Afrikaner te hê as 'n **intieme metgesel**? (bv. kêrel / meisie?)*

Not at all	A little	Unsure	Quite a lot	Completely
<i>Glad nie</i>	<i>'n Bietjie</i>	<i>Onseker</i>	<i>Redelik baie</i>	<i>Heeltemal</i>
1	2	3	4	5