Positive Direct Contact between Males and Females in the SANDF

and the Reduction of Gender Bias:

The Importance of Self-disclosure, Empathy and Perspective taking.

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DECLARATION

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ABSTRACT

The role of women in the military has dramatically expanded over the past twenty years (Matthews Edner, Laurence, & Rohall, 2009), and women are now enjoying greater representation in combat units. However, this greater representation is challenged by prevalent gender bias against women in the military, especially in patriarchal societies such as South Africa. This has a negative effect on the relations between male and female members in the military. The far reaching positive effects of intergroup contact and its prejudice reducing function in an array of intergroup interactions, more specifically cross-group friendships, have already been shown over the past sixty years (Allport, 1954; Hewstone & Swart, 2011; Pettigrew & Tropp, 2006, 2008). The present cross-sectional survey study aimed to investigate the effects of positive direct contact, specifically cross-group friendship, between male and female members of the SANDF on gender bias toward women in the military in general. Data from 223 male members of the SANDF stationed at Tempe Military Base, Bloemfontein, South Africa, were analysed using latent variable structural equation modelling (SEM). The results showed that the quantity and quality of interpersonal contact with a particular female member (closest female friend) in the military was significantly positively associated with more positive affect towards the particular female member (a relationship significantly mediated by reciprocal positive and negative self-disclosure). Affect towards the particular female friend was significantly positively associated with more affective empathy and perspective-taking towards females in the military in general, more positive attitudes towards females in the military in general, and reduced gender bias against females in the military in general. The results of the present study offer insights for interventions and programmes that could be employed within the SANDF to improve relations between male and female members of the SANDF, and to reduce gender bias against females in the military.

OPSOMMING

Die rol van vroue in die weermag het die afgelope twintig jaar dramaties uitgebrei (Matthews et al., 2009) en vroue geniet nou groter verteenwoordiging in gevegseenhede. Hierdie groter verteenwoordiging word egter uitgedaag deur algemene geslagsvooroordeel teenoor vroue in die weermag, veral in patriargale samelewings soos Suid-Afrika. Dit het 'n negatiewe invloed op die verhouding tussen manlike en vroulike lede in die weermag. Die verreikende positiewe effekte van intergroepkontak en die vooroordeelverminderingsfunksie van 'n verskeidenheid intergroepinteraksies, meer spesifiek kruisgroepvriendskappe, is reeds oor die afgelope sestig jaar getoon (Allport, 1954; Hewstone & Swart, 2011; Pettigrew & Tropp , 2006, 2008). Die huidige deursnitstudie het ten doel gehad om die effekte van positiewe direkte kontak, spesifiek kruisgroepvriendskap, tussen manlike en vroulike lede van die SANW te ondersoek op geslagsvooroordeel teenoor vroue in die weermag in die algemeen. Data van 223 manlike lede van die SANW gestasioneer by Tempe Militêre Basis, Bloemfontein, Suid-Afrika, is ontleed met behulp van latente veranderlike strukturele vergelyking modellering (SVM). Die resultate het getoon dat die hoeveelheid en kwaliteit van interpersoonlike kontak met 'n spesifieke vroulike lid (naaste vroulike vriend) in die weermag aansienlik positief geassosieer is met meer positiewe invloed op die spesifieke vroulike lid ('n verhouding wat beduidend bemiddel word deur wederkerige positiewe en negatiewe self-openbaarmaking). Gevoelens teenoor die spesifieke vroulike vriend was aansienlik positief geassosieer met meer affektiewe empatie en perspektief teenoor vroue in die weermag in die algemeen, meer positiewe houdings teenoor vroue in die weermag in die algemeen, en verminderde geslagsvooroordeel teenoor vroue in die weermag in die algemeen. Die resultate van die huidige studie bied insigte vir intervensies en programme wat binne die SANW aangewend kan word om die verhouding tussen manlike en vroulike lede van die SANW te verbeter en om geslagsvooroordeel teen vroue in die weermag te verminder.

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CHAPTER ONE

GENDER AND THE MILITARY

"*Freedom cannot be achieved unless women have been emancipated from all forms of oppression. To this end, we have acknowledged that the objectives of our reconstruction and development will not be realised unless we see in visible and practical terms that the condition of women in our country has radically changed for the better, and that women at every level have been empowered to intervene in all aspects of life as equals with any other member of society.*"

Nelson R. Mandela

For many people around the world, positive intergroup contact between members of different groups, whether it be different racial, ethnic, or gender groups is an ideal that seems unattainable due to a variety of historical social injustices (Durrheim & Dixon, 2010). Historically contact between different groups was largely characterised by inequalities based on racial categories, gender, sexual orientation, and socio-economic discrimination (Durrheim & Dixon, 2010). MacCrone (1973) was of the opinion that prejudice, similar to racial discrimination, focuses on highlighting the differences between groups, often resulting in the dehumanisation of the 'other' by painting them as inferior and less intelligent (MacCrone, 1973).

South Africa, as a multi-cultural, multi-racial, and multi-linguistic society, is no different due to its historical background of segregation during the Apartheid era (Durrheim & Dixon, 2010). Many South Africans experience discrimination on a daily basis. Discrimination can take many forms but is generally characterised by the unjust and/or prejudicial treatment of people or groups on the grounds of, amongst others, race, age, or sex/gender.

Gender bias or discrimination based on gender, just like racial discrimination, focuses on highlighting the differences between males and females by removing the essence of what makes us human. Gender bias has becomes more acutely visible in society, during the course of modernisation around the world, which has led to changes in socioeconomic development, and subsequently changes in gender roles (Inglehart & Norris, 2003).

Inglehart and Norris (2003) highlighted that modernisation occurs in two phases, namely the industrial phase and the post-industrial phase. Industrialisation led to the introduction of women into the world of paid labour. Women began to gain ground in areas of literacy and opportunities for education became more abundant. Even though this led to women being placed in more prominent roles, they still wielded less power than their male counterparts did (Inglehart & Norris, 2003).

The post-industrial phase refers to the emergence of greater gender equality. Professionally, women have moved into higher positions than their previous counterparts were able to, leading to women attaining positions in both management and the political spheres previously allocated to men. Many societies are still undergoing this process of the post-industrial phase of modernisation (Inglehart & Norris, 2003).

According to Inglehart and Norris (2003), these processes are critical for understanding the impact of the transition from traditional to secular values as well as the movement from survival to self-expression, on the perceived role of women in previously male-dominated contexts. The dimension of traditional and secular values illustrate the traditional role of women as being the 'caretaker' and 'homemaker, and focuses on how these traditional views have shifted significantly over time, to the point where women now place education and career aspirations above their traditional roles. The dimension of survival and self-expression focuses mostly on gender equality and gender roles, and how these two factors either enhance the expression of self (Inglehart & Norris, 2003).This is important as it places emphasis on

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traditional and modern gender roles applicable in all dimensions of everyday life. Gender bias against women is especially prevalent in traditionally male-dominated contexts, such as the military. The present cross-sectional study explored whether positive, face-to-face interactions between male and female members of the military are associated with reduced gender bias against female members of the military amongst male members of the South African National Defence Force (SANDF).

Women in the Military

Within the armed forces worldwide, the act of warfare and security has always been considered the domain of males (Sowers, 2003). However, since World War I and II thousands of women have served as nurses, medics and other supporting roles in major armies. These supporting roles notwithstanding, women have also played an invaluable role in warfare, proving their valour in battle and subsequently gaining recognition as equals (Molekane, 1996). It is their role as military combatants that has generally caused the most controversy. The section below focuses on the historical and current trends of woman's participation in the armed forces, the integration of women within the armed forces, and the particular challenges they face as women serving in a historically male-dominated context.

A Brief History of Women in the Military

The history of women in the military around the world spans over 400 years (Sowers, 2003), during which time they have fulfilled many different roles. Although the majority of military combatants have historically been men, the history of female military combatants spans from the ancient warrior women, to women currently serving in conflicts around the world (Sowers, 2003). Nevertheless, it has not been easy for women to serve as combatants in battle, and some went to great lengths to do so. For example, during the Civil War in the United

States of America, many women dressed as men in order to experience combat (Sowers, 2003) It is only in the last one hundred years or so that women have been given more prominent roles in the armed forces as an increasing number of countries have begun to expand the role of women in their armies (Matthews et al., 2009).

The first country to deploy female recruits as combat troops was Russia (Hartfield, 2005). From the outset these female recruits either joined (enlisted) by disguising themselves as men or were tacitly accepted by their fellow combatants (Hartfield, 2005). In 1917, the first Russian women battalion emerged, but was later disbanded. Prominent nations such as Britain and Germany, also allowed women to fulfil combat roles in anti-aircraft units as well as front-line units mainly used in Russia (Sowers, 2003).

For example, in 1938, the British women's auxiliary service was attached to the British military and many women were able to operate anti-aircraft machinery, becoming an established part of the British military by 1941. At the same time, women were able to handle weapons, but were never allowed to pull the trigger and kill the enemy as it was deemed as 'too masculine', and would supposedly cause a confusion of gender roles ascribed to women (Hageman, 2011).

Contrary to popular belief, the Third Reich in Germany had similar roles available in the military for women. More than 500,000 women volunteered for the uniformed auxiliary units during 1944-1945 in the German armed forces (Wehrmacht). A staggering 400,000 women volunteered as nurses and a vast number of these women replaced drafted men (Campbell, 1993). By 1945, 85% of German women held positions such as clerks, accountants, interpreters, laboratory workers, and administrative clerks in the German army (Markwick, 2008).

During the 1970's and 1980's most western armies began to admit women to actively serve within their armies, and the roles women fulfilled in the armed forces took a dramatic

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shift from clerks, drivers, welfare officers, and nurses, to include roles that went beyond technical and secretarial support (Campbell, 1993). Many of these changes to the opportunities available to women in the military mirrored the various changes taking place in broader society in relation to women's rights and gender equality (such as allowing women to vote and own property). In the United States of America, the Equal Rights Amendment (ERA) made it possible for women to be drafted into military service (Gerhard, 2001). In 2000, the equality amendment policy took effect and granted equal opportunities for women in the military. Women found to be physically and personally suitable for the job entered combat support and light combat roles in areas such as the artillery corpse, infantry, and armoured units (Silva, 2008). While a number of countries allow women to fulfil active combat roles in the military, including New Zealand, Canada, Denmark, Finland, Italy, Germany, Norway, South Africa and the United States amongst others, Israel is the only country with mandatory military service for childless single and married women, a policy initially started during 1948 (Cook, 2006).

South African women in the military.

The South African National Defence Force (SANDF) as it exists today was created in 1994, after the Country's first general democratic election. The SANDF consists of four arms of services, which include The South African Army, South African Navy, South African Air Force, and South African Military Health Services (SAMHS; Motumi, Veldtman, & Joubert, 2011).

South African women have a long history of service within the South African Defence Force (SADF) and the newly formed SANDF. In World War I and II South African women served in auxiliary roles within the then SADF, and during 1914 volunteer nursing services were established by the then SADF, and 328 nursing staff were deployed with South African troops in Europe (Molekane, 1996). Five service organisations were established during World

War II for women in South Africa, which included the South African Military Nursing service, as well as auxiliary posts for women attached to the army, the navy, the air force, and the military police. During the Apartheid regime, South African women served in military elements of the liberation in the 1970's and 80's. These women also formed part of the ANC's military wing Umkhonto we Sizwe (spear of the nation; Heinecken, 1998).

In 1990, many cultural beliefs and attitudes in the SADF still opposed the idea of women in the military as well as fulfilling the roles of combatants. In fact, up until 1993, women who enrolled in the SADF were excluded from training and employment in combat musterings which included; armour, infantry, artillery, pilots, air defence artillery, operational medical orderlies (ops medics), or any other combat role. Women's roles were limited to supportive structures or musterings such as; finance, personnel, logistics, intelligence, medical and welfare services (Heinecken, 1998). Due to patriarchal practices and traditional roles allocated to women by society-at-large, women were not allowed to be appointed in roles that could lead to close combat or combat that resulted in direct enemy fire or capture. This was in stark contrast, however, to the role played by women in the guerrilla liberation forces, where they served with distinction in combat roles (Heinecken, 1998).

Democracy in South Africa marked the beginning of freedom for all its citizens and with this in mind the South African government has always been mindful that this type of freedom cannot fully be achieved without the emancipation of women from all forms of oppression (Molekane, 1996). It is therefore no surprise that government has shown commitment in the pursuit of gender mainstreaming and gender equality among all sectors (private and public). The legislative framework, along with the Constitution of the Republic of South Africa grants all citizens equality before the law. Furthermore the Constitution also states that government may not unfairly discriminate directly or indirectly against anyone on any grounds ranging

from race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, language, culture, and birth.

During 1995, however, a wind of change generated by South Africa's more inclusive Constitution swept through the SANDF, and women of all races were incorporated into the military, and the first woman staff officer was appointed to oversee the implementation of the new SANDF policies (Heinecken, 1998). These new policies forbade discrimination in the SANDF on the grounds of race or gender, and women were now eligible for training and employment in all ranks and musterings within the newly formed SANDF (Kynoch, 1996), and today women are currently serving in combat positions within the infantry, artillery, and armoured corpse, within the South African Army (Heinecken, 1998).

In spite of these positive advancements, the gender transformation of the SANDF has not been without its challenges, and much remains to be achieved. The first challenge faced by the newly established SANDF was to integrate the different forces from vastly different political and military backgrounds, while fostering cooperation between these groups for the safety of South Africa and its citizens (Kynoch, 1996). The second challenge the SANDF faced was to achieve representivity based on not only racial / ethnic groups but also gender equality.

As of 30 April 2011, the gender distribution in the SANDF comprised of 73.4% male members and 26.6% female members (Motumi et al., 2011). However, the transformation within the SANDF since 1994 not only highlights that equal gender distribution has not yet been achieved in the SANDF, but that gender equality more broadly has not yet been achieved. To achieve gender equality, gender equity and the empowerment of women in decision-making processes, policies have to be designed to eradicate all forms of discrimination (Molekane 1996; Monethi, 2013).

As described in more detail below, female members of the SANDF (and women in the armed forces worldwide) face a variety of obstacles in the military. These include patriarchal

practices, gender bias, stereotyping, negative attitudes, sexual harassment, the suitability of combat equipment, disregarding the authority of women within the military, lack of training and development opportunities, gender biased policies and procedures, and the failure of taking into account factors affecting women's lives such as; parental responsibilities and work-family conflict (Carreiras, 2006; Heinecken, 1998; SA Army College, 2011). Each of these practices continually perpetuates the marginalisation of women in a male-dominated environment (Molekane, 1996).

In an attempt to alleviate the above-mentioned problem areas, the Department of Defence (DOD) introduced programmes aimed at empowering members of the SANDF with regards to prevailing patriarchal attitudes as well as promoting gender equity within the military (Motumi et al., 2011). To further highlight the advancement in policies, the DOD has redefined the notion of security and has realigned the role of the SANDF within a democratic framework where both women and men participate in the provision of security (SA Army College, 2011).

Attitudes towards Women in the Military

In South Africa and abroad, militaries are offering opportunities to women that were previously not available to them. This has been advanced, for example, by laws that allow women the same opportunities in combat as men (Lawrence, 2013). For example, in the United States of America (USA), new training programmes have been identified for women in combat roles - programmes that were specifically designed for female combat teams. These programmes include training in biometrics, forensics, and evidence collection, tactical questioning, explosives, and vehicle and personnel searches. With the implementation of these programmes, women will now be able to fulfil new roles (i.e. front-line positions) within the armed forces (Lawrence, 2013). Nevertheless, in spite of these advancements, male and female members have distinctly different attitudes towards the role of women in the military.

For example, in a study undertaken in the United States Reserve Officers' Training Corpse (ROTC), female cadets viewed military training as a means to assert themselves, in a male-dominated environment, as well as escaping from the negative aspects of traditional womanhood and societal roles ascribed to women (Silva, 2008). The study further highlighted that fact that female cadets were hyper-vigilant about their status as women in the military and performing tasks traditionally seen as the work of men, constantly trying to prove they were capable of performing male dominated tasks.

Matthews et al. (2009) examined the attitudes of males in the military, as well as males from civilian colleges, towards the variety of roles woman occupied in the military. Respondents were asked whether women should or should not perform the following tasks in the military: jet fighter pilots, truck mechanic, nurse in a combat zone, hand-to-hand combatant, air defence gunner, and member on a combat ship. The results showed that males enlisted in the military were less approving of women being assigned to many of the jobs highlighted above than males from civilian colleges. These views can be traced back to masculine ideology and traditional gender roles ascribed to women (Matthews et al., 2009).

Matthews et al. (2009) highlights a number of additional concerns that males in the military have about females serving in combat roles in the military. These include the fact that female members would either deter or negatively influence unit cohesion, because the male members in these units would not be able to trust their female soldiers; that romantic or sexual relationships would develop between male and female members; and that women might possibly fall pregnant to avoid combat. Moreover, the potential for women being captured as prisoners of war, being tortured, and possibly sexually assaulted is a risk that many male members in the military are not willing to take (Matthews et al., 2009). These fears, while being a reality, perpetuate the stereotypical view of women as being weak and unable to perform certain male-orientated tasks.

In recent years, the role of women in the armed forces has also been widely debated by feminists who fall into two distinct camps. The first camp focuses on feminists who publicly advocate for the role of women to be expanded, and who advocate for the fullest possible inclusion of women in the military as well as their eligibility to enrol in combat arms. This particular camp highlights that the best way to ensure equal treatment for women is to equally share in the rights and duties of society (Miller, cited in Heinecken 1998). The second camp, however, include those feminists who oppose the participation of women in any military activity (Heinecken, 1998). Yet another view in favour of women serving in the military is that, given the general lack of male combatants in the military, women should be welcomed into combat units, instead of being treated as second-class citizens (Carreiras, 2006).

A South African survey undertaken in 1996 explored views amongst the general public relating to women serving in the military (Cilliers, Schutte, Heinecken, Liebenberg, & Sass, cited in Heinecken, 1998). The results indicated that 48% of the participants were against women serving in combat musterings and 46% of the participants were in favour of women being employed and deployed in combat.

A similar study was undertaken among SANDF Officers ranging from the SA Navy, SA Army, SA Air Force, and SA Medical Services on whether women should be allowed to serve in combat (Heinecken, 1998). Results indicated that approximately 48% of the Officers were against women serving in combat roles, whereas 40% of the Officers supported women combatants in the frontline (Heinecken, 1998). No significant differences in results were found based on the different ranks of the Officers participating in the study, although significant differences were found when comparing black and white South African Officers, and when comparing the responses of male and female Officers.

Half of the white South African Officers who participated in the study opposed women being employed and deployed in combat positions, with 39% of them agreeing that women

should be deployed in the frontline. Black South African Officers were divided on the matter, with more being in favour of women in combatant positions than those opposed to the idea (Heinecken, 1998). When comparing the responses of male and female Officers, 57% of female Officers supported the view that women should be allowed to serve in combat positions, compared to only 38% of male Officers (Heinecken, 1998). It is therefore clear that differences in opinion are significantly influenced by race and gender and that the gender debate mainly focussed on employment equity as well as equal rights for women within the armed forces (Heinecken, 1998).

Gender Bias in the Military

Women in the armed forces have always been subjected to patriarchal practices, stereotyping, and the perpetuation of the marginalisation of women in a male-dominated environment (Heinecken, 1998). With South Africa's patriarchal history, gender inequality in the SANDF has become prevalent (SA Army College, 2011). Discrimination against women in the military is manifested in many ways, for example through sexist jokes and the failure to take women in the military seriously, which severely affects the advancement of women in the military. In the next section, two of the most common challenges faced by women in the military will be discussed, along with the impact it has on their daily functioning within the armed forces, namely sexual harassment and stereotypical views towards female members.

Sexual harassment.

Even though sexual harassment of women in the SANDF has been on the decline, it however still remains problematic (SA Army College, 2011). Sexual harassment in the armed forces is an under reported phenomenon for a number of reasons. Firstly, it can have an impact on a woman's future career prospects, and secondly, it may result in retribution from fellow

soldiers and/or embarrassment (SA Army College, 2011). Examples of sexual harassment may include the explicit use of language directed toward a female military member, or sexually suggestive behaviour toward a female military member. Within the Department of Defence sexual harassment is treated as misconduct (or behaviour unbecoming of an Officer), which on its own merit trivialises the seriousness of the matter and perpetrators of the act often fail to recognise the severity of their behaviour (SA Army College, 2011).

Stereotypical behaviour towards women.

Even though women have served valiantly in the military throughout history, they are still viewed as being incapable of fighting like men within the armed forces. Men serving within the armed forces view women as weak, emotional, incapable and even hormonal, which makes it challenging for women to receive the respect that they deserve for their service in the military, especially within combat situations (SA Army College, 2011). To combat the above, mentioned inequalities within the workplace, the DOD has implemented policies to address the disparities in gender distribution within the SANDF and has launched a number of awareness campaigns addressing gender stereotyping, ongoing sexual harassment and patriarchal attitudes (Molekane, 1996).

Gender Mainstreaming

Gender mainstreaming was implemented as a tool to address the unique disparities faced by women in the SANDF. This process was adopted by government to fast track 50% of the representation of women in key decision-making roles and it has fast become an important component of policies and practices within the public sector (SA Army College, 2011). The process of gender mainstreaming allows women to choose in which department or corpse they want to be employed, and their choices range from musterings in logistics, finance, personnel,

administration, signallers (IT), caterers, and combat, or they can choose to be part of the training of new recruits. To further promote the advancement of women's career within the SANDF, and to meet the above-mentioned career criteria, women are allowed to attend additional courses (Officers' formative) and other specialist training within the Department of Defence.

The promotion of gender equity within the military is strongly influenced by creating a women-friendly environment that is conducive to the plights and wellbeing of our female soldiers (SA Army College, 2011). By achieving gender mainstreaming, the high drop-out rate of women in the SANDF will be alleviated and the participation of women in military affairs will subsequently lead to fewer obstacles faced by female soldiers.

The African Union, in accordance with the United Nations mandate, has declared 2010-2020 the decade of African women. During this period, many factions of the Department of Defence will be revisited and adapted. Focus will be placed on gender mainstreaming during armed conflict and peacekeeping operations. Other countries and organisations who have pledged to follow the South African example are Namibia, The African Union (AU), and the Southern African Development Communities (SADC). The Namibian plan of action includes focussing on armed conflict, and peacekeeping operations, where women are part of decision-making processes on all levels. In the AU pledge, they highlighted addressing the gap of gender parity by implementing a 50/50 gender distribution, in which they state that women and men will both be part of the decision-making processes, especially focussing on child soldiers as well as women abuse (including women and girls used as sex slaves). The SADC has pledged to alleviate violence against women and children, by allowing at least 30% of women to be part of key decision-making processes and to include women in peacekeeping and operational structures (SA Army College, 2011).

These pledges are said to ensure the revising and devising of new policies, and as a result, women in the military are taking on multifaceted responsibilities during peace and wartime. It is therefore important that Parliamentary action be taken in order for above-mentioned policies to take effect otherwise the rights enshrined in the Constitution will remain paper guarantees (SA Army College, 2011). The benefits of such pledges and policies notwithstanding (which operate on a macro-level), addressing gender bias against women in the military also requires more micro-level interventions that are capable of shifting the attitudes that male members have towards female members in the military. One of the most promising interventions to emerge from social psychology for combating prejudice is that of positive intergroup contact between members of different groups (Hewstone & Swart, 2011).

Introducing the Contact Hypothesis

Historically positive contact (or face-to-face interactions between members of different groups) has proven to be most beneficial for the reduction of prejudice. Social scientists first started investigating and theorising about the importance of positive intergroup contact for the reduction of prejudice after World War II (Pettigrew, 1998). Allport (1954) proved most influential in the theorising of what he called the contact hypothesis, in which he highlighted certain situational conditions surrounding the contact experience that he considered 'optimal' for the reduction of prejudice. According to Allport (1954), positive intergroup contact would have the strongest effect on prejudice when it was characterised by the following conditions: equal group status between the group members engaging in contact, the pursuit common goals, cooperation, and the support for such contact from the authorities, focusing on laws and customs. Subsequent research across a variety of situations, groups, and societies have supported Allport's (1954) contact hypothesis, described further in the following chapter (for a meta-analysis see Pettigrew & Tropp, 2006).

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The contact hypothesis serves as a fundamental cornerstone in describing how contact between groups can be beneficial in the reduction of prejudice. The present study aimed to apply contact theory within the military context in an attempt to investigate whether positive intergroup contact between male and female members in the military is able to reduce negative gender stereotypes towards women in the military.

The Present Study

The military context, where gender is a prominent and endemic feature of the institution, is a relatively neglected area of study within the social sciences (Wechsler Segal, 1999). The present cross-sectional study aimed to address this gap by investigating whether positive direct contact (specifically cross-group friendships) between male and female members in the SANDF can reduce prejudice (i.e., gender bias) towards female members among male members within the SANDF. This cross-sectional study was undertaken amongst male members stationed at the Tempe Military Base in Bloemfontein, South Africa.

Moreover, the present study used structural equation modelling to explore the role of self-disclosure, empathy and perspective-taking as potential mediators that may explain how or why positive contact between male and female members in the military might affect attitudes towards females in this context. The present study is considered beneficial to the SANDF (and South Africa as a whole) as the results can be used to design interventions aimed at improving relationships between male and female military members, and which can inform the development of gender equity programmes within the military context.

The following five objectives were pursued in the present study in order to achieve the aforementioned aim:

1. to measure the nature and quality of friendships between male and female members in general, as well as the characteristics of the closest friendships between male and

female members (including friendship type, friendship closeness and amount of quantity and quality of contact with this friend);

2. to measure the amount of positive and negative reciprocal self-disclosure between male members and their closest female friend in the SANDF;

3. to measure the extent of affective empathy and perspective-taking that male members hold towards female members in the SANDF in general;

4. to measure the extent of self-reported gender- bias amongst male members in the SANDF, as well as the attitudes male members hold regarding the increased representation of women at the Tempe Military Base in Bloemfontein in general; and

5. to test specific *a priori* hypotheses related to the putative relationships between cross-group friendships, self-disclosure, empathy, perspective-taking, and gender bias.

Chapter Overview

Chapter One offered a brief introduction to the context of the present study, namely gender bias against women in the military more broadly, and within the SANDF in particular, and briefly introduced the rationale of the present study.

Chapter Two includes a review of the contact hypothesis and intergroup contact theory, including a focus on cross-group friendship as the most powerful form of intergroup contact, and a discussion of the role played by the various mediators under investigation in the present study, in the contact-prejudice relationship.

Chapter Three introduces the hypotheses that were tested in the present study, and summarises the materials and the methodology employed in the present study. This Chapter also provides a summary of the results.

Chapter Four concludes this thesis with a discussion of the key findings, the implications of the results, potential limitations of the present study, and directions for future research.

CHAPTER TWO

INTERGROUP CONTACT THEORY

As highlighted in Chapter One, the contact hypothesis is one of the most influential ideas to emerge from social psychology in the past sixty years (see Hewstone & Swart, 2011), and offers arguably one of the most reliable strategies for reducing prejudice between groups and for promoting more positive intergroup relations (see Pettigrew & Tropp, 2006). One of the most powerful forms of intergroup contact is that of cross-group friendships, and it has been shown to exert the strongest effects on prejudice (Pettigrew, 1997, 1998; Pettigrew & Tropp, 2006).

What follows below is a brief overview of the development of the idea that positive intergroup contact is capable of reducing prejudice from hypothesis to theory (Hewstone & Swart, 2011), including a description of key research findings that have been reported both internationally and in the South African context. This discussion includes a closer look at the various dimension and types of contact that are associated with reduced prejudice. Then, the focus shifts towards research that has explored *how* or *why* positive intergroup contact (and cross-group friendships in particular) reduce prejudice. I will focus my discussion on three key mediators, namely self-disclosure, affective empathy, and perspective-taking. These three mediators of the contact-prejudice relationship were explored in the present study. Finally, I conclude this chapter by considering the role of social dominance orientation (SDO) as a key trait that may be implicated in the maintenance of group based inequalities. Gender bias, it is argued, serves to maintain gender inequalities between men and women, and individual differences in SDO may explain individual differences in gender bias, over-and-above the experiences of intergroup contact between men and women.

The Development of Intergroup Contact Theory

Gordon Allport (1954) is credited with the formal elaboration of the idea that positive intergroup contact is capable of reducing intergroup prejudice. The basic premise of the contact hypothesis is that positive intergroup contact (direct, face-to-face interactions) between individual members of different groups is capable of reducing negative stereotypes and prejudice towards the other group. This relatively simple hypothesis has inspired an enormous amount of research conducted across dozens of countries and involving thousands of participants, across fields as diverse as that of psychology, sociology, and criminology (Wright, Brody, & Aron, 1996). In decades following Allport's (1954) original formulation, the influence of the contact hypothesis has become recognised for both its theoretical and policy importance (Pettigrew, 1998).

Early Studies on Intergroup Contact

Although Allport (1954) is credited with formalising the contact hypothesis, the notion that contact can reduce prejudice and bias was already making substantial head way during the mid-1930's (Dovidio, Gaertner, & Kawakami, 2003). For example, in 1933 Zeligs and Hendrickson (cited in Dovidio et al., 2003) were studying role of intergroup contact in the relationship between individual differences such as self-reported racial attitudes towards different racial groups. By the mid-1940's, more attention was focussed on the nature and context of interracial contact. Settings such as the battlefield during World War II and the Merchant Marine voyages formed a natural laboratory for the study on intergroup relations. Segregated white and black soldiers in combat situations provided the perfect population in which intergroup contact could be observed. On the battlefield it was also observed that white soldiers who had contact with black soldiers exhibited more positive racial attitudes than soldiers who were segregated, while white seamen who undertook voyages with black seamen

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also exhibited more positive racial attitudes toward their black counterparts (for a review see Dovidio et al., 2003).

Brameld (1946) and Watson (1946) studied the contact hypothesis in the education setting, in which their premise revolved around the importance of shared experiences. They highlighted that in settings where different personalities meet and come into contact with one another, prejudice is reduced, while when various cultures and races interact in isolation from one another prejudice "breeds like a disease" (Brameld, 1946, p. 245; see also Lett, 1945). These early studies formed the foundation upon which the contact hypothesis was built.

Building on these earlier works, Allport (1954) attempted to break down contact situations into their most basic components, which until that point had rarely occurred in the field of social psychology. This dissection has, however, proven useful in practical situations such as the distinction between racial desegregation and integration in schools (Pettigrew, 1998). Allport's (1954) contact hypothesis highlighted that under the appropriate conditions, intergroup contact can be beneficial in the reduction of prejudice. These he considered as 'optimal' conditions.

The optimal conditions highlighted by Allport (1954) included the idea that members of the groups engaging in intergroup contact needed to perceive equal status between their groups in the contact setting; that intergroup contact is enhanced when creating a goal-orientated mind-set necessary to achieve common goals; that the contact setting should promote intergroup co-operation where goals are obtained by pooling resources without competition; and finally, the contact experience needed to be supported by institutions / authorities / laws.

Allport's (1954) contact hypothesis stimulated hundreds of research studies in the decades that followed. In 2006, Pettigrew and Tropp undertook the most thorough and robust meta-analytic review of the intergroup contact. Their meta-analysis is regarded as unequivocal

support for Allport's (1954) contact hypothesis, and warrants a more detailed description below.

Meta-analytic Support for the Contact Hypothesis

Allport's (1954) original formulation of the contact hypothesis was inspired by the urgent need to explore ways of improving relations between white and African-Americans. However, in the years that followed, research on the contact-prejudice relationship would go beyond interracial relations, and considered the contact-prejudice relationship with substantial success across a wide variety of marginalised and stigmatised group contexts. Pettigrew and Tropp (2006) undertook a meta-analysis of more than 500 independent studies exploring the relationship between intergroup contact and prejudice, including more than 250,000 participants across more than 700 samples. Across all these studies, Pettigrew and Tropp (2006) observed a reliable inverse relationship between intergroup contact and prejudice (mean $r = -.22$, $p < .001$). What makes these results so compelling is that they found that positive intergroup contact reliably reduces prejudice towards a variety of target groups (including sexual orientation, race/ethnicity, the elderly, mental illness, and mental and physical handicap), across a variety of settings.

Pettigrew and Tropp (2006) also explored just how essential Allport's (1954) optimal conditions were for the success of intergroup contact. They found that positive intergroup contact was significantly and reliably associated with reduced prejudice even in those studies where Allport's (1954) optimal conditions were not met. These findings suggest that instead of being essential conditions, Allport's (1954) optimal conditions are instead best regarded as facilitating condition.

Pettigrew and Tropp (2006) also found that the beneficial effects of positive intergroup contact typically generalised beyond the individuals involved in the immediate contact

situation, and generalised to include more positive attitudes towards the outgroups as a whole. The pertinent findings reported by Pettigrew and Tropp (2006) relating to comparisons of the effects of various dimensions and types of contact on prejudice are described in further detail below.

Since Allport's (1954) original formulation, researchers have explored the various ways in which intergroup contact might occur, and how these relate to intergroup prejudice. Studies have shown that both direct, face-to-face intergroup contact experiences (e.g., Swart, Hewstone, Voci, & Christ, 2010, 2011) and more indirect (or extended) intergroup contact experiences (e.g., observing a fellow ingroup member engaging in positive intergroup contact; Turner, Hewstone, Voci, Paolini, & Christ, 2007; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) are associated with reduced prejudice. However, the focus of the present study was on the relationship between direct, face-to-face interactions between male and female members of the SANDF and prejudice towards females in the military and, as such, the discussion below is limited to focusing on research findings relating to the various dimensions of direct, face-to-face intergroup contact and their relationship with outgroup prejudice.

Direct Intergroup Contact

Allport's (1954) vision of intergroup contact was largely based on bringing members from all groups together in face-to-face encounters to reduce intergroup prejudice and hostility. In any discussion of direct intergroup contact, it is important to distinguish between two dimensions of direct contact, namely the quantity of contact and the quality of contact, and the effects that each of these have on prejudice (Lolliot et al., 2015).

Contact quantity refers to the frequency of direct intergroup encounters experienced by an individual, whereas contact quality pertains to the extent to which face-to-face intergroup encounters are experienced either positively or negatively by the individuals in question (Islam

& Hewstone, 1993; Lolliot et al., 2015). Indeed contact quantity and contact quality were identified by Allport (1954) as two factors that influence the nature of contact, and Allport's (1954) optimal conditions of equal status, common goals, and cooperation arguably relate very strongly to enhancing the quality of the intergroup contact experience.

Islam and Hewstone (1993) undertook one of the first studies exploring the independent effects of contact quantity and contact quality on prejudice. In their field study, they considered the relationship between contact quantity and contact quality and prejudice among minority-status Hindus and majority-status Muslims Bangladesh. Using path analysis, Islam and Hewstone (1993) showed that while both contact quantity and contact quality predicted reduced outgroup prejudice, contact quality had a significantly stronger effect on prejudice than did contact quantity. The findings of this single study are supported by Pettigrew and Tropp's (2006) meta-analytic results, which showed that when comparing contact effects for contact quantity and contact quality, the relationship between contact quality and prejudice was significantly stronger than the relationship between contact quantity and prejudice. Their meta-analytic findings emphasise the relative importance of contact quality over contact quantity. That is, it is more important to have contact that is high in quality (even if it is less frequent) than to have more frequent contact (high in quantity) that is low in quality.

Over the past twenty years, contact research has identified cross-group friendsihps as the single dimension of intergroup contact that is high in quality and arguably has the strongest effect on prejudice relative to other forms of direct contact. In the next section, I discuss the relationship between cross-group friendships and prejudice within the broader context of interpersonal relationships.

Interpersonal Relationships and Cross-group Friendships

People are inherently social creatures and are innately shaped by their experiences with others, their need to belong, social exchange and the relational self (Berscheid & Peplau, 1983). The need to belong can be traced back to the drive towards self-actualisation identified by Maslow's hierarchy of needs, where people need to feel love and be accepted by social groups (i.e., family, peer-groups).

Social exchange refers to individuals engaging in relationships that are equally rewarding and beneficial in both tangible and intangible ways. Individuals develop relationships through cost-benefit analyses; meaning that interactions with others are rewarding in one way or another (Hazan & Shaver, 1994). To this end, engaging in reciprocal self-disclosure, sharing personal and meaningful information with the relationship partner, is capable of significantly enhancing affect for the relationship partner and the closeness between relationship partners.

Relationships in everyday life are important because they allow individuals to develop a sense of self. The relational self is defined as that part of an individual that consists of feelings and beliefs that one has of oneself, and is highly influenced by interactions with others (Hazan & Shaver, 1994). Relationships have a beginning, a lifespan, and an end. They are dynamic, ever-changing systems that grow and improve gradually, as individuals become closer emotionally, as their relationships expand, or as their relationships deteriorate (Hazan & Shaver, 1994).

Psychologist George Levinger developed the most influential model documenting the five stages of interpersonal relationships (see Hazan & Shaver, 1994). The first stage of acquaintanceship is dependent on previous relationships, physical proximity and first impressions. When two people begin to like each other, this interaction is bound to continue indefinitely.

In the second phase, known as Build-Up, trust and caring becomes evident in the interpersonal relationship. In this phase, the need for intimacy and compatibility, common backgrounds and goals will influence whether the relationship continues or not. The third phase, known as Continuation, is generally a long and stable period in which close long-term friendships, romantic relationships, and even marriage occurs. Continued growth and development occurs where mutual trust is an important component for the relationship to continue. The fourth phase is known as Deterioration and in this phase relationships that tend to show signs of trouble are often characterised by boredom, resentment, and dissatisfaction. In this phase, lack of communication and self-disclosure may occur, allowing a downward spiral and ultimately ending the relationship. This leads to the fifth and final stage, known as Termination. During this final stage, the relationship is marked with break-ups, death, or special separation severing all ties of either friendship and or romantic love (Hazan & Shaver, 1994).

While traditional psychologists have placed emphasis on relationship dysfunction, positive psychologists have argued that relationship health is not merely dependent on the absence of dysfunction but that healthy relationships are built on a foundation of secure attachment (Murray, Holmes, & Griffin, 1996). Friendships are an example of this type of positive and healthy relationship. They are enhanced by the engagement in reciprocal self-disclosure, the experience of affective empathy and perspective-taking.

Friendships within the context of intergroup relations have been shown to play a crucial role in the reduction of prejudice. As with friendships more generally, cross-group friendships are generally characterised by long-term interactions between individuals with similar interests, which meet most of the optimal conditions (e.g. equal status, common goals, and cooperative contact) highlighted by Allport (1954). As such, cross-group friendships are high in contact

quality (and intimacy), while allowing for sufficient contact quantity (see Amir, 1969; Cook, 1962).

Pettigrew (1997, 1998) noted that cross-group friendships promote the reduction of prejudice in at least four different ways, namely learning about the outgroup (e.g., via reciprocal self-disclosure), behaviour change, generation of affective ties (e.g., affective empathy and perspective-taking), and ingroup and outgroup reappraisal (specifically the reappraisal of the perceived ingroup and outgroup norms governing intergroup relations).

A number of studies have been conducted, both abroad and in the South African context, which supports the notion that cross-group friendship plays an integral part in intergroup interactions. For example, Oliner and Oliner (1988) found that during the Holocaust in World War II, non-Jews who risked their lives to save Jews reported to have had close friendships, as children, with members of other outgroups. Wright et al. (1997) found that individuals who reported having cross-group friends showed significantly increased levels of sympathy and admiration for outgroup members.

Pettigrew (1997) analysed data from surveys conducted in France, Great Britain, the Netherlands, and West Germany, and found that respondents who reported having cross-group friends also reported significantly lower prejudice scores (Pettigrew, 1997). Moreover, Pettigrew (1997) found that the inverse relationship between cross-group friendships and prejudice was significantly stronger than the inverse relationship between contact as co-workers or contact as neighbours and prejudice respectively. Of course, the cross-sectional nature of the data analysed by Pettigrew (1997) makes it difficult to determine the causal relationship between cross-group friendships and prejudice in his findings. Were cross-group friendships driving the lower prejudice scores or were lower prejudice scores driving self-reported cross-group friendships?

This is a similar challenge faced by Swart et al. (2010) who studied cross-group friendships and prejudice in the South African context. They conducted two cross-sectional survey studies to measure the effects cross-group friendship on prejudice. They found that, amongst white South Africans, cross-group friendships with coloured and black (African) South Africans were significantly associated with lower prejudice towards each outgroup respectively. However, the methodological shortcomings of these (and other) cross-sectional studies were overcoming in the three-wave longitudinal study undertaken by Swart et al. (2011) amongst coloured South African high school students. They found that cross-group friendships with white South Africans were associated with reduced prejudice towards white South Africans in general over time, while lower prejudice towards white South Africans did not predict cross-group friendships with white South Africans over time.

Once again, however, the most compelling evidence in favour of the significant inverse relationship between cross-group friendships and prejudice is provided by the meta-analysis undertaken by Pettigrew and Tropp (2006). They found that contact in the form of cross-group friendships showed a significantly stronger ($p < .05$) negative relationship with prejudice (mean $r = -.25$), than more casual forms of intergroup contact (see also Pettigrew, 1997).

More recent contact research has shifted focus from *whether* positive intergroup contact reduces prejudice (which is now accepted beyond doubt), towards exploring *how* and *why* positive intergroup contact reduces prejudice. In other words, research has begun to explore the underlying mediators of the contact-prejudice relationship. Allport (1954) argued that one of the key reasons why positive intergroup contact reduces prejudice is because it enhances more accurate knowledge of the outgroup, while also allowing for the acquisition of new information about the outgroup (Triandis, 1972).

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

and empathy/perspective-taking. They found that, of these three mediators, the more affective mediators of intergroup anxiety and empathy/perspective-taking were significantly stronger mediators of the contact-prejudice relationship than the more cognitive mediator of outgroup knowledge. Their findings emphasise the relative importance of affective process (e.g., emotions) over more cognitive process in the reduction of prejudice via intergroup contact.

While cross-group friendships certainly do allow for the acquisition of outgroup knowledge, via activities such as reciprocal self-disclosure (Altman & Taylor, 1973; Miller, 2002; Reis & Shaver, 1988; Turner et al., 2007), for example, they are considered a potent form of intergroup contact because they facilitate the generation of emotional ties between ingroup and outgroup members (Pettigrew, 1998). Indeed, self-disclosure is in itself essential for promoting greater intimacy and affective ties between cross-group friends, stimulating greater affective empathy and perspective-taking (e.g., Pettigrew & Tropp, 2008; Swart et al., 2011). Research conducted by Altman and Taylor (1973); Miller (2002); Reis and Shaver (1988); Turner et al. (2007); Pettigrew and Tropp (2008), and Swart et al. (2011), highlight self-disclosure, affective empathy and perspective-taking as particularly important mediators of the contact-prejudice relationship within the context of cross-group friendships. These three mediators are discussed in detail below.

Mediators of the Contact-Prejudice Relationship

Self-disclosure

Self-disclosure refers to the voluntary disclosure of intimate (or personal) information to another person (Miller, 2002). The shared information can either be descriptive or evaluative and can include: thoughts, feelings, aspirations, goals, failures, successes, fears, likes, or dislikes (Tolstedt & Stokes, 1984). This form of information sharing is viewed as pivotal in

interpersonal relationships and its features are prominent in theories of intimacy and friendship development.

It is argued that close relationships develop due to an escalation of the extent and intimacy of information two individuals reciprocally disclose to one another (Altman & Taylor, 1973; Reis & Shaver, 1988). According to social penetration theory, most self-disclosure occurs early on in relationships, with the exchange of superficial information, and gradually moves toward sharing more meaningful information (Altman & Taylor, 1973). Intimacy in relationships is forged once the breadth and depth of shared information increases. Altman and Taylor (1973) describe self-disclosure as a wedge between individuals sharing information. In the beginning of the relationship the wedge is narrow and shallow, as information discussed is superficial and yields little intimate information, however as the relationship becomes more intimate the wedge becomes broader and deeper. In order for intimacy to develop, the wedge has to penetrate three layers (Altman & Taylor, 1973).

The first layer is described as superficial, where individuals divulge little personal information. The second layer is where the relationship progresses and the breadth and depth of the information shared reveals more personal information. The third and final layer is reserved for the sharing of intimate information. At this particular layer, intimacy is achieved once individuals reciprocate these disclosures. If at any point in the relationship reciprocal self-disclosure is not met, either by one individual revealing intimate, personal information to soon in the relationship, or reciprocal sharing of information is not met (Altman & Taylor, 1973), the relationship will run its course.

Reciprocity that occurs during friendships and the sharing of intimate information is viewed as a positive response between two or more individuals interacting with one another. It also refers to individuals conveying a degree of understanding and validation of the information that has been disclosed. This form of self-disclosure is usually indicative of whether these

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individuals would want to interact again (Sprecher, Treger, Wondra, Hilaire, & Wallpe, 2013). There are two types of reciprocity that take effect during interactions, namely turn-taking reciprocity, and extended reciprocity. Turn-taking reciprocity refers to when partners immediately disclose information with one another, while extended reciprocity is when disclosure occurs over a period of time, where one partner discloses personal or intimate information while the other partner merely listens, only to return the intimate self-disclosure at a later point in time (Sprecher et al., 2013).

Numerous studies undertaken by Berg and Wright-Buckley (1988) and Worthy, Gary, and Kahn (1969) show that we feel greater attraction towards people who share information of a personal and intimate nature with us, which in turn leads to mutual interpersonal attraction. Four cross-sectional studies undertaken by Turner et al. (2007) investigated the effects of direct and extended cross-group friendship in the United Kingdom between South Asians and British whites. White British schoolchildren between the ages of 7-11 years had to complete a questionnaire measuring their attitudes towards South Asians. Path analysis indicated that the more time participants spent with South Asians, the more their attitudes began changing, not only toward South Asians they were exposed to, but also towards the South Asian population in general. It is also important to note that cross-group friendships with South Asians were significantly associated with more self-disclosure (Turner et al., 2007; see also Van Dick et al., 2004).

A key consideration in the efficacy of reciprocal self-disclosure is that the recipient of the self-disclosure needs to understand, accept and appreciate what has been disclosed in the interaction and respond appropriately in order for the self-disclosure to be effective (Reis & Shaver, 1988). This emphasis alludes to the importance of self-disclosure promoting empathic responding, to which I now turn.

Empathic Responding

Reciprocal self-disclosure is thought to play an integral role the inverse relationship between cross-group friendships and prejudice because it can facilitate greater empathic responding towards the outgroup. Self-disclosure can therefore allow an ingroup member the opportunity to better understand the world of the outgroup member through their eyes, leading to a more positive evaluation of this group (Stephan & Finlay, 1999; Turner et al., 2007).

According to Stephan and Finlay (1999), self-disclosure can only be effective as a mediating factor once empathy is triggered. The effects of empathic responding have been positively associated with increased tolerance and concern for the well-being of outgroup individuals (Swart et al., 2010; 2011). These benefits are capable of lasting longer than the initial empathic response and can be generalised to the outgroup as a whole (Batson, Turk, Shaw, & Klein, 1995; Galinsky & Moskovitz, 2000; Turner et al., 2007). Batson et al. (1997) demonstrated the positive effects of empathy towards stigmatised groups when focus was placed on other's feelings. They found that while listening to an interview of an individual of a stigmatised group, participants in a study attributed more positive attitudes towards members of the outgroup.

The term empathy has many different definitions and encompasses a range of emotional states, including caring for others as well as fostering the desire to help those in need (Gallese, 2003). Empathy also helps one experience the emotions of another, discerning what this person is thinking or feeling and, in so doing, lessening the distinction between the self and others. Many associate compassion and sympathy synonymous with empathy, however, these terms are unique and carry their own special meaning (Gallese, 2003).

The empathic response comprises of both affective and cognitive dimensions, namely affective empathy and perspective-taking respectively (Davis, 1983; Duan & Hill, 1996). Affective empathy is a visceral emotional response to another individual, whereas cognitive

empathy is described as the process of taking the perspective of another (Davis, 1983, 1994). Historically, researchers have mainly focussed on the cognitive component of empathy, while more recent recognition of the affective dimension of the empathic response has broadened our understanding of the empathic response (Deutsch & Madle, 1975; Hoffman, 1977).

Davis (1983) highlighted that the ability to understand another individual's perspective is often viewed as the cognitive facet of empathy. Perspective-taking can, however, occur in two ways. Firstly, it can occur visually, where an individual physically changes their location to see things as someone else does. Secondly, it can occur cognitively, where an individual mentally simulates the cognitive point of view of another (Epley & Caruso, 2008). Perspective-taking can also be defined as the temporary suspension of one's own point of view in an attempt to view the same situation as someone else might. It therefore allows individuals to gain an understanding of a physical state and or situation to determine the appropriate reaction (Epley & Caruso, 2008). It is important to note that the process of taking the perspective of another is exclusively related to perspective-taking, and does not necessarily lead affective empathy (Davis, 1983; but see Batson et al., 1997). Affective empathy is said to only develop once the process of perspective-taking has subsided (Davis, 1983).

Galinsky and Moskovitz (2000) highlighted that perspective-taking can undermine explicit and implicit stereotyping, while Stephan and Finlay (1999) indicated that taking the perspective of others could reduce perceptions of differences and threatening feelings that might persist. This allows the emergence of an awareness of humanity between members of opposing groups. The notion of taking the perspective of another teaches individuals about the concerns, attributes, and ideologies of out-group members making them seem less threatening (Stephan & Finlay, 1999).

Researchers in the field of prejudice reduction are quite optimistic about the positive effects of affective empathy and perspective-taking play in the reduction of prejudice and

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related biases, (see Batson et al., 1997, 1995; Finlay & Stephan, 2000; Galinsky & Moskovitz, 2000; Hodson, Hewstone, & Swart, 2013). Firstly, it brings awareness and highlights problematic areas faced by different groups, allowing members of the ingroup to have consideration for outgroup members' perspectives and in so doing increasing the likelihood of perceiving certain behaviours and or situations as discriminatory (Todd, Bodenhausen, & Galinsky, 2012). Secondly, perspective-taking plays a facilitatory role in reducing stereotype bias of outgroup members and decreases ingroup bias (Galinsky & Moskovitz, 2000). Lastly, the positive effects of this form of empathic response can facilitate an increase in individuals' willingness to engage in ingroup-outgroup interactions. It also plays a positive role in neutralising conflict between of opposing groups (Wang, Tai, Ku, & Galinsky, 2014).

For example, heterosexual students in a mental simulation were exposed to the pressures and discrimination homosexuals face. Empathy for homosexuals significantly increased and homophobia decreased (Hodson, Choma, & Costello, 2009). Within the context of social responses to natural disasters, researchers have found that cognitive empathic responses were found to predict helping behaviour towards victims, more so than affective empathic responses (Einolf, 2012). Cognitive empathy, or taking the perspective of others, allows individuals the ability to empathise without causing as much discomfort, whereas affective empathy (sharing the emotions of others), can cause emotional distress, helplessness, victim blaming, and avoidant behaviour among individuals helping victims (Einolf, 2012).

In their three-wave longitudinal study among coloured South African high school students, Swart et al. (2011) found that cross-group friendships with white South Africans at time 1 were positively associated with affective empathy at time 2, which was in turn positive associated with positive outgroup attitudes and perceived outgroup variability, and negatively associated with negative action tendencies at time 3. These findings highlighted that participants who had white South African friends were more than likely to experience affective

empathy towards the white South Africans in general, and are more likely to experience changes in attitudes over time (Swart et al., 2011). A particular focus of the present study relates to the investigation of the potential mediating role of reciprocal self-disclosure, affective empathy, and perspective-taking in the relationship between cross-group friendships between male and female members in the SANDF and gender bias against women in the military.

Intergroup Contact and Gender Bias

The term sexism refers to both prejudice and the presumed inferiority of a specific sex. Sexism is defined as biological differences assigned to both males and females. Gender bias, however, is a term used more inclusively than sexism, which includes both prejudice (attitudes) and discrimination (behaviours; Rothchild, 2007). Gender bias and sexism are often used interchangeably, leading to confusion. However, gender bias describes societal roles and expectations regarding the behaviour of both males and females. For example, it is expected of women to act or display more feminine characteristics or traits (e.g., to be motherly, loving, caring) whereas men are expected to display more manly or masculine characteristic or traits (e.g., to be a provider, fixer, to not cry). In simpler terms, gender bias is defined as favouritism towards one gender over another, and historically men have been favoured over women (Rothchild, 2007). Stereotypes that exist about the differences between males and females are largely based on societal ideologies and norms.

Hare-Mustin and Maracek (1988) highlighted that there are two types of gender bias that occur, namely *alpha* and *beta-bias.* They posited that *alpha-bias* refers to the tendency where differences between genders are exaggerated, whereas *beta-bias* refers to differences between genders that are either minimised or ignored. Alpha-bias is expressed in situations where it is argued that women experience greater levels of stress (for example in the realm of work and family). Given these arguments, male-dominated environments have been adjusted and

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transformed. Beta-bias on the other hand, focuses on the multiple roles women fulfil (i.e. parent, spouse, employee), which is believed to increase their well-being (Febbaro, 2003). In western societies, alpha-bias is more predominant than beta-bias.

The examination of gender differences, according to evolutionary psychologists, have often been explained through the notion of alpha-bias. Evolutionary psychologists have also been criticised for their alpha-biased views (Eysenck, 2014). They posit that differences between males and females can be explained through evolutionary processes, which highlight men being the more favourable sex. They typically believe these physiological differences are what make men dominant over women, therefore favouring males over females (Eysenck, 2014).

The contact hypothesis has been instrumental as a means of reducing outgroup prejudice, including gender bias (see Pettigrew & Tropp, 2006). As such, the present study explored the potential for positive intergroup contact to reduce gender bias within the context of the military. It is hypothesised that positive intergroup contact (specifically cross-group friendships) between male and female members in the military will be negatively associated with gender bias against women in the military. However, there is a potential confounding variable that needs to be accounted for in the discussion of gender bias and its maintenance, namely that of social dominance orientation (SDO), which is discussed in more detail below.

Social Dominance Orientation

Social dominance orientation (SDO) is a theory of individual difference developed by Felicia Pratto and Jim Sidanius (see Pratto, Stallworth, & Malle, 1994; Sidanius & Pratto, 2001) as means for understanding why some people are more or less likely to endorse group-based hierarchies and inequalities (along with policies that promote or maintain these hierarchies and inequalities) than others.

Gender bias against women in the military is arguably an extension of the broader societal group-based inequalities between men and women more generally (Pratto et al., 1994). Pratto, et al. (1994) postulate that societies use institutionalised segregation as a tool to maintain group differences and promote the superiority of one group over another. SDO can be described as an individual difference measure that predicts both social and political attitudes towards group-based hierarchies and inequalities. People who score high on SDO are typically characterised by others as dominant, uncaring, tough, and driven. Research indicates that males typically score higher on SDO than females (Sidanius & Pratto, 2001), while individuals who score high on SDO typically also display negative attitudes towards minorities (McFarland & Adelson, 1996). For example, Licciardello, Castiglione, Rampullo, and Scolla (2014) found significant relationships between SDO, contact apprehension and prejudice towards homosexuals. Moreover, Hyde (2005) suggests that certain career paths and types of work environments have a significant influence on the development of SDO. The military context may arguably be one such environment that fosters the development of SDO amongst male and female members.

Nicol and Charbonneau (2007) undertook a series of studies in which they measured SDO among Canadian samples that included both military and civilian samples. Their first study comprised a three-wave longitudinal study comparing SDO among students who joined the Military versus students who attended university. Their second study was a cross-sectional study comparing the SDO scores of 1st Year Military Cadets with those of final year Military Cadets and final year university students. Their third study was a longitudinal study undertaken over a period of four years, in which they examined the changes in SDO among Military Cadets and students attending universities. The general trend across these three studies was that the Military Cadets scored higher on SDO than did the university students. Moreover, Nicol and Charbonneau (2007, Study 3) found that military training and or military socialization was associated with increased levels of SDO over time. Nicol and Charbonneau (2007) suggest that

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heightened SDO may affect members' judgements of minority groups in the military during times when commands and orders from senior Officers are vague, at which point their innate prejudicial attitudes towards specific outgroups can be harmful. As such, the present study included brief measure of SDO (specifically relating to equality between groups) as a control variable, in order to test the relationship between cross-group friendships on gender bias over-and-above the potential effect of SDO on gender bias.

Summary

The role of women in the SANDF has expanded dramatically post-1994, however the prevalence of gender bias against women in the military remains problematic. Positive intergroup contact has been reliably shown to reduce prejudice across a variety of target groups and settings. Cross-group friendships, in particular, are important for the reduction of prejudice and the improvement of intergroup relations, not least because they create opportunities for reciprocal self-disclosure, which has been shown to promote both perspective-taking and affective empathy. In turn, reciprocal self-disclosure, affective empathy, and perspective-taking have each been associated with reduced prejudice. The individual difference measure of social dominance orientation, however, offers an alternative explanation to that of a lack of positive intergroup contact for the development and maintenance of group-based hierarchies and inequalities. As such, the need to control for social dominance orientation was identified in the present study in order to more appropriately test the relationship between positive intergroup contact and gender bias in the military.

CHAPTER THREE

PREDICTORS OF GENDER BIAS IN THE SANDF

Even though women have fulfilled various roles within the armed forces, women have only recently been able to attain more prominent roles in the military as many countries have expanded the role of women in their armies (Matthews et al., 2009). With the promotion of gender equity in the military, both nationally and internationally, the military environment has become more diverse as female members have enjoyed greater representation in a previously male-dominated workplace. Specifically, the process of gender mainstreaming in the military has provided women with the choice of choosing in which corpse they wanted to enter and serve their respective countries. Policies such as gender mainstreaming have promoted and legitimised female members' roles in the military in general, and allowed for 50% of female soldiers to be placed in key decision-making roles within the SANDF (SA Army College, 2011). Nevertheless, women throughout the armed forces face many similar challenges, irrespective of race, culture, religious affiliation, sexual orientation, and geography (Matthews et al., 2009). These include sexual harassment and the display of stereotypical behaviour towards women in the armed forces (SA Army College, 2011).

Intergroup contact has been shown to be a reliable predictor of reduced prejudice (Hewstone & Swart, 2011; Pettigrew & Tropp, 2006). Cross-group friendships are particularly important for the reduction of prejudice and the improvement of intergroup relations. Importantly, intergroup contact has been found to reduce prejudice across a range of target groups (including the reduction of gender bias; see Pettigrew & Tropp, 2006). The body of contact research has grown dramatically over the past sixty years, notably with the identification of key mediators that explain how and why intergroup contact is capable of reducing prejudice. These mediators include self-disclosure (e.g., Turner et al., 2007), affective

empathy and perspective-taking (e.g., Pettigrew & Tropp, 2008; Swart et al., 2010, 2011). As such, what started out as Allport's (1954) formulation of the contact hypothesis has since developed into a fully-fledged theory (Hewstone & Swart, 2011). Given its status as one of the most powerful ideas to emerge from social psychology in the past sixty years (Hewstone & Swart, 2011), intergroup contact theory served as the theoretical framework within which the present study was undertaken.

The Present Study

The present cross-sectional survey study aimed to investigate the effects of positive direct contact, specifically cross-group friendship, between male and female members of the SANDF stationed at the Tempe Military Base in Bloemfontein, South Africa, on gender bias toward women in the military amongst the male respondents. To this end, a number of key processes were explored that were hypothesised to mediate the relationship between positive intergroup contact and gender bias amongst male SANDF members. These included reciprocal self-disclosure, empathy, and perspective-taking.

The majority of intergroup contact research has measured intergroup contact on the aggregate level (e.g., average number of outgroup friends; see Pettigrew and Tropp, 2006; Swart et al., 2010, 2011). Intergroup contact measured on the aggregate level may be comprised of both positive and negative intergroup encounters. In order to ensure that the focus in the present study remained firmly on positive encounters, the present study took a different approach towards measuring intergroup contact by focusing on intergroup contact between the male member respondent and the female member of the SANDF that comprised the closest, most meaningful outgroup contact experienced by the male member respondent.

As such, male participants were asked to reflect on a single, closest relationship they have with a female member of the SANDF, irrespective of whether this closest relationship was

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merely an acquaintanceship or whether it constituted a best friendship. Male members then answered a number of questions relating to this relationship. These measures assessed various elements of the friendship under consideration, including the length of the friendship, the nature of the friendship, the level of intimacy of the friendship, the closeness experienced in the friendship, reciprocal positive and negative self-disclosure, and affect towards the female member in the friendship. This approach made it possible to explore the impact that the most positive intergroup contact with a single female SANDF member would have on the more generalised gender bias of male members in the SANDF. This methodology has been successfully applied in research exploring the generalisation of the positive effects of *interpersonal* ingroup and outgroup encounters to more positive *intergroup* attitudes (see Goosen, 2011; Lewis, 2014).

Predictions

Four predictions were tested in the present study.

Prediction One: Positive contact between a male member and their closest female member friend in the SANDF will have a significantly positive relationship with positive and negative reciprocal self-disclosure between them (i.e., at the interpersonal level), and a significantly positive relationship with greater affective empathy and perspective-taking towards female members in the SANDF in general (i.e., at the intergroup level).

Prediction Two: Positive and negative reciprocal self-disclosure with the female friend in the SANDF (i.e., at the interpersonal level), and affective empathy and perspective-taking that male members hold towards female members in the SANDF in general (i.e., at the intergroup level), will each have a significantly negative relationship with various forms of self-reported gender bias against female members in the SANDF in general.

Prediction Three: Positive and negative reciprocal self-disclosure on the interpersonal level will significantly mediate the relationship between contact quantity and contact quality with the closest female member friend and various forms of self-reported gender bias against females in general in the SANDF.

Prediction Four: Affective empathy and perspective-taking towards female members in the SANDF in general will significantly mediate the relationship between contact quantity and contact quality with the closest female member friend and various forms of self-reported gender bias against females in the SANDF in general.

Each of these hypotheses were investigated while controlling for other, general friendships with female members in the SANDF, general contact (i.e., not friendships) with female members in the SANDF, as well as social dominance orientation (an individual difference measure measuring beliefs that some groups are inherently and rightfully more dominant and powerful than others; Sidanius & Pratto, 1999).

Method

Procedure.

Prior to the commencement of the present study, permission had to be obtained from various sources. Ethical clearance was first obtained from the Research Ethics Committee (Humanities) at Stellenbosch University (REC: SU-HSD-004407; see Appendix A). Following the provision of ethical clearance at Stellenbosch University, permission to undertake this research amongst members of the SANDF was obtained from Defence Intelligence (DI), Sub-division Counter Intelligence (SDCI), pertaining to the protection of DOD classified information, in accordance with Defence Act (Act 42 of 2002; see Appendix B). Ethical clearance was also obtained from the Military Research Ethics Committee (MREC; see Appendix C). Finally, permission to approach members of the SANDF at Tempe Military Base

was obtained from each Officer Commanding (OC) of the Units the prospective respondents were recruited from. The three Units' prospective respondents were chosen from included 1 South African Infantry Battalion (1SAI BN), 44 Parachute Regiment (44 PARA REG), and 1 Special Services Battalion (1SSB). Prospective respondents were selected from these Units' as they are all Infantry Units', which have historically been male-dominated, with their main function resulting in soldiering (i.e., being combatants in the DOD).

Data collection took place at each of the three Units identified above. Venues were allocated at Tempe Military Base that offered sufficient space and equipment for survey questionnaire. Prospective respondents were informed of the purpose of the present study, along with their rights as research participants. Prospective respondents were then given an informed consent form to sign (see Appendix D) indicating their willingness to participate in the present study. Those male members who signed the consent form agreeing to participate in the present study were then presented with the survey questionnaire (see Appendix E and Appendix F). Respondents were allocated a unique code with which to identify themselves on their survey responses, as a means of assuring the anonymity of their responses. Upon completion of the survey questionnaire, the data were coded in a codebook, and exported to the Statistical Package for the Social Sciences (SPSS) for further analysis. No remuneration was offered for the participation in the present study.

Questionnaire.

The survey questionnaire comprised of a biographical questionnaire (see Appendix E) and the main survey (see Appendix F). The biographical questionnaire include measures of the male member's age, ethnic self-identification, home language, relationship status, and measures relating to the male member's rank and Unit. The main survey comprised of two sections.

In Section One, respondents were asked to complete a series of questions relating to the one female member they work with within their Unit whom they regard to be interpersonally the closest to them. Measures in this section included biographical descriptors of the female member (her age, ethnicity, and rank), measures describing the length, type, and closeness of relationship with this female member, the nature (quantity and quality) of their interactions with this female member, and how often they engaged in reciprocal positive and negative self-disclosure with this female member. Respondents who reported having no female members working with them in their Unit skipped Section One entirely and answered questions in Section Two. Below I first describe the questions posed to respondents in Section One.

Friendship type: Friendship type was assessed with a single item (Goosen, 2011, Lewis, 2014). Respondents were asked to describe the nature of their relationship with the particular female member by selecting one of six answer options (scaled as follows: 1 = *just an acquaintance/ work colleague*, 2 = *just a friend*, 3 = *a very close friend*, 4 = *one of my closest friend*, 5 = *my best friend*, and 6 = *I am in a romantic relationship with her/ I am married to her)*. The data for all responses who indicated that they were in a romantic relationship with the female member they were reporting on were excluded from the main data analyses (described in further detail below).

Friendship length: Friendship length was assessed with one item (Goosen, 2011, Lewis, 2014). Respondents were asked to indicate the number of years and/or months they have known the female member they were responding in relation to. The data from this scale was then transformed to indicate the total number of months the male respondent had known this particular female member.

Friendship contact quantity: Three items (Goosen, 2011, Lewis, 2014) were used to measure the amount of contact the respondents had with the female member they were

reporting on. Respondents were asked *"How many hours per week do you spend with this female member at work?"*, *"How many hours per week do you socialise with this female member?"*, and *"How many hours per week do you spend time with this female member in general?"* Each of these items was scaled as follows: 0 = *none*, 1 = *one to two hours per week*, 2 = *three to five hours per week*, 3 = *six to ten hours per week*, and 4 = *more than ten hours per week*.

Friendship contact quality: Two items (Goosen, 2011, Lewis, 2014) were used to measure the quality of the contact the respondent had with the female member they were reporting on. Respondents were asked *"In general, when you interact with this particular female member, to what extent do you find this interaction pleasant or unpleasant?"* (scaled as follows: 1 = *very unpleasant*, 2 = *somewhat unpleasant*, 3 = *neither pleasant nor unpleasant*, 4 = *somewhat pleasant*, 5 = *very pleasant*) and *"In general, when you interact with this particular female member, to what extent do you find this interaction positive or negative?"* (scaled as follows: 1 = *very negative*, 2 = *somewhat negative*, 3 = *neither positive nor negative*, 4 = *somewhat positive*, 5 = *very positive*).

Friendship closeness: This was measured using the single-item Inclusion of the Other in the Self (IOS) scale developed by Aron et al., (1992). Respondents were asked to rate the closeness of their relationship with the particular female member by selecting one of seven pairs of circles that increased in the extent to which they overlapped with one another (scaled from 1 = *the circles not touching one another* to 7 = *the two circles almost completely overlapping with one another*).

Positive reciprocal self-disclosure: Two items (Goosen, 2011; Lewis, 2014) were used to measure positive reciprocal self-disclosure. Respondents were asked to think of a recent, positive and enjoyable conversation they have had in the past year with the female member they were reporting on. Respondents were asked *"During this recent, positive and enjoyable*

conversation how much personal information did you share"? and *"How much personal information did the female member share with you?"* (scaled as follows: 1 = *none,* 2 = *only a bit,* 3 = *some,* 4 = *quite a bit,* and 5 = *a great deal*).

   Negative reciprocal self-disclosure: Two items (Goosen, 2011; Lewis, 2014) were used to measure negative reciprocal self-disclosure. Respondents were asked to think of a recent negative and unpleasant conversation they have had in the past year with the female member being reported on. Respondents were asked *"During this recent, negative and unpleasant conversation how much personal information did you share"?* and *"How much personal information did the female member share with you?"* (scaled as follows: 1 = *none,* 2 = *only a bit,* 3 =*some,* 4 = *quite a bit,* and 5 = *a great deal*).

   Friendship affection: Three items (Goosen, 2011; Lewis, 2014) were used to measure the affect the male member felt towards the female member being reported on. Respondents were asked to indicate the extent to which they agreed or disagreed with the following statements *"I care about this friend"*, *"I like this friend a lot"*, and *"I feel close to this friend"* (scaled as follows: 1 = *completely disagree,* 2 = *somewhat disagree,* 3 = *neither agree, nor disagree,* 4 = *somewhat agree,* and 5 = *completely agree*).

   Section Two of the survey comprised of measures related to general contact with, and attitudes towards, female members in the military in general. All respondents completed Section Two (irrespective of whether they had completed Section One or not). Section Two included measures relating to general quantity of contact with female members in the military in general, perspective-taking and affective empathy towards female members of the military in general, attitudes towards female members in the military in general, and gender bias against females in the military in general. Additionally, respondents completed a short-version measure

of social dominance orientation (Sidanius & Pratto, 2001), which measures beliefs in the legitimacy of social hierarchies, which was included as a control variable in the main analyses. Below follows a more detailed description of each of these measures in Section Two.

Quantity of contact with females in general: Two items were used to measure the quantity of contact with females in general. Respondents were asked *"How many hours per week do you have direct, face-to-face social interactions (after hours) with females in general"* and *"How many hours per week do you have direct, face-to-face interactions with females in general during working hours"* (scaled as follows: 0 = *0 hours per week,* 1 = *1-2 hours per week,* 2 = *3-5 hours per week,* 3 = *6-10 hours per week,* and 4 = *more than 10 hours per week*).

Perspective-taking towards females in the military in general: Three items (Batson et al., 1997) were used to measure the cognitive component relating to perspective-taking towards females in the military in general. Respondents were asked to indicate the extent to which they agreed or disagreed with each of the following statements: *"I can see why female members in the military are not satisfied with their group's position in the SANDF"*, *"I can generally put myself in the shoes of a female member in the SANDF what life is like for her"*, and *"I try to think about the issues we face in the SANDF from the perspective of a female military member"* (scaled as follows: 1 = *completely disagree*, 2 = *somewhat disagree*, 3 = *neither agree, nor disagree*, 4 = *somewhat agree*, and 5 = *completely agree*).

Affective empathy towards female in the military in general: Three items (Davis, 1994) were used to measure affective empathy towards female members in the military in general. Respondents were asked to indicate the extent to which they agreed or disagreed with each of the following statements: *"If I heard/saw that a female military member was upset and suffering in some way, it would bother me and make me feel unhappy"*; *"If I saw a female military member being treated unfairly I would feel angry at the way she was being treated"*;

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and *"If a female military member that I knew was feeling sad, I would also feel sad"* (scaled as follows: 1 = *completely disagree*, 2 = *somewhat disagree*, 3 = *neither agree, nor disagree*, 4 = *somewhat agree*, and 5 = *completely agree*).

Positive attitudes towards female members in the Military in general: A two item measure (adapted from Wright et al., 1997) of positive attitudes towards female members in the military in general asked participants to indicate the extent to which they agreed or disagreed with each of the following statements: *"I respect females in the military"* and *"I admire females in the military"* (scaled as follows: 1 = *completely disagree*, 2 = *somewhat disagree*, 3 = *neither agree, nor disagree*, 4 = *somewhat agree*, and 5 = *completely agree*).

Gender bias against females in the SANDF: Four items were developed for the present study to measure gender bias against females in the SANDF. Respondents were asked to indicate the extent to which they agreed or disagreed with each of the following statements: *"There should be more females in the military"*, *"At least 50% of all members in the SANDF should be female members"*, *"A female member can be the OC [officer commanding] of a Unit"*, and *"A female member can be the General of a Base"*. (scaled as follows: 1 = *completely disagree*, 2 = *somewhat disagree*, 3 = *neither agree, nor disagree*, 4 = *somewhat agree*, and 5 = *completely agree*).

Social dominance orientation (SDO): The three-item equality subscale of the social dominance orientation scale (Sidanius & Pratto, 2001) was used to measure attitudes towards group equality in general. Respondents were asked to indicate the extent to which they agreed or disagreed with each of the following statements: *"It would be good if groups could be equal"*, *"All groups should be given an equal chance in life"*, and *"We should do what we can to equalize conditions for different groups"* (scaled as follows: 1 = *completely disagree*,

2 = *somewhat disagree*, 3 = *neither agree, nor disagree*, 4 = *somewhat agree*, and 5 = *completely agree*).

Respondents

In total, 309 male members of the SANDF stationed at Tempe Military Base in Bloemfontein, South Africa completed the questionnaire (two further respondents indicated that they were civilians rather than members of the SANDF – their data were excluded from all further analyses).

Given the nature of the predictions tested in the present study (investigating the relationship between interpersonal-level contact with female members of the SANDF and gender bias against females in the SANDF in general on the group level), only the data of those respondents who reported that there were female members in their Unit, and completed both the interpersonal-level questionnaire (relating to their interactions with a female member of the SANDF) and the group-level questionnaire (relating to their interactions with females in general and attitudes towards females in the military in general) were retained for the analyses described below. Sixteen respondents reported that there were no female members in their Unit, and nine respondents did not indicate whether there were female members in their Unit or not. Five respondents indicated that the female member they answered their questions in relation to was not a military member of the SANDF, while six respondents indicated that they were in a romantic relationship with the female member they were answering their questions in relation to. Twenty respondents did not complete the interpersonal-level questions, and thirty respondents did not complete the group-level questions. The data provided by these 88 respondents were excluded from the final analyses.

The final sample included in the final analyses comprised 223 male members of the SANDF stationed at Tempe Military Base, including members across all four of the main South

African population groups (n = 171 black (African) South Africans, n = 38 coloured South Africans, n = 8 white South Africans, and n = 3 Indian South Africans), and all eleven official languages. The most commonly reported home language amongst these respondents was Southern Sotho (n = 46), followed by isiXhosa (n = 37), Tswana (n = 32), Afrikaans (n = 32), isiZulu (n = 23), and English (n = 19). The age range amongst this sample was between 19 and 52 years (M_{age} = 28.98 years, SD_{age} = 9.13 years).

The majority of these respondents (N = 162) held the rank of Private. The mode length of service in the SANDF was 11 months (n = 56; $M_{service}$ = 99.25 months, $SD_{service}$ = 105.40 months). The sample was relatively evenly distributed between those respondents who lived on base (n = 119) and those respondents who lived off base (n = 100). Four respondents did not indicate whether they lived on base or not. The majority of respondents (n = 117) reported that they were neither married nor in a romantic relationship at the time of completing the questionnaire.

Results

Preliminary Data Analyses

I first assessed the item distributions for each item by exploring the extent of item skewness and kurtosis using the cut-off criteria suggested by West, Finch, and Curran (1995). West et al. (1995) proposed that values of skewness between –2.00 and 2.00 and values of kurtosis between –7.00 and 7.00 suggest sufficient normality of item distributions when planning to undertake confirmatory factor analyses (CFAs) using the maximum likelihood method of extraction. Preliminary analyses of the item distributions showed values of skewness (Min_{skew} = -1.69, Max_{skew} = 1.64; M_{skew} = 0.05, SD_{skew} = 0.89) and kurtosis (Min_{kurt} = -1.55, Max_{kurt} = 2.14; M_{kurt} = -0.16, SD_{kurt} = 1.15) that were within the acceptable ranges suggested by West et al. (1995).

I then explored the construct factor validity independently for each factor via exploratory factor analyses (EFAs) using a maximum likelihood method of extraction, direct oblimin rotation, and a minimum factor loading of .40 (Field, 2009), to confirm the unidimentionality of each multi-item measured construct. The results from these factor analyses showed that each of the multi-item scales were indeed unidimensional.

Reliability coefficients were calculated using Cronbach's alpha, which indicated acceptable construct reliability for each construct, with reliability coefficients above .75. Bivariate correlations (Pearson's product-moment correlations, r) were calculated to estimate the internal consistency of the two-item measures of friendship quality, quantity of general contact with females, and attitudes towards females in general. Each of these bivariate correlations were significant ($p < .001$), suggesting strong internal consistency for each of these two-item measures. Mean-level composite measures were created by averaging the raw scores of the observed variables for each of the primary constructs. The Pearson's product-moment correlations (r) 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.

Main Analyses

Structural equation modelling with latent constructs.

The aforementioned predictions were tested using latent variable structural equation modelling (SEM) by means of Mplus (v7.1; Muthén & Muthén, 2012). Each construct under investigation can be regarded as a latent (unobserved) construct. These latent (unobserved) constructs are measured by manifest (observed) indicators (the individual items measured). The two-step approach recommended by Anderson and Gerbing (1988) was used to test both the measurement model and later the structural model.

Table 1: *Pearson Product-Moment Correlations between Mean-Level Composite Variables, Construct Reliability (α), Mean (M) and Standard Deviation (SD)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	Alpha (α)	Mean (SD)
1. Friendship Type (1 item)	-													-	1.66 (1.01)
2. Friendship Length in Months (1 item)	.13[ns]	-												-	52.14 (52.91)
3. Friendship Contact Quantity (3 items)	.32[***]	.09[ns]	-											.75	1.47 (0.87)
4. Friendship Contact Quality (2 items)	.18[**]	.18[**]	.29[***]	-										.54[***]†	4.13 (0.84)
5. Self-Other Overlap (1 item)	.39[***]	.15[*]	.45[***]	.29[***]	-									-	2.49 (1.65)
6. Positive and Negative Reciprocal Self-disclosure (4 items)	.30[***]	-14[*]	.46[***]	-26[***]	.55[***]	-								.86	2.59 (1.13)
7. Friend Affect (3 items)	.32[***]	.15[*]	.41[***]	.52[***]	.42[***]	.46[***]	-							.92	3.82 (1.12)
8. Outgroup Contact Quantity (2 items)	.28[***]	.23[**]	.55[***]	.10[ns]	.36[***]	.28[***]	.29[***]	-						.56[***]†	1.56 (1.03)
9. Outgroup Perspective-taking (3 items)	.19[**]	-.03[ns]	.23[**]	.16[*]	.20[**]	.22[**]	.36[***]	.33[***]	-					.85	3.07 (1.19)
10. Outgroup Affective Empathy (3 items)	.15[*]	.02[ns]	.27[***]	.33[***]	.10[ns]	.02[ns]	.41[***]	-31[***]	.58[***]	-				.83	3.61 (1.16)
11. Positive Outgroup Attitudes (2 items)	.18[**]	.05[ns]	.28[***]	.35[***]	.19[**]	.18[**]	.39[***]	.21[**]	.41[***]	.60[***]	-			.52[***]†	4.03 (1.09)
12. Bias Against Females in Military (4 items)	-.17[*]	-.06[ns]	-.24[***]	-.28[***]	-.11[ns]	-.17[*]	-.28[***]	-.21[**]	-.41[***]	-.45[***]	-.51[***]	-		.83	3.06 (1.28)
13. Social Dominance Orientation – Equality (3 items)	-.05[ns]	-.05[ns]	-.21[**]	-.27[***]	-.03[ns]	-.10[ns]	-.27[***]	-.27[***]	-.32[***]	-.43[***]	-.35[***]	.41[***]	-	.84	1.86 (1.00)

[*] $p < .05$; [**] $p < .01$; [***] $p < .001$; †Bivariate correlations (Pearson's *r*) for construct comprised of only two items.

Note. Scales were scored such that higher scores reflect more intimate friendship type (scaled from 1-5), more friendship contact quantity (scaled from 0-4), greater friendship contact quality (scaled from 1-5), greater perceived self-other overlap (scaled from 1-7), greater friendship affect (scaled from 1-5), more outgroup contact quantity (scaled from 0-4), more outgroup perspective-taking and affective empathy (both scaled from 1-5), more positive outgroup attitudes (scaled from 1-5), greater gender bias (scaled from 1-5), and greater social dominance orientation relating to equality (scaled from 1-5).

As part of Anderson and Gerbing's (1988) two- step approach, the measurement model was tested as part of step one (generating maximum likelihood [ML] estimates). Model fit was assessed using the criteria suggested by Kline (1998) and Hu and Bentler (1999), including a non-significant χ^2 value, a relative chi-square [χ^2/df] ratio ≤ 3-4, a comparative fit index (CFI) ≥ .90, a root mean square error of approximation (RMSEA) < .08, and a standardised root mean square residual (SRMR) <.08. The model fit of the measurement model was assessed against these criteria and were indicative of good model fit, χ^2 (328) = 517.34, p < .001, χ^2/df = 1.58; CFI = .945; RMSEA = .051 [90% CI: .042, .059]; and SRMR = .051. The measurement model confirmed the earlier EFA results, confirming the discriminant validity for each latent construct. In the second step, I tested the structural model relating to the predicted relations between the various latent constructs. The model fit of the structural model yielded adequate model fit, χ^2 (395) = 654.99, p < .001, χ^2/df = 1.76; CFI = .927; RMSEA = .055 [90% CI: .047, .062]; SRMR = .058. The results from the structural model are illustrated in Figure 1.

The quantity of contact with the female member friend was significantly positively associated with both positive and negative reciprocal self-disclosure (β = .61, p < .001) and perceived self-other overlap (β = .61, p < .001). The quality of contact with the female member was significantly positively associated with greater affect towards the female member friend (β = .52, p < .001). Positive and negative reciprocal self-disclosure was significantly positively associated with both perceived self-other overlap with the female member friend (β = .45, p < .001) and affect towards the female friend (β = .33, p < .01).

Affect towards the female friend was significantly positively associated with both greater perspective-taking (β = .25, p < .05) and affective empathy towards females in general (β = .38, p < .01). Affective empathy towards females in the military in general was significantly positively associated with more positive attitudes towards females in the military in general (β = .64, p < .01). Finally, positive attitudes towards females in the military in general were

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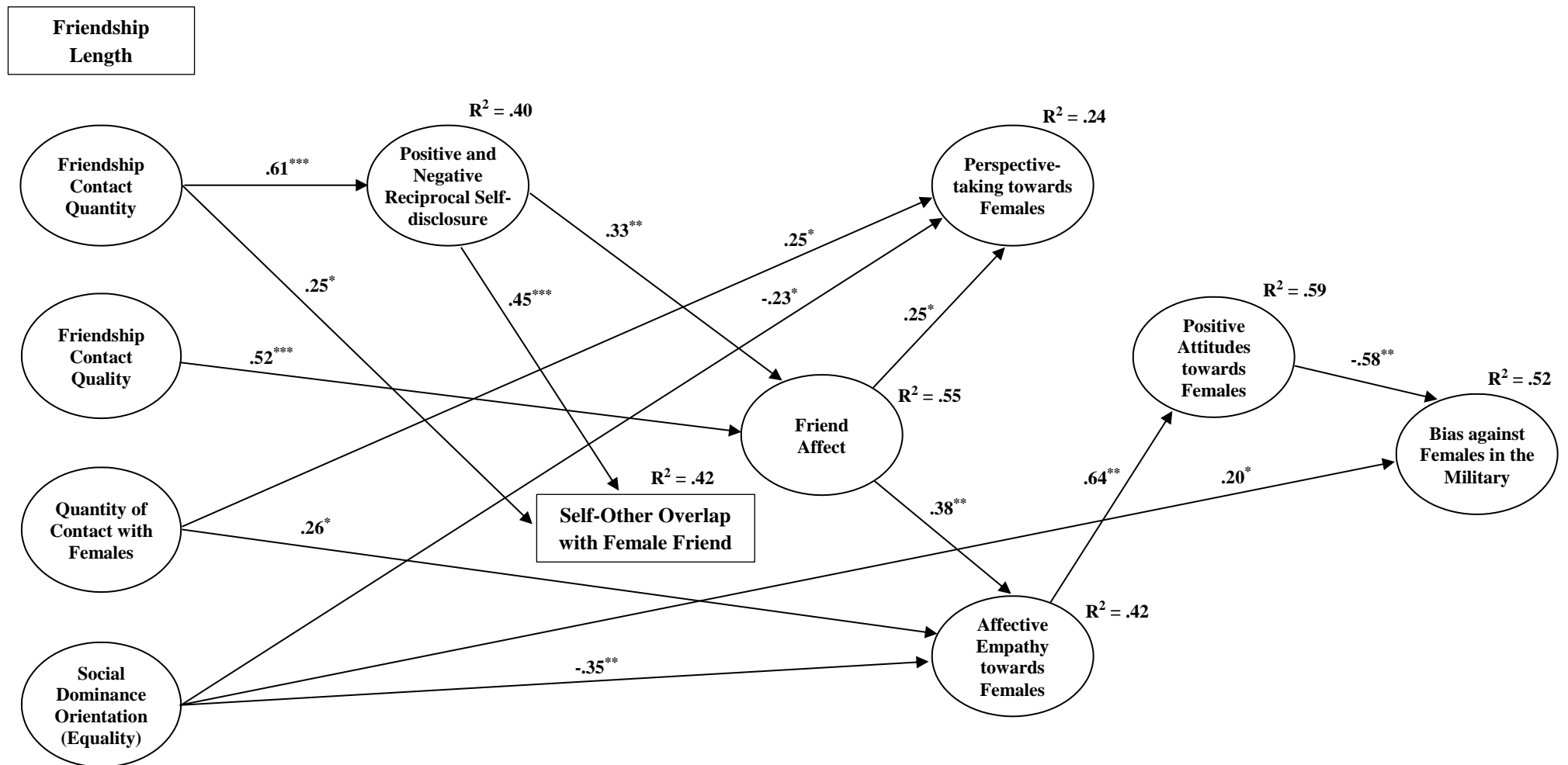
Figure 1. Latent variable structural equation model illustrating the indirect relationship between positive contact with a female member of the SANDF and reduced gender bias against females in the military amongst a sample of white South African male members of the SANDF.

N = 220; $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$; Standardized coefficients; only significant paths are reported. Bivariate Correlations: Friendship Contact Quantity and Friendship Contact Quality: $r = .45***$; Perspective-taking and Affective Empathy: $r = .53***$

significantly negatively associated with gender bias against females in the military (β = -.58, p < .01). These results were observed while controlling for social dominance orientation, which was significantly negatively associated with perspective-taking (β = -.23, p < .05) and affective empathy (β = -.35, p < .01) towards females in the military in general, and significantly positively associated with greater gender bias against females in the SANDF (β = .20, p < .05).

Indirect effects. An array of bootstrap mediation tests, with (5,000 resamples; Preacher & Hayes, 2004, 2008) were run to test whether the predicted indirect relationships (mediation effects; Baron & Kenny, 1986) were significant. Quantity of contact with the female member had a significant indirect effect on perceived self-other overlap with the female member via positive and negative reciprocal self-disclosure (β = .27, p < .001, 95%CI: [.12, .42]). Furthermore, quantity of contact with the female member had a significant indirect effect on affect towards the female friend via positive and negative reciprocal self-disclosure (β = .20, p < .05, 95%CI: [.05, .36]).

Affect towards the female friend had a significant indirect effect on positive attitudes towards females in the military in general via affective empathy towards females in the military general (β = .24, p < .05, 95%CI: [.04, .44]). Affective empathy towards females in the military in general had a significant indirect effect on gender bias against females in the military via positive attitudes towards females in the military in general (β = -.37, p < .01, 95%CI: [-.60, -.14]). These indirect effects were observed while controlling for friendship length with the female member, quantity of contact with females in general, and social dominance orientation. The model explained 40% of the variance (R^2) in positive and negative reciprocal self-disclosure, 42% of the variance in perceived self-other overlap, 55% of the variance in friend affect, 24% of the variance in perspective-taking towards female in the military in general, 42% of the variance in affective empathy towards females in the military in general, 59% of the variance in positive attitudes towards females in the military, and 52% of the variance in gender

bias against females in the military. In each instance, these proportions of variance were significant ($p < .001$).

Summary

The results of the present study offered broad support for each of the four predictions that were tested. In support of prediction one, positive contact between a male member and their closest female member friend in the SANDF had a significantly positive relationship with positive and negative reciprocal self-disclosure, as well as greater affective empathy and perspective-taking towards female members in the SANDF in general.

Prediction two was not strictly supported, insofar the prediction related to significant direct relationships between positive positive and negative reciprocal self-disclosure with the female friend in the SANDF and affective empathy and perspective-taking towards female members in the SANDF in general and gender bias against female members in the SANDF in general. However, both positive and negative reciprocal self-disclosure and affective empathy towards females in the military in general had significant indirect effects on gender bias against women in the military.

Prediction three and prediction four were supported insofar as there were significant indirect relationships observed between contact quality and contact quantity with the particular female member and gender bias against females in the SANDF. Importantly, each of these results were observed while controlling for SDO, ruling out SDO as a viable alternative explanation for the pattern of results. These results are discussed in further detail in the following chapter.

CHAPTER FOUR

DISCUSSION

Previous research associated with intergroup contact theory played an integral role in identifying the positive effects of intergroup contact among socially divided groups (e.g., Allport; 1954; Pettigrew, 1997, 1998; Pettigrew & Tropp, 2006). The present study, like many before it, highlights the importance and positive effects resulting from intergroup contact, specifically, cross-group friendship, for reducing prejudice - in the case of the present study, the reduction of gender bias against females in the military.

The phenomenon of gender bias is quite common within militaries worldwide, as the military was, and remains, predominantly male-dominated (Heinecken, 1998; Molekane, 1996). Even though history reflects women's invaluable role in warfare proving their valour and gaining recognition as equals (Molekane, 1996), their roles have always been demarcated to supportive roles and/or functions within defence forces. In many ways, South Africa continues to reflect the characteristics of a patriarchal society (Molekane, 1996). Even though there has been substantial racial/ethnic integration within the SANDF over the last twenty years, female members remain relatively under-represented at all levels of the SANDF compared to their male counterparts (Heinecken, 1998). The situation is not unique to the South African context, however defence forces around the world remain largely male-dominated, with gender stereotyping still prevalent (Carreiras, 2006; Hartman, 2014). Research regarding the integration of women within the armed forces highlights certain challenges that women face, including gender bias, gender stereotyping, sexual harassment, and gender mainstreaming (Bulletin Department of Defence, 2009). Although it is well established that positive intergroup contact (specifically cross-group friendship) reduces prejudice, no research has been found in

the literature that has explored the relationship of contact between males and females in the military and gender bias.

The present cross-sectional study aimed to investigate whether positive direct contact between male and female members can reduce gender bias against female members among male members within the SANDF at the Tempe Military Base, Bloemfontein. Various underlying processes (indirect effects), such as positive and negative reciprocal self-disclosure, empathy, and perspective-taking, were investigated as potential mediating factors explaining why and or how positive intergroup contact with female members in this context can reduce gender bias. These results are discussed in more detail below.

High Quality Interpersonal Relations between Males and Females in the Military

Contact quantity and contact quality is regarded by Islam and Hewstone (1993) as the cornerstone of interpersonal relationships between members of different groups. The results of the present study indicated that the more intimate the friendship reported by the male member with the female member, the better the overall quality of the friendship (as measured by the quantity and quality of the interactions, reciprocal self-disclosure, perceived self-overlap between the male and female member, and attitudes towards the female member).

One of the strengths of the present study is that it explored the closest interpersonal relationship reported by male members with female members, and that these close relationships predicted a range of beneficial outcomes relating to affective empathy and perspective-taking towards female members in the military in general, while also predicting more positive attitudes towards and lower gender bias against women in the military. These findings offer strong support for the underlying predictions made by Allport's (1954) contact hypothesis. These results are encouraging because they were observed while controlling for friendship length (which would be assumed to enhance friendship intimacy over time), prior contact with

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females in the military in general, and the influential individual differences phenomenon of social dominance orientation.

More frequent interactions with a close female member were associated with greater affect towards the female member, which was facilitated by greater reciprocal self-disclosure between the male and female members. These positive results support the emphasis placed on the quality of contact for promoting improved attitudes (in the case affect towards a particular individual), as highlighted by the contact literature (e.g., Islam & Hewstone, 1993; Pettigrew & Tropp, 2006). Moreover, the present findings illustrate the value of positive intergroup contact lies in the fact that the benefits of such contact experiences can generalise beyond the particular outgroup member (in this case the particular female member), to include more positive attitudes towards females in the military more generally. This is very much in line with the meta-analytic findings reported by Pettigrew and Tropp (2006). As such, positive working relations between male and female members in the military appears to be crucial for promoting the transformation of attitudes in the military as they relate to gender bias against women.

However, the findings of the present study also highlight the value of creating opportunities for increased frequencies of intergroup contact – more contact quantity was associated with increased reciprocal self-disclosure in the present study. This, in turn, was associated with greater affect towards the female member and an increased sense of self-other overlap between the male and female member. Each of these outcomes are important and necessary for creating positive attitudes towards females in the SANDF and reducing gender bias towards women in the military.

From Interpersonal Friendships with Females to Reduced Gender Bias in the Military

What is clear from the results of the present study is that neither the time spent with the particular female member nor the quality of the interactions with the female member directly

predicted reduced gender bias against females in the military. Instead, interpersonal contact with a particular female member had an indirect effect on reduced gender bias, via a range of processes. I now turn my attention towards a discussion of the mediatory mechanisms that were observed in the present study, namely reciprocal positive and negative self-disclosure with the particular female member, and affective empathy and perspective-taking towards females in the military more generally.

Self-disclosure is described as the voluntary sharing of intimate and personal information with another individual (Miller, 2002). An important aspect of human nature is the innate and unique need to belong. Important aspects of forming interpersonal relationships are fostered by mutual trust and in so doing forming meaningful friendships (Berscheid & Peplau, 1983). As such, self-disclosure is viewed as an important friendship developing mechanism (Pettigrew, 1997, 1998). Self-disclosure provides individuals with the means of determining how others view them, through sharing information of themselves and allowing others to understand them and the world around them. These disclosures often lead to the sharing of information that involves the sharing of unknown similarities, improving interpersonal attraction and leading to the inclusion of the self within the other (Hewstone & Swart, 2011). This is precisely what was observed in the present study; reciprocal self-disclosure was significantly associated with greater perceived self-other overlap. Ultimately as the thoughts about the other expands, the other starts to be included within the self, leading to a greater appreciation and valuing of the other. Within the context of the present study, the increased perceived self-other overlap experienced by male members should lead to a more positive outlook of female members resulting in changing of behaviour and attitudes towards this group, namely females in the SANDF and females in general.

The self-disclosure of personal information with a close other is often associated with the sharing of information relating to the self. In the early stages of friendship formation, the

information that is disclosed might be superficial, and not necessarily relate to the discloser's group identity. Over time, however, the sharing of information becomes more personal as the emotional and psychological bonds between the discloser and the recipient are strengthened, which increases the likelihood of sharing more sensitive, group-related information. Through the sharing of group-related information (such as the challenges that are faced as a result of one's group membership – for example, when female members of the military share with their male member friends the challenges they face as women in the military), knowledge is gained about the experiences of the 'other' (Hewstone & Swart, 2011). This not only strengthens the interpersonal relationship, but is also capable of reducing prejudice.

The data collected in the present study highlights the important role reciprocal self-disclosure plays in the sharing of personal and intimate information, facilitating the positive outcomes of cross-group friendship. Respondents were asked to focus on the most recent positive and most negative conversations they had with the particular female member, and asked to report on how much personal information was shared reciprocally. The results suggest that the more personal information that is shared, the stronger the impact on perceived self-other overlap and friend affect.

As highlighted above, self-disclosure within the context of cross-group friendships should promote the acquisition of new, and more accurate, knowledge about the outgroup. However, meta-analytic evidence reported by Pettigrew and Tropp (2008) suggests that even though outgroup knowledge significantly mediates the contact-prejudice relationship, affective variables such as empathic responding, are significantly stronger mediators of the contact-prejudice relationship. Importantly, reciprocal self-disclosure has been shown in the contact literature to be a significant predictor of greater empathic responding (e.g., Turner et al., 2007).

Within the present study, reciprocal self-disclosure did not have a significant relationship with either affective empathy or perspective-taking. However, it did have a significant impact

on these two dimensions of the empathic response via greater affect towards to the particular female friend. As such, the present findings do not constitute a contradiction of previous results, but perhaps offer an elaboration on previous findings by suggesting that reciprocal self-disclosure not only impacts empathic responding directly, but also does so indirectly.

Affective empathy and perspective-taking are important within the context of intergroup relations because they foster helping behaviours towards members of marginalised groups. Within the context of the military, male members who are able to experience greater affective empathy and perspective-taking towards females in the military should be more likely to become allies of women in the military facing the challenges of gender bias in this male-dominated environment. In the present study, male members who have formed more intimate interpersonal friendships with a female member appear more likely to express tolerance and concern for the well-being of female members in general.

Generalisation of Outgroup Attitudes towards Females in the SANDF in General

Previous contact research has shown that the positive effects of intergroup contact extend beyond the immediate outgroup exemplar being encountered, to include more positive attitudes members of the outgroup as a whole (e.g., Hewstone & Swart, 2011; Pettigrew & Tropp, 2006). The present study aimed to explore whether positive attitudes (affect) towards the particular female member would generalise to include greater affective empathy and perspective-taking towards females in the military in general, more positive attitudes towards females in the military in general, and reduced gender bias against women in the SANDF.

The pattern of attitude generalisation (from an outgroup exemplar to members of the outgroup as a whole) observed in the present study were in line with those reported in the general contact literature. Male members engaging in regular, positive interactions with a close female member not only reported more positive affect towards the particular female member

they were reporting on, but also reported greater affective empathy and perspective-taking towards females in the military in general, and also more positive attitude towards (and reduced gender bias against) females in the military in general.

These generalisation results are especially important, because they suggest that interacting with one's outgroup friend does not just yield positive behavioural and attitudinal changes relating to that specific friend, but also towards the outgroup they are members of. It suggests that the SANDF should consider investing in interventions that promote more positive interactions between male and female members in the military because the benefits of such interventions are likely to extend well beyond the intervention setting or the individuals encountered during the intervention. Moreover, although the present study did not explicitly measure the four mechanisms identified by Pettigrew (1998) as central to the power of cross-group friendships, namely learning about the outgroup, changing behaviour, generating affective ties, and outgroup reappraisal, the results do appear to support at least three of these mechanisms. For example, reciprocal self-disclosure is strongly linked to learning about the outgroup, while perspective-taking and affective empathy is associated with the generation of affective ties. Finally, the reduction in gender bias observed in the present study may be linked to a reappraisal of the outgroup.

The Empathic Response and the Generalisation of Outgroup Attitudes

Pettigrew and Tropp (2008) argue that in any type of intergroup interaction the emotional component and the ability to from affective ties are critical for the improvement of intergroup attitudes. The present study explored cross-group friendships as the yardstick for forming emotional ties between male and females members of the SANDF. Specifically, it aimed to explore whether, in the context of the closest relationship with a female member, whether the positive affect towards the particular female member would predict greater affective empathy

and perspective-taking towards females in the military in general, and whether these empathic responses would predict more positive attitudes towards, and reduced gender bias against, females in the military in general.

The results of the present study illustrate that the reason that positive interpersonal relationship between male and female members in the SANDF are worth pursuing is because these close interpersonal relationships with female members promote enhanced empathic responding towards females in the military in general. Moreover, it is this enhanced empathic responding, and affective empathy in particular (as observed in the present study) that predict more positive attitudes towards females in the military in general, and reduced gender bias against women in the military. The present study suggests that sharing in the emotional experience of females in the SANDF is an important predictor for the reduction of gender bias amongst male members.

Taken together, the results of the present study offer a number of suggestions for initiatives implemented by the SANDF for the reduction of gender bias in the military. Firstly, these initiatives should focus on regular positive interactions between male and female members, creating the necessary acquaintance potential (Pettigrew, 1998). Secondly, such initiatives should encourage the sharing of personal information between male and female members, starting with less threatening (and more superficial) personal information at first, and then building up to more intimate information over time. Thirdly, such interventions should create the necessary atmosphere for the experience of empathic responding towards female members amongst male members. Together, these efforts would promote more positive attitudes towards the particular female members being encountered during the course of the interventions, more positive attitudes towards females in the military in general, and ultimately reduced gender bias against females in the SANDF.

Limitations of the Present Study

Even though there is overwhelming evidence regarding the positive effects of contact this study and studies before have brought forth, it is important to note that there are certain limitations that have been identified in the present study. Three limitations in particular stand, and warrant some discussion.

Firstly, one of the most noteworthy limitations of the present study relates to the cross-sectional design. While a majority of previous contact studies have been cross-sectional in nature (see Pettigrew & Tropp, 2006), such cross-sectional designs cannot adequately study the implied causal relationships between the variables. To this end, experimental studies or longitudinal studies would be better (Christ et al., 2010). Nevertheless, the results of the present study are still relevant, not least because they constitute the only contact research studying gender bias in the SANDF that I am aware of. Moreover, the hypothesised relationships were tested through as statistically vigorous analysis of latent variable structural equation modelling.

Secondly, it is important to note that respondents in the present study were drawn from a specific population (male soldiers, in the SANDF), in a specific town (Bloemfontein), at a specific time, across specific Units. The opportunity sample of respondents is therefore not representative of male members serving at Tempe Military Base, or on any of the other South African military bases. It is therefore important to caution against using the results of the present study to draw more generalised conclusions. The present findings may not be able to be generalised to other male respondents, or across military bases and/ or Units.

Relatedly, the final limitation associated with the present study relates to the hierarchal nature of the SANDF, and the possible selection bias and participant response bias that may have crept into the data. I am very aware that my identity as a female in the military, as well as my senior rank of Captain in the SAND, may have influenced the participation of male members in the present study (many of whom held the junior rank of Private). As such, even

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though great effort was made to assure all prospective respondents that their participation in the present study was completely voluntary, there may have been some respondents who might have felt obligated to participate in present study. Moreover, the fact that I as a female member of the SANDF was administering the survey may have influenced the pattern of responses amongst some of the male respondents. Each of these limitations offers useful avenues for future research, which are discussed below.

Directions for Future Research

Future research could overcome the cross-sectional shortcoming associated with the present study by employing a longitudinal or an experimental design to exploring the causal relationships implied in the predictions tested in the present study (Christ et al., 2010). Longitudinal studies would make it possible to test the relationship between the variables included in the present study across two or more waves of data collection. Experimental research designs would also be able to manipulate the contact situation in such a way to focus on the causal link between positive interpersonal contact between male and female members of the SANDF and reducing gender bias in the military.

Future research should also include female members of the military as prospective respondents. A first-hand account of gender stereotyping or harassment in the workplace could then be measured directly from female members. In so doing, female members would be given a platform for sharing the challenges that they face. I believe future research should also include an assessment of the efficacy of awareness programmes for both male and female military members. These interventions and programmes should be evidence-based and accordingly assessed.

Finally, it would be useful for future research to attempt to replicate the findings of the present study amongst a representative probability sample of male members of the SANDF

across South Africa. This would allow for the generation of data that is generalizable across the SANDF, and better able to inform SANDF interventions and programmes aimed at reducing gender bias.

Conclusion

The present study explored the interpersonal relationships between male and female members of the SANDF, and how these relationships are able to reduce gender bias towards women in the military. The results highlight the value of positive relationships between male and female members in the SANDF for the reduction of gender bias against women in the military, via the promotion of reciprocal self-disclosure, and enhancing affective empathy and perspective-taking towards women in the military in general. The present study also managed to rule out social dominance orientation as an alternative explanation for the results.

By integrating interpersonal-level contact with group-level outcomes, the present research has made a contribution to the international contact literature. Moreover, by exploring the reduction of gender bias within the relatively understudied context of the SANDF, the present study has also made a significant contribution towards research on gender transformation in the SANDF. The present study provides a basis for understanding the relations between male and female members in the SANDF, and the ways in which interventions can reduce gender bias against women in the military.

REFERENCES

Allport, G. (1954). *The nature of prejudice*. Cambridge, MA: Perseus Books.

Altman, I., & Taylor, D. A. (1973). *Social penetration: The development of interpersonal relationships.* New York, NY: Holt, Rinehart, & Winston.

Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71*, 319-342.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*, 411-423.

Aron, A., Aron, E.N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology, 63*, 596-692.

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.

Batson, C. D., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H. J., Mitchener, E. C., Bednar, L. L., . . . 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. doi:10.1037/0022-3514.72.1.105

Batson, C. D., Turk, C. L., Shaw, L. L., & Klein, T.R. (1995). Information function of empathic emotion: Learning that we value the other's welfare. *Journal of Personality and Social Psychology, 68*, 300-313. doi: 10.1037/0022-3514.68.6.1042

Berg, J. H., & Wright-Buckley, C. (1988). Effects of racial similarity and interviewer intimacy in a peer counselling analogue. *Journal of Counselling Psychology, 35*, 377-384. doi: 10.1037/0022-0167.35.4.77

Berscheid, E., & Peplau, L. A. (1983). The emerging science of relationships. In H. Kelley (Ed.), *Close relationships* (pp. 1-19). New York, NY: W.H. Freeman & Co.

Brameld, T. (1946). *Minority problems in the public schools.* New York, NY: Harper.

Bulletin Department of Defence. (2009). *Paper presented in advancement of gender equality in the Department of Defence (DoD) through effective parliamentary oversight*. SA Army College.

Campbell, D. (1993). Women in combat: The World War II experience in the United States, Great Britain, Germany, and the Soviet Union. *Journal of Military History*, 57, 301-323.

Carreiras, H. (2006). *Gender and the military: Women in the armed forces of western democracies*. New York, NY: Routledge.

Christ, O., Hewstone, M., Tausch, N., Voci, A., Wagner, U., Hughes, J., & Cairns, E. (2010). Direct contact as a moderator of extended contact effects: Cross-sectional and longitudinal impact on attitudes and attitude strength. *Personality and Social Psychology Bulletin,* 36, 1662-1674. doi: 10.1177/0146167210386969

Cook, B. (2006). *Women and war: Historical encyclopedia from antiquity to the present* (Vol. 2). Oxford, England: ABC-CLIO.

Cook, S. W. (1962). The systematic analysis of socially significant events: A strategy for social research. *Journal of Social Issues, 18*, 66-84.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.

Davis, M. H. (1994). *Empathy: A social psychological approach.* Wisconsin, MA: Brown & Benchmark.

Deutsch, F., & Madle, R. (1975). Empathy: Historic and current conceptualizations, measurement, and a cognitive theoretical perspective. *Human Development, 18*, 267-287.

Dovidio, J. F., Gaertner, S. L., & Kawakami, K. (2003). Intergroup contact: The past, present, and the future. *Group Process and Intergroup relations, 6*, 5-21.

Duan, C., & Hill, C. E. (1996). The current state of empathy research. *Journal of Counselling Psychology, 43*, 261-274. doi: 10.1037/0022-0167.43.3.261

Durrheim, K., & Dixon, J. (2010). Racial contact and change in South Africa. *Journal of Social Issues, 66*, 273-288.

Einolf, C. (2012). Is cognitive empathy more important than affective empathy. A response to who helps natural-disaster victims. *Analysis of Social Issues and Public Policy*, *12*, 268-271. doi: 10.1111/j.1530-2415.2012.01281.x

Epley, N., & Caruso, E. M. (2008). Perspective-taking: Misstepping into others shoes. In K. D. Markman, N. M. Klein, & J. A. Suhr (Eds.), *Handbook of imagination and mental simulation* (pp. 297-311). New York, NY: Psychology Press.

Eysenck, M. W. (2014). *Fundamentals of psychology. Historical and conceptual issues.* Hove, UK: Psychology Press.

Febbaro, A. R. (2003). Alpha-bias and beta-bias in research on labour and love: The case of enhancement versus scarcity. *Feminism and Psychology, 13*, 201-223.

Field, A. (2009). *Discovering statistics using SPSS* (3rd Edition). London: Sage.

Finlay, K. A., & Stephan, W. G. (2000). Improving intergroup relations: The effects of empathy on racial attitudes. *Journal of Applied Social Psychology, 30,* 1720–1737. doi:10.1111/j.1559-1816.2000.tb02464.x

Galinsky, A. D., & Maskowitz, G. B. (2000). Perspective-taking: Decreasing stereotype expression, stereotype accessibility, and in-group favoritism. *Journal of Personality and Social Psychology, 78*, 708-724. doi: 10.1037/0022-3514.78.4.708

Gallese, V. (2003). The roots of empathy: The shared manifold hypothesis and the neutral basis of intersubjectivity. *Psychopathology, 36*, 171-180. doi: 10.1159/000072786

Gerhard, J. F. (2001). *Desiring revolution: Second-wave feminism and the rewriting of American sexual thought, 1920-1982*. New York, NY: Columbia University Press.

Goosen, A. (2011). *Comparing cross-group and same-group friendships amongst white South African students at Stellenbosch University* (Unpublished Master's thesis). Stellenbosch University, Stellenbosch, South Africa.

Hageman, K. (2011). Mobilizing women for war: The history, histiography, and memory of German women's war service in the two world wars. *Journal of Military History, 75*, 1055-1093.

Hare-Mustin, R. T. & Maracek, J. (1988). The meaning of difference: Gender theory post-modernism and psychology. *American Psychologist, 43*, 455-464.

Hartfield, A. (2005). The women's auxiliary corps (India). *Journal of the Society for Army Historical Research, 83*, 243-254.

Hartman, G. (2014). *SA women in the military- At the barrel of a gun*. Retrieved from http://www.amandla.org.za

Hazan, C., & Shaver, P. R. (1994). Attachment as an organizational framework for research on close relationships: Psychological inquiry. *International Journal for the Advancement of Psychological Theory, 5*, 1-22. doi: 10.1207/s15327965pli0501_1

Heinecken, L. (1998). The challenges of transformation: SANDF officers' attitudes towards integration, affirmative action, women in combat and language usage. *South African Journal of Military Studies, 28*, 220-234.

Hewstone, M., & Swart, H. (2011). Fifty-odd years of inter-group contact: From hypothesis to integrated theory. *The British Journal of Social Psychology, 50*, 374-386.

Hodson, G., Choma, B. L., & Costello, K. (2009). Experiencing alien-nation: Effects of a simulation intervention on attitudes toward homosexuals. *Journal of Experimental Social Psychology 45*, 974–978.

Hodson, G., Hewstone, M., & Swart, H. (2013). Advances in intergroup contact: Epilogue and future directions. In G. Hodson, & M. Hewstone (Eds.), *Advances in intergroup contact* (pp.262-305). London, UK: Psychology Press.

Hoffman, M. L. (1977). Empathy. Its development and prosocial implications. In C. B. Keasy (Ed.). *Nebraska Symposium on motivation* (Vol. 25). Lincoln, NE: University of Nebraska Press.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

Hyde, J. S. (2005). The gender similarities hypothesis. *American Psychologist, 60*, 581-592. doi: 10.1037/0003-066x.60.6.58.

Inglehart, R., & Norris, P. (2003). *Rising tide: Gender equity and cultural change around the world*. Harvard, MA: Harvard University.

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*, 700-709. doi: 10.1177/0146167293196005.

Kline, R. B. (1998). *Principles and practice of structural equation modeling.* New York, NY: Guilford Press.

Kynoch, G. (1996). The transformation of the South African military. *The Journal of Modern African Studies, 33*, 441-457.

Lawrence, C. (2013). *Military to open combat jobs to women*. Retrieved from http://security.blogs.cnn.com/2013/01/23/military-to-open-combat-jobs-to-women/comment-page-5/.

Lett, H. A. (1945). Techniques for achieving interracial cooperation. *Proceedings of the Institute on Race Relations and Community Organization.* Chicago IL: University of Chicago and the American Council on Race Relations.

Lewis, C. (2014). *A between-subjects comparison of same-group and cross-group friendships amongst coloured South African students at Stellenbosch University* (Unpublished Master's thesis). Stellenbosch University, Stellenbosch, South Africa.

Licciardello, C., Castiglione, C., Rampallo, A., & Scolla, V. (2014). Social dominance orientation, cross-group friendship and prejudice towards homosexuals. *Social and Behavioural Sciences, 116,* 4988-4992.

Lolliot, S., Fell, B., Schmid, K., Wölfer, R., Swart, H., Voci, A., Christ, O., New, R., & Hewstone, M. (2014). Measures of intergroup contact. In G. J. Boyle, D. H. Saklofske, & G. Matthews (Eds.), *Measures of personality and social psychological constructs* (pp.652-683). London, UK: Academic Press.

MacCrone, I. D. (1973). *Race attitudes in South Africa: Historical, experimental, and psychological studies*. Johannesburg: University of Witwatersrand Press.

Markwick, R. D. (2008). A sacred duty: Red Army women veterans remembering the great Fatherland war, 1941-1945. *Australian Journal of Politics and History, 54*, 403-420.

Matthews, E. M., Edner, M. G., Laurence, J. H., & Rohall, D. E. (2009). Role of group affiliation and gender attitudes toward women in the military. *Military Psychology, 21*, 241-251. doi: 10.1080/08995600902768750.

McFarland. S. G., & Adelson, S. (1996). An omnibus study of individual difference and prejudice. *Paper presented at the meeting of the International Society for Political Psychology.* Vancouver, British Columbia, Canada.

Miller, N. (2002). Personalisation and the promise of contact theory. *Journal of Social Issues, 58*, 387-410.

Molekane, E. (1996). The role of women in the South African National Defence Force (SANDF). *African Security Review, 5*, 5.

Monethi, C. (2013). *Transformation in the South African National Defence Force: With specific reference to gender equity.* (Unpublished Master's thesis). Stellenbosch University. Retrieved from https://scholar.sun.ac.za/handle/10019.1/80295.

Motumi, N. M., Veldtman, S., & Joubert, E. (2011). Transformation, gender equity and empowerment in the South African National Defence Force (SANDF). In J. Maake (Ed.), *Transformation, gender equity and empowerment within the Department of Defence.* Retrieved from http://www.pmg.org.za./node/27290.

Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996). The benefits of positive illusions: Idealization and the construction of satisfaction in close relationships. *Journal of Personality and Social Psychology, 70*, 79-98. doi: 10.1037/0022-3514.70.1.79

Muthén, L. K., & Muthén, B. O. (1998 –2006). *Mplus user's guide* (7th Edition). Los Angeles, CA: Muthén and Muthén.

Nicol, A. A. M., & Charbonneau, D. (2007). Right-wing authoritarianism and social dominance orientation in a Canadian military sample. *Military Psychology, 4*, 239-257.

Oliner, S. P., & Oliner, P. M. (1988). *The altruistic personality: Rescuers of Jews in Nazi Europe.* New York, NY: The Free Press.

Pettigrew, T. F. (1997). Generalized intergroup contact effects on prejudice. *Personality and Social Psychology Bulletin, 23*, 173-183. doi: 10.1177/0146167297232006.

Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review Psychology, 49,* 65-85.

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*, 751-783. doi: 10.1037/0022-3514.90.5.751

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

Pratto, F., James, S., Stallworth, L. M., & Malle, B. F. (1994). Social Dominance Orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology, 67 (4),* 741-763. doi: 10.1037/0022.3514.67.4.741.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, *36*, 717-731.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879-891.

Reis, H. T., & Shaver, P. (1988). Intimacy as an interpersonal process. In S. Duck (Ed.), *Handbook of personal relationships* (pp. 367-389). Chichester, UK: Wiley.

Rothchild, J. (2007). Gender bias. In G. Ritzer (Ed.) *The Blackwell Encyclopedia of Sociology* (pp. 1843 – 1845). Oxford, UK: Blackwell. doi: 10.1111/b.978140512331.2007.x.

SA Army College. (2011): *Advancement of gender equality in the Department of Defence (DoD), through effective Parliamentary oversight.*

Sidanius, J., & Pratto, F. (2001). *Social dominance: An intergroup theory of social hierarchy and oppression*. Cambridge, UK: Cambridge University Press.

Silva, J. M. (2008). A new generation of women: How female ROTC cadets negotiate the tension between masculine military culture and traditional femininity. *Social Forces, 82*, 937-960.

Sowers, S. R. (2003). *Woman combatants in World War I: A Russian case study*. *Strategy research project*. Carlisle, PA: Carlisle Barracks, U. S. Army War College.

Sprecher, S., Treger, S., Wondra, J.D., Hilaire, N., & Wallpe, K. (2013). Taking turns: Reciprocal self-disclosure promotes liking in initial interactions. *Journal of Experimental Social Psychology, 49*, 860-866. doi: 10.1016/j.jesp.2013.03.017.

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

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

Todd, A. R., Bodenhausen, G. V., & Galinsky, A. D. (2012). Perspective-taking combats the denial of group discrimination. *Journal of Experimental Psychology, 48*, 738-741. doi: 10.1016/j.jesp.2011.12.011

Tolstedt, B. E., & Stokes, J. P. (1984). Self-disclosure, intimacy, and the depenetration process. *Journal of Personality and Social Psychology, 46*, 84-90. doi: 10.1037/0022-3514.46.1.84.

Triandis, H. C. (1972). *The analysis of subjective culture.* Chichester, UK: Wiley.

Turner, R. N., Hewstone, M., Voci, A., Paolini, S., & Christ, O. (2007). Reducing prejudice via direct and extended cross-group friendship. *European Review of Social Psychology,* 18, 212-255. doi: 10.1080/1043280701680297

Van Dick, R., Wagner, U., Pettigrew, T. F., Christ, O., Wolf, C., & Petzel, T. (2004). Role of perceived importance in intergroup contact. *Journal of Personality and Social Psychology, 87*, 211-227.

Wang, C. S., Tai, K., Ku, G., & Galinsky, A. D. (2014). Perspective-taking increases willingness to engage in intergroup contact. *PLOS ONE, 9*: e85681. doi: 10.1371/journal.pone.0085681

Watson, G. (1946). Unity for action. *Jewish Affairs, 1,* 3-22.

Wechsler Segal, M. (1999). Gender and the military. In J. S. Chafetz (Ed.) *Handbook of the sociology of gender* (pp. 563). New York, NY: Plenum.

West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: Problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 56–75). Thousand Oaks, CA: Sage.

Worthy, C. B., Gary, A. L., & Kahn, G. M. (1969). Self-disclosure is an exchange process. *Journal of Personality and Social Psychology, 13*, 59-63.

Wright, S. C., Brody, S. M., & Aron, A. (1996). Intergroup contact: Still our best hope for improving intergroup relations. In C. S. Crandall, & M. Schaller (Eds.). *Social psychology of prejudice: Historical and contemporary issues* (pp. 119-139). Kansas: Le Winian Press

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. doi: 10.1037/0022-3514.73.1.73

APPENDIX A

Research Ethics Committee (Humanities) Letter of Approval

UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

NOTICE OF APPROVAL

30 May 2017

Project number: SU-HSD-00407

Project title: Positive direct contact between male and female members of the SANDF and the reduction of gender bias: The importance of self-disclosure, empathy and perspective taking

Dear Dr Hermann Swart

Your response to the REC's stipulations received on 18 May 2017 was reviewed by the REC: Humanities and approved by the REC: Humanities via expedited procedures.

Please note the following about your approved submission:

Ethics approval period: 11 May 2017 – 10 May 2020

GENERAL COMMENTS

The REC would like to acknowledge acceptance on the revised survey instrument submitted by email on 18 May 2017. The study constitutes a low risk study according to the REC: Humanities standard operating procedures of 2012.

Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

If the researcher deviates in any way from the proposal approved by the REC: Humanities, the researcher must notify the REC of these changes.

Please use your SU project number (SU-HSD-004407) on any documents or correspondence with the REC concerning your project.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

FOR CONTINUATION OF PROJECTS AFTER REC APPROVAL PERIOD

Please note that a progress report should be submitted to the Research Ethics Committee: Humanities before the approval period has expired if a continuation of ethics approval is required. The Committee will then consider the continuation of the project for a further year (if necessary).

If you have any questions or need further help, please contact the REC office at cgraham@sun.ac.za

National Health Research Ethics Committee (NHREC) registration number: REC-050411-032.
The Research Ethics Committee: Humanities complies with the SA National Health Act No.61 2003 as it pertains to health research. In addition, this committee abides by the ethical norms and principles for research established by the Declaration of Helsinki (2013) and the Department of Health Guidelines for Ethical Research: Principles Structures and Processes (2nd Ed.) 2015. Annually a number of projects may be selected randomly for an external audit.

Sincerely,

Clarissa Graham

REC Coordinator: Research Ethics Committee: Human Research (Humanities)

APPENDIX B

Defence Intelligence, Sub-division Counter Intelligence Letter of Approval

17 Jun 12 13:44   p.1

RESTRICTED

defence intelligence Department:
Defence
REPUBLIC OF SOUTH AFRICA

DI/DDS/R/202/3/7

Telephone: (012) 315-0448
Fax: (012) 326-3246
Enquiries: Col L.C. Nomoy'

Defence Intelligence
Private Bag X367
Pretoria
0001
09 June 2017

AUTHORITY TO CONDUCT RESEARCH IN THE DEPARTMENT OF DEFENCE (DOD): CAPT J.C. GOOSEN

1.   Receipt of a request letter AMHU FS/R/104/10/5/02053163MC dd 06 June 2017 with a Research Proposal attached is acknowledged.

2.   Approval is hereby granted from a security perspective to Capt J.C. Goosen to conduct research in the DOD on the topic entitled **"Positive Direct Contact Between Male and Female Members of the SANDF and the Reduction of Gender Bias: The Importance of Self-Disclosure, Empathy and Perspective Taking"** as a prerequisite for an attainment of an M.A. (Psychology) Degree under the tutelage of the University of Stellenbosch as requested.

3.   On completion the final research product must be submitted to Defence Intelligence (DI), Sub-Division Counter Intelligence (SDCI) for security scrutiny before it is released to any entity outside the DOD.

4.   Permission is however granted on condition that there is compliance with Section 104 of the Defence Act (Act 42 of 2002) pertaining to protection of DOD Classified Information and the consequences of non-adherence..

5.   For your attention.

(G.S. SIZANI)
CHIEF DIRECTOR COUNTER INTELLIGENCE: MAJ GEN
KS/KS(Capt J.C. Goosen)

DSTR

For Action

OC AMHU Free State   (Attention: Capt J.C. Goosen)

Internal

File: DI/DDS/R/202/3/7

RESTRICTED

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APPENDIX C

Military Research Ethics Committee Letter of Approval

RESTRICTED

1MH/302/6/02.07.2017

sa military health service
Department:
Defence
REPUBLIC OF SOUTH AFRICA

Telephone:	012 314 0013	1 Military Hospital
Facsimile:	012 314 0013	Private Bag x 1023
Enquiries:	Prof / Lt Col M.K. Baker	Thaba Tshwane

0143
20 October 2017

CLINICAL TRIAL APPROVAL: 02.07.2017: "POSITIVE DIRECT CONTACT BETWEEN MALE AND FEMALE MEMBERS OF THE SANDF AND THE REDUCTION OF GENDER BIAS: THE IMPORTANCE OF SELF-DISCLOSURE, EMPATHY AND PERSPECTIVE TAKING."

1.   The 1 Military Hospital Research Ethics Committee (1MHREC) registered in South Africa with the National Health Research Ethics Council (NHREC) (REC-111208-019-RA) adhering to GCP/ICH and SA Clinical Trial guidelines, evaluated the above-mentioned protocol and additional documents.

2.   The following members approved the study:

   a.   Lt Col M.K. Baker: Neurologist, male, chairman 1 MHREC.
   b.   Lt Col C.S.J. Duvenage: Specialist physician, female, member 1 MHREC.
   c.   Lt Col D. Mahapa: Dermatologist, female, member 1 MHREC.
   d.   Lt Col A.D. Moselane: Urologist, male, member 1 MHREC.
   e.   Lt Col E.J. Venter: Periodontist, male, member 1 MHREC.
   f.   Maj M.L. Kekana: Specialist physician, female, member 1 MHREC.
   g.   DR T.J. Marè: Advocate, independent of the organization, male, member 1 MHREC.
   h.   Mrs. C. Jackson: Layperson, independent of the organization, female, member 1 MHREC.
   i.   Maj. M.M.M. Ledwaba: Specialist physician, female, member 1 MHREC

3.   The following documents were evaluated:

   a.   Personalised covering letter from investigator
   b.   Research proposal
   c.   Informed Consent Document
   d.   Biographical and Demographic Questionnaire
   e.   Main Survey Questionnaire
   f.   Stellenbosch University Research Ethics Committee Approval
   g.   Defence Intelligence permission letter
   h.   Updated Curricula Vitae:

        i. J.C. Goosen
        ii. H. Swart

Health Warriors Serving the Brave
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1MH/302/6/02.07.2017

4.   The recommendations are: The study was ethically approved on 20 October 2017. The principal investigator, Capt. J.C. Goosen, will be supervised by Dr. H. Swart. Report backs are to be made to the 1MHREC six monthly, in the event of any serious adverse events and on completion or termination of the study. Should publications result from the study the relevant manuscripts will also need to be approved by Military Counter Intelligence. All funds generated through this research study should be paid into an approved Regimental fund account.

The 1 MHREC wishes you success with the study.

(M.K BAKER)
CHAIRMAN 1 MILITARY HOSPITAL RESEARCH ETHICS COMMITTEE:
LT COL / PROF

DIST

<u>For Action</u>

Capt. J.C. Goosen

APPENDIX D

Participant Informed Consent Form

STELLENBOSCH UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Interactions between Male and Female Members of the SANDF

You are asked to participate in a research study conducted by Dr Hermann Swart (Department of Psychology, Stellenbosch University) and Capt. Jeslyn Goosen (M.A. student, Department of Psychology, Stellenbosch University). The results of the study will contribute towards Capt. Goosen's degree in Master of Arts (Psychology) at Stellenbosch University.

You were selected as a possible participant in this study because you are a Male Member of the SANDF stationed at Tempe Base, Bloemfontein.

1. PURPOSE OF THE STUDY

The purpose of the study is to gather information from Male Members of the SANDF at Tempe Base, Bloemfontein, about their interactions with Female Members of the SANDF and their opinions regarding the role of Female Members in the SANDF in general.

2. PROCEDURES

If you volunteer to participate in this study, you would be asked to complete a paper-and-pencil survey, which will take approximately 15 minutes to complete.

3. POTENTIAL RISKS AND DISCOMFORTS

This study does pose any foreseeable risks or discomforts. However, on-Base counselling services are available from the Area Military Health Unit Free State, Psychology Department if Members feel the need to make use of these services. Members who wish to make use of these services may contact Maj S.M. De Lange (051 402 1689), or Capt C.J. Van Jaarsveld (051 402 2503) to schedule an appointment.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Participants will make a valuable contribution to our understanding of some of those factors that influence opinions in the SANDF regarding the role of Female Members in the SANDF.

5. PAYMENT FOR PARTICIPATION

Participants will not receive any remuneration (or payment) for their participation in this study. Your participation is completely voluntary.

6. CONFIDENTIALITY

No information that can be used to identify your personal identity will be collected in the course of this study. In other words, no information will be asked that will explicitly identify any participant. All the data that is obtained will be stored on a password-protected laptop, which is only accessible to the researcher (Lt Goosen) and her supervisor (Dr Hermann Swart). The results of the study will be made available to participants once the data have been analysed.

7. PARTICIPATION AND WITHDRAWAL

If you agree to participate in this study, you will be asked to 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 without consequences of any kind. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact the Principle Investigator, Dr Hermann Swart

Dr Hermann Swart

Office: 021 808 9061 / E-mail: hswart@sun.ac.za

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. 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, Stellenbosch University.

CONSENT OF RESEARCH SUBJECT

The information above was described to me by Capt. Jeslyn Goosen in English and I am in command of this language. I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

_____

Name of Participant

_____   _____

Signature of Participant   **Date**

SIGNATURE OF INVESTIGATOR

I declare that I explained the information given in this document to _____ [*name of the subject/participant]* _____ He was encouraged and given ample time to ask me any questions. This conversation was conducted in English.

_____   _____

Signature of Investigator   **Date**

APPENDIX E

Biographical Questionnaire

UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
jou kennisvennoot • your knowledge partner

1. **Please indicate your age, in years, today:** I am _____ years old

2. **Please indicate the broad South African population group you would identify yourself with**
   (Please note: *The Department of Psychology at Stellenbosch University does not acknowledge or endorse the legitimacy of the artificial categories below, and accepts that individuals might categorize themselves in a number of different ways over-and-above, or other than just, ethnicity. The category you select below does not mean that you endorse the category rather that it provides a context for understanding your point of view or experiences.*):

   ☐ White South African
   ☐ Black (African) South African
   ☐ Coloured South African
   ☐ Indian South African
   ☐ Asian South African

3. **What is your Home (First) Language?** _____

4. **Please indicate your current rank:** _____

5. **How long have you held your current rank?** _____ *years and/or* _____*months*

6. **Please indicate what unit you work at on Tempe Military Base:** _____

7. **How long have you been a Member in the SANDF?** _____ *years and/or* _____*months*

8. **Are you a living in Member or not?** ☐ Yes
   ☐ No

9. **What is your relationship status?** ☐ I am Single
   ☐ I am in a romantic relationship
   ☐ I am Married

10. **If you have indicated above that you are in a relationship or that you are married, is your partner also a Member of the SANDF?**
    ☐ Yes   ☐ No   ☐ Not Applicable, I am Single

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APPENDIX F

Main Survey Questionnaire

Question 1:

Are there **Female Members** who work in **your Unit**?

☐ Yes
☐ No

If you have answered 'YES', proceed to SECTION 1 on the next page.

If you have answered 'NO', proceed to SECTION 2 on page 9.

SECTION 1

Question 2:

Please think of a **Female Member** of the SANDF **who works in your Unit** at Tempe Base, Bloemfontein, **who you know the best**. Please **exclude** any romantic relationships. In the box provided below, please write down the initials of her first name and surname only to help you keep her in mind while answering the questions that follow (i.e., if your friend's name is Janet Smith, only write down JS):

☐

All questions that follow must be answered with this particular Female Member in mind and no one else.

Question 2.1:

What is the nature of your relationship with this Female Member? (Select the most appropriate answer below)

☐ She is *just an acquaintance/work colleague*

☐ She is *just a friend*

☐ She is a *very close friend*

☐ She is *one of my closest friends*

☐ She is *my best friend*

☐ *I am in a romantic relationship with her / I am married to her*

Question 2.2:

What is her rank? _____

Question 2.3:

What is her ethnicity? ☐ White South African

☐ Black (African) South African

☐ Coloured South African

☐ Indian South African

☐ Asian South African

Question 2.4:

How old is she? _____   ☐ I don't know how old she is

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In the box provided below, please write down the initials of her the Female Member's first name and surname again, only to help you keep her in mind while answering the questions that follow:

All questions that follow must be answered with this particular Female Member in mind and no one else.

Question 2.5:

Approximately how long have you known her? _____ *years and/or* _____*months*

Question 2.6:

The picture below contains seven images that represent your relationship with this Female Member. The closer the circles are to one another and the more they overlap with each other, the closer the relationship between you and this female member is.

Please look at the picture and select the number (1, 2, 3, 4, 5, 6, or 7) of the circles that best shows how close your relationship is to the Female Member you are thinking of:

In the box provided below, please write down the initials of her the Female Member's first name and surname again, only to help you keep her in mind while answering the questions that follow:

```
┌─────────────────┐
│                 │
│                 │
└─────────────────┘
```

All questions that follow must be answered with this particular Female Member in mind and no one else.

Question 3:

What is the nature of your relationship with this Female Member? (Select the most appropriate answer below)

Interpersonal Friendship Contact

	None	One to two hours	Two to five hours	Five to ten hours	More than ten hours
How many hours per week do you spend time with this particular female member at work?	0	1	2	3	4
How many hours per week do you socialise with this particular female member?	0	1	2	3	4
How many hours per week in general do you spend with this particular female member	0	1	2	3	4

In the space provided below, please write down the female member's initial's once again to help you keep her in mind while answering the questions that follow. **All questions that follow on this page must be answered with this particular female member in mind and no one else.**
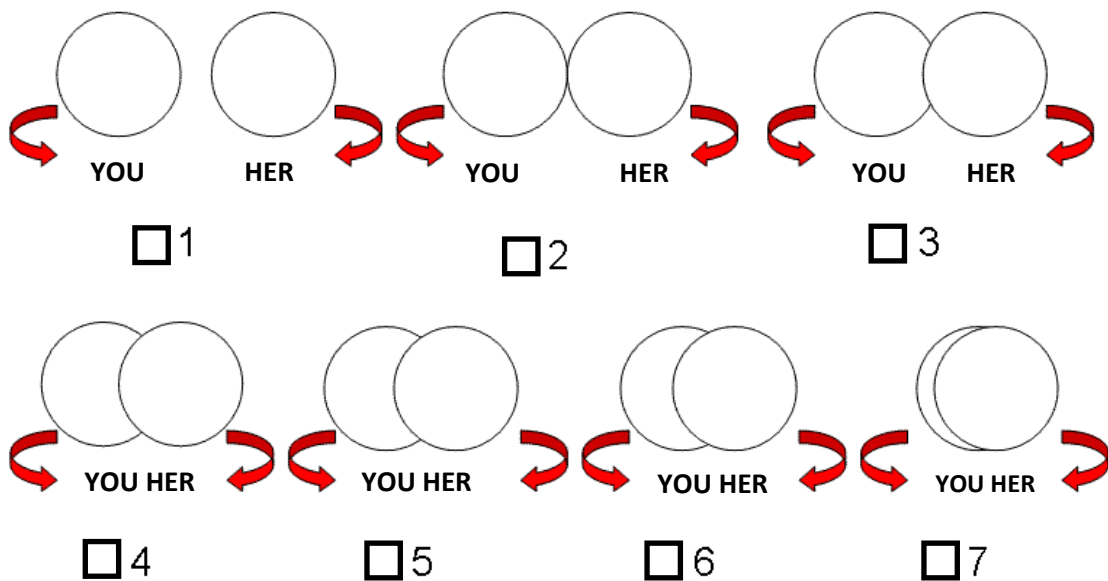
Female Member's Initials

Question 4:

In general, when you interact with this particular female member, do you find this interaction to be pleasant or unpleasant*?*

Very unpleasant	Somewhat unpleasant	Neither pleasant or unpleasant	Somewhat pleasant	Very pleasant
1	2	3	4	5

In general, when you interact with female members, do you find this interaction to be positive or negative?

Very negative	Somewhat negative	Neither positive or negative	Somewhat positive	Very positive
1	2	3	4	5

Question 5:

Please think about the most POSITIVE and ENJOYABLE conversation you have had in the past year with this female member. With this conversation in mind, please answer each of the following questions by selecting the answer option that is most applicable to you. During this conversation:

	Very little	Only a bit	Some	Quite a bit	A great deal
How much personal information did YOU share?	1	2	3	4	5
How much personal information did THIS FEMALE MEMBER share with you?	1	2	3	4	5

In the space provided below, please write down the female member's initial's once again (as previously provided) to help you keep her in mind while answering the questions that follow. **All questions that follow on this page must be answered with this particular female member in mind and no one else.**

Female Member's Initials

Please think about the most NEGATIVE and UNPLEASANT conversation you had in the past year with this female member. With this conversation in mind, please answer each of the following questions by selecting the answer option that is most applicable to you.

During this conversation:

	Very little	Only a bit	Some	Quite a bit	A great deal
How much personal information did YOU share?	1	2	3	4	5
How much personal information did THIS FEMALE MEMBER share with you?	1	2	3	4	5

In the space provided below, please write down the female member's initial's once again (as previously provided) to help you keep her in mind while answering the questions that follow. **All questions that follow on this page must be answered with this particular female member in mind and no one else.**

Female Member's Initials

Question 6:

Think about how you feel about this particular Female Member. Now please indicate the extent to which you agree or disagree with each of the following statements as quickly and as honestly as possible. Do not think too long on your answers, but rather select the first appropriate response that comes to mind.

	Completely Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Completely Agree
I care about this friend	1	2	3	4	5
I like this friend a lot	1	2	3	4	5
I feel close to this friend	1	2	3	4	5

SECTION 2

I am now going to ask you about your interactions with and opinions of female members in the SANDF in general. Please do not think of one specific individual female member when answering the questions that follow.

Question 7:

Direct intergroup contact (in general):

	None	One to two hours	Two to five hours	Five to ten hours	More than ten hours
How many hours per week do you have direct, face-to-face social interactions (after hours) with females in general	0	1	2	3	4
How many hours per week do you have direct, face-to-face interactions with females in general during working hours?	0	1	2	3	4

Question 8:

Perspective taking (Batson et al., 1997; Davis, 1994)

Please read the questions below and *ANSWER EACH ONE* of them as *HONESTLY AS POSSIBLE*. Do not think too long on the answers - rather give the first answer that you think of. There are no right or wrong answers. We are only interested in your personal opinion.

I can see why Female Members in the military are not always satisfied with their group's position in the SANDF. If I was a Female Member in the SANDF I would not be satisfied either.

Totally		Slightly		Totally
Disagree		Disagree		Agree
1	2	3	4	5

I can generally put myself in the shoes of a Female member in the SANDF and imagine what life is like for her.

Totally		Slightly		Totally
Disagree		Disagree		Agree
1	2	3	4	5

I try to think about the issues we face in the SANDF from the perspective of a Female Military Member

Totally		Slightly		Totally
Disagree		Disagree		Agree
1	2	3	4	5

Question 9:

Affective empathy (Swart et al., in prep. a)

Please read the questions below and *ANSWER EACH ONE* of them as *HONESTLY AS POSSIBLE*. Do not think too long on the answers - rather give the first answer that you think of. There are no right or wrong answers. We are only interested in your personal opinion.

If I heard/saw that a Female Military Member was upset and suffering in some way, it would bother me and make me feel unhappy.

Totally		Slightly		Totally
Disagree		Disagree		Agree
1	2	3	4	5

If I saw a Female Military Member being treated unfairly I think I would feel angry at the way she was being treated

Totally		Slightly		Totally
Disagree		Disagree		Agree
1	2	3	4	5

If a Female Military Member that I knew was feeling sad, I would also feel sad

Totally		Slightly		Totally
Disagree		Disagree		Agree
1	2	3	4	5

Question 10:

Attitude towards Female Members in the Military in General

Please indicate how much you agree or disagree to the following statements. There are no right or wrong answers. We are only interested in YOUR honest opinion.

	Disagree completely	Disagree somewhat	Unsure	Agree somewhat	Agree completely
I respect Female Members in the Military	1	2	3	4	5
I admire Female Members in the Military	1	2	3	4	5

Question 11:

Gender Bias against Females in the SANDF

Please indicate how much you agree or disagree to the following statements. There are no right or wrong answers. We are only interested in YOUR honest opinion.

	Disagree completely	Disagree somewhat	Unsure	Agree somewhat	Agree completely
There should be more Female Members in the Military	1	2	3	4	5
At least 50% of all members in the SANDF should be Female Members	1	2	3	4	5
A Female Member can be a OC of a Unit	1	2	3	4	5
A Female Member can be the General of a Base	1	2	3	4	5

Question 12:

Social Dominance Orientation (Sidanius & Pratto, 1999)

Please read the following statements and indicate the extent to which you agree or disagree with each one:

	Completely Disagree				Completely Agree
It would be good if groups could be equal	1	2	3	4	5
All groups should be given an equal chance in life	1	2	3	4	5
We should do what we can to equalize conditions for different groups	1	2	3	4	5