

**Applying the Theory of Planned Behaviour to  
Identify the Predictors of Intergroup Contact**

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those of the author, and are not necessarily to be attributed to the National Research  
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## **DECLARATION**

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## ABSTRACT

South Africa is a post-conflict society where segregation and discrimination was legitimised under Apartheid. The abolishment of Apartheid brought about the end of formal segregation, creating increased opportunities for intergroup contact between South Africans from different groups. Intergroup contact offers one of the most compelling ways to reduce prejudice and improve intergroup attitudes (Pettigrew & Tropp, 2006). However, members of historically advantaged and disadvantaged groups in post-conflict societies may choose to avoid intergroup contact with one another for a variety of reasons, and it remains a key challenge in the contact literature to identify those factors that promote an increased willingness to engage in intergroup contact (Kauff et al., 2021). In this study I investigated the predictors of intergroup contact within the framework of the Theory of Planned Behaviour (TPB), a robust model used to identify the predictors of behavioural intentions and volitional behaviour (Ajzen, 1991). The TPB model suggests that attitudes towards the behaviour, norms regarding the behaviour, and perceived behavioural control relating to the behaviour each predict behavioural intention, which, in turn, predicts volitional behaviour (Armitage & Conner, 2001; Ha Sur et al., 2021; McEachan et al., 2011; Rich et al., 2015). I undertook a secondary data analysis using data collected in 2019 amongst 169 white South African first-year Economics students at Stellenbosch University (SU). I employed Structural Equation Modelling to test my hypotheses. It was hypothesised that positive attitudes towards intergroup contact, norms in support of intergroup contact, and perceived behavioural control relating to intergroup contact would predict a willingness to engage in intergroup contact with black (African) and coloured South African students at SU. In addition, it was hypothesised that perceived behavioural control and a willingness to engage in intergroup contact would predict the frequency of positive intergroup contact with black (African) and coloured South African students at SU. The results showed that attitude towards intergroup contact ( $b = .64, p < .05$ ) and perceived

behavioural control ( $b = .65, p < .01$ ) were each significantly positively associated with a willingness to engage in intergroup contact, while norms relating to intergroup contact was not ( $b = -.26, p = .15$ ). Furthermore, a willingness to engage in intergroup contact was significantly associated with the frequency of positive intergroup contact ( $b = .78, p < .05$ ). These findings replicate those in the TPB literature and offer support for the utility of the TPB to examine the predictors of intergroup contact willingness.

## OPSOMMING

Suid Afrika is 'n post-konflik samelewing waar verdeling en diskriminaise tydens Apartheid gewettig was. Die afskaffing van Apartheid het die einde aan formele segregasie gebring, wat gelei het tot 'n toename in intergroepkontak tussen Suid-Afrikaners van verskillende groepe. Intergroepkontak is een van die mees oortuigende wyses om bevooroordeelings te verminder en intergroep houdings te verbeter (Pettigrew & Tropp, 2006). Alhoewel mense van historiese bevoorregte en agtergeblewe groepe in post-konflik gemeenskappe steeds kies om intergroepkontak tussen mekaar te vermy vir 'n verskeidenheid redes. Daarvolgens bly dit 'n uitdaging in die kontak literatuur om daardie faktore wat lei tot 'n toename in bereidwilligheid in intergroepkontak te bevorder (Kauff et al., 2021). In hierdie studie het ek die voorspellers van intergroepkontak binne die raamwerk van die Teorie van Beplande Gedrag (TBG) geondersoek, 'n robuuste model wat gebruik word om die voorspellers van gedragsbedoeling en wilskragtige gedrag te identifiseer (Ajzen, 1991). Die TBG dui daarop dat houdings teenoor die gedrag, norme ten opsigte van die gedrag en waargenome gedragsbeheer met verband tot die gedrag elk gedragsbedoeling voorspel wat op sy beurt, wilskragtige gedrag voorspel (Armitage & Conner, 2001; Ha Sur et al., 2021; McEachan et al., 2011; Rich et al., 2015). Ek het 'n sekondêre data analise onderneem wat gebruik gemaak het van data wat in 2019 by die Universiteit Stellenbosch (US) verkry was onder 169 wit Suid-Afrikaanse eerste-jaar Ekonomiese studente. Ek het Strukturele Vergelykingsmodellering gebruik om my hipoteses te toets. Daar is veronderstel dat positiewe houdings teenoor intergroepkontak, norme ter ondersteuning van intergroepkontak en waargenome gedragsbeheer in verband met intergroepkontak 'n bereidwilligheid sou voorspel om met swart (Afrikaan) en bruin Suid-Afrikaanse studente aan die US betrokke te raak. Daarbenewens, is veronderstel dat waargenome gedragsbeheer en 'n bereidwilligheid om by intergroepkontak betrokke te raak, sou die gereeldheid van postiewe intergroepkontak met swart en gekleurde Suid Afrikaanse

studente by US voorspel. Die resultate het bewys dat houding teenoor intergroepkontak ( $b = .64, p < .05$ ) en waargenome gedragsbeheer ( $b = .65, p < .01$ ) was aansienlik positief geassosieer met 'n bereidwilligheid om betrokke te raak by intergroepkontak, terwyl norme wat verband hou tot intergroepkontak was nie ( $b = -.26, p = .15$ ). Verder is 'n bereidwilligheid van intergroepkontak aansienlik geassosieer met die gereeldheid van positiewe intergroepkontak ( $b = .78, p < .05$ ). Hierdie bevindings repliseer daardie bevindings in die TBG literatuur en bied ondersteuning vir die nut van die TBG om die voorspellers van intergroepkontak bereidwilligheid te ondersoek.

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## CHAPTER ONE

### INTRODUCTION

South Africa has a well-known history of racial prejudice and discrimination that brought about decades of conflict and oppression. One of the main goals of Apartheid was to create and maintain racial segregation by relocating black South Africans (here, the term is used to encompass black (African), coloured, and Indian South Africans) to rural and peri-urban areas and restricting urban areas for white South Africans only (Mphambukeli, 2019). Apartheid was formally abolished in 1991, allowing for South Africa's first democratic elections in 1994. The emancipation of the overwhelming majority of South Africans from white minority-rule has ushered in a new era in South Africa's history, and it has become renowned the world over for its multicultural and ethno-linguistic diversity.

Diversity can be defined in terms of race, ethnicity, religion, sexual-orientation, gender, and language, among others (Bahns, 2019). The formal desegregation of South African neighbourhoods, schools, universities, and other public spaces has led to an increase in social diversity in the spaces (relative to Apartheid) that, in principle, creates increased opportunities for people from different socio-cultural backgrounds to interact with one another. In the social psychology literature of intergroup contact (most often defined as face-to-face interactions between members of different social groups; Hewstone & Swart, 2011), increased diversity has been shown to create opportunities for intergroup contact (see Christ et al., 2014). An impressive body of empirical evidence has accrued over almost seven decades of research to show that positive intergroup contact plays an important role in reducing prejudice and negative intergroup emotions and enhancing intergroup empathy, forgiveness, and trust, amongst others (see Pettigrew & Tropp, 2006, 2008; Swart et al., 2011b; Turner et al., 2010). Indeed, positive

intergroup contact has been highlighted as an especially important means for promoting more positive intergroup relations in post-conflict societies, like South Africa and Northern Ireland (see Hewstone et al., 2014).

However, despite the formal desegregation of all public spaces in South Africa, there are some areas, such as neighbourhoods and schools, that have shown a relatively slow pace of diversification (Statistics South Africa, 2016) relative to other spaces. One of the spaces that has witnessed a rapid rate of diversification (relative to neighbourhoods and schools) are South African universities. South African universities arguably offer more opportunities for face-to-face interactions between members of different socio-cultural groups than do South African neighbourhoods (which have remained largely homogenous 30 years after the end of Apartheid). As such, South African universities offer important opportunities for young South Africans, who might come to university with a rather limited experience of positive intergroup contact, to frequently interact with one another (in class, in tutorial groups, in residencies, in cafeterias), to get to know one another, and to establish cross-group acquaintances and friendships, and forge more positive intergroup relations.

Unfortunately, however, there is a substantial body of research that shows that historically advantaged and historically disadvantaged and stigmatised group members do not always take up the opportunities they are presented with to engage in intergroup contact. Individuals who come from historically disadvantaged groups might choose to avoid intergroup contact for fear of being discriminated against (Tropp, 2007), while individuals from historically advantaged groups may choose to avoid intergroup contact for fear of coming across as prejudiced (Trawalter et al., 2012). A key driver of contact-avoidance in post-conflict societies is the fear of rejection by the outgroup (Al Ramiah et al., 2015; Stathi et al., 2020a). Of course, in some cases, it may be that people simply have a lack of interest in interacting with others (Al Ramiah et al., 2015; Stathi et al., 2020a).

Given the potential benefits of positive intergroup contact for establishing more positive intergroup relations (especially in post-conflict societies), the contact literature has begun to prioritise identifying those factors that predict a greater willingness to engage in intergroup contact (see Kauff et al., 2021). The present study aimed to contribute to this research priority by exploring those factors that predict a greater willingness to engage in intergroup contact amongst white South African students studying at Stellenbosch University. Specifically, the present study aimed to explore the predictors of contact willingness at Stellenbosch University within the framework of the Theory of Planned Behaviour (TPB).

The TPB (Ajzen, 1991) is a theoretical framework that has been used to predict the behavioural intentions and actual behaviour of humans across various fields of interest, with substantial success (see Nardi et al., 2019; Rich et al., 2015; Topa & Moriano, 2010). Within the context of intergroup contact, only a single study (undertaken in South Africa by Kurian (2008)) has attempted to explore those factors that predict a willingness to engage in intergroup contact (i.e., the behavioural intention to engage in intergroup contact) within the framework described by the TPB. Kurian's (2008) study is described in detail in the following chapter. Therefore, the present study aimed to address a gap in intergroup contact literature both locally and internationally.

This chapter serves as an introduction to (and overview of) the present study. I begin with a brief overview of intergroup relations in the South African context in general, and South African universities (with a specific focus on Stellenbosch University) in particular. I then briefly introduce the two theoretical frameworks that guided the present study, namely Intergroup Contact Theory and the Theory of Planned Behaviour. Thereafter, I will introduce the aims and objectives of the present study, and the research rationale that informed it. Finally, this chapter concludes with a brief overview of each chapter comprising this thesis.



## **Intergroup Relations in South Africa**

Between 1948 and 1990 South Africa underwent a period known as Apartheid, a system built on a variety of laws that strictly prescribed the nature of South African intergroup relations and limited social interactions between South Africans of different population groups. The Population Registration Act No 30 of 1950 legalised the classification of South Africans into one of four population groups, white, black (African), coloured, and Indian. The Group Areas Act (1950) aimed to separate the four population groups from one another (via, for example, segregated neighbourhoods and reserved public spaces), putting an end to racial mixing and integrated spaces (Mesthrie, 1993). Furthermore, the implementation of the Mixed Marriages Act of 1949 and the Immorality Amendment Act (1950) prohibited intimate relations or marriages between white South Africans and members of any of the other population groups (Landis, 1957). High-paying employment opportunities and superior educational opportunities were exclusively reserved for white South Africans, while black (African), coloured, and Indian South Africans were further dehumanised with derogatory terms (Mhlauli et al., 2015; Motlana, 1985; Seekings, 2007). At its core, Apartheid sought to limit intergroup contact between white South Africans and black (African), coloured, and Indian South Africans, denying the majority of South Africans the right to self-determination and dignity. Apartheid created an environment that bred suspicion, mistrust, and anger. The repealing of Apartheid laws, formalised by the first democratic election in 1994, suddenly allowed South Africans from different populations groups freedom of movement and association.

South Africa therefore offers an ideal context to study intergroup contact considering its transition from Apartheid to now being known as a “rainbow nation.” One would expect the term “rainbow nation” to carry positive connotations of diversity and integration, however South Africa still faces issues of segregation and isolation of social groups. Parry and van Eeden (2015) studied the pattern of residential segregation in Johannesburg and Cape Town

using Census data from 1991 to 2011. Over the years they found a decrease in segregation. However, despite this decrease, levels of segregation remained high especially in the informal settlements (known in South Africa as townships; Parry & van Eeden, 2015).

This residential segregation has been observed to spill over into other informal, social settings. For example, Dixon and Durrheim (2003) examined ethnic segregation at a beach in Durban via observation and interviews. They concluded that three types of informal segregation appeared in their study. The first type of informal segregation was referred to as “umbrella space” where 99.9% of umbrella spaces (seating areas comprising a collection of chairs under an umbrella) were either exclusively comprised of white South Africans or black (African) South Africans. It is believed that the use of an umbrella acted as a means for preserving boundaries amongst beachgoers (Dixon & Durrheim, 2003). The second type of informal segregation focused on ethnic distribution. Specific areas of the beach were occupied by certain ethnic groups. For example, the swimming pool and surrounding area was occupied by black (African) South Africans and avoided by white South Africans. Finally, Dixon and Durrheim (2003) observed that on Boxing Day and New Year’s Day the beach experienced an influx of black (African) South African beachgoers and a decrease of white South African beachgoers. It was known by white South Africans that many black (African) South Africans visited the beach on those two specific days, leading to what might be described as ‘white flight’ from the beach on those two days. It should be noted that this study occurred nine years after Apartheid, making it highly likely that South Africans had not yet grown accustomed to intergroup mixing and intergroup contact.

Further research shows that segregation is being reproduced in other social settings such as pubs and clubs, which are often frequented by young adults. Using observation, Tredoux and Dixon (2009) explored patterns of ethnic segregation in leisure spaces such as pubs and clubs in Long Street, Cape Town. Their aim was to understand how transformed politics,

influenced by geographical facts, impacted day-to-day intergroup interactions. Tredoux and Dixon (2009) highlight four key findings observations from their study. Firstly, they found that the pubs and clubs they observed were populated mainly by white South African patrons despite this population group comprising the smallest population group in Cape Town. Furthermore, they observed that the population distributions in clubs were unequal (as confirmed by the indices of segregation that they calculated using their observational data). Secondly, they observed that spatial practices maintaining group boundaries, insofar as sub-areas in clubs were occupied by certain population groups (echoing the patterns observed on the Durban beach by Dixon and Durrheim (2003)). Thirdly (and relatedly), the seating areas at clubs were highly segregated, compromising of homogenous groups. Finally, Tredoux and Dixon (2009) observed that most of the face-to-face interpersonal interactions in the pubs and the clubs were between individuals from the same population group (i.e., most of the interaction dyads were homogenous in their ethnic composition).

Even though these two studies described above were undertaken between one and two decades ago, they remain illustrative of the tendency in post-Apartheid South Africa for members of different social groups to prefer segregation even in contexts where they might be near one another. Unfortunately, this pattern of contact avoidance is also observed at South African universities.

### **Intergroup Relations at South African Universities**

South African universities are fitting locations to study intergroup contact as they have become increasingly diverse (Tredoux et al., 2017). The social diversity of university campuses offers students frequent opportunities to engage in intergroup contact with fellow students from

other population groups, be it in class, in residence, or cafeterias. However, there is evidence to suggest that students do not always take up these opportunities for intergroup contact.

Shortly after the passing of the Higher Education Act of 1997, Woods (2001) conducted a study examining the perceptions of black (African) South African students about interracial relationships and the social climate at the University of Witwatersrand (Wits) in Johannesburg. Woods (2001) found that although black (African) and white South African students shared lecture spaces daily, meaningful relationships between individuals from these groups were not being established. Furthermore, the majority of black (African) South African participants described fellow white South African students as racist and explained that white South African students purposefully distanced themselves from students of other groups by occupying certain areas on campus grounds (Woods, 2001). Thus, the transformation and increased diversity apparent at Wits did not appear to translate into increased intergroup contact and positive intergroup relations at the University. This pattern of results is not limited to Wits, however. Durrheim et al. (2004) studied intergroup relations amongst students at the University of KwaZulu-Natal (UKZN). Even though UKZN had successfully implemented numerous policies targeting increased demographic transformation amongst its student body, patterns of segregation amongst students persisted (Durrheim et al., 2004).

Research focusing on intergroup contact in specific university spaces (such as residence dining halls and lecture theatres) have noted similar patterns of continued group segregation in the face of relative intergroup proximity at South African universities. For example, Schrieff et al. (2005) observed the patterns of intergroup encounters in the dining-halls of a male and female residence at the University of Cape Town (UCT). They were interested in how the dining-hall space was organised and occupied by students. In both dining-halls, Schrieff et al. (2005) observed an uneven spread of black (African) and white South African students, along with low levels of interaction between these two groups. Each dining-hall was informally

organised such that white South African students were more likely to occupy the left-hand side of the dining-hall, while black (African) students were more likely to occupy the right-hand side of the dining-hall. Schrieff et al. (2005) concluded that segregation in dining-halls was spatially manifested – so much so, that they defied efforts at disruption (see Alexander, 2007).

Schrieff et al. (2010) extended their previous study by making use of a longitudinal design to examine the stability of ethnic segregation in residence dining-halls at UCT. In addition, they made use of self-report questionnaires to explore the role of prejudice in maintaining informal segregation in residence dining-halls. They found that segregated seating patterns formed early in the year remained consistent over time. This finding was noteworthy insofar as it contradicted the self-reports of students themselves. Students self-reported relatively low levels of prejudice and that they were comfortable sharing a table with students from other population groups. The disconnect between the naturalistic observations and the self-report data might be explained by socially desirable responding on the part of the students.

In addition to residential dining-halls experiencing segregation, studies have revealed lecture theatres and tutorial rooms undergoing racial segregation too. Koen and Durrheim (2010) photographed entire classes of students seated in lecture theatres at UKZN at the beginning and at the end of a semester. By calculating segregation indices using the seating patterns observed in each photograph, they observed how ethnic segregation increased over the course of the semester within various faculties.

Alexander and Tredoux (2010) observed seating patterns in first-year tutorial groups at UCT. The choice of studying first-year students in tutorial classes was very deliberate on the part of Alexander and Tredoux (2010). They argued that seating norms and peer friendships would be less likely to be well-developed amongst first-year students attending a tutorial for the first time. Moreover, compared to lecture theatres, tutorials take place in smaller venues, limiting the seating choices available to students, which may result in less segregation

(Alexander & Tredoux, 2010). Nevertheless, contrary to their expectations, Alexander and Tredoux (2010) observed that seating patterns in these first-year tutorials remained segregated over time (echoing the results observed in larger classrooms at UKZN by Koen & Durrheim, 2010). Alexander and Tredoux (2010) supplemented their tutorial observations with focus group interviews among the first-year students they observed. These interviews explored the intergroup contact experiences of the first-year students in the tutorial classes. Alexander and Tredoux (2010) found that black (African) South African students reported greater enjoyment of intergroup interactions with white South African students in their tutorials than did white South African students (who experienced these interactions as problematic and tense).

The studies presented above demonstrate how informal segregation is frequently perpetuated on South African university campuses, despite the increased opportunities that are available on campus to engage in intergroup contact. As observed under the formal segregation during Apartheid, segregation does not promote positive intergroup relations – rather, it breeds suspicion and mistrust. So, it should not be too surprising that in the context of prevalent informal segregation, prejudice remains prevalent at South African universities. Nowhere is this more evident than in the numerous events of discrimination and racism that have unfolded at Stellenbosch University in recent years.

### **Intergroup Relations at Stellenbosch University**

Like many well-known South African Universities, Stellenbosch University (SU) was a previously white, predominantly Afrikaans tertiary institution. Over the past thirty years since the end of Apartheid, SU has undergone a dramatic transformation in the diversity profile of its student body. Recent statistics show that 58.1% of students self-identify as white South Africans, 20.1% of students self-identify as black (African) South Africans, 18.1% of students

self-identify as coloured (South Africans), 3.1% of students self-identify as Indian South Africans, and 0.2% of students self-identify as Asian South Africans (Stellenbosch University, 2018). Furthermore, 47.8% of students indicate that their home language is English, 37.8% Afrikaans, 10.3% one of the nine, other official South African languages, and 4.1% an international language (Stellenbosch University, 2018). As such, much like many other South African universities (see Durrheim et al., 2004; Woods, 2001) SU has enjoyed considerable success in implementing its transformation policies towards the diversification of its student body. Despite these successes, however, instances of racism are still being experienced at SU.

In 2015, a documentary called *Luister* (Corder et al., 2015) documented the continued racial prejudice experienced by black (African) South African students at SU. These students reported experiencing negative contact with white South African students at SU, including being the targets of racial slurs, swearing, and various forms of assault. Moreover, black (African) South African students shared that they often experienced that their presence at SU was often questioned by white South African students, being treated as if they were invading a “white” space. For example, at a pub one interviewee’s friend was asked by another white student “What are you doing here?” (Corder et al., 2015, 19:31).

Most recently, in May of 2022, an incident occurred where a white South African SU student urinated on the property of a black (African) South African student in a male residence on campus (see Brandt, 2022). In the same week as this incident took place, it was reported that a female student had racial slurs hurled at her at a house-dance (see Charles, 2022).

Clearly, addressing prejudice and racism at South African universities will require an integrated approach from a variety of university, public, and political stakeholders. Nevertheless, a key contention that underpins the rationale for the present study is that overcoming the desire to avoid intergroup contact and, instead, promoting positive intergroup contact between students, is an important means of promoting more positive intergroup

relations between them. This is supported by the extensive empirical evidence that demonstrates the reliable way positive intergroup contact can ameliorate prejudice (discussed in greater detail below and in the following chapter).

### **An Overview of Intergroup Contact Theory**

Intergroup contact is defined as direct, face-to-face interactions (e.g., conversations) between members of different social groups (Harwood, 2015). The contact hypothesis, as proposed by Allport (1954), offers a solution to better relations amongst groups as positive intergroup contact is reliably associated with prejudice reduction (see also Dovidio et al., 2017). Allport (1954) further suggested four optimal conditions for intergroup contact to be successful, namely equal status, intergroup cooperation, common goals, and institutional support. The extensive meta-analysis of the contact literature undertaken by Pettigrew and Tropp (2006) not only confirmed a reliable, significant inverse relationship between intergroup contact and prejudice, but also found that Allport's (1954) four optimal conditions were not essential (merely facilitating) for positive effects of contact to occur.

Direct intergroup contact is not only important for its ability to reduce prejudice, but it can also promote positive intergroup attitudes (e.g., Hewstone, 2015; Wilson-Daily et al., 2018), enhance knowledge about the outgroup (Zagefka et al., 2015), and increase trust and forgiveness amongst groups experiencing conflict (Christ & Kauff, 2019). Intergroup contact is therefore an important means for improving intergroup relations, especially in post-conflict societies like South Africa. However, the benefits of direct intergroup contact can only be reaped if people are willing to engage in such direct contact. Hence, knowing what predicts the willingness to engage in direct intergroup contact is essential. Understanding those factors that encourage a greater willingness to engage in intergroup contact is important for identifying



ways in which informal segregation on South African university campuses might be overcome. One of the most well-supported models for identifying the predictors of behavioural intention (i.e., in the context of intergroup contact this would be the intention – or willingness – to engage in intergroup contact) is the Theory of Planned Behaviour.

### **An Overview of The Theory of Planned Behaviour**

The Theory of Planned Behaviour (TPB), developed by Ajzen (1991), is an adaption of the Theory of Reasoned Action (Ajzen & Fishbein, 1980). It is a robust model for studying the predictors of behaviour generally. The TPB is a framework used to predict human behaviour via behavioural intention. In this framework it is important to note that the behaviour in question is not entirely under volitional control, meaning a person might face action constraints relative to the behaviour in question (Armitage & Conner, 2001). A key variable in the TPB is behavioural intention. It is thought that intention represents motivation and willingness that influences behaviour (Ajzen, 1991; Sheeran, 2002). Thus, the stronger the intention the more likely it is that an individual will perform the behaviour (Rivis & Sheeran, 2003). Three variables are used to predict behavioural intention, namely attitude towards the behaviour, subjective norms relating to the behaviour, and perceived behavioural control in relation to the behaviour. Of these three predictor variables, perceived behavioural control is the only variable that also directly predicts behaviour; behavioural intention is conceptualised as a mediator of the relationship between each of the three primary predictors (attitudes, norms, perceived control) and behaviour.

The TPB has been applied in various fields of study to predict a variety of behaviours. For example, Teye-Kwadjo et al. (2017) applied the TPB to study condom use behaviour among high school students in Ghana. Oztekin et al. (2017) applied the TPB to study recycling

intentions and behaviour within a Turkish university. Lee and Shin (2000) applied the TPB to examine the intention to seek mental health by Korean college students. In the South African context, the TPB has been utilised by Saal and Kagee (2011) to predict antiretroviral therapy adherence in patients, while Strydom (2018) applied the TPB to predict recycling behaviour in metropolitan areas and cities in South Africa. The present study aimed to apply the TPB within the context of intergroup contact to explore the extent to which attitudes towards intergroup contact, subjective norms regarding intergroup contact, and perceived behavioural control relating to intergroup contact predict intergroup contact (via the willingness -or intention- to engage in intergroup contact) among white South African SU students.

### **The Present Study**

Overcoming informal segregation and the avoidance of intergroup contact remains a significant challenge within post-conflict South Africa in general, and at South African universities. Identifying the predictors of intergroup contact could assist in developing initiatives that promote intergroup contact and reduce avoidance behaviour. As such, the present research aimed to examine the predictors of intergroup contact within the theoretical framework provided by the TPB. More specifically, this research utilised the TPB to explore the predictors of both the willingness to engage in intergroup contact and the frequency of intergroup contact at SU amongst white South African students.

### **Research Rationale**

Intergroup contact is reliably associated with reduced prejudice and has been extensively researched (see Hewstone & Swart, 2011; Pettigrew & Tropp, 2006). However, little research exists as to what predicts intergroup contact (see Kauff et al., 2021). It is important to

understand the predictors of intergroup contact to inform interventions that aim to harness the opportunities for intergroup contact created by increased diversity. As described earlier, this is of relevance at South African universities.

The present study made use of secondary data previously collected among white South African first-year Economics students at SU in 2019. The aims of the present study were to investigate the relationship between attitudes towards intergroup contact with black (African) and coloured South Africans, subjective norms towards intergroup contact with black (African) and coloured South Africans, and perceived behavioural control relating to intergroup contact with black (African) and coloured South Africans and both the willingness to engage in intergroup contact with black (African) and coloured South Africans and the frequency of intergroup contact with black (African) and coloured South Africans at SU. The objectives of the present study were to determine whether attitudes, norms, and perceived behavioural control were significantly associated with willingness for contact, and whether willingness for contact and perceived behavioural control were significantly associated with the frequency of positive direct, face-to-face contact between white South African SU students and black (African) and coloured South African students at SU.

### **The Use of Race Labels**

The use of race labels is connected to a traumatising history. In South Africa, the use of race labels came about during Apartheid. These labels were socially constructed; based on the colour of people's skin and other physical traits. To be labelled white was superior and being labelled anything but white carried a negative connotation. It is thus clear as to why there are arguments against the use of race labels. Throughout history, race was used to justify the exploitation of certain groups and the continuation of race may threaten to reinforce the

discrimination that was once experienced (Braveman & Dominquez, 2021). From a scientific perspective, it is argued that because race is a variable that cannot be measured accurately, its use should be abandoned (Ioannidis et al., 2021). The use of racial categories is acknowledged in this study as a social construct which needs to be treated as sensitive. However, although race labels are socially constructed, they continue to exert an influence on everyday intergroup encounters in South Africa. Black (African) and coloured South Africans remain victims of discrimination and segregation is still practised consciously and unconsciously. Therefore, it remains relevant to address racial categories when studying intergroup relations.

### **Chapter Overviews**

Chapter one introduced the context of intergroup relations in South Africa and at South African universities, framed against the backdrop of the increased diversification of public spaces in the thirty years since the end of Apartheid. This chapter also briefly introduced the two theoretical frameworks that guided the present study, namely Intergroup Contact Theory and the Theory of Planned Behaviour. Finally, this chapter introduced the rationale, aims, and objectives of the present study.

Chapter two provides an in-depth review of Intergroup Contact Theory. It also explores the latest frontier in contact research: identifying the predictors of intergroup contact. Chapter three comprises a detailed engagement with the Theory of Planned Behaviour (TPB). It also aims to integrate the emerging research on the predictors of contact within the theoretical framework of the TPB, contextualising the academic relevance of the present study. Chapter four describes the methodology of the present study. It introduces the hypotheses that were tested, the materials that were used, and the data collection procedures. It also describes the sample of participants whose data were analysed, along with the results of the preliminary and

main analyses that were undertaken. Chapter five concludes this thesis with a discussion that contextualises the results of the present study against the available literature. It also includes a review of the key limitations of the present study, along with recommendations for future research.

## **CHAPTER TWO**

### **INTERGROUP CONTACT THEORY**

The introduction in the preceding chapter has aimed to establish that patterns of informal segregation persist in post-Apartheid South Africa, with the consequence that intergroup contact is not only limited in South Africa more generally, but at South African universities too. Thus, although there are settings – such as South African universities – that have undergone rather rapid diversification, South Africans continue to avoid taking up the opportunities for intergroup contact that exist in these spaces.

As will be described in greater detail below, intergroup contact offers a powerful means for improving intergroup attitudes and intergroup relations. However, this power is undermined when individuals do not have the necessary willingness to engage in intergroup contact in the first place. The value of intergroup contact for intergroup relations can only be realised if contact opportunities are sufficiently taken advantage of. Thus, it is important to understand those factors that predict a greater willingness to engage in intergroup contact in the South African context. In this chapter, the theoretical developments, and recent advances, in Intergroup Contact Theory will be elaborated upon in greater detail. The discussion of Intergroup Contact Theory will conclude with a discussion of some of the reasons (as highlighted in the literature) why people may choose to avoid intergroup contact, and also some emerging research on those factors that might predict greater contact willingness.

#### **The Contact Hypothesis**

Gordon Allport (1954) believed that humans are prone to be prejudiced based on their natural tendency to make generalisations. To address the issue of prejudice, Allport (1954)

proposed the contact hypothesis. The contact hypothesis posits that positive contact amongst groups can reduce prejudice under optimal circumstances, namely equal status among groups, pursuit of common goals (i.e., common interests and cooperation), and institutional support (Allport, 1954). One of the earliest studies supporting the contact hypothesis is that of Works (1961).

Works (1961) collected data from African American husband and wives, some living in integrated housing, others in segregated housing (aged between 20 and 45 years of age), exploring their contact with, and attitudes towards, White Americans. Two further participation criteria were that husbands participating in this study needed to be employed, and that the married couple needed to have lived in their residence for at least six months. Works (1961) hypothesised that African Americans residing in integrated housing in the United States of America were less prejudiced towards White Americans compared to African Americans living in segregated housing. In addition to this, Works (1961) hypothesised that wives (living in integrated housing) who stayed at home were more likely to engage in intergroup contact with White Americans and be less prejudiced towards them compared to their husbands. Lastly, Works (1961) hypothesised that wives and husbands in segregated housing would have equal opportunities for contact with White Americans and, therefore, similar attitudes towards White Americans.

Works (1961) found that African American wives living in integrated housing were significantly less prejudiced towards White Americans than those wives living in segregated housing (there was no significant differences in the attitudes towards White Americans among the African American husbands living in either integrated or segregated housing). While Works (1961) confirmed that wives living in integrated housing did, indeed, have more opportunities to engage in intergroup contact with White Americans than did their husbands, their attitudes towards White Americans were not significantly different to those of their husbands

(suggesting that, in the integrated housing setting, the attitudes held by the husbands were not independent of those of their wives). Finally, Works (1961) found support for his third hypothesis; there were no differences between African American husbands and wives living in segregated housing in their contact opportunities, contact with, and prejudice towards White Americans.

This is but one example of an early study on the relationship between intergroup contact and prejudice, with hundreds of studies being undertaken in the decades since Allport's (1954) original formulation of the contact hypothesis. Pettigrew and Tropp (2006) undertook a meta-analysis of 515 studies (drawn across 713 samples and more than 250,000 participants) exploring the relationship between intergroup contact and prejudice (across a variety of contexts). Their findings confirmed a significant, reliable inverse relationship between intergroup contact and prejudice ( $r = -.21, p < .001$ ). Research over the past twenty-five years has identified three important dimensions of intergroup contact – contact quantity, contact quality, and cross-group friendships – that are each associated with reduced outgroup prejudice. Each of these are briefly discussed in turn.

### **Quantity of Contact**

Contact quantity refers to the frequency of encounters that an individual has with outgroup members (Lolliot et al., 2015). Allport's (1954) original formulation of the contact hypothesis emphasised that a greater frequency of intergroup contact is an important predictor of reduced outgroup prejudice. Numerous studies confirm that the frequency of intergroup contact is significantly associated with positive outgroup attitudes.

For example, Brown et al. (2007) conducted a longitudinal study on the relationship between contact quantity and outgroup attitudes amongst 109 white British students (aged



between 11 and 16 years old) attending a public school. Data were collected across two time points, 14 weeks apart. Brown et al. (2007) measured the frequency of intergroup contact with pupils attending a private secondary school amongst pupils attending a public secondary school in Britain, along with three measures of outgroup attitudes, namely desired closeness (social distance) with the private secondary school goers, negative evaluations of private secondary school goers, and inhumanisation of private secondary school goers (i.e., the belief that outgroup members are less human). In line with their hypotheses, they found that contact quantity with members attending a private secondary school at Time 1 was significantly positively associated with desired closeness with members of this group at Time 2 ( $\beta = .22$ ,  $p < .05$ ) and significantly negatively associated with both negative evaluations of ( $\beta = -.27$ ,  $p < .05$ ), and inhumanisation of, members of this outgroup ( $\beta = -.26$ ,  $p < .05$ ) at Time 2 (controlling for scores of each of the three attitude measures at Time 1). Pettigrew and Tropp's (2006) meta-analysis confirmed that contact quantity was significantly associated with reduced prejudice (mean  $r = -.22$ ,  $p < .001$ ).

As important as the frequency of intergroup contact may be for promoting more positive outgroup attitudes, a study undertaken by Voci and Hewstone (2003) highlighted the relative importance of contact *quality* over contact quantity for reducing prejudice. The value of contact quality was recognised by Allport (1954) insofar as at least three of the four 'optimal' conditions he identified for intergroup contact to reduce prejudice (equal status, common interests, and cooperation) may be regarded as some of the defining features of positive (i.e., high quality) contact. Indeed, it is now widely accepted in the contact literature that contact quality is far more important for reducing prejudice than contact quantity (see Hewstone & Swart, 2011).

## Quality of Contact

Contact quality relates to the conscious evaluation of the intergroup contact experience as having been either negative or positive (Lolliot et al., 2015; Mähönen et al., 2011). Voci and Hewstone (2003) were one of the first scholars to simultaneously explore the relationship between contact quantity and contact quality on measures of outgroup prejudice. They conducted two studies in Italy, investigating intergroup contact with immigrants. For their first study, participants were 310 Italian university students, and their target group was immigrants from Africa. One of the study's aims (amongst a few others) was to investigate whether contact quantity and quality of contact could predict intergroup anxiety, perceived outgroup variability, outgroup attitudes, and subtle prejudice independently. Results of study one revealed that intergroup contact quality was significantly negatively associated with intergroup anxiety ( $\beta = -.37, p < .001$ ), and significantly positively associated with perceived outgroup variability ( $\beta = .15, p < .05$ ) and attitudes towards immigrants ( $\beta = .33, p < .001$ ). Contact quality was not significantly associated with subtle prejudice ( $\beta = -.11, p > .05$ ). Contact quantity was significantly positively associated with perceived outgroup variability ( $\beta = .15, p < .05$ ) and significantly negatively associated with subtle prejudice ( $\beta = -.16, p < .05$ ). Contact quantity was not significantly associated with intergroup anxiety ( $\beta = -.08, p > .05$ ) or attitude towards immigrants ( $\beta = .09, p > .05$ ).

The second study carried out by Voci and Hewstone (2003) aimed at extending the findings of study one by considering a different context and population group. Study two investigated contact at a hospital amongst Italian workers ( $n = 94$ ) and their target group was their immigrant co-workers. One of their analyses (amongst a few) was concerned with whether contact quantity and contact quality were predictors of anxiety and attitude towards co-workers. Results of study two showed that contact quantity was only significantly positively associated with attitude towards immigrants ( $\beta = .17, p < .05$ ). Attitudes towards co-workers were not

associated with contact quantity ( $\beta = .04, p > .05$ ). In relation to contact quality, contact quality was found to be significantly negatively associated with anxiety ( $\beta = -.21, p < .05$ ).

Clearly, while having *some* (frequency of) intergroup contact is important (certainly more beneficial than no intergroup contact at all), what really matters is the *quality* of the intergroup contact one does have (even if these occur infrequently). More recent contact research has returned to the matter of contact quality by exploring the impact of negative versus positive intergroup contact on a variety of outcomes. Graf et al. (2014) report that negative intergroup contact is less frequent than positive intergroup contact (perhaps because people tend to avoid any intergroup contact that may appear to be headed for a negative interaction), but that the relationship between negative contact and prejudice is far stronger than that between positive contact and prejudice. Indeed, negative intergroup contact is especially problematic because, not only can it lead to an increase in prejudice, but it is also likely to reduce the willingness to engage in intergroup contact in the future (Meleady & Forder 2019).

Meleady and Forder (2019) undertook three studies shortly after Britain voted to exit the European Union (EU) to explore the impact of negative intergroup contact on contact avoidance. Their first (cross-sectional) study was undertaken amongst 139 British university students. They found that negative intergroup contact with EU immigrants was significantly associated with prejudice towards EU immigrants and a desire to avoid future contact with EU immigrants.

In their second study, Meleady and Forder (2019) undertook two variations of an experimental game that manipulated the experience of negative contact with either an outgroup member (variation one, amongst 92 British undergraduate students) or a fellow ingroup member (variation two, amongst 158 British undergraduate students). They observed that it was only the negative contact experience in the intergroup condition (i.e., negative contact with an outgroup member) that predicted prejudice and a desire to avoid future contact. In their third

study (amongst 206 British undergraduate students), Meleady and Forder (2019) found that prior negative encounters with the outgroup was significantly associated with a reduced sense of self-efficacy to successfully engage in future intergroup contact (which is also likely to increase the desire to avoid future intergroup contact).

While negative intergroup contact (i.e., intergroup contact of very low quality) is associated with a range of detrimental intergroup outcomes (including the desire to avoid future intergroup contact), positive intergroup contact (i.e., intergroup contact that is of high quality) is associated with a range of benefits. Beyond the obvious (and most studied) benefit of reducing prejudice, positive intergroup contact can promote trust amongst opposing groups, more positive intergroup attitudes, and importantly, a willingness to engage in future intergroup contact.

McKeown and Psaltis (2017) examined whether contact quality is associated with intergroup trust, intergroup attitudes, and future contact intentions. They collected data using an online survey in Northern Ireland (N = 268) and Cyprus (N = 408). Controlling for contact quantity, McKeown and Psaltis (2017) found amongst both samples that contact quality was associated with both more positive outgroup attitudes and an increased willingness to engage in future contact (in each instance, these direct effects were mediated by outgroup trust).

Tropp et al. (2017) undertook two studies, one in Northern Ireland (N = 133 Protestants; N = 152 Catholics) and another in South Africa (N = 102 white South Africans; N = 103 black (African) South Africans), to explore the relationship between positive intergroup contact, outgroup trust, behavioural intentions towards the outgroup, and support for reconciliation. In Study 1, controlling for exposure to intergroup conflict, positive intergroup contact was significantly associated with more positive outgroup attitudes and trust, more positive behavioural intentions towards the outgroup, and support for reconciliation. This pattern of results was replicated in Study two (undertaken in South Africa).

Pettigrew and Tropp's (2006) meta-analysis of the contact literature compared the size of the relationship between contact quantity and prejudice with that of contact quality and prejudice. Supporting the relative importance of quality over quantity, Pettigrew and Tropp (2006) found that while both dimensions of contact were significantly negatively associated with prejudice, the relationship between contact quality and prejudice was significantly stronger than the relationship between contact quantity and prejudice. A key feature, identified relatively early in the contact research exploring the importance of contact quality, is that positive intergroup contact is characterised as intergroup contact that has acquaintance potential (Pettigrew, 1997, 1998). In other words, positive intergroup contact occurs when the encounter creates opportunities for the in- and outgroup member to get to know one another (i.e., identifying common interests) – to become acquaintances. Subsequent research has confirmed that cross-group friendships (which may develop from these intergroup acquaintances) constitute a dimension of contact that is especially high in quality (Swart, 2021).

### **Cross-group Friendships**

Cross-group friendships, in layman's terms, can be defined as being friends with an outgroup member. Cross-group friendships are considered an especially important dimension of intergroup contact because, as with interpersonal friendships more generally, they are established through frequent (contact quantity), meaningful (contact quality) encounters that take place over time, and which are characterised by equal status, common interests, and cooperation (Pettigrew, 1997, 1998; Swart, 2021), fulfilling three of Allport's (1954) 'optimal' conditions of contact (Davies et al., 2011).

Pettigrew (1997) undertook one of the earliest studies to investigate the effects of cross-group friendships on prejudice relative to other, less intimate forms of intergroup contact (such

as that between neighbours or co-workers). Analysing cross-sectional data from 3,806 participants across four western European nations, Pettigrew (1997) found that cross-group friendships had a significantly larger inverse relationship with prejudice than other forms of (less intimate) intergroup contact (see also Hamberger & Hewstone, 1997).

A recent longitudinal study carried out by Rastogi and Juvonen (2019) explored cross-group friendship as a predictor of intergroup attitudes over the course of three years. Data were collected from a total of 2,580 African American and Latino/Latina participants, drawn from 26 ethnically diverse public middle schools in California. The longitudinal design of their study allowed them to test the stability of the cross-group friendship – attitude relationship over time (something that is not possible with cross-sectional data). They found that the number of cross-group friendships reported by participants remained relatively stable over the three-year duration of their study. Moreover, cross-group friendships predicted positive outgroup attitudes over time (see also Levin et al., 2003).

Swart et al. (2011a) undertook a three-wave longitudinal study amongst coloured South African high school students, exploring the relationship between their cross-group friendships with white South Africans and positive outgroup attitudes, perceived outgroup variability, and negative action tendencies towards white South Africans. They found that cross-group friendships at Time 1 predicted reduced intergroup anxiety and increased affective empathy towards white South Africans at Time 2 (six months later), which in turn predicted more positive outgroup attitudes, greater perceived outgroup variability, and reduced negative action tendencies (including the desire to avoid contact with white South Africans) at Time 3 (six months after Time 2). Their longitudinal findings corroborated the pattern of cross-sectional results relating to cross-group friendships that they observed amongst white and coloured South African high school students (see Swart et al., 2010).

Returning to the meta-analysis undertaken by Pettigrew and Tropp (2006), they found that those studies that measured intergroup contact along the dimension of cross-group friendships reported a significantly larger inverse relationship between contact and prejudice than did those studies that measured contact along other dimensions (e.g., contact quantity or contact quality). Davies et al. (2011) undertook a follow-up meta-analysis, focusing specifically on the literature exploring the relationship between cross-group friendships and prejudice, to explore the various ways in which the construct of cross-group friendship has been variously conceptualised, and how these different conceptualisations relate to prejudice.

Davies et al. (2011) identified six different ways in which cross-group friendships had been conceptualised and measured in the contact literature. These were (1) time spent with outgroup friends, (2) self-disclosure to outgroup friends, (3) closeness to outgroup friend, (4) perceived inclusion with outgroup friend, (5) number of outgroup friends, and (6) percentage of outgroup friends in overall friendship group. Each of these six conceptualisations were reliably associated with reduced prejudice in the contact literature. The largest effects were observed for those measures of cross-group friendship that were more reliable in general, and for measures of cross-group friendship that were conceptualised in terms of time spent with outgroup friends and the degree of self-disclosure with outgroup friends.

There are two key take-away messages from the preceding overview of the contact literature. Firstly, intergroup contact has been established as a reliable predictor of, not only reduced prejudice, but a wide range of outcomes relevant to the improvement of intergroup relations (including trust and forgiveness; see Hodson et al., 2013; Pettigrew & Tropp, 2006). Indeed, the contact hypothesis is recognised as one of the most influential ideas to emerge from social psychology over the past century (Hewstone & Swart, 2011). Secondly, there are a variety of dimensions of direct intergroup contact that are associated with beneficial outcomes. These include contact quantity, contact quality, and cross-group friendships. Of these, cross-

group friendships arguably constitute the most powerful dimension of direct contact, with the largest impact on outgroup prejudice (see Pettigrew & Tropp, 2006; Swart, 2021). Below, I briefly review some of the advances in research on intergroup contact that have, over the past seventy years, cumulatively elevated the contact hypothesis into a bona fide theory – contact theory (Hewstone & Swart, 2011).

### **Advances in Intergroup Contact Theory**

The contact literature has moved on from its earliest focus on establishing *whether* intergroup contact reduces prejudice (as originally proposed by Allport, 1954). Indeed, there is no longer any doubt over the benefits of intergroup contact for the reduction of outgroup prejudice and the improvement of intergroup relations (see Pettigrew & Tropp, 2006). Instead, researchers have focused on better understanding *how* or *why* intergroup contact achieves its beneficial effects (i.e., the mediators of intergroup contact effects) and *when* intergroup contact is most likely to achieve these effects (i.e., the moderators of intergroup contact effects). The key findings of these two avenues of enquiry are summarised below.

Pettigrew and Tropp (2008) undertook a meta-analysis of the three most studied mediators of contact, namely outgroup knowledge, empathy and perspective taking, and intergroup anxiety. Although all three constructs proved to be significant mediators of intergroup contact, the largest mediation effects were observed for intergroup anxiety, followed by empathy/perspective-taking, and then outgroup knowledge. These meta-analytic findings demonstrate the central role played by positive and negative intergroup emotions in the contact-prejudice relationship. Recall, that in the three-wave longitudinal study conducted by Swart et al. (2011a) in South Africa, both intergroup anxiety and affective empathy were observed to be significant mediators of the relationship between cross-group friendships and a variety of



outcomes over time. Pettigrew and Tropp's (2008) meta-analysis also support the importance of outgroup knowledge (as originally identified by Allport, 1954) as a mediator of contact effects. More recently, Zagefka et al. (2015) found that intergroup anxiety was an important mediator of the relationship between outgroup knowledge and prejudice. Specifically, they observed that intergroup contact was positively associated with outgroup knowledge, which was in turn associated with reduced intergroup anxiety, which predicted reduced prejudice. Additional mediators of contact effects that have been identified in the literature include reduced perceptions of realistic and symbolic threat, increased self-disclosure, increased psychological overlap between the ingroup self and the outgroup other, along with changes in perceived ingroup and outgroup norms (for a review see Hodson et al., 2013).

Allport's (1954) earliest formulation of the contact hypothesis also identified key potential moderators of contact effects. Recall that Allport (1954) argued that intergroup contact would be most beneficial *when* such contact was characterised by equal status, common interests, cooperation, and institutional support. Subsequently, additional moderators of contact effects have been identified (for a review see Dovidio et al., 2017). Chief amongst these include group status (contact effects are significantly larger for majority-status groups than for minority-status groups; for a meta-analytic review see Tropp & Pettigrew, 2005) and category salience (or the perceived typicality of the outgroup members as a representative of the outgroup as a whole – contact effects are larger under conditions of heightened category salience; Binder et al., 2009; Brown & Hewstone, 2005; Swart et al., 2010). Two further advances in contact research are worth touching on, namely the identification of other forms of intergroup contact (other than direct, face-to-face contact) and the broader generalisation of contact effects beyond the outgroup exemplar that is encountered.

### ***Indirect intergroup contact.***

The benefits of direct, face-to-face intergroup contact have been firmly established in the contact literature, with cross-group friendships identified as the most potent form of intergroup contact (see Davies et al., 2011; Pettigrew & Tropp, 2006; Swart, 2021). However, it may not always be possible to engage in direct intergroup contact - for example, in the face of limited opportunities (e.g., in contexts characterised by segregation) or where the experience of intergroup anxiety encourages ingroup members to avoid contact with the outgroup as far as possible (Stephan & Stephan, 1985).

A variety of *indirect* forms of intergroup contact have been identified in the literature to hold important benefits for relevant intergroup outcomes (for a review see Vezzali et al., 2014). Indirect contact includes exposure to the outgroup that does not require direct, face-to-face contact (Haji & Noguchi, 2020). Two dimensions of indirect contact considered here include extended contact and vicarious contact.

Wright et al. (1997) originally proposed the extended contact hypothesis. Extended contact occurs when an ingroup member comes to learn about (e.g., via conversation) the positive direct intergroup contact taking place between a fellow ingroup member (e.g., an ingroup friend or family member) and the outgroup. Vicarious contact involves observing a fellow ingroup member engaging in positive direct contact with the outgroup (Haji & Noguchi, 2020). In each instance, extended and vicarious contact allows the ingroup member to ‘experience’ the positive intergroup encounter indirectly through the direct experience of a fellow ingroup member. There is now a growing body of literature that confirms that indirect forms of contact promote reduced intergroup anxiety and a reappraisal of both ingroup and outgroup norms about contact in the ingroup member who has come to learn of this positive contact between a fellow ingroup member and the outgroup (for reviews see Dovidio et al., 2017; Vezzali et al., 2014). Recent longitudinal evidence has emerged to show that indirect

forms of intergroup contact, such as extended contact, predict a greater willingness to engage in direct contact over time, an effect mediated by reduced intergroup anxiety (see Wölfer et al., 2019). These findings confirm that the benefits of intergroup contact extend beyond direct, face-to-face encounters, which significantly broadens the potential impact and application of contact theory.

### ***Generalisation of contact effects.***

Intergroup contact theory would be limited in its application if contact effects were limited to a specific situation, or to the outgroup exemplar that was encountered. However, there is a considerable body of literature that confirms that contact effects generalise beyond the initial contact situation and the outgroup exemplar that was encountered (in other words, positive attitudes that are brought about by contact in one setting have been observed to generalise to other settings as well, and positive attitudes developed towards the specific outgroup exemplar that has been encountered have been shown to generalise towards positive attitudes towards the exemplar's outgroup as a whole; for a review see Boin et al., 2021). Moreover, contact effects have been shown to generalize across outgroups. That is, positive attitudes towards one (primary) outgroup (resulting from positive intergroup contact with a member of that group) generalise towards positive attitudes towards other, secondary outgroups (even when those outgroups are rarely, if ever, encountered). This phenomenon is known as the secondary transfer effect of contact (Pettigrew, 2009; for reviews, see Boin et al., 2021; Lolliot et al., 2013). These findings highlight the importance of intergroup contact for improving intergroup attitudes and intergroup relations and speak to the importance of studying those factors that predict a willingness for contact.

Contact theory has developed well beyond the original contact hypothesis, and there is now an overwhelming body of literature that situates intergroup contact as the premier intervention for reducing prejudice and improving intergroup relations. Contact effects are not

limited to the carefully controlled laboratory environments in which many contact studies have been undertaken; research confirms that contact effects are equally robust in contact interventions outside of the lab (see Lemmer & Wagner, 2015; Paolini et al., 2018). A key critique of the contact literature, perhaps, is the relative neglect in the literature to identifying those factors that *predict* intergroup contact (willingness). Predicting contact willingness might be the very latest frontier of intergroup contact research (for a review see Kauff et al., 2021). The present study aimed to contribute to this new frontier by studying the predictors of contact willingness in the South African context. The next section introduces the current state of research in this new frontier.

### **Predictors of Intergroup Contact (Willingness)**

There has arguably been more research exploring why ingroup members may choose to avoid intergroup contact (i.e., factors that make intergroup contact *less* likely) than there has been that has explored those factors that might promote a willingness to engage in intergroup contact (i.e., factors that make intergroup contact *more* likely). There is a case to be made that, perhaps, these two approaches constitute opposing sides of the same coin.

Research relating to contact avoidance has identified that (historically) disadvantaged group members and (historically) advantaged group members often report different reasons for choosing to avoid intergroup contact. Members of historically disadvantaged groups often choose to avoid intergroup contact for fear of being the targets of prejudice and discrimination. Stathi et al. (2020a) distributed questionnaires to 400 Italian (majority-status)- and 141 immigrant (minority-status) high school students to explore the reasons that each group gave to explain their desire to avoid intergroup contact. Majority-status respondents listed the fear of appearing racist as their primary reason for avoiding intergroup contact with immigrants. In

contrast, minority-status respondents listed the fear of being discriminated against as their primary reason for avoiding intergroup contact with Italians. Both groups also listed the fear of being rejected and a lack of interest in intergroup contact as additional reasons for avoiding intergroup contact with one another.

Intergroup contact might also be avoided based on the meta-perceptions (Moore-Berg et al., 2020; Stathi et al., 2020b) that group members have about the motivation of the outgroup for engaging in intergroup contact. So, for example, Stathi et al. (2020b) asked their Italian and immigrant participants to rate why they think the other group (immigrants for the Italian respondents and Italians for the immigrant respondents) might wish to avoid intergroup contact with them. Italian respondents attributed the desire of immigrants for contact avoidance to their (immigrant) fear of rejection. In contrast, immigrant respondents attribute the desire of Italians for contact avoidance to their (Italian) lack of interest in intergroup contact with immigrants (see also Al Ramiah et al., 2015; Swart et al., 2010; Trawalter et al., 2012; Tropp, 2007). As interesting and important as the research on contact avoidance may be, it does not further our understanding of those factors that predict greater contact willingness. Kauff et al. (2021) recently undertook an in-depth narrative review of the existing research exploring the predictors of intergroup contact.

Micro-level predictors of contact include (amongst others) individual motives and experiences and attitudes and beliefs (not only towards the outgroup, but also towards intergroup contact with the outgroup). As far as individual motives and experiences are concerned, Kauff et al. (2021) identified the desire for self-expansion and self-efficacy as two important motives that operate at the micro-level.

According to the self-expansion model proposed by Aron and colleagues (e.g., Aron & Aron 1986; Aron et al., 2003; Aron & McLaughlin-Volpe, 2001), people pursue friendships with others as a means of accessing new resources, knowledge, and skills. This is equally true

within the context of cross-group friendships (see Swart, 2021). Thus, an ingroup member's desire to gain new knowledge, learn new skills, or access novel resources may serve as an important predictor of their willingness to engage in intergroup contact (Kauff et al., 2021). Self-efficacy, on the other hand, describes the extent to which an individual has confidence in their ability to successfully master a new experience. Thus, Turner and Cameron (2016; see also Turner, 2020) propose that individuals who have greater 'confidence in contact' – that is, individuals who are more confident that they can successfully navigate an intergroup encounter – may also exhibit a greater willingness to engage in contact relative to those individuals who may lack this confidence. Individuals who have previously enjoyed successful intergroup encounters are likely to have more confidence in (future) contact than those individuals who have been less successful. Self-efficacy as a predictor of contact willingness is discussed again below within the context of perceived behavioural control as a predictor of contact willingness in the TPB.

Attitudes and beliefs also have the potential to predict contact willingness as micro-level predictors. Attitudes and beliefs can be concerned with various factors such as valuing diversity or perceptions one may have about the outgroup. For example, the more diversity is valued (i.e., having a positive attitude towards diversity) or if one believes/perceives that the outgroup is interested in intergroup contact, the more willing or the more interested an individual may be to engage in intergroup contact. This is illustrated in a three-part study conducted by Tropp and Bianchi (2006).

Tropp and Bianchi (2006) examined the relationship between valuing diversity and interest in intergroup contact among ethnic minority and majority groups. Outgroup perception of valuing diversity was also examined in relation to interest in intergroup contact. Study one consisted of an open-ended questionnaire instructing participants to indicate whether they believe people value diversity. Of the 135 undergraduate students participating in study one

(ethnic minority  $n = 78$ ; ethnic majority  $n = 57$ ), 16.3% indicated that diversity is valued, 14.1% indicated diversity is not valued, and 69.6% indicated that diversity is both valued and not valued (combined response). In relation to interest in contact, results showed that participants who believed that diversity was valued ( $p < .01$ ) and those participants who gave a combined response ( $p < .001$ ) were significantly more interested in intergroup contact compared to those who believed diversity was not valued. Therefore, individuals who believe that diversity is valued by others are more likely to be interested in intergroup contact themselves.

In their second study, Tropp and Bianchi (2006) explored the relationship between perceived diversity appreciation amongst the outgroup and own interest in intergroup contact amongst 67 African American participants. The belief that the outgroup (White Americans) valued diversity was a significant predictor of interest in intergroup contact with White Americans amongst the African American participants ( $\beta = .29, p < .05$ ). Thus, believing that the outgroup values diversity enhances a person's interest in intergroup contact. These results were replicated in their third study amongst a broader array of participants. So, across these three studies, Tropp and Bianchi (2006) showed that having a positive attitude about diversity and believing that diversity is valued increases individuals' willingness for contact. The role of attitudes towards intergroup contact is discussed again within the context of attitude as a predictor of contact willingness in the TPB in the following chapter.

Meso-level predictors of contact (willingness) include those predictors that operate at a more social level. Kauff et al. (2021) identified the history of intergroup conflict (amongst others) as an important meso-level predictor of contact willingness. A history of intergroup conflict likely affects contact willingness negatively. This is evidenced in the research literature on contact avoidance, as described above. However, Kauff et al. (2021) suggests that learning about how the intergroup conflict impacted the lives of others may enhance outgroup knowledge and perspective-taking (two key mediators of intergroup contact effects; Pettigrew

& Tropp, 2008), and thereby increase the willingness to engage in intergroup contact. Wang et al. (2014) investigated whether perspective-taking increases the willingness to engage in intergroup contact with a stereotyped outgroup member across three studies undertaken amongst undergraduate students in Singapore. They found that increased perspective-taking increased the willingness to accept physical proximity of the outgroup (Study 1) and that it increased the willingness to engage in intergroup contact with the outgroup (Study 2 and Study 3).

Finally, predictors of contact willingness that operate at a macro-level include those that operate at a broader societal level, chief amongst which are societal norms (Kauff et al., 2021). Societal norms are the implicit rules that may either prescribe (identifying that which is acceptable) or proscribe (identifying that which is not acceptable) group behaviours and attitudes (Lapinski & Rimal, 2005; Smith & Louis, 2009). Societal norms have the power to shape (and change) intergroup behaviour and are often influenced by institutional norms (Kauff et al., 2021). Thus, societal norms that are supportive of intergroup contact may enhance an individual's willingness to engage in intergroup.

Al Ramiah (2015, Study three) undertook a longitudinal study amongst 2,013 scholars (397 minority-status British Asians and 1,173 majority-status white British students) aged 10 to 11 years in a school cafeteria in England. Ingroup norms were measured at Time 1 and willingness to engage in intergroup contact (measured as the likelihood of sitting with outgroup members in the cafeteria) was measured at Time 1 and Time 2. Results of this study showed that positive ingroup norms towards intergroup contact at Time 1 predicted the likelihood of sitting with outgroup members at Time 2 for both minority and majority participants ( $\beta = .11$ ,  $p < .01$ ). Thus, the more positive ingroup norms are towards intergroup contact, the greater the willingness towards engaging in intergroup contact. The role of norms as a predictor of contact



willingness is revisited in further detail when norms towards intergroup contact is introduced as a predictor of contact willingness within the context of the TPB in the next chapter.

## **Chapter Summary**

This chapter has introduced and briefly reviewed the evidence that intergroup contact reliably reduces prejudice, offering one of the most compelling means to reduce prejudice and promote more positive intergroup relations (Hewstone & Swart, 2011; Pettigrew & Tropp, 2006; Rastogi & Juvonen, 2019). Important dimensions of intergroup contact include the quantity of contact, the quality of contact and cross-group friendships. The more frequent contact occurs (Brown et al., 2007) or the more positive it is (Meleady & Forder, 2019; McKeown & Psaltis, 2017; Voci & Hewstone, 2003), the more likely contact reduces prejudice. Cross-group friendships constitute both contact of high quantity and quality, making it a powerful dimension intergroup contact (Rastogi & Juvonen, 2019; Swart et al., 2011a). Advances in the contact literature have seen the contact hypothesis develop into a fully-fledged theory, contact theory. We know the mediators (Pettigrew & Tropp, 2008; Swart et al., 2011a; Zagefka et al., 2015) and moderators (Binder et al., 2009; Brown & Hewstone, 2005; Dovidio et al., 2017; Swart et al., 2010; Tropp & Pettigrew, 2005) of direct contact. Researchers have also identified the benefits of indirect forms of contact such as extended contact and vicarious contact (Dovidio et al., 2017; Vezzali et al., 2014; Wölfer et al., 2019). The newest frontier in contact research is the identification of the predictors of intergroup contact (willingness; see Kauff et al., 2021). These predictors of contact can occur at a micro-, meso- and macro-level. The predictors that are of particular relevance to the present study include the micro-level predictors of individual attitudes and self-efficacy, and the macro-level predictor of norms. The present study aimed to explore these constructs as predictors of contact willingness in the South

African context within the theoretical framework described by the TPB. A detailed discussion of the Theory of Planned Behaviour follows in the next chapter.

## CHAPTER THREE

### THE THEORY OF PLANNED BEHAVIOUR

Intergroup contact offers one of the most powerful means for reducing prejudice and improving intergroup relations. However, informal segregation and contact avoidance remain challenges in post-conflict societies. The increased opportunities for intergroup contact that are created by increased diversity are of little use if individuals do not take up those opportunities. Chapter two highlighted the importance of identifying the predictors of intergroup contact (willingness) and presented some of the latest contact research to explore these predictors of contact.

Predicting behaviour is a complex task (Ajzen, 1991) and has occupied a great deal of interest in social psychology. Arguably the most well-known theoretical framework for predicting behaviour is the Theory of Planned Behaviour (TPB; Ajzen, 1985). The TPB is one of the most supported models for predicting behaviour (Armitage & Conner, 2001; Rich et al., 2015) and developed from an earlier model, the Theory of Reasoned Action (TRA; Fishbein & Ajzen, 1975).

This chapter opens with a discussion of the development of the Theory of Reasoned Action (TRA) as a precursor to the Theory of Planned Behaviour (TPB). Then, I provide a detailed overview of the development of the Theory of Planned Behaviour and introduce its key components. I also review the empirical support that has been generated for it across a variety of fields, both in South Africa and abroad. Finally, I present an adaptation of the TPB within the context of predicting intergroup contact (willingness). I introduce the key predictors of intergroup contact (willingness) that were investigated in the present study, along with

existing research that supports the hypothesised relationships between these predictors and intergroup contact (willingness).

### **The Theory of Reasoned Action**

The Theory of Reasoned Action (TRA) was the first attempt by Martin Fishbein and Icek Ajzen at developing a model that could predict behaviour. It offered a theoretical framework that accounted for the link between attitudes and behaviour (Fishbein & Ajzen, 1975). The TRA is made up of four components, namely attitude towards the behaviour (i.e., how positive or negative one feels towards the behaviour; Hale et al., 2002), subjective norms relating to the behaviour (i.e., the belief that significant others believe the behaviour in question is or is not appropriate; Hale et al., 2002), behavioural intention relating to the behaviour (i.e., the subjective probability that the person will perform the behaviour; Fishbein & Ajzen, 1975), and volitional behaviour (i.e., behaviour that a person has control over, excluding behaviour that may not be voluntary or that may require specific skills; Hale et al., 2002).

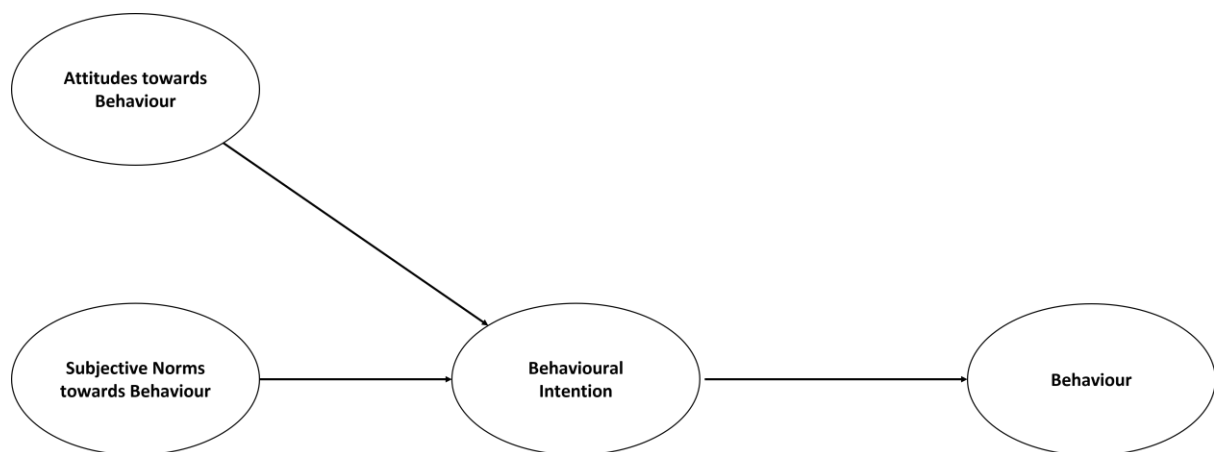
The TRA postulates that behavioural intention is predicted by attitude towards the behaviour and subjective norms relating to the behaviour. In turn, behavioural intention relating to the behaviour is a predictor of volitional behaviour (Hale et al., 2002). In other words, behavioural intention mediates the relationship between both attitudes and subjective norms and volitional behaviour. These relationships are illustrated in Figure 1 below.

Shortly after the development of the TRA, Loken and Fishbein (1980) utilised the framework in a survey study to investigate the relationship between attitudes and subjective norms towards childbearing and the intention of having a child within the next three years, among 100 married women (aged between 20 and 38 years) from a university community in the United States. Loken and Fishbein (1980) also measured occupational variables (including

attitude towards work and the intention to pursue a career in the next three years). They found that attitudes and subjective norms towards childbearing predicted the intention of having a child in the next three year over and above the occupational variables they measured. However, they did find that attitudes and subjective norms towards childbearing mediated the relationship between occupational variables and childbearing intentions.

### Figure 1

*An illustration of the Theory of Reasoned Action (adapted from Hankins et al., 2000).*



Approximately 30 years later, Coleman et al. (2011) implemented the TRA in a survey study to investigate green consumption (i.e., environmentally friendly) behaviour among 302 undergraduate students and 202 non-students. They explored whether attitudes and subjective norms towards environmentally friendly behaviour predicted the behavioural intention to purchase environmentally friendly products, and whether this intention predicted actual green consumption behaviour. Coleman et al. (2011) found that attitudes and subjective norms towards environmentally friendly behaviour significantly predicted the behavioural intention

to engaging in environmentally friendly behaviour, and that this intention significantly predicted volitional environmentally friendly behaviour.

More recently, Awadallah and Elgharbawy (2021) implemented the TRA to understand why undergraduate students chose to major in accounting at a Qatari university. They hypothesised that intrinsic factors (analogous to the attitudinal component of the TRA) and extrinsic factors (analogous to the subjective norms component of the TRA) influenced students' choice to pursue an accounting major. Intrinsic factors included personal interests and skills, job perception, perception of accounting education, and experience of the introductory course. Extrinsic factors included the influence of family, peers, and the media. All intrinsic (attitudinal) factors influenced students' choice for selecting accounting as a major. With regards to extrinsic factors (subjective norms), only family and peers influenced students' selection of accounting as a major. These three studies are amongst the many studies that have supported the underlying predictions of the TRA relating to the relationship between attitudes and subjective norm towards a behaviour, behavioural intention, and volitional behaviour. Since its introduction, there have been many meta-analyses of the application of the TRA in a variety of domains, including exercise and physical activity (Down & Hausenblas, 2005; Hagger et al., 2002; Hausenblas et al., 1997), condom use (Albarracin et al., 2002; Sheeran & Taylor, 1999), counselling psychology (Romano & Netland, 2008), and health screening (Cooke & French, 2008). In each instance, these meta-analyses reported support for the TRA.

Despite the support for the TRA, however, it is not without critique. One of the criticisms that the TRA faces is the fact that it does not consider that perceived control over volitional behaviour might vary from person to person and/or context to context (Kan & Fabrigar, 2017). This omission is noteworthy because previous performance or experience of a behaviour surely has an influence on the intention to engage in that behaviour again (Hale et al., 2002). Similarly,

the more resources and opportunities an individual may believe they possess the more likely or confident they should feel that they are in control of successfully performing the behaviour (Madden et al., 1992). Critiques like these were central to the development of the Theory of Planned Behaviour.

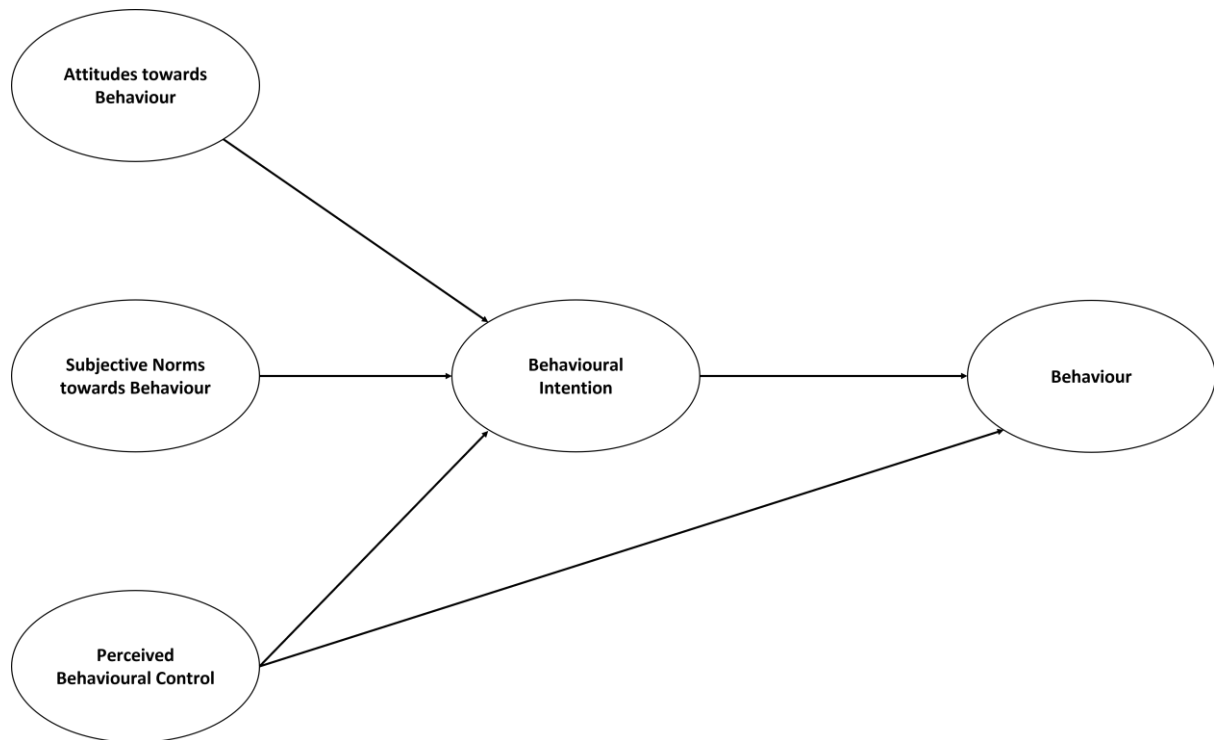
### **The Theory of Planned Behaviour**

The Theory of Planned Behaviour (TPB; Ajzen, 1991) developed from the TRA and retains all its key assumptions. Thus, like the TRA, the TPB posits that attitude and subjective norms towards a particular behaviour predict intention to engage in the behaviour, and that this intention, in turn, predicts the actual behaviour. However, the TBP extends the TRA by adding perceived behavioural control (reflecting the individual's confidence that they can successfully execute the behaviour) as an additional predictor of behavioural intention and the behaviour itself. It is the addition of perceived behavioural control to the model that distinguishes the TPB from the TRA (Kan & Fabrigar, 2017). The key predictions made by the TPB are illustrated in Figure 2 below.

Behavioural intention in the TPB is predicted via three factors, namely attitudes towards the behaviour, subjective norms relating to the behaviour, and perceived behavioural control in relation to the behaviour (Ajzen, 1991; Conner & Armitage, 1998). Each of these three predictors of intention are discussed below in turn, along with some research literature showing empirical support for their relationship with behavioural intention.

**Figure 2**

*An illustration of the Theory of Planned Behaviour (adapted from Hankins et al., 2000).*



Attitude towards a behaviour can be described as “the degree to which a person has a favourable or unfavourable evaluation of the behaviour in question” (Ajzen, 1991, p.188). Attitudes develop from the beliefs that people hold towards an object or action. Behaviours with desirable consequences result in positive, salient behavioural beliefs and develop favourable attitudes (Ajzen, 1991; Chang, 1998). The attitude-intention relationship has been found to be stable over time. In the context of physical activity, Chatzisarantis et al. (2005) used path analyses to examine the stability of the relationship between attitude and intention over a six-week period. They found that attitudes towards physical activity significantly predicted the intention to engage in physical activity, measured six weeks later.



Subjective norms relating to behaviour are determined by the perceived social pressure to perform a behaviour (Ajzen, 1991; Al-Swidi et al., 2014; Shin & Hancer, 2016). In other words, subjective norms towards a behaviour are influenced by whether significant others would approve or disapprove of the behaviour. Ham et al. (2015) explored the role of subjective norms as a predictor of the intention to purchase organic food. They undertook their survey research amongst 411 participants drawn from five counties across Croatia. They measured subjective norms by measuring the self-reported frequency with which the significant others of each respondent purchased organic food (descriptive norms) and the perception among participants of their significant others' opinions about purchasing organic food (social norms). Linear regression analyses confirmed that subjective norms were significantly correlated with the intention to purchase organic food, accounting for 48% of the total variance in behavioural intention. However, there is research to suggest that subjective norms are the weakest of the three determinants of behavioural intention (e.g., Armitage & Conner, 2001; Rhodes & Nigg, 2011; Terry et al., 2000). This need not suggest that subjective norms towards a behaviour are entirely irrelevant as a predictor of behavioural intention, but rather that more personal factors (such as one's own attitudes towards a behaviour or one's own sense of perceived behavioural control) may play a more important role than social pressure in predicting behavioural intentions (Terry et al., 2000).

The final predictor of behavioural intention in the TPB is that of perceived behavioural control. This construct measures the self-reported level of anticipated ease or difficulty of performing a behaviour (Ajzen, 1991). As such, perceived behavioural control may also reflect past experiences of engaging in the behaviour, as well as anticipated obstacles that stand in the way of engaging in the behaviour in the future (Ajzen, 1991). Therefore, if an individual is successful in executing a specific behaviour, they are likely to feel more confident and in

control of performing the behaviour again. The influence of perceived behavioural control on intention is demonstrated in a study undertaken by Autio et al. (2001).

Autio et al. (2001) applied the TPB to test the intent of starting a new business (entrepreneurial intent) among 3,455 Scandinavian and American students. Amongst their four hypotheses, Autio et al. (2001) hypothesised that perceived behavioural control is positively linked to entrepreneurial intent and that it is the strongest predictor of intent. Using multiple regressions to test their hypotheses, Autio et al. (2001) found that perceived behavioural control was positively associated with entrepreneurial intent and that, of three components of the TPB, perceived behavioural control was the strongest predictor of entrepreneurial intent.

Perceived behavioural control is the only one of the three primary predictors in the TPB that is hypothesised to predict both behavioural intention and behaviour (Ajzen, 1991). The influence of perceived behavioural control on behaviour directly is illustrated in the study undertaken by Pourmand et al. (2020). They applied the TPB to explore self-care behaviour in patients with hypertension. A cross-sectional study was conducted among 500 adult participants. Perceived behavioural control was defined as having control over lifestyle behaviours and control over quitting smoking and alcohol intake. Although having control over lifestyle behaviours did not influence actual self-care behaviour, control over quitting smoking and alcohol intake significantly predicted these behaviours. Overall, perceived behavioural control was the dominant determining factor of self-care behaviour amongst patients with hypertension (Pourmand et al., 2020). Self-care behaviour was less likely to take place if there was a low belief in behavioural control, however a high control belief increased the likelihood of self-care behaviour to take place (Pourmand et al., 2020). This indicates the strong effect perceived behavioural control has on behaviour alone.

Finally, as was the case in the TRA, behavioural intention is an important predictor of behaviour (e.g., Ajzen, 1991; Conner & Armitage, 1998) in the TPB. Behavioural intention

describes how willing a person is to perform a certain behaviour (Ajzen, 1991). Therefore, the more willing the person is to engage in a particular behaviour, the more likely it is that the behaviour will be acted out. The relationship between behavioural intention and behaviour was assessed by Sheeran's (2002) meta-analysis of 10 meta-analyses (totalling 422 studies in total). On average, intention accounted for 28% of the variance in volitional behaviour. While this might be regarded by some as a rather low percentage of explained variance, Sheeran (2002) calculated a sample-weighted correlation of  $r = .53$ , which, according to Cohen (1988, 1992) represents a large effect size. Having introduced the key predictions underlying the TPB, I will now discuss both general and meta-analytic studies that support (to varying degrees) the underlying assumptions of the TPB.

### **Evidence Supporting the Theory of Planned Behaviour**

The Theory of Planned Behaviour (TPB) has been tested within a variety of contexts, including agriculture, the environment, marketing, and health. In each of these contexts (and, in some cases, across a combination of these contexts), the TPB has been shown to offer a useful framework for predicting behaviour. For example, Senger et al. (2017) tested the TPB amongst 101 small-scale farmers in Brazil. These farmers earned most of their income from milk production. Senger et al. (2017) implemented the TPB to study the intention of these farmers to diversify their agricultural production in the next five years. They measured whether attitude and subjective norms towards, and perceived behavioural control relating to, diversifying agricultural production predicted the intention to diversify agricultural production. They found that attitude ( $r = .58, p < .01$ ), subjective norms ( $r = .50, p < .01$ ) and perceived behavioural control ( $r = 0.36, p < .01$ ) were each positively correlated with farmers' intention to diversify their agricultural production in the next five years.

Niles et al. (2016) used the TPB to assess those factors that predict the intentions and behaviours of 37 farmers in New Zealand towards mitigating climate change. They tested attitude towards climate change practices, subjective norms, and support for broader societal action towards climate changes practices, and the level of perceived behavioural control to change climate behaviours amongst their participants. They found that attitudes measuring the belief in human-induced climate change ( $\beta = -.09, p < .05$ ) and concern for the future in terms of biophysical impacts ( $\beta = .36, p < .01$ ) were significantly correlated with the likelihood to adopt climate adaption practices. Perceived behavioural control in terms of the perceived capacity to reduce emissions was also positively associated with an increase in the intention to engage in climate-mitigating behaviours ( $\beta = .10, p < .05$ ).

Contrary to their predictions, subjective norms were not significantly associated with behavioural intentions ( $\beta = .03, p > .05$ ). By way of explanation, Niles et al. (2016) suggested that subjective norms were not considered as important amongst their participants because only 16% of farmers agreed that New Zealand should participate in an Emissions Trading Scheme to reduce greenhouse gasses. Therefore, in this context it appears that there was limited support from the public to combat climate change. As such, this result remains consistent with the TPB; if subjective norms are not regarded important in a certain context it should not be expected to influence behavioural intentions.

Arguably a bigger concern to the utility of the TPB is the fact that Niles et al. (2016) found that behavioural intention was not significantly associated with volitional behaviour. The self-reported intention to adopt climate-mitigation practices was not significantly associated with the actual adoption of these practices ( $\beta = -.02, p > .05$ ). Their explanation is that climate change belief was a reported predictor of behavioural intention, but not for actual behavioural adoption. Therefore, they suggest, there may be other possible reasons as to why climate change behaviours have taken place that are not measured by the TPB, such as the importance

of profit, which Niles et al. (2016) found was significantly associated with climate-mitigation behaviour ( $\beta = .12, p < .01$ ).

More recently, Bagheri et al. (2021) applied the TPB to examine the intentions and behaviours of 300 farmers in Iran towards safe pesticide use. The impact of attitude and subjective norms towards, and perceived behavioural control in relation to, the intention to use safe pesticide practices were tested. Furthermore, they tested whether perceived behavioural control and behavioural intentions predicted actual safe pesticide use behaviour. Their results confirmed that attitudes (but not subjective norms;  $p > .05$ ) towards safe pesticide use was significantly associated with safe pesticide use intention ( $p < .01$ ). Interestingly, perceived behavioural control was significantly *negatively* associated with behavioural intention ( $p < .01$ ) and significantly *positively* associated with behaviour ( $p < .01$ ). Moreover, behavioural intention to engage in safe pesticide use did not significantly predict the volitional behaviour of safe pesticide use ( $p > .05$ ).

Bagheri et al. (2021) suggested that the reason intention did not predict actual behaviour may be because farmers were reluctant to change their pesticide practices and were satisfied with their current ways. This suggests that perhaps the farmers were able to achieve their goals with their current behaviour and did not see the need to change their behaviour. Bagheri et al.'s (2021) finding may be similar to that of Niles (2016), where farmers practiced specific climate behaviours as a result of a personal goal and did not adopt other behaviours due to the benefits of these behaviours to the environment. Therefore, intention may more likely lead to actual behaviour if the behaviour is of personal interest.

The TPB has also been successfully applied to predict behaviour within the context of pro-environmental practices among environmental managers, marketing managers, and high school and university students (e.g., Cordano & Frieze, 2000; De Leeuw et al., 2015; Ferdous, 2010; Oztekin et al., 2017). Cordano and Frieze (2000) collected data from 295 corporate

environmental managers, applying the TPB to explore their preferences for pollution prevention behaviours. Firstly, they tested whether positive attitudes regarding pollution prevention related positively to the preference for pollution reduction activities. Secondly, subjective norms towards environmental regulations were tested in relation to pollution reduction preferences. Thirdly, the perceived behavioural control of manager was measured in relation to pollution prevention preferences. Lastly, past behaviour/engagement in pollution prevention preferences (a proxy measure for perceived behavioural control) was measured in accordance with the implementation of pollution reduction activities. Cordano and Frieze (2000) found that attitudes ( $\beta = .34, p < .001$ ) and subjective norms ( $\beta = .18, p < .001$ ) were significantly positively correlated with intention to engage in pollution prevention. Past engagement in pollution reduction was also significantly positively associated with pollution prevention intentions ( $\beta = .19, p < .001$ ). Perceived behavioural control, however, was found to be negatively significantly with pollution prevention intentions ( $\beta = -.12, p < .05$ ). Cordano and Frieze (2000) believe that this could be due to the modification made to the variable of behavioural intention to suit the context of their study. Cordano and Frieze (2000) did not make use of the TPB in full as actual behaviour was not measured, and therefore it cannot be deduced whether perceived behavioural control or behavioural intention would predict actual behaviour.

Ferdous (2010) tested the TPB within the context of sustainable marketing intentions and behaviours among 145 marketing managers in Bangladesh. Attitude and subjective norms towards, and perceived behavioural control in relation to, sustainable marketing behaviours were tested as predictors of sustainable marketing intention. Sustainable marketing intention as well as perceived behavioural control were tested as predictors of actual sustainable marketing behaviour. Attitudes ( $\beta = .22, p < .01$ ) and subjective norms ( $\beta = .29, p < .05$ ) towards sustainable marketing intentions were both positively related to sustainable marketing intention. A non-significant relationship was observed between perceived behavioural control

and sustainable marketing intention ( $\beta = .18, p > .05$ ). However, a significant positive relationship was found between perceived behavioural control and actual sustainable marketing behaviour ( $\beta = .49, p < .01$ ). Sustainable marketing intention was also found to be positively significantly related with actual sustainable marketing behaviour ( $\beta = .20, p < .05$ ).

De Leeuw et al. (2015) used the TPB to explore the pro-environmental intentions and behaviours of 602 high school students in Luxembourg. They assessed whether attitude towards pro-environmental behaviour, subjective norms (descriptive and injunctive norms) towards pro-environmental behaviour, and perceived behavioural control predicted pro-environmental behavioural intentions. Lastly, the influence of perceived behavioural control and intention was assessed in relation to actual pro-environmental intentions. They found that perceived behavioural control was the strongest predictor of pro-environmental intentions ( $\beta = .45, p < .001$ ). Descriptive norms was significantly positively associated with pro-environmental intentions ( $\beta = .29, p < .001$ ) and attitude was significantly positively associated with pro-environmental intentions ( $\beta = .17, p < .001$ ). Injunctive norms were the only variable that was not significantly associated with pro-environmental intentions ( $\beta = .04, p = .05$ ) suggesting that what significant others do regarding pro-environmental activities is more important than what significant other say about pro-environmental activities (De Leeuw et al., 2015). Both perceived behavioural control ( $\beta = .33, p < .001$ ) and pro-environmental intention ( $\beta = .23, p < .01$ ) had a significant effect on actual pro-environmental behaviour.

Oztekin et al. (2017) used the TPB to investigate the recycling intentions and behaviour of 863 adults from two public Turkish university campuses. Recycling attitudes, subjective norms, past recycling behaviour, and perceived behavioural control were measured as predictors of recycling intentions. Recycling intentions was then tested as a predictor of actual recycling behaviour. Path coefficients indicated perceived behavioural control ( $\beta = .39, p < .05$ ) and past behaviour ( $\beta = .33, p < .05$ ) were significantly positively associated with

recycling intentions. Attitude ( $\beta = .20, p < .05$ ) and subjective norms ( $\beta = .18, p < .05$ ) were also significantly positively associated with recycling intentions. Recycling intentions were significantly positively associated with recycling behaviour ( $\beta = .34, p < .05$ ). Overall, their results supported the use for the TPB as the model predicted recycling behaviour. The studies above, in the fields of environmental, agricultural, and marketing studies, have presented mixed results with regards to the use of the TPB. Another field of study that often makes use of the TPB is health studies.

The TPB has been a very popular framework for studying health-related behavioural intentions and behaviours. It is beyond the scope of this thesis to undertake a complete review of each of all the studies undertaken within this context. Rather, a few studies will be described to illustrate the application of the TPB across different health contexts.

Mirkarimi et al. (2016) conducted a study in Iran exploring fast-food consumption behaviours among 500 high school learners. They measured attitudes and subjective norms towards, and perceived behavioural control relating to, fast-food consumption as predictors of the behavioural intention to engage in fast food consumption. In addition, they also tested whether the intention to consume fast-food predicted actual fast-food consumption. Their findings showed that subjective norms ( $\beta = .14, p < .01$ ) and perceived behavioural control ( $\beta = .55, p < .001$ ) both predicted the intention to consume fast-food. Moreover, behavioural intention predicted actual fast-food-consumption behaviour ( $\beta = .60, p < .001$ ). Interestingly, attitudes towards fast-food consumption did not significantly predict the behavioural intention to consume fast-foods ( $\beta = .04, p > .05$ ), which contrasts with other studies presented thus far. While Mirkarimi et al. (2016) do not offer an explanation regarding this finding, it could be speculated that students do not have a strong attitude towards fast-food, but rather consume it due to convenience as not much effort is needed to gain access to fast food.



In addition to physical health, the TPB has been used to examine condom use among high school students (Teye-Kwadjo et al., 2017) and undergraduate students (Ramírez-Correa & Ramírez-Santana, 2018). Teye-Kwadjo et al. (2017) undertook a three-wave longitudinal study among 1,023 Ghanaian high school students, measuring whether attitude and subjective norms towards, and perceived behavioural control in relation to, condom use at Time 1 predicted behavioural intentions towards condom use six months later at Time 2, and whether behavioural intentions at Time 2 predicted actual condom-use behaviour three months after that at Time 3. Using structural equation modelling, Teye-Kwadjo et al. (2017) found that attitudes towards condom use at Time 1 was significantly correlated with the intention to use condoms at Time 2 ( $b = .11, p < .05$ ). Subjective norms ( $b = .06, p = .26$ ) and perceived behavioural control ( $b = -.03, p = .54$ ) at Time 1, however, did not predict the intention to use condoms at Time 2. As far as explaining the results relating to subjective norms, Teye-Kwadjo et al. (2017) suggest that these results may be because only descriptive norms were measured and not injunctive norms. In addition, it could be that subjective norms are affected by culture restricting sexual discussion. In relation to perceived behavioural control, Teye-Kwadjo et al. (2017) suggests that one partner may be more in control and convince the other partner to not make use of a condom. Moreover, intention to use condoms at Time 2 was not associated with actual condom use six months later at Time 3 ( $b = .04, p = .32$ ). This may be due to fact that the strict environment that students live in discourage them from engaging in preparatory condom-use behaviour, fearing they may be exposed despite their intentions of wanting to use a condom (Teye-Kwadjo et al., 2017).

Ramírez-Correa and Ramírez-Santana (2018) conducted a cross-sectional study amongst 151 university students in Chile, divided into three groups (those who are sexually active, those in a stable relationship and those in an unstable relationship). They measured attitudes and subjective norms towards, and perceived behavioural control relating to, condom use, as

predictors of condom use intention. They tested whether condom use intentions predicted actual condom use. For those who are sexually active, the results showed that attitudes towards condom use ( $\beta = .41, p < .001$ ), subjective norms ( $\beta = .12, p < .05$ ), and perceived behavioural control ( $\beta = .31, p < .001$ ) were each significantly associated with the intention to use condoms. Amongst sexually active participants, intentions to use a condom was significantly associated with actual condom use ( $\beta = .76, p < .001$ ).

Among participants in a stable relationship, attitudes towards condom use ( $\beta = .60, p < .001$ ), subjective norms ( $\beta = .12, p < .05$ ), and perceived behavioural control ( $\beta = .18, p < .001$ ) were each significantly associated with the intention to use condoms. Moreover, intentions to use a condom was also significantly positively associated with actual condom use ( $\beta = .80, p < .001$ ). For participants not in a stable relationship, neither attitude towards condom use ( $\beta = .17, p > .05$ ), subjective norms ( $\beta = -.13, p > .05$ ), nor perceived behavioural control ( $\beta = .00, p > .05$ ) predicted condom use intentions. In addition, the intention to use a condom was not significant associated with actual condom use behaviour ( $\beta = .31, p > .05$ ). Clearly, determining the status of a relationship is an important variable to consider when conducting studies related to condom use within the TPB. An important similarity across the findings of the studies undertaken by Teye-Kwadjo et al. (2017) and Ramírez-Correa and Ramírez-Santana (2018) is that they both observed attitudes towards behaviour as important predictors of behavioural intentions.

Remaining in the field of health studies, the TPB has been used to predict the intention to seek mental health services among college students. Bohon et al. (2016) conducted a study amongst 845 American college students to test whether attitudes, subjective norms, and perceived behavioural control predict the behavioural intention to seek mental health services for depression. Using structural equation modelling, they discovered that attitudes towards seeking mental health services ( $\beta = .70, p < .05$ ) and perceived behavioural control in relation

to seeking mental health services ( $\beta = .29, p < .05$ ) were each significantly associated with the intention to seek mental health services. Subjective norms towards seeking mental health services were not significantly associated with intention to seek mental health services ( $p > .05$ ). This pattern of results may be yet another indication that more personal factors (such as one's own attitudes towards a behaviour or one's own sense of perceived behavioural control) may play a more important role than social pressure in predicting behavioural intentions (Terry et al., 2000).

More recently, Lee and Shin (2020) conducted a study amongst 300 Korean college students, examining the intention to seek mental health services. Attitudes and subjective norms towards, and perceived behavioural control in relation to, help-seeking behaviour were tested as predictors of the behavioural intention to seek mental health services. Lee and Shin (2020) believed that additional factors, such as general mental health condition and knowledge about services, also need to be considered to understand the intention to seek mental-health services. They therefore added measures of these two constructs as predictors of each of the five key constructs of the TPB model. They found that general mental health was significantly negatively associated with attitudes ( $\beta = -.18, p < .01$ ) and subjective norms towards mental health-seeking behaviours ( $\beta = -.16, p < .01$ ) as well as perceived behavioural control in relation to mental health-seeking behaviours ( $\beta = -.32, p < .001$ ). Knowledge about mental health services was only significantly associated with perceived behavioural control ( $\beta = .13, p < .05$ ). Attitude towards health seeking intention ( $\beta = .52, p < .001$ ), subjective norms ( $\beta = .50, p < .001$ ), and perceived behavioural control ( $\beta = .52, p < .001$ ) were each positively associated with the intention to seek mental health services.

## South African Evidence Supporting the Theory of Planned Behaviour

The TPB has also been successfully tested within the South African context, although the extent of TPB research in the South African context is far less than that available in the international literature. This appears to point to a gap in the TPB literature that the present study aimed to address. Nevertheless, three South African studies that have successfully implemented the TPB to study relevant South African issues are briefly described below.

Saal and Kagee (2011) implemented the TPB to study those factors that predict adherence to anti-retroviral (ARV) medication adherence amongst 101 South Africans seeking ARV therapy/treatment. South Africa has an HIV prevalence rate of 13.7%, with approximately 8.2 million South Africans living with HIV (Statistics South Africa, 2021). Adherence to ARV therapy/treatment (ART) is important to ensure that those individuals living with HIV and AIDS can live a healthy life and combat the progression of HIV and AIDS (Saal & Kagee, 2011).

Saal and Kagee (2011) measured attitudes and subjective norms towards ART (and ART adherence) and perceived behavioural control relating to ART adherence as predictors of the behavioural intention to adhere to ART and actual ART adherence. They found that attitude towards ART ( $\beta = .21, p < .05$ ) and perceived behavioural control ( $\beta = .35, p < .01$ ) were each significantly associated with the intention to adhere to ART. However, subjective norms were not significantly associated with intention to adhere to ART ( $\beta = .15, p > .05$ ), and the intention to adhere to ART was not significantly associated with actual ART adherence behaviour ( $\beta = -.05, p > .05$ ). Saal and Kagee (2011) suggest that their failure to show that intention predicts behaviour could be the result of the use of self-report data that is sensitive to recall bias and social desirability bias. Nonetheless, their study was able to present positive findings in relation to two of the predictors of behavioural intention within the context of ART adherence in South Africa.

Safe sex practices (specifically the intention to use condoms) are an important means for reducing the spread of HIV. Protogerou et al. (2013) tested the TPB within the South African context in relation to the behavioural intentions to use condoms and actual condom-use behaviour. Their study was a mixed-methods study amongst university students in Cape Town. Only the results of their survey study will be described here. Survey data were collected from 389 participants across two waves of data collection (spaced one month apart). Protogerou et al. (2013) tested whether attitudes and subjective norms towards, and perceived behavioural control in relation to, condom use at Time 1 significantly predicted the intention to use condoms at Time 2. They also tested whether the behavioural intention to use condoms at Time 2 predicted actual condom use behaviour at Time 2. The results were analysed separately for participants distinguished across two groups – those who were sexually active and those who were not sexually active.

Looking at the sample as a whole, attitudes towards condom use ( $r = .55, p < .001$ ), subjective norms ( $r = .30, p < .001$ ), and perceived behavioural control ( $r = .40, p < .001$ ) at Time 1 were each significantly associated with the intention to use condoms at Time 1. In addition, perceived behavioural control ( $r = .50, p < .001$ ), and the intention to use condoms at Time 1 was significantly associated with actual condom use at Time 2 ( $r = .69, p < .001$ ). For the sexually active sample, attitudes towards condom use ( $r = .56, p < .001$ ), subjective norms ( $r = .50, p < .001$ ), and perceived behavioural control ( $r = .25, p < .05$ ) at Time 1 were also significantly associated with the intention to use condoms at Time 1. For the sexually inactive sample, attitudes towards condom use ( $r = .66, p < .05$ ) and perceived behavioural control ( $r = .40, p < .05$ ) at Time 1 were each significantly associated with the intention to use a condom at Time 1. It should be noted that the intention to use a condom was not measured in relation to actual condom use. Protogerou et al. (2013) found that attitudes, subjective norms, and perceived behavioural control were significantly associated with condom use intention for the

sample as a whole and perceived behavioural control and intention to use a condom predicted actual condom use behaviour for those participants identified as sexually active. For the sexually inactive group, only attitudes and perceived behavioural control predicted the intention to use condoms.

Moving away from health-related issues in South Africa, Strydom (2018) tested the TPB among 2,004 participants across South Africa to examine the predictors of intentions to recycle and actual recycling behaviour. Strydom (2018) tested attitudes and subjective norms towards, and perceived behavioural control relating to, recycling as predictors of the behavioural intention to recycle. The behavioural intention to recycle and perceived behavioural control in relation to recycling were tested as predictors of actual recycling behaviour. Strydom (2018) found that attitude towards recycling ( $\beta = .28, p < .001$ ) and subjective norms ( $\beta = .59, p < .001$ ) were significantly positively associated with the behavioural intention to recycle. Perceived behavioural control was not significantly associated with the intention to recycle ( $\beta = -.02, p > .05$ ). However, perceived behavioural control was significantly positively associated with actual recycling behaviour ( $\beta = .28, p < .001$ ). The intention to recycle was also significantly positively associated with actual recycling behaviour ( $\beta = .13, p < .001$ ).

### **Meta-Analytic Support for the Theory of Planned Behaviour**

The individual studies described above each offer encouraging support for the general assumptions underlying the TPB. However, meta-analytic studies offer a more robust test of the evidence supporting a theory because they adopt a more rigorous, quantitative approach to evaluating evidence in the available literature (Shelby & Vaske, 2008). Meta-analytic studies use very strict inclusion and exclusion criteria to compute an overall (like an average) effect size of the relationship between constructs by using the individual effect sizes describing the

relationships between these constructs reported across multiple individual studies (with each study generating its own effect size from data drawn from multiple individuals; Cheung & Vijayakumar, 2016). The greater the number of studies included in a meta-analysis, the more robust the overall conclusions drawn from the meta-analysis about the size of the relationship between two constructs. Below, I describe the results of five meta-analyses that have been undertaken to evaluate the TPB. The meta-analyses are discussed in the order of weakest to the strongest support for the TPB.

Ha Sur et al. (2021) undertook a meta-analysis of only seven studies exploring physical activity intentions and behaviours amongst adults with physical disabilities. Attitude ( $\beta = .30$ ,  $p < .001$ ) and perceived behavioural control ( $\beta = .43$ ,  $p < .001$ ) were significant predictors of intention across these seven studies. Moreover, across these seven studies, intention was a significant predictor of behaviour ( $\beta = .37$ ,  $p < .001$ ). However, subjective norms ( $\beta = .03$ ,  $p > .05$ ) was not a significant predictor of intention, while perceived behavioural control did not significantly predict behaviour ( $\beta = .09$ ,  $p > .05$ ) across these seven studies. As such, the meta-analysis undertaken by Ha Sur et al. (2021) only offers partial support for the TPB. However, the limited number of studies in their meta-analysis does bring into question the robustness of the conclusions that can be drawn from their results.

De Vivo et al. (2016) undertook a meta-analysis of the TPB literature focusing on predicting exercise/physical activity intention and behaviour during pregnancy. Their meta-analysis included eight studies (seven of which were undertaken in the United States of America). They found attitude towards exercise ( $r = .59$ ), subjective norms ( $r = .50$ ) and perceived behavioural control ( $r = .58$ ) were each significant predictors of behavioural intention (all  $p$ 's  $< .05$ ). Moreover, behavioural intentions ( $r = .50$ ) and perceived behavioural control ( $r = .38$ ) were both significant predictors of actual behaviour (all  $p$ 's  $< .05$ ).

Rich et al. (2015) undertook a meta-analysis of 27 studies (including 22 studies that relied on self-report behaviour) that implemented the TPB to examine treatment adherence intentions and behaviours in relation to chronic illnesses. Rich et al. (2015) found support for the key relationships hypothesised by the TPB with effect sizes ranging from small to large (Cohen, 1988, 1992): For attitude-intention  $r = .41$ ; subjective norms-intention  $r = .32$ ; perceived behavioural control-intention  $r = .51$ ; perceived behavioural control-behaviour  $r = .24$ ; and intention-behaviour  $r = .28$  (all  $p$ 's < .05). This meta-analysis shows full support for the TPB in the context of examining treatment adherence for chronic illnesses.

McEachan et al. (2011) undertook a meta-analysis of 206 studies (comprising 237 individual tests) that used the TPB to predict a variety of health-related behavioural intentions and behaviours. These behaviours included abstaining from drugs, physical exercise, safer sex, dietary behaviours, and health-risk behaviours. All the hypothesised relationships predicted by the TPB were significant (all  $p$ 's < .05). Amongst the three variables of the TPB, attitude displayed the strongest correlation relating to predicting intention ( $r = .57$ ) followed by perceived behavioural control ( $r = .54$ ) and subjective norms ( $r = .40$ ). In relation to behaviour, intention ( $r = .43$ ) was a stronger predictor compared to perceived behavioural control ( $r = .31$ ).

A meta-analytic study conducted by Armitage and Conner (2001) tested the efficacy of the TPB across 161 studies (comprising 185 tests). Of the 161 studies, 44 relied on self-reports of behaviour and 19 included objective behavioural measures. Attitude ( $r = .49$ ), subjective norms ( $r = .34$ ), and perceived behavioural control ( $r = .43$ ) were each significant predictors of intention (all  $p$ 's < .05). Furthermore, perceived behavioural control ( $r = .37$ ) and intention ( $r = .47$ ) were significant predictors of actual behaviour (all  $p$ 's < .05). However, of the three predictors of behavioural intention, subjective norms were shown to be the weakest predictor of intentions and attitude the strongest.



To summarise, four of the meta-analytic studies discussed (Armitage & Conner, 2001; De Vivo et al., 2016; McEachan et al., 2011; Rich et al., 2015) yielded significant support for each of the relationships hypothesised by the TPB. Only one study (Ha Sur et al., 2021) offered partial support of the TPB, however this study only included seven studies in the meta-analysis.

Overall, attitudes towards the behaviour were often reported to be the strongest predictor of behavioural intention (Armitage & Conner, 2001; De Vivo et al., 2016; McEachan et al., 2011), while subjective norms were often reported to be the weakest predictor of intention (Armitage & Conner, 2001; De Vivo et al., 2016; McEachan et al., 2011; Rich et al., 2015) or was not a significant predictor at all (Ha Sur et al., 2021). These meta-analytic patterns appear to offer support to the results of individual studies (described earlier) that personal factors (such as attitudes) may be more important for predicting behavioural intentions than social attitudes (such as subjective norms). Having considered the evidence supporting the TPB, I now turn to a brief discussion of the critiques of the TPB model.

### **Critiques of the Theory of Planned Behaviour**

Despite its popularity, the TPB has not been immune from critique. The key critiques against the TPB that are discussed below include: (1) the lack of experimental studies to confirm the internal validity of the model; (2) its emphasis on rational constructs as predictors of behavioural intention and volitional behaviour; and (3) the questionable validity of the measure of subjective norms. Each of these are discussed in turn, beginning with the critique that the TPB is not credible because of the scarcity of experimental studies.

Firstly, Sniehotta et al. (2014) argue that the lack of experimental studies testing the internal validity of the TPB undermines its credibility as a “theory of behaviour change” (p.3). Relative to non-experimental research (like survey, interviews, and so on), experimental

research allows for the causal assumptions underlying a framework to be tested (Mildner, 2019). For example, in the context of the TPB, experiments would reveal if attitude, norms, and perceived behavioural cause intention and whether intention and perceived behavioural control cause behaviour. Careful control is taken over variables and experiments allow for the manipulation of independent variables to test the effects on a dependent variable (Grabbe, 2015; Kirk, 2012; Wogu & Wogu, 2014). Even though they may lack realism and external validity, experiments are high in internal validity.

The second critique of the TPB discussed here is that it focuses exclusively on the role of rational constructs as predictors of behavioural intentions and behaviour (Sniehotta et al., 2014), excluding the influence of unconscious processes or emotions. Unconscious processes such as attentional biases (Fadardi & Cox, 2008), habits (Kaushal & Rhodes, 2015), and affect (Conner et al., 2013) have been shown to influence behavioural intention and volitional behaviour. Fadardi and Cox (2008) explored whether attentional biases towards alcohol predicted the behaviour to consume alcohol. Participants for their study included 87 students from a university in Wales. Results showed that alcohol-attentional biases significantly predicted alcohol assumption ( $\beta = .22, p < .05$ ). As for habits, a longitudinal study was carried out by Kaushal and Rhodes (2015) investigating if the habit to exercise predicted exercise behaviour. This study comprised of 111 participants who were gym members at various gyms in Canada and took place across 12 weeks. Results revealed that the habit to exercise predicted actual exercise behaviour over time ( $\beta = .23, p < .001$ ).

Conner et al. (2013) studied the relationship of affect on intention and behaviour. They examined affect towards blood donation intentions and behaviour among 1,108 experienced blood donors in Canada. Their study was undertaken within the context of the TPB, and they added affect as an additional predictor of intention and behaviour. Measures for affect included affective attitudes towards blood donation, anticipated negative affect reactions towards

donating blood, as well as anticipated positive affect reactions towards donating blood. With regards to the TPB, cognitive attitude towards donating blood, subjective norms regarding donating blood, and perceived behavioural control were tested as predictors of blood donation intention and behaviour. Furthermore, participants were characterised as low ambivalent and high ambivalent in relation to their intentions to donate blood. Anticipated negative affective reactions towards donating blood ( $\beta = .14, p < .001$ ), anticipated positive affective reactions towards donating blood ( $\beta = .08, p < .01$ ), cognitive attitudes towards donating blood ( $\beta = .13, p < .001$ ), subjective norms regarding donating blood ( $\beta = .05, p < .05$ ), and perceived behavioural control ( $\beta = .39, p < .001$ ) were each significantly associated with the intention to donate blood. Only affective attitudes towards donating blood were not significantly associated with the intention to donate blood ( $\beta = -.05, p > .05$ ). Affective attitudes towards donating blood ( $\beta = .19, p < .05$ ), anticipated negative affective reactions towards donating blood ( $\beta = .20, p < .05$ ), perceived behavioural control ( $\beta = .34, p < .05$ ), and intention to donate blood ( $\beta = .89, p < .001$ ) were each significantly associated with blood donation behaviour. Cognitive attitudes towards donating blood ( $\beta = -.14, p > .05$ ) and anticipated positive affective reaction towards donating blood ( $\beta = -.21, p > .05$ ) were not significantly associated with blood-donating behaviour. Two out of three affect measures predicted behavioural intention toward donating blood and actual blood-donating behaviour.

In addition, past behaviour has also been shown to account for an additional 10% of variance in behavioural intention (Fishbein & Ajzen, 2010). In a study exploring the predictors of charity donation intentions and behaviour using the TPB, Kashif et al. (2015) added past behaviour as an additional predictor of intention to donate to charity. Their study was undertaken amongst a sample of 221 Malaysian adults. They found that neither attitudes towards donating to charity ( $\beta = .01$ ), nor descriptive norms regarding charity donations ( $\beta = .13$ ), moral norms regarding charity donations ( $\beta = -.14$ ), and perceived behavioural

control ( $\beta = -.01$ ) were significantly associated with the intention to donate to charity (all  $p$ s  $> .05$ ). Injunctive norms regarding charity donation ( $\beta = .40$ ,  $p < .05$ ) and past behaviour ( $\beta = .49$ ,  $p < .05$ ) were significantly associated the intention to donate to charity. In addition, intention to donate to charity was significantly associated with actual charity-donation behaviour ( $\beta = .28$ ,  $p < .05$ ). Although Sniehotta et al. (2014) argue that including additional constructs as predictors of behavioural intentions and behaviour reflects a lack of faith on the part of researchers studying the TPB, it is important that researchers think outside of the box – not being constrained to the limitations of the existing constructs of the TPB – and show a willingness to consider additional variables to include in research adopting the TPB when it is relevant to do so (Conner, 2015).

Finally, Ajzen (2014) admits that the variable of subjective norms in the TPB is not perfect, and its validity can be questioned (indeed, subjective norms are frequently critiqued as a weak predictor of intention; see Armitage & Conner, 2001; Rhodes & Nigg, 2011; Terry et al., 2000). However, Ajzen (2014) notes that studies often make use of only a small number of items to measure the various constructs, including subjective norms, impairing the measure's validity. Nevertheless, numerous studies have attempted to address the perceived shortcomings of the subjective norms construct by exploring the role of norms as predictor of behavioural intentions in different ways, including substituting subjective norms with a measure of group norms.

It is believed that when people strongly identify with an in-group that is defined by membership in terms of behaviourally and attitudinally prescriptive norms, the role of group norms becomes a strong determining factor of behaviour (Johnston & White, 2003). Johnston and White (2003) explored the TPB – with the addition of group norms and group identification as predictors of intention – to study binge-drinking intentions and behaviour among 289 first year undergraduate students attending an Australian university. Using a two-wave longitudinal

design, measurements for attitudes towards binge drinking, subjective norms regarding binge drinking, perceived behavioural control, group norms regarding binge-drinking, group identification, and binge-drinking intentions were collected at Time 1. At Time 2 (two weeks later) data for self-reported binge-drinking were collected. They found that attitudes towards binge drinking ( $\beta = .32, p < .001$ ), subjective norms regarding binge drinking ( $\beta = .27, p < .001$ ), and perceived behavioural control ( $\beta = .33, p < .001$ ) at Time 1 each significantly predicted binge-drinking intentions at Time 2. Binge-drinking intentions at Time 1 was the only predictor of binge-drinking behaviour at Time 2 ( $\beta = .47, p < .001$ ). When they included group identification and group norms into their hierarchical regression analyses, they found that attitudes towards binge drinking ( $\beta = .28, p < .001$ ), subjective norms regarding binge drinking ( $\beta = .21, p < .001$ ), perceived behavioural control ( $\beta = .27, p < .001$ ), and group norms regarding binge drinking ( $\beta = .20, p < .001$ ) at Time 1 each significantly predicted binge-drinking intentions at Time 2. Group identification at Time 1 was not a predictor of binge-drinking intention at Time 2. However, the interaction between group norms and group identification at Time 1 was a significant predictor of binge drinking intention ( $\beta = .17, p < .001$ ) at Time 2. The moderation of group norm effects is not surprising when one considers that group norms depend upon the salience of one's membership to the group to which those norms apply.

Similarly, Fielding et al. (2008) implemented the TPB, with the addition of group norms, group identification, intergroup perceptions, and past behaviour as predictors of behaviour intentions relating to sustainable agricultural practices. They conducted two, two-wave longitudinal studies among samples of farmers in Australia. Study one consisted of 609 participants at Time 1 and 124 participants at Time 2 (six months later). They found that attitudes towards sustainable agricultural practices ( $\beta = .16, p < .001$ ), perceived behavioural control ( $\beta = .31, p < .001$ ), group norms regarding sustainable agricultural behaviour ( $\beta = .18,$

$p < .001$ ), group identification ( $\beta = -.06, p < .05$ ), intergroup perception relating to sustainable agricultural behaviour ( $\beta = -.06, p < .05$ ), and past behaviour ( $\beta = .44, p < .001$ ) at Time 1 were significant predictors of the intention to perform the sustainable agricultural practices in question at Time 2. Subjective norms towards sustainable agricultural practices did not predict behavioural intentions in relation to these practices ( $\beta = .05, p > .05$ ). Study two comprised of 245 participants at Time 1 and 216 participants at Time 2 (six months later). Like study one, attitudes towards sustainable agricultural practices ( $\beta = .21, p < .001$ ) and perceived behavioural control ( $\beta = .27, p < .001$ ) predicted sustainable agricultural practices at Time 2. Group norms regarding sustainable agricultural practices ( $\beta = .21, p < .001$ ) and past behaviour ( $\beta = .31, p < .001$ ) also predicted sustainable agricultural intentions at Time 2. Compared to study one, intergroup perceptions ( $\beta = -.07, p > .05$ ) and subjective norms regarding sustainable agricultural practices ( $\beta = .02, p > .05$ ) did not predict sustainable agricultural intentions. In both studies undertaken by Fielding et al. (2008) subjective norms were not a predictor of behavioural intention over time, although group norms were.

An alternative approach to addressing the perceived weakness of the subjective norms construct in the TPB is to measure subjective norms along various dimensions. White et al. (2009) undertook two studies where they used the TPB to examine the predictors of the intention to partake in household recycling and self-reported recycling behaviours. They measured subjective norms along three dimensions: (1) personal injunctive norms (the internalised expectation that one should perform a behaviour), (2) social injunctive norms (the belief that one's behaviour would be approved by others), and (3) descriptive norms (the perception that those important to the individual perform a behaviour). In study one, a two-wave study comprising of 164 participants in Australia, measurements of attitude towards household recycling, perceived behavioural control, social injunctive norms, descriptive norms, personal injunctive norms regarding household recycling, and household recycling

intention were collected. Data relating to household recycling behaviour via self-report were collected two week later (Time 2). White et al. (2009) found that attitude ( $\beta = .12, p < .05$ ), personal injunctive norms ( $\beta = .20, p < .01$ ), descriptive norms ( $\beta = .26, p < .01$ ), and perceived behavioural control ( $\beta = .35, p < .001$ ) at Time 1 each significantly predicted the intention to engage in household recycling at Time 2. Social injunctive norms ( $\beta = .02, p > .05$ ) at Time 1 did not significantly predict the intention to engage in household recycling at Time 2. Moreover, perceived behavioural control ( $\beta = .18, p < .05$ ) and intention to recycle ( $\beta = .46, p < .001$ ) at Time 1 each significantly predicted recycling behaviour at Time 2. In their second study, a cross-sectional study amongst 175 Australian adults, measures of collective-self and interdependent self were added as additional predictors of behavioural intention and behaviour. Attitudes towards recycling ( $\beta = .13, p < .05$ ), perceived behavioural control ( $\beta = .32, p < .001$ ), descriptive norms ( $\beta = .15, p < .05$ ), personal injunctive norms ( $\beta = .18, p < .01$ ), group norms ( $\beta = .25, p < .001$ ), and group identification ( $\beta = -.13, p < .05$ ) were each significantly associated with behavioural recycling intentions. Social injunctive norms did not predict recycling intentions ( $\beta = .05, p > .05$ ). Interactions between the measure of the interdependent self with each of attitudes towards recycling ( $\beta = .12, p < .06$ ), perceived behavioural control ( $\beta = .34, p < .001$ ), descriptive norms ( $\beta = .23, p < .001$ ), and personal injunctive norms ( $\beta = .22, p < .01$ ) were significantly associated with recycling intentions. Interaction between the measure of collective self with each of attitudes towards recycling ( $\beta = .15, p < .05$ ), perceived behavioural control ( $\beta = .31, p < .001$ ), descriptive norms ( $\beta = .27, p < .001$ ), and personal injunctive norms ( $\beta = .23, p < .001$ ) were significantly associated with recycling intentions. These findings suggest that there may be value in exploring subjective norms along different dimensions, because each dimension may have a different impact on behavioural intention.

Despite the substantial critique against the TPB by some researchers (see Sniehotta et al., 2014), the TPB remains a helpful framework within which to explore behavioural intentions

across a wide range of behaviours (Armitage, 2014; Conner, 2015). Arguably the greatest shortcoming of the TPB is the lack of experimental research testing the causal assumptions that underlie the theory. Nevertheless, if the correlations between key constructs identified by correlational research using the TPB are interpreted and generalised with sufficient caution, then the insights that correlational research on the TPB might yield are worth pursuing. It is in this spirit that the present study aimed to study the predictors of the willingness to engage in intergroup contact (as a behavioural intention) and the frequency of positive intergroup contact (as a behaviour) amongst white South African students at SU. In the section that follows, I discuss each of the key constructs of the TPB within the context of the predictors of intergroup contact (willingness). Throughout, I touch on the existing research that supports the assumptions that guided the hypotheses tested in the present study.

### **Theory of Planned Behaviour: Predicting Contact (Willingness)**

Contact research has begun to explore the predictors of intergroup contact (Kauff et al., 2021; Stathi et al., 2020a; Vezzali et al., 2018). This is not surprising since the willingness to engage in future intergroup contact has been identified as an important predictor of actual intergroup contact (e.g., Awale et al., 2019; Esses & Dovidio, 2002). It is therefore important to identify those factors that might predict a willingness to engage in intergroup contact. As discussed in Chapter Two, personal motives and experiences and attitudes and beliefs are what Kauff et al. (2021) describe as micro-level predictors of contact willingness operating on the level of the individual. Predictors at a broader societal level, namely societal norms, are referred to as macro-level predictors of contact willingness. Pertaining to the TPB, attitudes towards intergroup contact and perceived behavioural control are micro-level predictors of contact, whereas norms regarding intergroup contact are a macro-level predictor of contact.



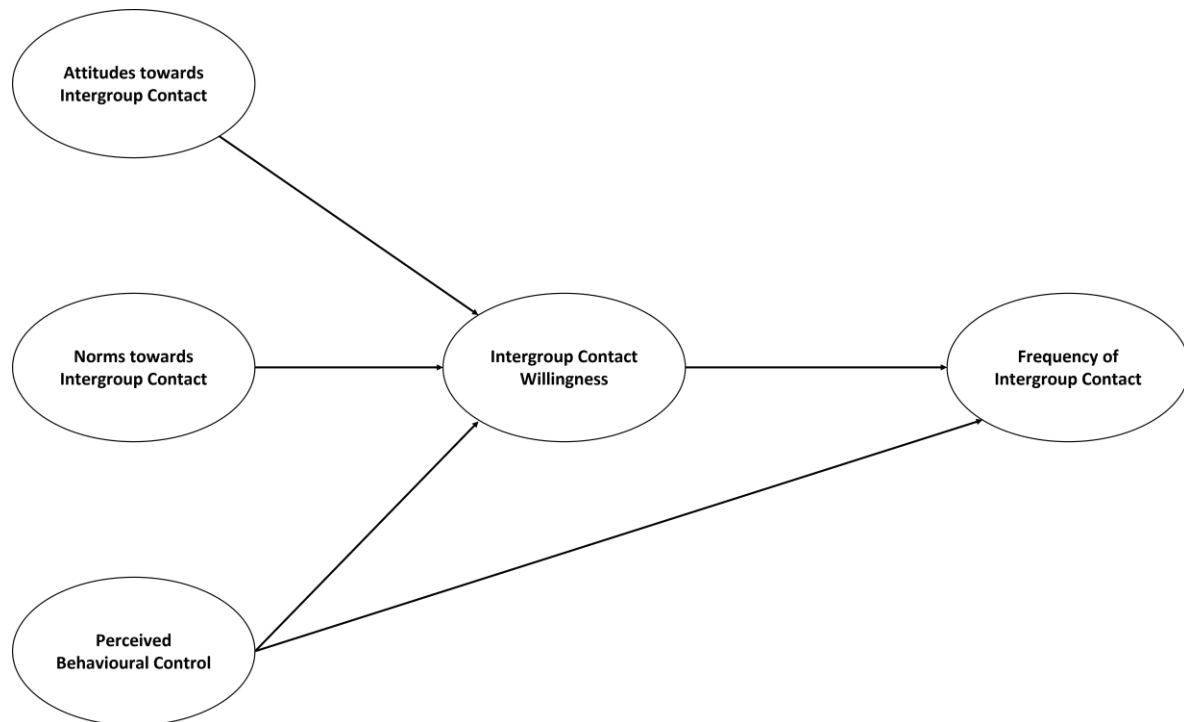
To this end, the TPB offers a useful theoretical framework within which to identify the predictors of the behavioural intention to engage in intergroup contact (i.e., contact willingness) as well as the frequency of intergroup contact. Below I introduce each of the key constructs that the present study tested as potential predictors of intergroup contact willingness and the frequency of intergroup contact at SU. Each construct is introduced in a manner that relates it back to the original constructs comprising the TPB, while also establishing the potential value of each construct to the study of intergroup contact (willingness) on the grounds of the available literature. The three predictors of contact (willingness) identified below are attitudes towards intergroup contact, subjective norms towards intergroup contact, and perceived behavioural control relating to intergroup contact. The relationship between these predictors and intergroup contact willingness and the frequency of intergroup contact are illustrated in Figure 3 below.

***Attitudes towards diversity and intergroup contact.***

Attitude towards diversity can influence the intention for intergroup contact (e.g., Tropp & Bianchi, 2006). Diversity creates opportunities for contact and the more it is valued, the more likely it is that intergroup contact and cross-group friendships will occur (Hewstone, 2015). Bahns (2019) reported that friendship dyads based on race, ethnicity, sexual orientation, religion, attitudes, and values were more diverse when diversity was valued, because a diverse friendship network creates additional opportunities to meet new people. The appreciation of diversity also brings about an attitude of bettering society and the belief that it can contribute to personal growth (Kurian, 2008).

**Figure 3**

*An illustration of the predictors of intergroup contact (willingness) within the framework of the Theory of Planned Behaviour.*



Kurian (2008) tested the TPB amongst a diverse opportunity sample of 226 students (151 female and 75 male) at the University of Witwatersrand (Wits) to explore its efficacy as a model for predicting the intention to engage in intergroup contact. Wits has an ethnically diverse student body, of which 47% identify as black (African) South Africans. Kurian (2008) found that participants had a greater intention to interact socially with outgroup members when they held the attitude that diversity can better society and allow for personal growth. Indeed, attitudes towards mixing ( $\beta = .31, p < .05$ ), perceived behavioural control ( $\beta = .29, p < .05$ ), and norms ( $\beta = .17, p < .05$ ) were each significant predictors of contact intentions (explaining 35% of the variance in contact intentions). It is noteworthy that the pattern of relationships observed

by Kurian (2008) – where attitudes were the strongest predictor of intentions and norms the weakest – are similar to those observed in the international TPB literature (described above).

A positive attitude towards intergroup contact should also increase the willingness for contact, leading to actual intergroup contact. Rivas-Drake et al. (2019) conducted a longitudinal study among 524 children between grade six and eight belonging to a school with a diverse student body in the United States. The diverse student body at the school offers numerous opportunities for intergroup contact to take place. One of the findings in this study was that students with positive attitudes towards intergroup contact were more likely to have outgroup friends (Rivas-Drake et al., 2019). This supports the idea that a positive attitude towards intergroup contact might increase contact willingness and lead to actual intergroup contact.

Along with a positive attitude towards intergroup contact, people who view intergroup contact as important to them might also be more likely to engage in intergroup contact (Van Dick et al., 2004). One reason people perceive intergroup contact as important is because they believe they (as an individual) or their ingroup can gain from it (Mähönen et al., 2011; Van Dick et al., 2004). In other words, an individual or group will have a positive attitude towards intergroup contact if there is the belief that the person or group will benefit from intergroup contact. Van Dick et al. (2004) explored the relationship between perceived importance of intergroup contact and the experience of intergroup contact across four studies amongst 292 university undergraduates (study one), 97 university undergraduates (study two) and 769 high schoolers (study three and study four) in Germany. Across four studies, the participants reported that intergroup contact was important because it helped them to fulfil their personal goals, for example, gaining insight into different cultures and cuisine. Therefore, acquiring knowledge about the outgroup, for example, is seen as a personal gain/goal and driver of intergroup contact. In their studies, Van Dick et al. (2004) found that believing an intergroup encounter to be important was significantly associated with an increased investment in the

intergroup contact encounter and it significantly predicted the perception that the contact experience was positive.

Mähönen et al. (2011) expanded upon the research undertaken by Van Dick et al. (2004) and explored the impact of the perceived ingroup gains afforded by intergroup contact (as opposed to the perceived personal gains afforded by intergroup contact) amongst a sample of 721 Finnish youth. They found that participants who perceived intergroup contact with Finnish immigrants as important and advantageous to the ingroup in terms of the potential symbolic (e.g., cultural) or realistic gains (e.g., economic), reported more positive attitudes towards intergroup contact and more positive attitudes towards the outgroup.

Based on these results in the literature, the present research conceptualised attitudes towards intergroup contact in terms of attitudes towards social mixing in general, and attitudes towards intergroup contact in general. It was hypothesised that, amongst white South African students at SU, attitudes towards intergroup contact would be significantly positively associated with a willingness to engage in intergroup contact with black (African) and coloured South African students at SU (H1).

### ***Subjective norms towards intergroup contact.***

Norms can be classified as either subjective norms or social/group norms. Subjective norms are based on whether significant others would approve or disapprove of a behaviour, whereas social norms are group standards that deem behaviour to be socially acceptable and compliant with ingroup beliefs and values (Visintin et al., 2019). As described above, research has shown that subjective norms are the weakest of the three predictors of intention in the TPB, suggesting that personal factors may play a more important role than social pressure in predicting behavioural intentions (Terry et al., 2000). Subjective norms are also believed to be less influential in intergroup contact relative to group norms (e.g., Smith & Louis, 2009).

However, subjective norms remain a significant component in predicting human behaviour according to the TPB. Furthermore, the TPB can be expanded to include social norms as a predictor of intention.

There is strong evidence that a link between norms and contact exists; that norms play an important role in mediating intergroup relations (Ata et al., 2009). For example, Meleady (2021) conducted four studies amongst White British adults examining the association between social norms and intergroup contact. In the first study, perceived social norms about contact significantly predicted intergroup contact with British immigrants. Specifically, perceived positive ingroup norms regarding intergroup contact was significantly associated with intergroup contact with British immigrants.

In the second study, Meleady (2021) made use of an experimental manipulation where social norms were manipulated via fake newspaper articles. The effect of this manipulation on the tendencies to approach the outgroup was tested. Those British participants who were in the experimental condition where they learned that a large proportion of British people interacted with immigrants reported that they were more likely to approach the immigrant outgroup. In other words, their willingness for contact increased.

In study three, Meleady (2021) included a measure of actual behaviour (i.e., actual contact with British immigrants), and replicated the results from study two; participants who were in the experimental condition where they learned that fellow ingroup members engaged in intergroup contact with immigrants were more likely to interact with a British immigrant when they were given the opportunity to do so after the experiment had concluded. Meleady (2021) also found in study three that positive norms about ingroup contact with the outgroup were associated with more positive contact expectations and intentions.

Finally, in the fourth study, Meleady (2021) tested normative manipulations that conveyed low levels of intergroup contact. She found that, although learning that only a small amount of ingroup members often engage in contact with immigrants did not improve personal contact, learning that such contact between the in- and outgroup was prevalent increased participants' interest in contact with immigrants.

Overall, Meleady's (2021) studies offer strong, causal evidence that perceived positive norms - learning that fellow ingroup members engage in intergroup contact - improves the willingness for intergroup contact. This supports the idea that one's social context and those who form part of one's social context can influence one's social norms.

Exposure to a social context where positive intergroup contact is prevalent has also been associated with more tolerant norms (Christ et al., 2014). In a study conducted by McKeown et al. (2018) amongst youth in Northern Ireland, positive peer norms towards intergroup contact were associated with less antisocial behaviour towards either youth attending a predominant Protestant or Catholic school, and positive school norms towards intergroup contact were associated with prosocial intergroup behaviour. Similar results were reported by Tropp et al. (2014) who found that when sixth and seventh graders in America perceived their ingroup to be in support of inclusive norms towards cross-group friendships, it increased their personal interest in cross-group friendships.

In contrast, across five studies amongst 576 Bulgarians (study one), 38,075 citizens from 21 countries (study two), 75 Swiss-French participants (study 3), 58 Swiss high school participants (study four), and 300 Swiss-French participants (study 5), Visintin et al. (2019) showed that participants with less exposure to intergroup contact are more likely to conform to intolerant norms. However, participants who experienced more intergroup contact conformed less to intolerant norms (Visintin et al., 2019). Therefore, individuals who are exposed to a

diverse social context in support of intergroup contact are more likely to adopt social norms encouraging the acknowledgement of people from other social groups (Meyers et al., 2021).

In addition to an individual's social context, one's familial context also plays a role in developing contact norms. Children are exposed to the norms and beliefs held by their parents and broader family throughout their childhood and from a young age become aware of social groups (Cameron et al., 2001). During childhood, children adapt to a lay theory, determined by their social context (e.g., the influence of their parents/family), that those who are similar to them are "good" and this belief results in children preferring their ingroup and avoiding the outgroup (Cameron et al., 2001). Parents can therefore influence their child's perception of, and attitudes towards, intergroup contact. In other words, when parents relay positive messages about intergroup contact (e.g., by expressing a positive attitude towards intergroup contact or having cross-group friends), a child is less likely to avoid intergroup contact or have intergroup bias (Skinner & Meltzoff, 2019). Furthermore, when parents' intergroup contact is perceived as positive by adolescents it promotes positive approach tendencies and more positive contact (e.g., Bagci & Gungor, 2019). Therefore, an individual who comes from a family where intergroup contact was encouraged (and/or took place with some frequency) should be more willing to engage in intergroup contact and have a positive attitude towards the outgroup themselves (Stasiuk & Bilewicz, 2013).

The present research conceptualised subjective norms towards intergroup contact in terms of the attitudes held by family members towards social mixing between groups. It was hypothesised that, amongst white South African students at SU, subjective norms towards intergroup contact would be significantly positively associated with a willingness to engage in intergroup contact with black (African) and coloured South African students at SU (H2).

***Perceived behavioural control in relation to intergroup contact.***

Recall from the discussion earlier in this chapter that perceived behavioural control (PBC) refers to the perceived level of ease or difficulty of performing a behaviour (Ajzen, 1991). PBC is the only construct in the TPB that is hypothesised to predict both behavioural intention and behaviour, and can reflect past experiences (Ajzen, 1991). The greater the control and experience in performing a behaviour, the more willing an individual may be to execute the behaviour again.

In the context of intergroup contact, prior success in intergroup contact results in a “self-fulfilling prophecy”, generating confidence that positive intergroup contact can be experienced in future (Stevenson et al., 2020, p.3). In other words, having experienced positive contact should give a person a sense of confidence when thinking about future contact. As described by Turner and Cameron (2016) confidence in contact is “a state of readiness for positive contact” (p.12). Having the skills and beliefs that one can engage intergroup relations results in confidence in contact (Turner, 2020). One way in which individuals obtain the necessary confidence to engage in intergroup contact is by having experienced positive intergroup contact in the past. Having experienced positive contact increases the likelihood of engaging in future contact. This is because positive contact allows people to hold positive outgroup perceptions, less intergroup anxiety, and they anticipate the future contact situation to be positive and comfortable making it easy to approach such contact situations.

Swart et al.’s (2011a) three-wave longitudinal study referred to earlier in this thesis is a demonstration of the relationship between prior positive contact leading to future intergroup contact. This is observed in the stability of their measure of cross-group friendships with white South Africans over three waves of data collection amongst coloured South African participants. A three-wave longitudinal study, undertaken by Schofield et al. (2010) amongst 313 participants at an American university in their first year of study found that prior contact



with an outgroup roommate and contact at college predicted cross-group friendships amongst first-year college students towards the end of their first year. Experiences and characteristics prior to college were measured at Time 1. College experiences were measured at Time 2, and close and casual cross-group friendships were measured at Time 3. Prior direct ( $\beta = .34$ ,  $p < .001$ ) and indirect contact ( $\beta = .13$ ,  $p < .05$ ) reported at Time 1 predicted more cross-group friendships at Time 3. Having a roommate from the outgroup ( $\beta = .14$ ,  $p < .01$ ) and more contact with outgroup students at college ( $\beta = .21$ ,  $p < .001$ ) at Time 2 predicted having outgroup friends at Time 3 even when controlling for pre-college experiences.

Levin et al. (2003) collected data across five waves during the period of 1996 and 2000 among college students in America (Time 1:  $N = 2,156$ ; Time 2:  $N = 2,016$ ; Time 3:  $N = 1,667$ ; Time 4:  $N = 1,360$ ; Time 5:  $N = 1,215$ ). They found that cross-group friendships in the first year of college predicted more positive intergroup contact over time amongst African American, White American, and Latino American students.

More recently, Wang et al. (2020) conducted a study amongst 373 minority- and 325 majority-group members in China. They measured (amongst others) positive intergroup contact and the intention to engage in intergroup contact. They found that, for both groups, positive contact was significantly positively associated with the intention to engage in intergroup contact.

Given the important role that prior contact experiences have been shown to play in encouraging or discouraging future intergroup contact, the present research conceptualised perceived behavioural control as a function of prior positive intergroup contact with black (African) and coloured South Africans at school and as friends. Participants who report greater frequencies of prior positive contact with black (African) and coloured South Africans are more likely to feel a sense of control that they can successfully navigate future interactions with these outgroups than those participants with a limited prior history of positive intergroup contact. As

such, it was hypothesised in the present study that perceived behavioural control relating intergroup contact would be significantly positively associated with both the intention (willingness) to engage in intergroup contact with black (African) and coloured South African students at SU and the frequency of self-reported intergroup contact with these two outgroups at SU (H3). Finally, then, intergroup contact willingness is hypothesised to be significantly positively associated with the frequency of intergroup contact at SU (H4).

### **Chapter Summary**

This chapter offered an overview of the TPB, a theoretical framework for studying the predictors of behaviour. According to the TPB, attitudes, subjective norms and perceived behavioural control predict intention (willingness to perform behaviour), which in turn predicts behaviour. In addition, perceived behavioural control is also a predictor of behaviour. The TPB has been successfully tested in many fields of research. Furthermore, meta-analytic studies support the TPB as a rigorous framework for predicting behaviour (notwithstanding some critiques). There is evidence to suggest that the TPB can be applied to identifying the predictors of intergroup contact (willingness). The following chapter introduces the present study in greater detail and summarises the key results that were obtained.

## CHAPTER FOUR

### THE PRESENT STUDY

Positive intergroup contact offers the most empirically supported method for reducing intergroup prejudice and improving intergroup relations (see Davies et al., 2011; Lemmer & Wagner, 2015; Pettigrew & Tropp, 2006). Over almost 70 years of research, the contact hypothesis has developed into a bona fide theory (Hewstone & Swart, 2011). Contact theory not only describes a range of beneficial outcomes of a variety of different types of contact, but it also describes how intergroup contact achieves these effects (i.e., the mediators of intergroup contact) and when intergroup contact is most likely to achieve these effects (i.e., the moderators of intergroup contact; Hodson et al., 2013). In addition, positive contact experiences can extend well beyond the initial contact situation (Boin et al., 2021; Meleady et al., 2019). Advances are constantly being made in intergroup contact research. A key focus of contemporary contact research is understanding those factors that predict intergroup contact (Kauff et al., 2021).

The Theory of Planned Behaviour (TPB) is arguably the most well-known framework for studying the attitude-behaviour relationship. It has been successfully implemented to study the predictors of a wide range of behaviours (e.g., Ferdous, 2010; Niles et al., 2016; Oztekin et al., 2017; Saal & Kagee 2011). A key premise of the TPB is that behavioural intention is an important proximal predictor of behaviour. Individuals who have a greater intention to perform a behaviour are more likely to engage in the behaviour in the future than those individuals who have very little intention to perform a behaviour. In the theoretical framework described by the TPB, behavioural intention mediates the relationship between attitudes towards the behaviour, norms relating to the behaviour, and perceived behavioural control in relation to the behaviour, and the behaviour itself.

Despite advances being made in intergroup contact literature, little is still known about the factors that predict the willingness for intergroup contact and actual intergroup contact (Kauff et al., 2021). However, existing research does suggest that the TPB can be used in the context of intergroup contact to predict willingness for contact (intention) and actual intergroup contact (behaviour; see Kurian, 2008). By applying the key constructs of the TPB to intergroup contact, attitudes towards intergroup, subjective norms relating to contact, and perceived behavioural control would be the predictors of contact willingness, which would then be a predictor of intergroup contact behaviour. Furthermore, perceived behavioural control would also be a direct predictor of intergroup contact behaviour according to the TPB.

Research has shown that a positive attitude towards intergroup contact may lead to an increase in partaking in intergroup contact (Rivas-Drake et al., 2019). Similarly, when intergroup contact is seen as important, it is more likely to occur (Van Dick et al., 2004; Mähönen et al., 2011). Intergroup contact is usually perceived as important due to the possibility of personal or ingroup gain (Van Dick et al., 2004; Mähönen et al., 2011). In addition, diversity also presents an opportunity for intergroup to take place (Hewstone, 2015) and a positive attitude towards diversity may enhance the possibility for intergroup contact.

Norms also play an important role in the occurrence of intergroup contact. For example, positive peer and school norms towards intergroup contact promotes less antisocial behaviour and more prosocial behaviour (McKeown et al., 2018). A person exposed to a social context with positive intergroup contact norms is more likely to adopt tolerant norms, whereas a person with less exposure to a social context promoting intergroup contact will more likely adopt intolerant norms (Visintin et al., 2019). An influential social context, for example, is family. Parents can have a big influence on a child's willingness for contact. Should parents relay positive messages about contact or their intergroup contact experiences are perceived as positive, a child is less likely to avoid contact since positive approach tendencies towards

contact are developed as norm (Bagci & Gungor, 2019; Skinner & Meltzoff, 2019). Additionally, perceived behavioural control, conceptualised in the present study as successful prior experiences of intergroup contact, most likely influences contact willingness. A person will be confident and more likely to perform intergroup contact due to having had prior experiences of engaging successfully in intergroup contact, a prediction that is supported by longitudinal research on cross-group friendships (e.g., Levin et al., 2003; Schofield et al., 2010; Swart et al., 2011a).

This chapter introduces the present study that aimed to study the relationship between attitudes towards intergroup contact, norms towards intergroup contact, and perceived behavioural control in relation to intergroup contact (as distal predictors of intergroup contact) and the intention (or willingness) to engage in intergroup contact (as a proximal predictor of intergroup contact), and positive intergroup contact. In other words, it introduces the present study that aimed to explore the predictors of contact willingness and positive intergroup contact within the theoretical framework offered by the theory of planned behaviour. This chapter also summarizes the results of the present study. Below I introduce the present study, its rationale, aims, and objectives, along with the hypotheses that were tested. I then describe the methodology that was employed and the materials that were used, before summarizing the key results that were found.

## **Overview**

The present study comprised a secondary data analysis of data collected in 2019 amongst white South African first-year economics students studying at Stellenbosch University (SU). The aim of the present study was to investigate the relationship between attitudes towards intergroup contact, norms towards intergroup contact, and perceived behavioural control

relating to contact as predictors of the intention to engage in intergroup contact (or behavioural intention) and positive intergroup contact. Previous contact studies have found support for attitudes towards contact (e.g. Mähönen et al., 2011; Van Dick et al., 2004), norms towards contact (e.g., McKeown et al., 2018; Meleady, 2021; Skinner & Meltzoff, 2019), and perceived behavioural control (referred to in the contact literature as confidence in contact; e.g., Cameron & Turner, 2016)) as predictors of either contact willingness (e.g., Wang et al., 2020) or actual intergroup contact (e.g., Levin et al., 2003; Schofield et al., 2010 ). However, none of these studies have included all three of these predictors into their analyses at the same time (but see Kurian, 2008). As such, the present study aimed to address this gap in the contact literature by investigating these predictors of contact willingness and positive intergroup contact within the theoretical framework of the TPB, in the South African context.

## **Research Rationale**

South Africa is a post-conflict society and a product of a damaging history due to Apartheid. Apartheid brought about strict rules perpetuating racial segregation, dictating the lives of citizens' whereabouts, relationships, education, and occupation (Landis, 1957; Mhlauli et al., 2015; Motlana, 1985; Seekings, 2007). The abolishment of Apartheid allowed for people to experience a different way of living, especially allowing individuals to experience intergroup mixing. Being a post-conflict society, it is important to promote positive intergroup relations, which requires individuals to engage in positive intergroup contact. However, there is literature to suggest that South Africans frequently avoid such contact (Dixon & Durrheim, 2003; Koen & Durrheim, 2010; Schrieff et al., 2005; Tredoux & Dixon 2009). This could be due to intergroup anxiety, structural norms, or habits that maintain segregation, or even lacking the confidence to take part in contact encounters (Paolini et al., 2018).

SU is a previously white South African University. Like South Africa, SU is constantly undergoing change, especially racial transformation, striving to be more inclusive. Thus, there are more opportunities for students to experience contact at university than they might experience in their neighbourhoods, which may remain largely segregated (Statistics South Africa, 2016). Universities like SU offer young South African adults the opportunity to have positive intergroup contact with South Africans and non-South African from a broad spectrum of social groups. Considering South Africa's history and its ever-growing diverse society, as well as the social context of intergroup relations at SU, discovering how to bring people into contact through increasing contact willingness will be beneficial.

The present study attempted to use the TPB to identify the factors that predict willingness for intergroup contact at SU amongst white South African students. The results will help better understand those factors that predict a greater willingness to engage intergroup contact at SU. The findings of this study will be beneficial as it will add valuable information to the new frontier of contact research. Additionally, this study may be beneficial for developing interventions providing insight as to which factors need to be focused on to enhance people's willingness to engage in intergroup contact.

The participants in the present study were white South African first-year students, studying Economics at SU. They answered a series of survey questions relating to the target outgroups of black (African) and coloured South Africans, the largest numerical minority groups at SU. I do acknowledge that these racial categories have been socially constructed, however the acknowledgement of these racial categories remains prevalent. Racism and racial segregation are still rife in South Africa and the construction thereof is done knowingly and unknowingly. In addition to this, black (African) and coloured South Africans still fall victim to racial discrimination and negative stereotypes. For this reason, it remains important to study intergroup relations within the context of these categories.

For the present study, I was able to identify and address various gaps that exist in the contact literature. Firstly, and more broadly, the literature regarding the predictors of contact willingness and intergroup contact is sparse (see Kauff et al., 2021). Secondly, with reference to the South African context, research pertaining to the predictors of contact willingness and intergroup contact is limited (see Kurian, 2008). Thirdly, despite the TPB offering a robust method to study behaviour, it has rarely been studied in conjunction with intergroup contact.

### **Aims and Objectives**

The aim of the present study was to address a gap in intergroup contact research by adopting the theoretical framework provided by the TPB to undertake a secondary data analysis investigating the relationship between (a) attitudes, norms, and perceived behavioural control and intergroup contact (willingness); and (b) intergroup contact willingness and the frequency of direct face-to-face contact at SU amongst a sample of white South African SU students.

The primary objective of the present study was to undertake a series of multiple regressions to test hypotheses relating to the relationships between the aforementioned constructs, each derived from the TPB. More specifically, the objectives were to test (a) whether attitudes and norms towards, and perceived behavioural control relating to, intergroup contact predicted the willingness for intergroup contact amongst white South African SU students; and (b) whether perceived behavioural control relating to intergroup contact and willingness for intergroup contact predicted the frequency of actual intergroup contact amongst white South African SU students.



## Hypotheses

Four hypotheses were tested in the present study, each of which were derived from the literature. Amongst white South African students at SU:

- H1:** attitudes towards intergroup contact will be significantly positively associated with a willingness to engage in intergroup contact with black (African) and coloured South African students at SU;
- H2:** subjective norms towards intergroup contact will be significantly positively associated with a willingness to engage in intergroup contact with black (African) and coloured South African students at SU;
- H3:** perceived behavioural control relating towards intergroup contact will be significantly positively associated with both a willingness to engage in intergroup contact with black (African) and coloured South African students at SU and the frequency of self-reported intergroup contact with these two outgroups at SU; and
- H4:** intergroup contact willingness will be significantly positively associated with the frequency of positive intergroup contact at SU with black (African) and coloured South African students at SU.

## Procedure

The present study comprised of the secondary data analysis of cross-sectional survey data previously collected over an eight-week period (September to October 2019) amongst first-year Economics students studying at SU (referred to below as ‘the original project’). The original project (undertaken by Dr Hermann Swart, Department of Psychology, Stellenbosch University) received both Institutional Permission and ethics clearance from the Research Ethics Committee (REC: PSY-2018-7796; see Appendix A). Prospective participants each

received an email invitation to participate in an online survey on the social networks and interactions amongst first-year Economics students at SU. Each email invitation included a unique URL, a link that directed interested students to the online consent form (Appendix A). Students who agreed to participate in the original project after reading the online consent form were directed to the online survey. Participation was anonymous, survey responses were confidential, and participants were allowed to withdraw from the online survey at any point if they wanted to. Those participants who completed the online survey were entered into a Prize Draw.

## **Materials**

Students who agreed to participate in the original project were directed to the main survey (Appendix B). Do note that the main survey included in Appendix B only includes a subset of the measures included in the original project. This subset of measures included here are those measures that are relevant to the present study.

First, participants completed a series of questions probing demographic information (including self-identified ethnicity, gender, age, and home language). The following key measures were drawn from the main survey of the original project to test the hypotheses introduced above: attitudes towards intergroup contact in general, subjective norms towards intergroup contact in general, perceived behavioural control in relation to intergroup contact with black (African) and coloured South Africans, willingness to engage in intergroup contact with black (African) and coloured South Africans in general, and a measure of the frequency of positive intergroup contact with black (African) and coloured South African students at SU.

***Attitudes towards intergroup contact.***

Attitudes towards contact was measured using two items developed for the original project. Participants were asked to indicate the extent to which they agreed or disagreed with each the following two statements: “*My contact with people from other ethnic groups is important to me personally.*” and “*I am in favour of more mixing between different ethnic groups in my neighbourhood.*”. Each item was scaled from 1 (*Strongly Disagree*) to 7 (*Strongly Agree*). These two items were averaged to create a composite score of attitudes towards intergroup contact.

***Norms towards intergroup contact.***

Two items were developed for the original project to measure subjective norms towards intergroup contact. Participants were asked to indicate the extent to which they agreed or disagreed with each of the following two statements: “[*As a child/teenager growing up*] *My family actively encouraged me to mix with people of all ethnic backgrounds.*” and “[*As a child/teenager growing up*] *My family members had ethnically mixed friendship groups.*”. Each item was scaled from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). These two items were averaged to create a composite score of norms towards intergroup contact.

***Perceived behavioural control relating to intergroup contact.***

Four items were drawn from the original project to create a proxy measure of perceived behavioural control. In line with research on confidence in contact (see Turner, 2020; Turner & Cameron, 2016), the frequency of prior experiences of intergroup contact can be expected to relate to greater confidence in contact and is expected to predict greater perceived behavioural control related to intergroup contact. As such, participants were asked the following questions regarding their prior intergroup contact experiences with black (African) and coloured South Africans as a child and teenager: “*As a child and teenager, how much*

*contact did you have with black (African) South Africans at school?”*, *“As a child and teenager, how much contact did you have with black (African) South Africans as close friends?”*, *“As a child and teenager, how much contact did you have with coloured South Africans at school?”*, and *“As a child and teenager, how much contact did you have with coloured South Africans as close friends?”*. Each item was scaled from 1 (*Never*) to 5 (*Very Often*). These four items were averaged to create a composite score of perceived behavioural control.

### ***Contact willingness.***

Contact willingness was assessed using two items developed for the original project, relating to the desire for future interactions with black (African) and coloured South Africans. Participants were asked to respond to the following two statements (indicating the likelihood of each scenario): *“Next time you find yourself in a situation where you could interact with someone from a black (African) South African background, how likely is it that you would strike up a conversation with them?”* and *“Next time you find yourself in a situation where you could interact with someone from a coloured South African background, how likely is it that you would strike up a conversation with them?”*. Each item was scaled from 1 (*Very Unlikely*) to 5 (*Very Likely*). These two items were averaged to create a composite score of contact willingness.

### ***Contact frequency at Stellenbosch University.***

Positive intergroup contact experiences were measured using two items developed for the original project relating to the frequency of positive contact at Stellenbosch University with black (African) and coloured South Africans. Participants were asked to respond to the following two questions: *“At Stellenbosch University, how often do you personally have positive experiences (e.g., making friends, feeling welcome, being helped) with members of each of the following groups?”* (1) *black (African) South Africans*; (2) *coloured South Africans*.

Each item was scaled from 1 (*Never*) to 5 (*Very Often*). These two items were summed to create a composite score of frequency of intergroup contact at SU.

## Participants

A total of 169 white South African participants (n = 66 males, n = 102 females, n = 1 preferred not to indicate their gender) completed the online survey ( $M_{\text{age}} = 18.67$  years,  $SD = 0.77$ , Range = 18 to 22 years). In total, 99 participants indicated English as their home language and 68 participants indicated Afrikaans as their home language (n = 2 indicated 'Other').

## Results

### *Preliminary analyses.*

Preliminary data analyses were undertaken using IBM SPSS (Version 28.0.0.0). First, data were analysed to assess whether the primary assumptions necessary for parametric data analysis procedures (e.g., normality) were met. To this end, item skewness and kurtosis estimates were calculated. Items that scored between -2.00 and +2.00 in skewness and between -7.00 and +7.00 in kurtosis were regarded as sufficiently normally distributed to allow for the estimation of reliable parameter estimates using parametric data analysis (West et al., 1995). These preliminary analyses confirmed that items associated with the main constructs of interest were sufficiently normally distributed ( $\text{Min}_{\text{skew}} = -0.87$ ;  $\text{Max}_{\text{skew}} = 0.06$ ;  $M_{\text{skew}} = -.05$ ;  $\text{SD}_{\text{skew}} = 0.19$ ;  $\text{Min}_{\text{kurtosis}} = -1.21$ ;  $\text{Max}_{\text{kurtosis}} = 0.66$ ;  $M_{\text{kurtosis}} = -0.34$ ;  $\text{SD}_{\text{kurtosis}} = 0.37$ ).

An exploratory factor analysis (EFA), using a maximum likelihood estimator, direct oblimin rotation, and Eigenvalue threshold set to 1.00, was carried out to determine the

dimensionality of the four-item measure of perceived behavioural control. These analyses confirmed that all four items loaded onto a single factor (explaining 53.64% of the variance).

The reliability of the four-item measure of perceived behavioural control was calculated using Cronbach's alpha. These analyses showed that this four-item measure displayed suitable reliability ( $\alpha = .74$ ). The reliability of each of the remaining two-item constructs was inferred from the bivariate correlation (Pearson's  $r$ ) between each of the two items in each construct. A strong significant correlation between the two items was deemed indicative of substantial shared variance between the two items, supporting their internal consistency. The bivariate correlations between the items in each construct are summarised in Table 1. The bivariate correlations between, and the Means ( $M$ ; calculated as the average score across the items of all constructs except for frequency of contact at SU, which is a summed score) and standard deviations ( $SD$ ) of each composite variable are summarised in Table 2.

### ***Main analyses.***

Latent variable structural equation modelling was undertaken in *Mplus* (Version 7.0; Muthen & Muthen, 1998-2012) to test the main hypotheses of the present study. A variety of goodness-of-fit indices were used to assess the model fit of the measurement and structural models that were tested. The two-step approach recommended by Anderson and Gerbing (1988) was adopted. The cut-off points for the good model fit for each of the fit indices were as follows: non-significant ( $p > .05$ ) chi-square ( $\chi^2$ ) statistic (Hu & Bentler, 1999), a chi-square per degree of freedom ( $\chi^2/df$ ) ratio  $< 3:1$  (Kline, 2011), a comparative fit index (CFI)  $\geq .95$  (Bentler, 1990), a root mean square error of approximation (RMSEA)  $< .05$  (Fabrigar et al., 1999), and a standardised root mean square residual (SRMSR)  $< .05$  (Hu & Bentler, 1999).

**Table 1***Bivariate Correlations Between Items in Each Construct.*

	1	2	3	4	5	6	7	8	9	10	11	12
<b>1. Attitude towards contact Item 1</b>	-											
<b>2. Attitude towards contact Item 2</b>	.43**	-										
<b>3. Norms towards contact Item 1</b>	.30***	.20*	-									
<b>4. Norms towards contact Item 2</b>	.32***	.27***	.52***	-								
<b>5. Perceived behavioural control Item 1</b>	.29***	.19**	.38***	.34***	-							
<b>6. Perceived behavioural control Item 2</b>	.11	-.06	.18**	.24***	.36***	-						
<b>7. Perceived behavioural control Item 3</b>	.43***	.37***	.51***	.45***	.73***	.24**	-					
<b>8. Perceived behavioural control Item 4</b>	.22***	.08	.25**	.30***	.25**	.60***	.34***	-				
<b>9. Contact willingness Item 1</b>	.32***	.35***	.27***	.28***	.42***	.05	.47***	.09	-			
<b>10. Contact willingness Item 2</b>	.05	.18	.20	.26***	.21**	.17*	.29***	.12	.64***	-		
<b>11. Positive contact at SU Item 1</b>	.39***	.42***	.16*	.23**	.37***	.05	.43***	.19*	.43***	.21**	-	
<b>12. Positive contact at SU Item 2</b>	.29***	.20***	.06	.12	.19**	.17*	.26***	.17*	.20***	.23***	.65***	-

Note: SU = Stellenbosch University. Shaded cells identify bivariate correlations between items from the same construct.

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$ .

**Table 2***Bivariate Correlations Between, and the Means (M) and Standard Deviations (SD) of each Composite Variable*

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>M</b>	<b>SD</b>	<b>Reliability</b>
<b>1. Attitude towards contact (2 items)</b>	-					5.30	1.05	.43***
<b>2. Norms towards contact (2 items)</b>	.37***	-				3.64	0.93	.52***
<b>3. Perceived behavioural control (4 items)</b>	.33***	.52***	-			3.26	0.90	.74 <sup>†</sup>
<b>4. Contact willingness (2 items)</b>	.31***	.32***	.35***	-		3.58	.85	.64***
<b>5. Positive contact at SU (2 items)</b>	.41***	.20*	.36***	.32***	-	6.91	1.76	.65***

Note: SU = Stellenbosch University. The composite measures of Attitudes towards contact (scaled from 1 to 7), Norms towards contact (scaled from 1 to 5), Perceived behavioural control (scaled from 1 to 5), and Contact willingness (scaled from 1 to 5) were calculated as the mean score across the items comprising the measure. The composite measure of Positive contact at SU (scaled from 1 to 5) was calculated as a sum score (measuring contact frequency), with a maximum composite score of 10 and a minimum composite score of 2.

<sup>†</sup> Reliability calculated using Cronbach's  $\alpha$ . Reliability estimates for all two-item constructs calculated using Pearson's  $r$ .

\*  $p < .05$ ; \*\*\*  $p < .001$

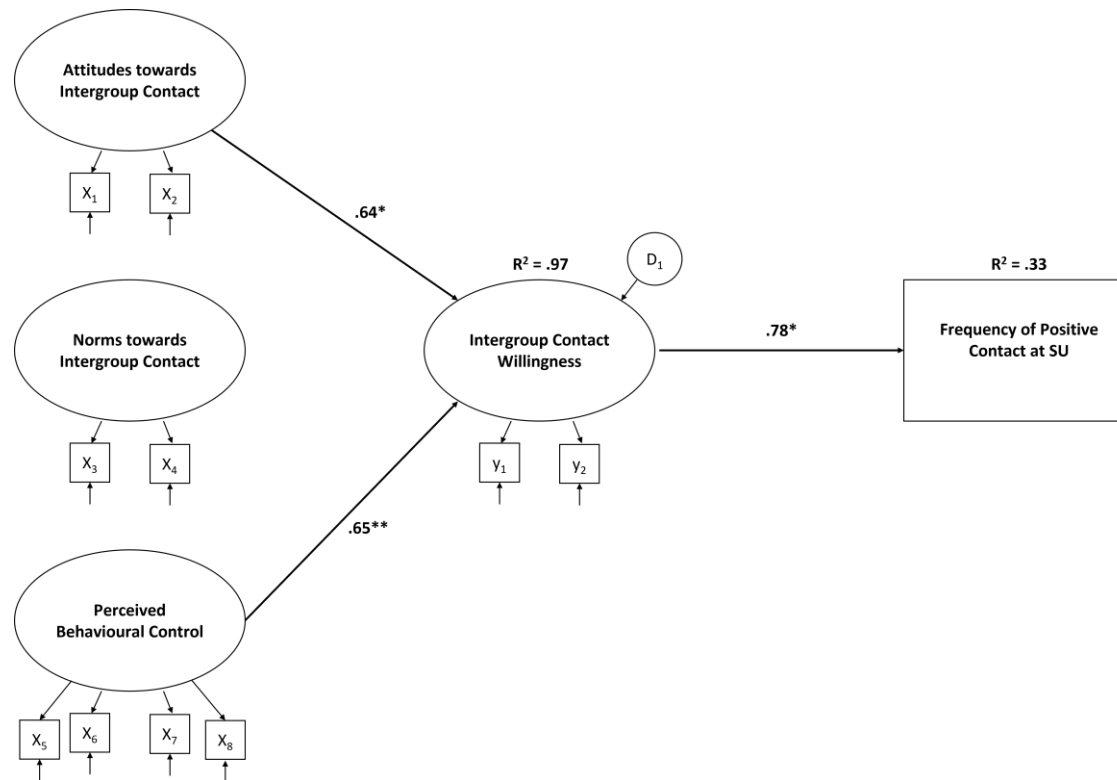


In the first step, a measurement model was tested for goodness of fit. This was achieved via a confirmatory factor analysis (using a robust maximum likelihood estimator) to test the unidimensionality of the latent constructs simultaneously. The measurement model displayed good fit,  $\chi^2 (27) = 43.09, p < .05, \chi^2:df = 1.60:1; CFI = .97; RMSEA = .059, 90\% CI [.021, .091]; SRMR = .051$ . In the second step, the structural model specifying the hypothesized relationships between the latent constructs was tested. This model also displayed good fit,  $\chi^2 (34) = 49.49, p < .05, \chi^2:df = 1.46:1; CFI = .97; RMSEA = .052, 90\% CI [.010, .082]; SRMR = .049$ .

Taking a closer look at the unstandardised relationships between the latent variables, attitudes towards intergroup contact was significantly associated with contact willingness ( $b = .64, p < .05, 95\% CI [0.14, 1.14]$ ). Norms regarding intergroup contact was not significantly associated with contact willingness ( $b = -.26, p = .15, 95\% CI [-0.63, 0.10]$ ). Perceived behaviour control was significantly positively associated with contact willingness ( $b = .65, p < .01, 99\% CI [0.18, 1.11]$ ), however, it was not significantly associated with the frequency of positive contact at SU ( $b = -.26, p = .48, 95\% CI [-0.96, 0.45]$ ). Contact willingness was significantly positively associated with the frequency of positive contact at SU ( $b = .78, p < .05, 95\% CI [0.09, 1.47]$ ). Moreover, there was a significant indirect association between attitudes and the frequency of positive contact at SU via contact willingness ( $b = .50, p < .05, 95\% CI [0.19, 0.81]$ ). The indirect association between perceived behavioural control and the frequency of positive contact at SU, via contact willingness, was non-significant ( $b = -.51, p = .17, 95\% CI [-0.21, 1.22]$ ). The structural model explained 97% of variance in contact willingness and 33% of variance in the frequency of positive contact at SU. These results are summarised in Figure 4 below.

**Figure 4**

The structural model illustrating the predictors of contact willingness and frequency of intergroup contact at Stellenbosch University amongst white South African students.



Note. N = 169; \*  $p < .05$ , \*\*  $p < .01$ ; Standardized coefficients; only significant paths are reported. D<sub>1</sub> = Disturbance term representing the error variance associated with the latent variable of intergroup contact willingness.

## Summary of Findings

Results from the latent variable structural equation modelling that was undertaken yielded full support for two of the four hypotheses (H1 and H4) and partial support for one of the four hypotheses (H3). As hypothesized, both positive attitudes towards intergroup contact (H1) and perceived behavioural control (partial support for H3) were significantly positively associated with intergroup contact willingness. However, norms towards intergroup contact were not significantly associated with intergroup contact willingness (rejecting H2), while perceived behavioural control was not significantly positively associated with the frequency of positive intergroup contact at SU (partially rejecting H3). Intergroup contact willingness was significantly positively associated with the frequency of positive intergroup contact at SU (supporting H4). Moreover, intergroup contact willingness significantly mediated the relationship for both positive attitudes towards contact and the frequency of positive contact at SU. These results are discussed in further detail within the context of the existing literature and the context of intergroup relations at SU in the chapter that follows.

## CHAPTER FIVE

### DISCUSSION

Intergroup contact offers a reliable means for reducing prejudice and enhancing positive intergroup attitudes (see Pettigrew & Tropp, 2006). Research has also identified the mediators (e.g., Pettigrew & Tropp, 2008; Swart et al., 2011a; Zagefka et al., 2015) and moderators (e.g., Allport, 1954, Dovidio et al., 2017; Tropp & Pettigrew, 2005) of intergroup contact, and has also established the broad generalisation of intergroup contact effects (for reviews see Boin et al., 2021; Lolliot et al., 2013). Thus, what began as the contact hypothesis has developed over the past seven decades into intergroup contact theory (Hewstone & Swart, 2011).

The benefits of positive intergroup contact are of no consequence if people choose to avoid engaging in intergroup contact (see Al Ramiah et al., 2015; Moore-Berg et al., 2020; Stathi et al., 2020a). Research on the predictors of intergroup contact (willingness) is the latest frontier in contact research (see Kauff et al., 2021). This research is important because knowing what predicts contact can inform interventions that aim to promote intergroup contact and enhance peoples' willingness to engage in contact.

The present study was conducted at Stellenbosch University, which offers a quintessential setting to study intergroup contact because the student body of the University has become increasingly diverse. Moreover, universities offer important opportunities for young South Africans to engage in regular intergroup contact, given the persistent patterns of isolation and segregation that remain in South African neighbourhoods (Parry & van Eeden, 2015) and other informal social settings (Dixon & Durrheim, 2003; Tredoux & Dixon, 2009). However, there is research to suggest that even at South African universities that offer increased opportunities for intergroup contact, students might still choose to avoid intergroup

contact (Alexander & Tredoux, 2010; Durrheim et al., 2004; Koen & Durrheim, 2010; Schrieff et al., 2005, 2010; Woods, 2001). This adds to the rationale that motivated the present study's focus on the predictors of intergroup contact (willingness).

The present study comprised a secondary data analysis to investigate the predictors of intergroup contact (willingness) within the theoretical framework of the Theory of Planned Behaviour (TPB), which offers one of the best-supported models for predicting behaviour and behavioural intentions. Four hypotheses were developed and tested, three of which received some level of support. Positive attitudes towards intergroup contact and perceived behavioural control in relation to intergroup contact were each significantly positively associated with intergroup contact willingness amongst the white South African participants. Furthermore, amongst these participants, intergroup contact willingness was significantly positively associated with the frequency of positive intergroup contact with black (African) and coloured South African students at SU.

Below, I discuss the results of the present study in relation to the existing contact and TPB literature. I will first discuss the results relating to the significant relationship between attitudes towards intergroup contact and intergroup contact willingness. Then, I will discuss the results relating to the significant relationship between perceived behavioural control and contact willingness, before discussing the results relating to the significant relationship between intergroup contact willingness and the frequency of positive intergroup contact at SU. I will also discuss the non-significant results observed for the relationship between norms towards intergroup contact and intergroup contact willingness. Finally, I will address some of the limitations of the present study before concluding with suggestions for future research.

## **The TPB and Predictors of Intergroup Contact (Willingness)**

The predictors of intergroup contact were examined within the framework of the Theory of Planned Behaviour (TPB). Overall, the results of this study are in partial support of the TPB as a framework for examining the predictors of willingness for contact and contact frequency at Stellenbosch University (SU).

### ***Attitude towards intergroup contact.***

The present study found that attitude towards intergroup contact, which was measured by contact importance and general mixing attitudes, was significantly positively associated with a willingness for intergroup contact at SU. Therefore, participants who shared the view that intergroup contact was important and who held positive attitudes towards mixing socially with other groups were also more likely to report a willingness to engage in intergroup contact with black (African) and coloured South Africans. This result supports a key assumption underlying the TPB and corresponds with a substantial body of evidence in the TPB literature (e.g., Bagheri et al., 2021; Ramírez-Correa & Ramírez-Santana, 2018; Saal & Kagee, 2011; Senger et al., 2017; Teye-Kwadjo et al., 2017). This result corresponds to the findings of Kurian (2008), who undertook the only other study that used the TPB to predict intergroup contact in the South African context and found that attitudes towards mixing socially was the strongest predictor of intergroup contact amongst the three predictors of the TPB.

It is also closely linked to the findings reported by Van Dick et al. (2004), who showed that when contact was perceived as important people had a more positive attitude towards contact and were more invested in participating in contact encounters. Furthermore, this result supports the idea that attitudes serve as a micro-level predictor of contact willingness (see Kauff et al., 2021).

This finding that attitudes towards intergroup contact predicts willingness to engage in intergroup contact opens new avenues for the contact literature, because it highlights the need for research testing the causal effect of attitude on intergroup contact. Vast amounts of research show that intergroup contact improves intergroup attitudes (for review see Pettigrew & Tropp 2006), but there is relatively less research exploring the influence of existing attitudes on intergroup contact. These findings also point to the need for research exploring other possible attitudinal factors that may predict the willingness for intergroup contact. These factors could include attitude towards diversity or attitude towards the perceptions of the outgroup, as suggested by Kauff et al. (2021).

Focusing more specifically on the context in which the present study was conducted, this finding has practical implications for interventions at SU aimed at increasing the willingness to engage in intergroup contact. Findings showed that amongst white students at SU, attitudes towards intergroup contact predicted a willingness to engage in intergroup contact with black (African) and coloured South African students. Practically, this implies that to enhance students' willingness to partake in intergroup contact their attitude towards intergroup contact needs to be positive. In relation to the findings of the present study, this can be done by creating interventions aimed at developing the perception that intergroup contact is important. In addition, enhancing students' attitude to mixing socially may encourage them to be more willing to engage in intergroup contact.

***Perceived behavioural control towards intergroup contact.***

Perceived behavioural control in the present study was measured in terms of prior experience of positive intergroup contact (measured by the frequency of intergroup contact with black (African) and coloured South Africans as a child or teenager). Perceived behavioural control was significantly positively associated with a willingness for intergroup contact with

black (African) and coloured South Africans. Perceived behavioural control was also the strongest predictor among the three variables predicting willingness for intergroup contact.

This finding corroborates that observed in several previous studies within the TPB framework (e.g., Bohon, 2016; Oztekin et al., 2017), including those where perceived behavioural control was the strongest predictor of behavioural intention (e.g., De Leeuw et al., 2015; Mirkarimi et al. 2016). Within the context of research on the predictors of intergroup contact more generally, this finding supports the conclusion drawn by Kauff et al. (2021; see also Turner, 2020; Turner & Cameron, 2016) that individuals who have successfully engaged in positive intergroup contact in the past are more likely to be willing to engage in intergroup contact in the future because they are more confident that they can successfully enjoy positive intergroup contact experiences (i.e., they believe they have behavioural control in relation to positive intergroup contact. This was also observed by Wang et al. (2020) amongst minority- and majority-group Chinese samples. Importantly, the present findings support those reported by Kurian (2008) amongst a student sample at Wits, where perceived behavioural control was also observed to be significantly associated with intergroup contact intentions.

This finding highlights the importance of positive intergroup contact, not only for reducing prejudice and enhancing positive outgroup attitudes, but also to ensure that people remain willing to engage in contact. From a practical point of view, in the context of SU, contact willingness can be promoted by having students reflect on the positive outcomes of prior contact situations and how it made them feel, instilling the idea of wanting to engage in contact again.

It is worth noting, however, that perceived behavioural control (measured as prior positive intergroup contact with black (African) and coloured South Africans when growing up as a child or teenager) was not significantly associated with the frequency of intergroup contact with black (African) and coloured South African students at SU. This finding is not



entirely new in the TPB literature. For example, Cordano and Frieze (2000) found that perceived behavioural control was not significantly associated with pollution prevention behaviours, while Ferdous (2010) found that perceived behavioural control was not significantly associated with sustainable marketing behaviours. Nevertheless, this finding is at odds with longitudinal results from the contact literature that showed that prior intergroup contact was a reliable predictor of future intergroup contact amongst (see Levin et al., 2003; Schofield et al., 2010; Swart et al., 2011a). It may be that there are additional factors (not included in the present study) that may moderate the relationship between perceived behavioural control and the frequency of intergroup contact at SU. For example, it may be important to include prior experiences of negative contact as a predictor of contact willingness as negative contact is likely to reduce the willingness to engage in future contact and increase prejudice (Meleady & Forder, 2019).

#### ***Norms towards intergroup contact.***

Norms towards intergroup contact was conceptualised in the present study in relation to childhood norms relating to intergroup contact. Norms were not significantly associated with intergroup contact willingness in the present study. This is somewhat surprising given the contact literature showing that when children are exposed to positive intergroup contact during childhood by their parents, they are more willing to engage in intergroup contact themselves (see Bagci & Gungor, 2019; Skinner & Meltzoff, 2019; Stasiuk & Bilewicz, 2013). Similarly, Tropp (2014), McKeown et al. (2018), and Meleady (2021) have shown that positive peer- and social norms towards intergroup contact is associated with an increased interest in intergroup contact. Findings like these underpin the argument made by Kauff et al. (2021) that societal norms are important predictors of contact willingness at a macro-level. This is supported by the study undertaken by Kurian (2008), who found that norms towards intergroup contact was a significant predictor of intention to engage in contact at Wits.

While this non-significant result is somewhat surprising when taking the contact literature into account, it is not unusual within the context of prior TPB research. Norms are frequently identified in TPB studies as either the weakest predictor of behavioural intention (e.g., Armitage & Conner, 2001; Rhodes & Nigg, 2011; Terry et al., 2000), or as a non-significant predictor of behavioural intentions (see Niles et al., 2016; Teye-Kwadjo et al., 2017). As in the case of these earlier TPB studies, it may be that, in the present study, the norms that were measured (i.e., childhood norms) are not sufficiently salient to guide contact intentions relative to current peer or social norms. It is also worth asking to what extent participants were able to recall their childhood norms relating to intergroup contact reliably in the present study. The result of this study may further suggest that norms may not be entirely irrelevant as a predictor of behavioural intention, but that personal factors may play a greater role in predicting behavioural intention compared to social pressures (Terry et al., 2000)

***Willingness to engage in intergroup contact.***

A willingness to engage in intergroup contact with black (African) and coloured South Africans in general was significantly positively associated with the frequency of intergroup contact with black (African) and coloured South African students at SU. This finding supports several previous TPB studies that found that behavioural intention was significantly positively associated with behaviour itself (e.g., De Leeuw et al., 2015; Ramírez-Correa & Ramírez-Santana, 2018).

The willingness to engage in intergroup contact significantly mediated the relationship between attitudes towards intergroup contact and the frequency of intergroup contact at SU. Although contact willingness did not significantly mediate the relationship between norms or perceived behavioural control and contact frequency, the present result still offers partial support for the TPB, showing that behavioural intention increases the chances of the actual behaviour to be performed (Ajzen, 1991).

When considering all the results of the present study together, including two confirmed hypotheses and one partially confirmed hypothesis, it would be that the present study offers tentative support for the idea that the TPB can be used to help determine the predictors of intergroup contact (willingness). Thus, the TPB might still serve as a good stepping-stone in broadly determining which factors could predict a willingness to engage in contact and if it could lead to actual intergroup contact. Given the results of the present study, interventions aimed at increasing the willingness to engage in intergroup contact at SU can be designed with the intention of promoting more positive attitudes towards intergroup contact and enhancing the perceived behavioural control associated with intergroup contact amongst SU students. Despite these encouraging results, the present study has several limitations associated with it that may explain why not all the hypotheses were supported, and that suggest caution is warranted when interpreting the results.

### **Limitations**

The present study makes a modest contribution to research undertaken on the predictors of intergroup contact within the theoretical framework of the TPB. It follows up on the only other South African study identified in the literature to have explored the predictors of intergroup contact willingness using the TPB (see Kurian, 2008). It also answers the call made by Kauff et al. (2021) in their review of the emerging literature exploring the predictors of intergroup contact, that more research is needed in this area. The present study also adds to the significant body of literature that has shown that the TPB remains a useful framework for studying behaviour, arguing against the view put forth by Sniehotta et al. (2014) that the TPB should be retired.

Of course, not all the predictions of the TPB were supported in the present study. Nevertheless, the present study has hopefully created a steppingstone for further contact research on the willingness (intention) to engage in intergroup contact using the TPB. Lastly, the present study adds insight into the South African context and is one of only two South African studies that have studied the predictors of intergroup contact using the TPB. The present findings could assist the development of interventions aimed at promoting a greater willingness to engage in intergroup contact on South African university campuses, by focusing on promoting more positive attitudes towards, and greater perceived behavioural control of, intergroup contact amongst university students. Nonetheless, despite these contributions, the present study also has several limitations. Four of these are discussed in further detail below.

#### ***Cross-sectional data.***

The first limitation to be addressed is that the results of the present study are based on cross-sectional data. Data were collected at one point in time, and it can therefore only highlight associations and correlations between variables, and not offer a test of the causal (or temporal) assumptions about the relationships between variables that are implied in the path model that was tested (Maninder, 2016; Sedgwick 2014; Wang & Cheng, 2020). To resolve this limitation, a longitudinal design can be used as data can be collected at various points in time and a sequence of events can be established, allowing for change over time to be recorded (Caruana et al., 2015). It should be acknowledged that cross-sectional designs do have their advantages, the most important of which are that they offer a cost and time effective means of data collection (because data is only collected once; Wang & Cheng, 2020).

#### ***Generalisability.***

The second limitation of the present study is the limited generalisability of the findings. Data were collected from a convenience sample of white South African first-year Economics

students at SU. Not only is this sample not representative of white South African students at SU more broadly, but it is also not representative of white South Africans nationally. As such, it is unclear whether the pattern of results that were observed in the present study can be replicated amongst other samples of white South African students (at SU or at other universities) or amongst the white South African population more generally. In addition to this, the fact that the data that were analysed only included responses from the historically advantaged-group white South African students, it is unclear whether the pattern of results that were observed could be replicated amongst students from historically disadvantaged groups. This is an important consideration because the literature shows that historically advantaged and disadvantaged group members avoid intergroup contact for different reasons (for example, see Al Ramiah et al., 2015; Stathi et al., 2020a; Sue et al., 2013; Trawalter et al., 20125), and it is therefore plausible to question whether group status plays a role in the predictors of willingness for contact in the context of South Africa.

### ***Self-report data.***

The third limitation of the present study relates to the way the data were collected. The data analysed in the present study was self-report data and did not include any observations of students' behaviour. Self-report questionnaires are always accompanied by the risk of social desirability bias, especially when they relate to socially sensitive topics. Social desirability occurs when participants refrain to choose a preference that may be socially undesirable (Shah et al., 2022). It is possible for participants to answer questions untruthfully to appear socially correct or acceptable (Demetriou et al., 2015). In relation to the present study, the prospect of participants not wanting to appear prejudiced is feasible. For example, participants might report having intergroup contact with members of another group (or being more willing to engage in intergroup contact with members of other groups) to come across as socially acceptable and not prejudiced. Social desirability bias can undermine the validity of survey data. However, the

use of self-report, online surveys have the advantage of being less resource intensive compared to conducting an observational study. Ideally, it would be preferable to collect both self-report and observational data, which would allow for a comparison between participants' self-reported behaviour and actual behaviour.

### *Secondary data.*

The fourth limitation of the present study is that the variables included in the secondary data analyses were limited to those in the existing primary data that were relevant to the TPB. Secondary data analysis is advantageous in terms of it being cost and time effective (Johnston, 2017). However, a general limitation regarding secondary analysis is that the data are not always used to fulfil their primary purpose that it was collected for, and the researcher analysing the data is often not involved in the data collection (and therefore has no control over the quality of the measures being used; Johnston, 2017). So, for example, in the present study, each of the constructs were comprised of items from the survey that were most closely associated with the underlying focus of the construct. However, this limited the number of items being used to measure each construct. The use of a small number of items to measure the various constructs of the TPB impairs the measure's validity (Ajzen, 2014). Moreover, there are several additional constructs (beyond the TPB) that might be important predictors of intergroup contact (willingness) that were not included in the original project survey. These include outgroup attitudes, outgroup trust, and indirect forms of intergroup contact (e.g., extended or vicarious contact), each of which have been shown to be significantly associated with greater intergroup contact and which offer important avenues for future research (see below).

Another limitation of relying on secondary data in the present study is that the data that were analysed were collected in 2019. It is possible that events that may have occurred at SU since might have an influence on students' current willingness to engage in contact. The present findings therefore may not represent relationships between the key variables as they currently

occur at SU (in 2022), but rather as they did occur in 2019. It is therefore unclear just how relevant the present findings are for understanding the current willingness of white South African students at SU to engage in direct contact with black (African) and coloured South African SU students. This highlights the need for follow-up research to collect more current data to see if the results of the present study can be replicated.

### **Future Recommendations**

The present study has ventured into an under-researched avenue by implementing the TPB to predict the willingness to engage in intergroup contact in the South African context. The limitations associated with the present study also identify a number of useful avenues for future research.

#### ***Advancing the Theory of Planned Behaviour.***

The Theory of Planned Behaviour (TPB) has been shown to be a dynamic tool to study behaviour (for reviews see Armitage & Conner, 2001; De Vivo et al., 2016; Ha Sur et al., 2021; McEachan et al., 2011). However, the TPB makes use of a limited number of variables and there is a possibility that components outside of the TPB may serve as predictors of contact willingness. Therefore, the TPB can be advanced by expanding on the number of variables that could predict contact intention. One way in which to expand the number of variables in a theory-driven manner could be to integrate the underlying assumptions of the TPB with relevant findings from other fields of research.

For example, contact studies have shown that a positive attitude towards, or perception of, outgroup members can result in a greater willingness for contact (for example see Bagci et al., 2020; Burns et al., 2008; Esses & Dovidio, 2002; Halperin et al., 2012; Wang et al., 2014). For example, the willingness to engage in intergroup contact should be greater in relation to outgroups that are perceived as warm or competent than those perceived as cold and

incompetent (Awale et al., 2019). Likewise, Esses and Dovidio (2002) found that positive emotions towards an outgroup were associated with a greater willingness to engage in future contact with them.

Relatedly, general outgroup attitudes and outgroup trust could also be important predictors of contact willingness (over-and-above the key predictors that are part of the TPB). Indeed, how one feels towards an outgroup (one's outgroup attitude or the degree that one trusts the outgroup) might also influence one's intergroup contact (willingness). There is a substantial body of research that has shown that a relationship between intergroup contact and outgroup attitudes and outgroup trust exists (e.g., Jasinskaja-Lahti et al., 2011; Tropp, 2008; Turner et al., 2013; Vezzali et al., 2012). Positive outgroup attitudes and/or increased outgroup trust should increase the willingness for contact, leading to actual intergroup contact. Tam et al. (2009) hypothesised that trust towards the outgroup may lead to more positive acts towards the outgroup resulting in a greater willingness for intergroup contact. Across two studies in Northern Ireland, Tam et al. (2009) found that those who experienced more trust towards the outgroup were more likely to engage in intergroup contact. As such, it seems reasonable to include outgroup attitudes and outgroup trust as additional predictors of intergroup contact (willingness).

Other forms of contact, such as extended or vicarious contact, have also been shown to result in an increased willingness for contact (see Dovidio et al., 2017; Vezzali et al., 2014; Wölfer et al., 2019). Future research could therefore test whether exposure to a form of indirect contact might promote an enhanced sense of perceived behavioural control or act as a direct predictor of contact willingness and actual contact. For example, Mazziotta et al. (2011), examined that through exposure to vicarious contact, participants reported greater confidence in contact and a higher willingness to engage in intergroup contact. The study by Mazziotta et al. (2011) shows that this idea is viable. Another variable outside of the TPB that could be



taken into consideration as a predictor of intergroup contact is personality. In a study conducted by Vezzali et al. (2018), it was shown that students with personality traits, agreeableness, and openness to experience, were more likely to seek out interactions with outgroup members. Therefore, future research can question whether certain personality traits could predict a willingness for intergroup contact.

Personality differences may also be a key predictor of willingness to engage in intergroup contact. Vezzali et al. (2018) undertook a longitudinal study amongst Italian high school students and found that students who possessed openness and agreeableness as personality traits were more likely to interact with members from the outgroup and find the interactions positive, producing contact of good quality. It is also possible that the opposite holds true; that individuals who are more introverted may be less willing to engage in contact. This is an important avenue for future research.

The strength of ingroup identification might also be a predictor of contact willingness (e.g., Fielding et al., 2008; Johnston & White, 2003). This is because the stronger an individual's membership saliency, the stronger the influence of group norms on behaviour (Johnson & White, 2003). This may determine how effective the component norms in the TPB may be.

Finally, the TPB can also be expanded to include components such as habit and affect as these have been shown to impact behavioural intention and behaviour (Conner et al., 2013; Kaushal & Rhodes, 2015). There are many other components that can be added to extend the TPB, but it is beyond the scope of this thesis to discuss them all. The key idea is that the TPB can be advanced by making use of additional components that may influence behavioural intention as well as behaviour. Besides the advancement of the TPB, the present study itself can be improved on in many ways.

### ***Improving research methods.***

The limitations associated with the present study, as highlighted above, suggest several ways in which future research can improve upon the present study. Firstly, the cross-sectional nature of the data analysed in the present study means that causal relationships cannot be deduced. A shortcoming of the TPB is that it lacks experimental research to test the underlying causal assumption of the theory. It is therefore recommended that an experimental study should be carried out to manipulate either attitudes, norms, or perceived behavioural control and to test the effect on contact willingness. While Experimental research designs are expensive and low in external validity, they are very high in internal validity and allow one to test causal hypotheses (Grabbe, 2015; Kirk, 2012; Mildner, 2019; Wogu & Wogu, 2014). A longitudinal research design should also be undertaken to test the stability of the hypothesised relationships overtime. Secondly, future research should aim to measure each construct using multiple items. Thirdly, future research should aim to replicate the present findings amongst historically disadvantaged group samples at SU. This will help determine the variables that predict contact among different groups. Data should also be collected amongst adult samples of the general population to determine if the pattern of results can be replicated amongst non-student samples. Finally, because the secondary data analysed in the present study were collected in 2019 at SU, it would be best to collect data that is more current to test all these ideas in the current climate at SU. These future recommendations would help produce results that is more valid and of better quality.

### **Chapter Summary**

Intergroup contact reliably reduces prejudice, and the contact literature has advanced the theory of intergroup contact by (a) identifying important mediators and moderators of contact,

and (b) identifying the different types of intergroup contact that are associated with reduced prejudice. However, a recent focus in the contact literature has been to better understand those factors that predict intergroup contact. The present study contributed to this emerging research focus by testing the predictors of contact willingness within the theoretical framework of the TPB. The present findings offer some understanding as to what makes white South African students at Stellenbosch University willing to engage in intergroup contact with black (African) and coloured South African students and suggests that this willingness or intention for intergroup contact is likely to result in actual contact. Specifically, the results of the present study revealed that attitude towards intergroup contact and perceived behavioural control were significantly associated with white South African students' willingness to engage intergroup contact with black (African) and coloured South Africans in general. Moreover, a willingness for contact was found to be significantly associated with the frequency of contact with black (African) and coloured South African students at SU. These results offer important suggestions for how to promote greater contact willingness at SU, while the limitations of the present study also identify important avenues for future research.

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## APPENDIX A

### Updated letter of approval received by the Research Ethics Committee for the original research project (abbreviated).

#### NOTICE OF APPROVAL

REC: SBER - Annual Progress Report

14 September 2021

Project number: 7796

Project Title: The influence of social networks on academic performance, health, and intergroup attitudes amongst university students.

Dear Dr H Swart

#### **Co-investigators:**

Your REC: SBER - Annual Progress Report submitted on 10/09/2021 09:03 was reviewed and approved by the REC: Social, Behavioural and Education Research (REC: SBE).

Please note below expiration date of this approved submission:

**Ethics approval period:** 14 September 2021                      13 September 2022

[.....]

Sincerely,

Clarissa Graham

REC Coordinator: Research Ethics Committee: Social, Behavioral and Education Research

**APPENDIX B****Online Survey Questionnaire****(abbreviated)**

Note: Only those items from original project (REC: PSY-2018-7796) that were included in the secondary data analyses undertaken by the present study are reported here.

**Demographic Information**

a) Ethnic Identity

<b>Which of the following categories would you say describes you best?</b>	
<b>Black (African) South African</b>	
<b>White South African</b>	
<b>Coloured South African</b>	
<b>Indian South African</b>	
<b>Asian South African</b>	
<b>I am not South African</b>	
<b>None of the above</b>	

b) Gender

<b>Please select the appropriate option below</b>	
<b>Man</b>	
<b>Woman</b>	
<b>Other (please specify)</b>	
<b>N/A</b>	

c) Age

<b>Please indicate your age today</b>

## d) Language

Please select your home language	
English	
Afrikaans	
Other (please specify)	

## Main Survey Information

## 1. Contact Importance and General Mixing Attitudes

The following questions concern your attitudes on certain topics. Please indicate to what extent you agree with each statement (1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = neutral, 5 = slightly agree, 6 = agree, 7 = strongly agree).							
	<i>1 Strongly disagree</i>	<i>2 Disagree</i>	<i>3 Slightly disagree</i>	<i>4 Neutral</i>	<i>5 Slightly agree</i>	<i>6 Agree</i>	<i>7 Strongly agree</i>
<b>My contacts with people from other ethnic groups are important to me</b>	1	2	3	4	5	6	7
<b>I am in favour of more mixing between different ethnic groups in a neighbourhood</b>	1	2	3	4	5	6	7

## 2. Childhood Norms Around Contact

Please think about your experiences growing up as a child and teenager.					
	<i>1 Strongly disagree</i>	<i>2 Disagree</i>	<i>3 Neither agree nor disagree</i>	<i>4 Agree</i>	<i>5 Strongly agree</i>
<b>My family actively encouraged me to mix with people of all ethnic backgrounds.</b>	1	2	3	4	5
<b>My family members had ethnically mixed friendship groups.</b>	1	2	3	4	5

### 3. Intergroup Contact as a Child and Teenager

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

### 4. Desire for future interactions with black (African), coloured and South Africans.

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

### 5. Positive intergroup contact experiences at Stellenbosch University with black (African), coloured and South Africans.

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