IMAGINED INTERGROUP CONTACT EFFECTS ON PROSOCIAL ATTITUDES AND BEHAVIOUR

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ABSTRACT

This thesis examines the effectiveness of imagined intergroup contact at promoting intergroup helping behaviour. Theoretically, it is argued that by adopting a third-person perspective in the imagined contact task prosocial action can be facilitated across intergroup boundaries. The results of eight studies provide evidence that imagining prosocial contact from the third-person perspective increased prosocial attitudes and actions. Additionally, results revealed that the imagined helping did not need to be specific to a particular group, or even an intergroup encounter: Any imagined helping scenario subsequently enhanced specific and generalised attitudes towards helping others, and increased the likelihood of observing prosocial behaviour. Importantly these effects were observed in laboratory and field studies, in the UK and Malaysia, and with majority and minority groups. Overall, this thesis contributes to a greater understanding the impact of mental simulation on enhancing prosocial attitudes and behaviours, and helps explain how and why imagined contact can encourage intergroup helping in a range of experimental and real-life contexts.

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CHAPTER 1: INTRODUCTION AND OVERVIEW

1.1 Introduction

Social psychology has long intended to contribute to humane and rational public policy. This intention is strong primarily among social psychologists focusing on improving intergroup relations. For almost a century, theorists have been trying to develop interventions to bring different groups together. Although group tensions have been reduced successfully, most interventions were developed by focusing exclusively on reducing negative phenomena that underlies intergroup conflict such as discrimination, racism, prejudice, and stereotyping (e.g., Lemmer & Wagner, 2015). Nevertheless, this makes sense considering the historical context in which the dominant theoretical frameworks of intergroup relations were developed. For example, Henri Tajfel, the founder of Social Identity Theory (Tajfel & Turner, 1979), built the theory based on his own experience in conflict situations during the Second World War. Meanwhile in the United States, world events during the 1950s to 1970s spurred a wave of research on negative attitudes and behaviours and these topics continue to receive vast research attention to date (e.g., Dovidio, Hewstone, Glick, & Esses, 2010). Altogether, these historical lines of intergroup relations have one thing in common: a clear and almost exclusive focus on reducing *negative* behaviours.

The attention on negative behaviours can be seen in numerous studies and overviews of intergroup relations (e.g., Dixon, Durrheim, Tredoux, Tropp, Clack, & Eaton, 2010; Saguy & Chernyak-Hai, 2012; Thompsen & Rafiqi, 2016; Miller & Brewer, 2003). This attention may lead to the unjustified conclusion that most intergroup emotions, cognitions, and behaviours are characterised by hostility, mistrust, aggression, and discrimination. However, in reality, the world is full of concrete examples of positive behaviours occurring

in intergroup contexts; notably taking the form of *intergroup helping*. For instance, there was recently a political stance by the German chancellor Angela Merkel that Germany will accept refugees' fleeing the war in Syria echoed by countless prosocial actions provided from the Germany government and citizens (Lichfield, 2015). In similar vein, Turkey recently opened its door and provides help to over 3.4 million refugees from Syrian, Afghans, Iraqis, Somalians, Iranians, and other nationalities by supplying food, shelter, education, health, food, and providing social activities (Erdogan, 2016). Moving to other continents, tens of thousands of Rohingnya Muslims have been forced to flee their homes in Burma's western Rakhine state as a result of persecution from Buddhist-majority Burma. Consequently, volunteers and NGOs from all over the world came together to aid the refugee population in Cox's Bazar, Bangladesh. Another example constitutes the tsunami of unprecedented proportions that affected wide areas of Southeast Asia in 2004. This natural disaster triggered a surge of international relief efforts which are, to date, referred to as illustrations of nations' genuine concern for other nations. These examples clearly demonstrate that often intergroup behaviour is not all negative, and can take the form of immensely positive steps, even at the national level. Therefore, while intergroup conflict may be difficult to avoid, however, it is possible to reunite people together by encouraging and leading their behaviour towards positive intergroup actions, such as intergroup helping.

Intergroup helping can take various forms, from providing directions to a stranger on the street, volunteering to an out-group organisation, to donating to a humanitarian appeal. The act of helping is in many aspects the glue that keeps a group together. In fact, human beings live together in social groups, and they prosper in these groups because of highly advanced systems of task distribution and care-taking. It should therefore come as no surprise that a sizable body of research in social psychology has been devoted to the

phenomenon of helping (e.g., Batson et al., 1981; Batson, Turk, Shaw, & Klein, 1995; Hornstein, 1976; Krebs, 1975, Stotland, 1969; Park & Schaller, 2005). Meanwhile, considering the benefits of helping, yet, in cases where people possess limited contact with the out-groupers, especially in the context of intergroup conflict that underlies prejudice towards the ethnic under conflict, this might lead to the feeling of less empathy and thus increase bias due to social distant (Cikara, Bruneau, & Saxe, 2011). This limited contact further may eliminate the initial intention for intergroup helping. Therefore, it would be beneficial if the strength of helping behaviour in the intragroup level could extend its benefit to the intergroup level.

Specifically, in a way to promote intergroup helping, the most widely researched presumption is that by encouraging contact with the out-groups. According to intergroup contact hypothesis (Allport, 1954), one of the most enduring and important contributions on intergroup relations, postulates that interactions between members of different social groups can, under certain positive conditions, leads to the improvements in intergroup relations through intergroup bias reduction (e.g., Pettigrew & Tropp, 2006; Dovidio, Gaertner, & Kawakami, 2003). Nonetheless, the probability of positive interactions occurring is circumscribed by one's willingness to provide contact or when the contact opportunity itself is scarce, such as in a segregated setting (Christopher, 2001). An alternative to this is through imagining the contact. The idea of imagined contact is that by imagining an interaction with a member of another group improves intergroup attitudes not only by the way it helps participants to project positive traits towards the out-group in question, but also the way it reduces anxiety and stereotypes towards out-groups (Crisp & Turner, 2012; Stathi & Crisp, 2008).

Overall, considering the effects of imagined contact are similar to direct contact in improving *tolerance* (Turner, Crisp & Lambert, 2007; Stathi & Crisp, 2008), this thesis

adopts imagined contact and examines its effect on *intergroup helping*. By advancing the understanding of how imagined contact can encourage intergroup helping, this thesis may contribute towards promoting intergroup relations in the sense of reducing intergroup divide and promoting intergroup helping.

1.2 Aims of the thesis

This thesis was designed with the purpose of contributing towards further understanding of imagined contact as a mean to improve behaviour between groups of different ethnicity and cultural backgrounds. While there is a growing body of research supporting imagined contact improved intergroup attitudes (see Miles & Crisp, 2014; for a meta-analysis), there has been less attention from researchers investigating the imagined contact effect on intergroup behaviour, particularly intergroup helping. With the aim of maximising the imagined contact effect on prosocial actions, a theoretical model is proposed. In particular, it is argued that inducing a behavioural script that specifies on the intended behavioural outcome into the imagined contact instruction, and in conjunction to imagine the contact from a third-person perspective, will enhance the benefits for the respective behaviour. Eight studies tested this hypothesis using different methodologies and target groups. The results point to the benefits of the elaborated version of imagined contact; that is, imagined prosocial contact from the third-person perspective was an effective way to improve intergroup behaviour via hypothesised mediating mechanisms. The studies and structure of the thesis will be briefly presented in the section that follows.

1.3 Structure of thesis and summary of studies

Chapter 2 begins with a review of existing literature on Intergroup Contact (Allport, 1954) and its limitations that leads to an alternative of indirect contact, that is, Imagined

Contact (Crisp & Turner, 2012). Here, I will focus on the mediators (i.e., intergroup anxiety, perceived similarity, and intergroup trust) that has been tested previously which explains the effects of imagined contact has in improving intergroup relations, followed by highlighting elements that enhanced the imagined contact effects (i.e., inducing behavioural scripts and visual perspective). Finally, I will discuss related studies on imagined contact in promoting intergroup behaviour, which leads to the next chapter discussing particularly on prosocial behaviours. Chapter 3 begins by defining prosocial behaviours and narrowing down to the prosocial terms tested in this thesis that is: (1) prosocial behaviours that consists of *altruistic intention* and *egoistic intention*, and (2) *intergroup helping*. Next, the focus is on the discrimination in intergroup helping and the motivations people possess when acting prosocially towards the out-groups. Finally, I will discuss how imagined contact fosters intergroup helping.

In order to determine which elements maximise the imagined contact effects, Chapter 4 provides answers by exploring a range of imagined contact conditions. For this purpose, three elements were tested: (1) based on the premise that *positivity* and *interaction* is the basis elements for imagined contact in reducing prejudice and discrimination (Crisp & Turner, 2012), while (2) priming a behavioural script intended to the targeted behaviour would affect one likelihood of following through with that action (Anderson, 1983), and (3) providing that there is a qualitative difference in how people reflect and response to specific visual perspective during mental imagery; own first-person versus observer's third-person perspective (Jones & Nisbett, 1971). Altogether, I therefore hypothesised that following *imagined prosocial contact from the third-person perspective*, it debilitates the intergroup boundaries and opens oneself to others through imagining a positive interaction and helping the person in contact. Furthermore, this effect heightens when one's seeing themselves performing such action which enhances one's awareness and

self-image (Libby & Eibach, 2011). Therefore, Study 1 was conducted in the UK on White British students towards Arab Muslim, while Study 2 was conducted in Malaysia on Malay students towards Chinese/Indians that represents different social settings and contexts. Both studies showed similar findings that imagined prosocial contact from the third-person perspective demonstrated participants chose to act in more altruistic intention than egoistic intention and increased the willingness to donate to an out-group humanitarian appeal/charitable organisation indicated by a higher amount of money willing to be donated compared to other imagined contact conditions tested. This effect was mediated by reduced in intergroup anxiety. The main limitation of these studies could be derived from the nature of the experimental design used. There was no control group or baseline that indicates the effectiveness of the imagined contact conditions tested. Moreover, to further examine the efficacy of help focus and third-person in Study 1 and Study 2 on imagined contact, it would be of interest to examine if its benefits could be generalised to any contact group.

To answer above limitations, in Chapter 5, Study 3 was carried out in the UK testing the imagined contact effects between White British students towards a stranger or an Arab Muslim. Imagined prosocial contact from the third-person perspective increased altruistic intention above egoistic intention and more amount of money willingly to be donated to a charitable organisation (this time onwards without specifying any out-group charity organisation) when imagined a stranger compared to non-contact conditions. Notably, there was no difference reported when the interaction partner was imagined to be a stranger or an Arab Muslim. Another analysis showed that this effect was mediated by reduced in intergroup anxiety. Following this, using the same design and by expanding the targeted groups, that is the Malay and Chinese/Indian friends that represent an in-group and cross-group friend respectively, Study 4 was conducted in Malaysia. Findings showed that the

results replicated Study 3 when imagining a stranger and an Arab Muslim. While further analysis showed that compared to non-contact conditions, the effects on prosocial behaviours were mediated by reduced intergroup anxiety and perceived greater similarity towards the imagined groups. Interestingly, in the non-contact conditions, prosocial acts (i.e., altruistic intention and monetary donations) were perceived as low even when evaluating the in-group. This shows the importance of inducing a *positive interaction* for a successful contact to happen.

In Chapter 6, I extended my analysis to explore the *Secondary Transfer Effects* (Pettigrew, 2009). Study 5 and Study 6 were conducted in Malaysia amongst the Malays. Based on the same design as used in Study 4, results showed that imagined helping contact from the third-person perspective successfully promote more prosocial behaviours even when evaluating an out-group member who did not feature in the imagined interaction. Further analysis showed that compared to non-contact conditions, this secondary transfer effect was mediated by reduced intergroup anxiety and increased perceived similarity (Study 5 and Study 6) and increased intergroup trust (Study 6).

Chapter 7 add a further dimension of the work presented in Chapters 4-6 by examined the imagined contact effects on both majority and minority groups indicated in Study 7 and Study 8. These studies were conducted in a Malaysian secondary school setting that has students from multicultural backgrounds with the Malays representing the majorities while Chinese and Indians representing the minorities. Across the two studies, I examine the effect of imagined prosocial contact from the third-person perspective by changing and expanding the willingness to donate measure to *volunteering* in Study 7 and using *helping intention* measure supported by a *real-life helping* situation in Study 8, in addition to the prosocial behaviours (i.e., altruistic and egoistic intentions) and intergroup attitude measures. Findings revealed that imagined contact promote altruistic intention

above egoistic intention, increased willingness to volunteer for an out-group organisation (Study 7) and increased help to the out-group, whether intentionally or in a real-life helping situation (Study 8). This was mediated by reduced in intergroup anxiety, perceived more similarity and increased intergroup trust.

Finally, Chapter 8 summarises the aims and findings of this thesis and discusses the theoretical and practical implications. I conclude that this thesis successfully adapted Imagined Contact to enhance its effects on intergroup helping, which is a novel addition to the imagined contact and intergroup relations literature. In addition, the practical implications of the findings are pertinent to a wide range of current social issues such as inter-ethnic prejudice and discrimination. This thesis also provides some suggestions to help promote social cohesion and solidarity through intergroup helping.

CHAPTER 2: CONTACT HYPOTHESIS

This chapter reviews the literature on Imagined Contact Hypothesis (Crisp & Turner, 2009) *as an extension to the Contact Hypothesis* (Allport, 1954). *The review details the possible conditions that enhance the imagine contact effects by integrating behavioural script and perspective taking as well as the possible mediators (intergroup anxiety, perceived similarity, and intergroup trust) that explain how it may weaken prejudice between the in-group and out-group and further promote intergroup behaviour. Central to this is the theoretical integration of Imagined Contact and Attributional Theory* (Heider, 1958; Jones & Nisbett, 1971) *that suggests adopting a third-person perspective can enhance the imagined contact effect.*

2.1 Reducing Prejudice through Contact

Allport (1954) proposed that prejudice towards different groups can be reduced when there is a direct contact that leads to more positive intergroup attitudes. Adding to that, Allport also suggested that in order to emphasise such positive attitudes, the contact must fulfil the right optimal conditions: equal status, common goals, no competition between groups, and support from institutions and authorities. Allport's hypothesis has been the subject of much research over the years. As a result, direct contact has been supported as an effective means of attitudes and behavioural changes across a large variety of target groups, situations, cultural contexts, and situations (Pettigrew & Tropp, 2011). Despite the promising optimal conditions might have on strengthening the contact effects, however, intergroup contact meta-analysis (Pettigrew & Tropp, 2006) revealed that the

effect of contact in reducing prejudice only serves as facilitating conditions and the effects is still significant even when the proposed optimal conditions are not met.

Besides, the benefit of intergroup contact is that it could alter and weakens one's awareness of their social identities during contact by treated it in different ways. Firstly, during the contact it may reduce awareness of social identities by encouraging more personal relationships. This interaction reduces prejudice by allowing people to see that members of other groups as heterogeneous rather than homogenous (Brewer & Miller, 1984). Thereby, this makes us treat others by their individual characteristics which resulting to increase sharing of personal information (Harrington & Miller, 1992; Fiske & Neuberg, 1990). Secondly, as opposed to the first factor, intergroup interactions also provide one's being aware of their differences in their social identity. Acknowledging that each group have their own strengths and weaknesses, and knowing that the individuals' identities to that particular group can avoid a need to differentiate one's group from other groups, therefore, reducing the likelihood of prejudice (Hewstone & Brown, 1986). Finally, being aware of common identities during contact can improve positive outcomes (Gaertner, Mann, Murrell, & Dovidio, 1989). As well as recognising the differences with out-groups (e.g., racial, ethnic, religion), acknowledging the common identities or similarities one's had with the out-groups may create the feeling of belonging (Abrams & Eller, 2017; Pettigrew, 1998). Given this success, it is understandable that intergroup contact is one of the most widely used and affective social-psychological interventions for reducing intergroup prejudice (Evans-Lacko, et al., 2012; Oskamp & Jones, 2000).

2.2 Challenges and Alternative to Direct Contact

While contact has proven successful in numerous contexts, it has not been without its challenges. One limitation is due to extreme segregation. In a setting where people barely meet each other, this opens to language differences and cultural barriers that makes

creating the actual setting for contact is difficult (Crisp & Turner, 2009; Pettigrew, 1998; Stathi, Tsantila, & Crisp, 2012). Another restriction revolves around the fact that actual contact with out-group members can induce intergroup anxiety and discomfort (Crisp & Turner, 2009; Dixon, Durrheim, & Tredoux, 2007). In explaining this, under certain extreme circumstances, contact may perceive as risks and may not be practicable (e.g., high-prejudice environments, West et al., 2014; Stathi, Crisp, Turner, West, Birtel, 2013) as it might potentially trigger negative emotions and attitudes (Maoz, 2011; Dixon, Durrheim, & Tredoux, 2005). Moreover, another limitation is that those most in need of contact are often reluctant to participate in any activities with the out-group due to negative perceptions towards the out-group (Crisp & Turner, 2009; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997).

Additionally, increased levels of contact and even long-term proximity will not always naturally encourage prejudice reduction and positive outcomes. According to Abrams (2010), studies shown that even in a multicultural school setting, children tend to favour same-race rather than cross-race friendship. In a similar vein, Dixon, Durrheim, & Tredoux (2005) even argued that it is unrealistically to implement Allport's optimal conditions. To start with, direct interventions require groups to have the opportunity to meet and have contact in the first place (e.g., Phinney, Ferguson, & Tate, 1997; Turner, Crisp, & Lambert, 2007a; Turner, Hewstone, & Voci, 2007b) which is not always logistically or ethnically possible. Moreover, to establish a direct contact, it is not an easy pathway. Direct contact will become difficult and is actively discouraged in some contexts and with certain groups of people or culture (Chin & Kroesen, 1999; Schulze & Angermeyer, 2003). Adding to this difficulty, most out-groups are a minority and usually classified in disadvantaged group within society (Cook, Arrow, & Malle, 2011). According to Dixon et al., (2005), when dealing with the experiences of members of historically disadvantaged

groups, it is strenuous to build an ideal perspective of contact especially to those who have go through of policies of segregation and discrimination. Besides, in a high context of intergroup anxiety, especially in today's multicultural and diversity societies, a direct contact might trigger prejudice. Ultimately, it is not always possible to control the quality and positive tone of direct contact that the encounter may be in uncertainty. As a result, negative attitudes still persist.

With that being said, an alternative to the insufficient direct contact condition is by implementing indirect forms of contact (Dovidio, Eller, & Hewstone, 2011). By adapting the same contact concept, two ways of indirect contact has been put into highlight, that is, extended (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) and imagined contact (Crisp & Turner, 2009). According to Wright et al. (1997), extended contact involves having knowledge that in-group members have had contact or friendships with out-group members. This knowledge alone is sufficient enough to improve intergroup attitudes and less likely to evoke negative feelings that has been associated with avoidance of interracial interactions (Plant & Devine, 2003; Stephan & Stephan, 1985). However, according to Crisp & Turner (2009), there are still limitations of this contact as people are unlikely to know anyone in their wider social network who has an out-group friend especially in highly segregated settings and with highly stigmatised groups (Logan, 2001; Martin, 2006). Adding to this, extended contact does not bring participants to deal directly with the out-group, instead just by knowing someone else from the in-group that have out-group friends. For this reason, and of particular to the present research, another indirect form of contact that has recently proved to reduce prejudice through extensive empirical support is *imagined contact*. This promising new alternative contact addresses the concerns raised by actual contact and extended contact, particularly the need for in-group members to know or be friend with out-group members and when direct experiences are unwarranted for contact

to exert positive effects. I believe that imagined contact could provide a way of addressing these issues.

2.3 Imagined Intergroup Contact

Imagined intergroup contact, developed by Crisp and Turner (2009) defined as "the mental simulation of a social interaction with a member or members of an out-group category" (Crisp & Turner, 2009, p. 234). The idea of imagined contact is that by imagining oneself in a positive social interaction with a member of another group (Crisp & Turner, 2012; Miles & Crisp, 2014), it should automatically activate thoughts, feelings and concepts that associated in line to those activated in actual intergroup contact (e.g., Voci & Hewstone, 2003; Islam & Hewstone, 1993; Paolini, Hewstone, Cairns, & Voci, 2004). This technique even has robust effects on a range of outcomes associated with positive intergroup relations even when the direct contact is not securable. For instance, imagined contact has shown to reduce anxiety and increase perspective taking, which in turn reduce prejudice and increase the likelihood for future contact with the out-group (Husnu & Crisp, 2015; Turner, West, & Christie, 2013; Crisp & Turner, 2013). Generally, it has been suggested that by simply imagining *positive* intergroup *contact* may lead to improved intergroup attitudes (e.g., Stathi, Cameron, Hartley, & Bradford, 2014; Vezzali, Crisp, Stathi, & Giovannini, 2013; Turner, West, & Christie, 2013) and behaviours (e.g., Crisp & Turner, 2013; Turner & West, 2012; Vezzali, Stathi, Crisp, & Capozza, 2015) towards the out-groups.

A recent meta-analysis on imagined contact (Miles & Crisp, 2014) on over 70 studies confirms the benefits of imagined contact in reducing anti-out-group bias. Specifically, there is a growing body of evidence for the positive effects of imagined contact in large-scale contexts (minority groups; Stathi et al., 2014; Turner & Crisp, 2010; people with schizophrenia; Giacobbe, Stukas, & Farhall, 2013; West et al., 2011; people with depression; Na & Chasteen, 2015; people with HIV; Derose et al., 2014; in-group identity; Vezzali et al.,

2015, and children with physical abilities; Cameron et al., 2011) in relation to improves explicit (Turner, Crisp & Lambert, 2007; Harwood, Paolini, Joyce, Rubin, & Arroyo, 2011; West, Holmes, & Hewstone, 2011) and implicit attitudes (Turner & Crisp, 2010; Vezzali, Capozza, Giovannini, & Stathi, 2012; Turner & Crisp, 2010). Specifically, imagined contact research has shown that imagined contact enhances positive intergroup attitudes and perceptions of out-group variability (Turner, Crisp, & Lambert, 2007; West, Holmes, & Hewstone, 2011), enhances projection of positive traits to the out-group (Stathi & Crisp, 2008), increases perceptions of self-efficacy concerning future contact (Stathi, Crisp, & Hogg, 2011), increase trust (Pagotto, Visintin, De Iorio, & Voci, 2013; Vezzali, Capozza, Stathi, & Giovannini, 2012) and reduces self-stereotyping and stereotype threat (Abrams, Crisp et al., 2008; Crisp & Abrams, 2008). In addition, imagined contact also fosters self-disclosure (Vezzali, Capozza, Giovannini, & Stathi, 2012), reduces anxiety (Turner, Crisp, & Lambert, 2007), reduce negative stereotyping (Brambilla, Ravenna, & Hewstone, 2012; Stathi, Tsantila, & Crisp, 2012), infrahumanization of the out-group (Vezzali, Capozza, Stathi, et al., 2012) and encourages positive behavioural intentions (Husnu, Crisp, 2010a, 2010b). Interestingly, imagined contact has also shown to be more effective than perspective taking in reducing stigma against depression (Na & Chasteen, 2015) and reported to generalise to out-groups that uninvolved in the imagined contact task (Harwood, Paolini, Joyce, Rubin, & Arroyo, 2011). Bring together, imagined contact successfully provide ample empirical support with an improvement on intergroup attitudes. These positive effects can be further explained by how imagined contact reduces prejudice through the mediating variables as outline below.

2.4 How Imagined Contact Works: Explaining through Affective Factors

Meta-analytic reviews of intergroup contact have identified affective factors over cognitive factors played a critical role in explaining how direct contact works (Brown &

Hewstone, 2005; Pettigrew & Tropp, 2008) and in the generalisation of contact effects (for meta-analysis see Tropp & Pettigrew, 2005b). This is the same case on imagined contact. Even that this technique primarily represents a cognitive experience during the mental stimulation that should suggests the vital role of cognitive factors in explaining the imagery process (e.g., script availability and vividness of the imagined interaction, Husnu & Crisp, 2010; and attribution, Crisp & Husnu, 2011), however, growing research demonstrates the affective factors contribute to even stronger predictor. Particularly, previous research on imagined contact has strongly demonstrated that intergroup anxiety play a crucial role in explaining the positive effects for intergroup relations (e.g., Birtel & Crisp, 2012b, Husnu & Crisp, 2010; Turner, West, & Christie, 2013), yet, other mediating mechanism has also been pointed out. In a review, Vezzali, Crisp, Stathi, and Giovannini (2013) has identified an array of mediating mechanism on imagined contact including out-group infrahumanization (Vezzali, Capozza, Stahi, et al., 2012), intergroup empathy (Kuchenbrandt et al., 2013), affective intergroup attitudes (Birtel & Crisp, 2012; Husnu & Crisp, 2010a; Turner et al., 2013), and implicit prejudice (Turner & Crisp, 2010; Vezzali, Capozza, Giovannini, & Stathi, 2012). Recently, the effects of imagined contact on affective factors have extended to increase self-efficacy (Ioannau, Hewstone, Al Ramiah, 2015), and positivity towards the target (Na & Chasteen, 2016).

Importantly, given that affective factors have established as the key mechanism mediators on imagined contact, and as suggested by Crisp, Husnu, Meleady, Stathi, & Turner (2010), there are multiple mediational routes through which imagined contact can exert its impact on behavioural tendencies. Pertinent to the current study, three affective mediators were selected: intergroup anxiety, perceived similarity, and intergroup trust.

2.4.1 Intergroup Anxiety

Intergroup anxiety is the uncertainty and discomfort that arise when interacting or expecting to interact with out-group members (Stephan & Stephan, 1985, 2000). It is one of the most investigated variables in contact research and the most commonly supported mediator of the direct contact-reduced prejudice relationship (Brown & Hewstone, 2005; Pettigrew & Tropp, 2008). Moreover, there is considerable evidence that anxiety responses play a significant role during intergroup encounters (e.g., Dovidio, Hebl, Richeson, & Shelton, 2006; Hebl, Ticklem & Heatherton, 2000). These negative emotions are thought to arise as a consequence of expectations of rejection, discrimination or discomfort during cross-group interactions (Plant & Devine, 2003; Stephan & Stephan, 1985). Providing that, it can have detrimental consequences such as reduction in cognitive control (Amodio, 2009) and task performance (Mendes, Blascovich, Hunter, Lickel, & Jost, 2007), changes in physiological responses (Mendes, Blascovivch, Lickel, & Hunter, 2002), and increased reliance on stereotypes (Wilder, 1993). Importantly, intergroup anxiety also leads to contact avoidance (Plant & Devine, 2003) and prejudice (Stephan & Stephan, 2000).

Accordingly, imagined contact intervention has shown to reduce intergroup anxiety. It is suggested that imagined contact stimulate and drive positive exposure to the out-group members thus remove the risk of physical and social harm resulting from a negative intergroup encounter (West & Greenland, 2016). An array of studies have demonstrated that imagined positive interaction with others reduced intergroup anxiety and further encourage for future interactions (e.g., Birtel & Crisp, 2012; Stathi, Tsantila, & Crisp, 2012; Turner, West & Christie, 2013), helping intentions (Vezzali, Crisp, et al., 2013), and implicit and explicit attitudes (West et al., 2011). Undoubtedly, it is argued that the failure or success of intergroup contact firmly hold on intergroup anxiety (Brown & Hewstone, 2005; Paolini, Hewstone, Voci, Harwood & Cairns, 2006; Pettigrew & Tropp, 2008). Therefore, for

the current research, I further tested intergroup anxiety as one of the mediating role in explaining the relations between imagined contact has on improving intergroup relations, particularly on intergroup behaviour.

2.4.2 Perceived Similarity

Perceived similarity is another crucial factor determining one's attitudes and behaviour towards other groups. It is defined as the extent to which individuals perceive the out-group or even the in-group as similar or dissimilar to themselves. Similarity has been shown to play an important role in integrating people and reduces hatred (Byrne, 1969; McPherson, Smith-Lovin, & Cook, 2001). Evidence had shown that people tend to act altruistically when they feel similar towards individuals that is close and alike to them such as people from the same race (Bryan & Test, 1967; Glassman, Packel, & Brown, 1986; Rushton, Russel, & Wells, 1984), gender (Eagly & Crowley, 1986), appearance (Emswiller, Deaux, & Willits, 1971) and even cross-group friends (Hays, 1985). Specifically, when two people share one or more of these traits, a common bond between them can be formed because they can establish a common ground through which they relate to one another.

Meanwhile, Gaertner, Dovidio, Anastasio, et al., (1993) and Gaertner, Mann, Dovidio, et al., (1990) argue that the important of the process leading from contact to the reduction of intergroup bias is the out-group moving closer to the self, a process that can be operationalised as similarity to the self. In addition, research on intergroup contact and closeness has shown that similarity is a key factor in reducing bias (Stephan, 1999). Similarity within and between groups also shown to associated to intergroup contact and perceptions of cross-group friendship. For example, McGlothlin and Killen (2005) examined the impact of intergroup contact on perceived similarity between members of the in-group and out-group and perceptions of cross-group friendships. They had found that intergroup contact influenced perceptions of similarity in first and fourth grade children.

Considering the contribution of perceived similarity in intergroup relations, there is, however, limited research examining perceived similarity as a mediating mechanism on imagined contact. To the best of my knowledge, only one research has demonstrated that imagined contact can help generate perceived similarity towards out-group. Stathi, Cameron, et al., (2014) conducted a study on imagined contact between White British children towards Asian children by using an elaborated version of imagined contact task. The results show that imagined contact successfully improved White children's attitudes towards Asian children by reporting greater willingness to engage in contact with members of the out-group, mediated by higher perceived similarity and more positive attitudes. This study therefore provides initial evidence on the importance of perceived similarity in explaining how imagined contact works in promoting intergroup relations.

2.4.3 Intergroup Trust

Another important factor in promoting intergroup relations is intergroup trust. A successful intergroup relation relies closely on how far people trust others. Intergroup trust which is defined as positive expectations about others' intentions and behaviours (Lewicki, McAllister, & Bies, 1998; see also Trifiletti & Capozza, 2011), may influence on how one's feels and behave towards others. The formation of intergroup trust has found to promote information-sharing, improved communication and problem-solving, all of which are likely to contribute towards successful relations between members of different groups (Hayashi, Ostrom, Walker, & Yamagishi, 1999). Intergroup trust is also recognised as a crucial factor in restoring close relations strategies which aimed to improve community relations on the aftermath of intergroup conflicts. For instance, according to Balckstock (2001) and Dovidio, Gaertner, et al., (2002), intergroup trust may allow individuals to accept the risk of being vulnerable and to make conciliatory initiatives to other party, with some degree of

assurance that they will not be exploited. Correspondingly, when trust is formed, it fosters intergroup cooperation and positive attitudes (Lewicki & Weithoff, 2000).

As trust can be conceptualised as the willingness to make oneself vulnerable to another person with the hope or expectation of positive outcomes (e.g., Berg, Kickhaut, & McCabe, 1995; Kramer, 1999; Righetti & Finkenauer, 2011; Lount, 2010), however, it is hard to build. In developing trust, it requires several positive encounters (Zak & Knack, 2001; Worchel, Cooper, & Goethals, 1991). Particularly in an intergroup context, people relatively trust others that are close to them. For example, by sharing the same social identity has been considered to be a critical factor influencing whether people trust others (e.g., Güth, Levati, & Ploner, 2008; Tanis & Postmes, 2005; Brewer, 2008; Kramer, 1999; Lount, 2010). Hence, it has been repeatedly showed that people publicly display higher level of trust in in-group than in out-group members (e.g., Platow, Foddy, Yamagishi, Lim, & Chow, 2012; Brewer, 2008; Yuki, Maddux, Brewer, & Takemura, 2005). Moreover, intergroup trust develops overtime which shows that a person's behaviour is predictable and dependable from one's experience (e.g., Kerr, Stattin, & Trost, 1999). This further brings to the claim that regardless of one's group, trust is being nurtured when one's have the certainty to do so and it might also be developed through building up a positive interaction between them.

Despite the importance of developing trust in the functioning of the society, there has been little research on imagined contact that has focused specifically on the mediating role of intergroup trust. Of few, Turner et al., (2013) across two experiments have found that participants who imagined intergroup contact subsequently reported stronger tendencies to approach than to avoid the out-groups (i.e., asylum seekers and heterosexuals) and that these relationships were mediated by more out-group trust, more positive out-group attitude, and less intergroup anxiety. Further evidence was provided by

Vezzali, Capozza, Stathi, et al., (2012) amongst school children. Their study revealed that trust plays a vital role in explaining the effects of imagined contact on reduced prejudice. Moreover, Pagotto et al., (2013) in their study showed that imagined contact increased cooperation through out-group trust. Specifically, participants among Italian university students and full-time employees were instructed to fill in a warm-up task aimed at promoting reciprocal self-disclosure. After completing the task, participants were further asked to imagine a conversation with a Muslim immigrant by making salient either interpersonal characteristics or enhancing the salience of group distinctions. Results showed that imagined contact was effective by enhanced membership salience which resulting to improved intergroup attitudes and the choice of using more cooperative strategy. Finally, a study by Turner et al., (2013) showed that trust fully mediated the effects of imagined contact (intergroup condition vs. interpersonal conditions) on attitudes and cooperation intentions toward Muslim immigrants. Thus, it is also expected that trust should be a strong mediator in improving intergroup behaviour counting for its effects on both attitudes and cooperative intentions.

Overall, indeed, there is ample evidence showing that imagined contact leads to improved attitudes toward a variety of different out-groups with explanation on the mediation effect. Despite its overall success, in certain cases, imagined contact may backfire. Imagined contact leads to increase prejudice when it is neutral rather than explicitly positive (West et al., 2011), difficult rather than easy (West & Bruckmüller, 2013), or prevention-focused rather than promotion-focused (West & Greenland, 2016). Notwithstanding, even adopting the standard imagined positive contact is sufficient enough to reduce prejudice, however, results from imagined contact meta-analysis (see Miles & Crisp, 2014) tested on a range of dependent variables (attitudes, emotions, intentions, and behaviours) and with a range of different group (e.g., ethnicity, age, religion) revealed a

moderate effect size of *d+* = 0.35, indicating that this technique is still open for modifications and improvements. Next, I will outline the facilitating elements that previously shown to enhance the imagined contact effects pertinent to the present research.

2.5 Elements Enhancing the Imagined Contact Effects

While intergroup contact can improve intergroup relations, it is also possible that policies focused on promoting positive intergroup contact can result in the deferral of structure change; this is likely to happen when the policies focus on encouraging people from different groups to get to know and like one another (Dixon et al., 2005) rather than engaging in the kind of collective action that can result in changes to the social hierarchy (Wright & Lubensky, 2008). Specifically, Rubin and Lannutti (2001) argued that in the case of groups with a history of inequality, intergroup contact that produces positive intergroup affect might give participants a false sense of conflict resolution and delude then into thinking that the underlying socio-political conflict is perhaps overblown. However, contact need not necessarily have this system-entrenching effect if applied intelligently. For instance, it has been found that raising majority group member's awareness of historical injustices and present –day inequalities can make them more willing to discuss intergroup disparities during intergroup contact encounters (Saguy, Tausch, Dovidio, & Pratto, 2009). While according to Hewstone and Brown, (1986), group salience plays a critical role in contact intervention as it may provide people from different groups the opportunity to see that not just they have things in common with the out-group, but also differences. Thus, contact situations should occur in a safe and frank environment that allows each group to take the perspective of the out-group and feel empowered to be agents of change. Therefore, it is important to develop in which conditions imagined contact affects most to have a clear understanding of when and how it works.

Supporting to this, a recent imagined contact meta-analysis (Miles & Crisp, 2014) suggested that more detailed models are needed to integrate and account for the varied intergroup contact effects. Research on imagined contact has found that it is more effective when elaborated (Husnu & Crisp, 2010a; Hodson, Dobe, Choma, 2015), group than member-focused (Stathi, Crisp, & Hogg, 2011), and when induced with a cooperative task (Kuchenbrandt, Eyssel, & Seidel, 2013). Meanwhile, how long the time participants spent to imagine the encounter, type of control condition, and valence of the imagined interaction, does not made any differences in the imagined contact effects (Miles & Crisp, 2014). This indicates that there are several techniques that can be used to enhance the imagined contact effects.

To start with, according to Crisp & Turner (2009), two fundamental elements are required in the imagined contact instruction for it to be beneficial: (1) involves interaction, and (2) positive tone. Interaction during the contact is crucial for observing positive effects (Turner, Crisp, & Lambert, 2007, Study 2), while a positive tone is important to guard against a possible negative tone (Crisp & Turner, 2009). Supporting to this, stimulating interaction and positivity during the mental imagery improves one's attitudes and behaviours that may also be explained, in part, by behavioural theories such as classical conditioning and social learning theory (Bandura, 1971). For example, imagining positive encounter models positive intergroup relations, therefore, should result in more positive mental images and emotions of the out-group (Harwood, Paolini, Joyce, Rubin, & Arroyo, 2011; Dadds et al., 1997). Thus, it is possible to argue that the positive effects of imagined intergroup contact occur as a result of the out-group being paired with a positive contact thus stimulates positive feelings and acceptance.

However, it seems that in certain settings, or for certain out-groups, positive intergroup contact may not be sufficient to yield a wide-ranging change in prejudice-related

outcomes. While positive intergroup contact may be effective in leading to positive outcomes for most the out-groups tested, imagined contact with some out-groups may need to be amplified by additional conditions in order to be effective. One of such facilitating condition highlighted recently by Kuchenbrandt et al., (2013). They proposed that, by adopting *cooperation* instruction in the imagined task, this may encourage people to do things together which likely to result in changed attitude and behaviour. Although their results revealed that inducing positive cooperative contact in the imagine instruction perceived the contact quality and led to higher empathy, lower prejudice, and higher trust, however, the mechanism by which its effects on the prosocial behaviour itself has not been established.

Furthermore, taking into account that people in control of what they are imagining, even in the form of positive contact, the mental imagery might easily decline from the initial intention, slips from mind and cause the imagery process to be less effective. In this case, I believe that by providing additional information specifically on the intended behavioural outcomes and attributing the behaviour to the self could strengthen and lead the mental imagery process towards achieving the specific goals. For this reason, in conjunction to the initial aim of this thesis that focuses in which imagined contact conditions maximises the mental stimulation effects, I proposed two elements that have demonstrated to facilitate and enhance the mental imagery process: (1) inducing behavioural script and, (2) visual perspective.

2.5.1 Behavioural Scripts

Priming behavioural scripts, such as subtle cues of 'primes' in our social environment, are known to influence and activate associated knowledge structures in our minds (Turner et al., 2007a). These knowledge structures have a powerful influence on people attitudes and behaviours as they become more accessible in memory (Bargh, Chen, &

Burrows, 1996; Garcia et al., 2002). For instance, imagining oneself engaging in behaviours can make one more likely to actually engage in those behaviours (e.g., Gregory, Cialdini, & Carpenter, 1982).

To the extent that one might find that the imaginary script is strenuous to visualise (as people vary with regard to internal visualisation), this might inhibit people to the corresponding actions (Anderson & Godfrey, 1987). Therefore, by including some suggestions about the topics of the imagined conversation may increase the vividness of imagined scenario as it creates a more accessible contact script and further encouraged contact intentions (Husnu & Crisp, 2010). Additional to that, an elaborative imagined contact script, in which a person imagines more details such as the location where the contact takes place, has been found to be more effective than imagined contact alone (Vezzali et al., 2012). Thus, to avoid imaginary withdrawal (assuming that people tend to neglect scenarios that they are unfamiliar with), and to increase oneself to perform the intended behaviour, I believe that by framing into details such imaginary instruction targeted to the intended action will produce a more lucid version of the contact scenario. As a result, this will increase the vividness of the mental imagery and build a stronger behavioural script that further increases one's probability to act towards the action.

Furthermore, despite intuitive notions about the role of imagine behavioural task, another factor that received attention in leading the imagery is the way people picturing a situation may influence on the decision to act towards the goal. In most cases, when people have a goal to pursuit, they are often give the advice to "picture" themselves achieving it (Conway, Meares, & Standart, 2004; Miller, Galanter, & Pribram, 1960; Schultheiss & Brunstein, 1999). Habitually, people will picture the scenario through their own eyes. However, there is relatively little work that directly investigates this process, therefore, I am further interested in whether the visual perspective that people adopt when picturing

desired actions would affect the inferences they drew about themselves and thus their likelihood of following through with the imagined actions.

2.5.2 Visual Perspective

Previous research has demonstrated that visual perspective serves as a powerful function in the mental representation of one's behaviour (Kosslyn, Thompson, & Ganis, 2006). How the events were mentally visualised could be functionally related to the way people process information about those events and make related judgements. For example, the ability to shift between one's own and an outsider's perspective on dimensions other than visual imagery (e.g., emotion, identity, conceptual knowledge) is fundamental to a variety of psychological processes includes attitude change (Bem, 1972), social understanding (Barresi & Moore, 1996), cognitive development (Piaget, 1932), perception of agency (Decety & Grezes, 2006), self-concept (Baldwin & Holmes, 1987), and self-control (Prencipe & Zelazo, 2005).

Additionally, visual perspective is integral to mental stimulations of life events, both past (Pillemer, 1998) and future (Atance & O'Neil, 2001). During the imagery, people often picture life events from the same point of view they would have if the events were actually happening. In this case, people tend to use a *first-person perspective* so that they are looking out at the situation through their *own eyes* (Libby & Eibach, 2009, p. 14). However, other times people picture life events from the point of view an *observer* would have if the events were actually happening; that is, they use a *third-person perspective*, so that they see themselves in the image. In explaining the reason for certain behaviour for instance, *actors* tend to come out with a situational reasoning as the *situation* is the most perceptually salient to them while *observers* tend to make a *dispositional* attribution, explaining in terms of internal characteristics of the actors because it is the actors' perspective that should be taken into consideration (Jones & Nisbett, 1971; Taylor & Fiske, 1975).

Given the multiple ways in which imaginary experiences can affect both brain and behaviour, and in which behavioural priming could enhance its effects, results from a study conducted by Libby, Shaeffer, Eibach and Slemmer (2007) suggested that simply by varying the visual perspective that individuals used to picture themselves engaging in a desirable behaviour affected their self-perception and their likelihood to engage in that behaviour. Specifically, in their study, by using an online study on imagination, participants were needed to register as voters as the prerequisite to take part in the study without providing other information regarding voting or election. Participants further assigned to either imagine engaging in any particular action in the future from the first or third-person perspective. Libby et al. (2007) found that registered voters who were instructed to imagine from the third-person perspective saw themselves as more likely to vote, more motivated to overcome obstacle to voting and leads to a stronger self-identification to voters by emphasising the importance and impact of voting compared to participants imagined from the first-person perspective. These results suggest that seeing oneself engage in a desired behaviour increases the likelihood to engage in that behaviour. Overall, the findings suggested that by simply priming participants as registered voters and instructed them to visualise themselves performing the desired behaviour particularly from the third-person perspective may translate intentions into practical actions.

In supporting this, several studies have shown that people adopted stronger attitudes and behaviours with the imagined behaviour when imagining the task from a third-person perspective compared to those imagined carrying a task from a first-person perspective (Vasquez & Buehler, 2007; Libby et al., 2007). Crisp and Husnu (2011) in their study on directing future contacts towards the elderly has shown that participants that were asked to imagine from a third-person perspective reported stronger tendencies to approach an elderly, an effect that was mediated by heightened attribution. Crisp and

Husnu further claims that this was attributable to the fact that participants became more reflective of their personal character as compared to those that imagined from a first-perspective point of view. This effect indicates that when shifting the focus towards the individual dispositions, placing the spotlight on the self, thus makes them more aware of their action and increases the probability to act towards it.

Moreover, in the context of intergroup intervention, directing people to take a third-person perspective may be an effective tool for reducing negative perceptions of group differences and improving intergroup understanding (Libby, Rha, & Kaufman, 2011). This can be explained under self-awareness theory (Wicklund, 1975) that derives a series of hypotheses on the process of self-evaluation. According to this theory, any stimulus (such as imagined from the third-person perspective) that reminds a person of his or her status as an object will result in self-focused attention. This state has typically been viewed as a disposition to direct one's attention towards the self, to focus on private thoughts and feelings associated with the more salient aspects of one's behaviour. It is assumed that this self-reflective state leads to self-evaluation in which present behaviour is compared to personal standards associated with an *ideal self-image*. Furthermore, Argyle (1969) has argued that taking third-person perspective enhance self-awareness. Self-awareness is associated with the activation of the *self-esteem*, a state in which a person is concerned with both the personal and public assessment of his or her own behaviour. Similarly, Hull and Levy (1979) proposed that self-awareness results in a heightened sensitivity to particular forms of information-specifically, the self-relevant aspects of one's environment and behaviour.

Adding to this, Libby, Shaeffer, and Eibach (2008) demonstrated that imagery perspective affects not only the perceived cause of actions but the very definition of what those actions are. This has an effect not only on inferences regarding traits but on

inferences regarding *goals* as well. While explaining through Construal Level Theory (Trope & Liberman, 2010), any action (e.g., helping others) can be defined in different ways through a continuum from concrete to abstract. Concrete construal (e.g., give a hand) describe a behaviour in terms of discrete actions, whereas abstract construal ascribes a broader meaning, often suggesting something about the superordinate goals or traits of the actor (e.g., empathy, being responsible and intergroup relations). While it has been proven that picturing a scenario from a third-person perspective display more abstract construal than from the first-person perspective, from this point of view, therefore, focused was more on the traits (e.g., empathy and being responsible) and items for which abstract construal referred to superordinate goals (e.g., intergroup relations). As do traits, superordinate goals highlight the reasons and consequences for actions rather than the concrete details of the action itself (Vallacher & Wegner, 1985), thus, this lends support to the idea that third-person imagery leads people to reflect on the broader meaning of actions hence making the action more representable.

In spite of the emphasis on its importance in influencing decision-making, there is very little evidence to help in understanding and supporting the cognitive and perceptual focus has to provide in the process of imagine contact. Correspondingly, according to Crisp and Husnu (2011), while it is possible to influence people whether to take a situational or a dispositional attribution by leading participant's focus of attention, the present research therefore addresses this effect has on attitudes and behaviours towards the out-group. Next, I will briefly discuss the importance of researching in intergroup behaviour and what imagined contact has to offer in improving it.

2.6 Imagined Contact and Intergroup Behaviour

By definition, intergroup behaviour involves perception, cognition, or behaviour that is influenced by people's recognition that they and others are members of distinct

social groups (Vaughan & Hogg, 2008). Because people identifies themselves to a particular group based on self-evaluation and often have positive thoughts of their group (Tajfel & Turner, 1986), intergroup behaviour is a struggle to protect, maintain, or achieve due to in-group distinctiveness. The strategies used to rectify unfavourable social identity depend on one's beliefs about the nature of intergroup relations. For this reason, as positive contact causes people to recognise that they are a great deal more similar, thus reduce any negative attitudes towards the out-group by weakened the intergroup boundaries. While imagined contact is thought to have benefits similar to those of direct contact because it activates concepts associated with positive interaction with others (Crisp & Turner, 2009), thus, this explains why imagined contact also works in improving intergroup behaviour.

Imagined contact has reportedly to have positive effects in encouraging intergroup behaviour by prejudice reduction. Supporting this (see Miles & Crisp, 2014), a robust moderate effect size has been reported on actual behaviour and intentions, $d_+ = 0.46$ compared to attitudes, $d_+ = 0.35$, and emotions, $d_+ = 0.41$. This effect size indicates the ameliorating effect of imagined contact has on promoting intergroup behaviour. Nevertheless, there is still limitation in the current imagined intergroup contact literature in relation to intergroup behaviour as extensive research has focused its scope in reducing prejudice and attitudes improvements. Importantly saying that the ultimate aim of imagined contact is in the development of intergroup relations (Turner, West, & Christie, 2013), it is only can be depict through a change on how people *behave* towards the out-groups.

Consistent with the evidence found in mental simulation literature which shows that mental simulation is linked to neural structures that are involved in action initiation (Kosslyn et al., 2001), recent research with self-report measures has hinted at the potential benefits of imagined contact for behaviour (e.g., Turner & West, 2012; Vezzali, Crisp, Stathi,

& Giovannini, 2013; Birtel & Crisp, 2012). Turner et al., (2013) found that participants who imagined contact with asylum seekers (Study 1) and gay people (Study 2) subsequently reported approach behavioural tendencies and a greater desire to find out more about out-group members. Similarly, in a high-prejudice and low-contact situations, Husnu & Crisp (2010a, 2010b) found that Turkish Cypriot participants who repeatedly imagined positive contact with Greek Cypriots subsequently reported greater intentions to engage in future contact with members of that group.

Most strikingly, research has revealed some effects of imagined contact on actual behaviour. For instance, Turner and West (2012) asked participants to imagine a positive encounter with an obese person or a Muslim. Participants were then led to another room and asked to set out chairs for themselves and the relevant out-group member. Compared to participants in the control condition, participants who had imagined intergroup contact placed the chairs significantly closer together. Although this experiment did not use any real interaction, seating distance has been used in intergroup research for some time as a behavioural measure of intergroup attitudes (e.g., Campbell, Kruskal, & Wallace, 1966). Furthermore, in a similar experiment, Birtel & Crisp (2012) asked participants to imagine making a video recording introducing themselves to an older adult. Compared to control participants, imagined contact participants subsequently recorded videos that were of higher quality, in which their communication style was rated as more personal, smoother, and more in-depth.

While intergroup behaviour is usually competitive and ethnocentric, with people favouring their own groups over out-groups, and sometimes it can become hostile and highly destructive, it is important to expand the imagined contact benefits in the domain of behaviour. As ample results have shown that imagined contact increases one's tendencies to approach or make contact with the out-group through imagining a positive contact,

therefore, it is highly expected that by making modifications to the imagined contact task can benefits towards a range of behavioural acts mainly from intention to action. With that being said, however, little attention has been made in understanding the functionality of imagined contact in promoting intergroup behaviour which will be the main aim of this thesis.

2.7 Summary

Imagined contact serves a flexible, effective tool for improving intergroup relations. Throughout the literature, it has shown that imagined contact can enhance its effect by inducing a behavioural script and adopting visual perspective adding to the standard imagined contact task (i.e., imagined positive contact). However, studies by which this effect might promote towards a *positive behavioural* effects, is still limited and yet to be tested. Most studies on intergroup relations have traditionally focused on negative intergroup orientations with numerous interventions focused on how to reduce prejudice against members of socially marginalised groups. While this is important to avoid prolonged conflict, however it does not suggest for the improvement of intergroup relations and how to adjust in such conflict. In this case, it is important to sway from attitude change to the amelioration of intergroup behaviour.

Besides, currently, studies in imagined contact rest upon on (reducing) negative outcomes than (promoting) positive outcomes. While this addresses the advantage of imagined contact on improving intergroup relations through prejudice reduction, however, excessively focusing in preventing negative outcomes might backfire. This was supported by studies conducted by West and Greenland (2016) which showed that imagined contact was less effective when the task was prevention-focused than promotion-focused. According to West and Greenland, a prevention-focused depletes cognitive resources and increases discomfort, thus leads an increased in intergroup anxiety and indirectly

exacerbating intergroup attitudes. Hence, focusing on the positives in imagined contact is more productive than focusing in reducing the negatives (i.e., promote tolerance vs. reduce prejudice). Therefore, it can be argued that by encouraging people to work on a *positive* behaviour might improve one's intention to approach or reacting positively towards the out-groups. Moreover, it has shown that by establishing positive behavioural interactions may induce greater intergroup acceptance as a result of discrepancy reduction (Miller & Brewer, 1986). Therefore, bringing upon the importance of focusing on promotion-focused, the present research extended the imagined contact literature by investigating the effects of this technique has on behavioural domain that is whether imagined contact promotes *intergroup helping*.

Overall, research on intergroup relations has largely overlooked helping between groups. Research on group processes has traditionally focused on behaviours classified as negative or even antisocial (e.g., intergroup discrimination, conflict, and aggression), while the role of group processes in forms of prosocial behaviour, specifically helping, has been relatively neglected (see for instance, Hogg & Abrams, 2001). Within this tradition, intergroup helping was usually been studied in the context of intergroup discrimination by categorising or re-categorising in-group/out-group members (how far people discriminate others through helping) without the intention to promote intergroup helping itself. Thus, critically important phenomena of helping across group boundaries or solidarity between groups have been largely ignored. In the next chapter, therefore, focus are on defining helping behaviour as a fraction of prosocial actions and what hinders and motivates people to do so from a group-level and individual-level perspectives, and further theoretically discuss the relations between imagined contact and intergroup helping.

CHAPTER 3: PROSOCIAL BEHAVIOUR IN INTERGROUP CONTEXT

In this chapter, I begin by discussing the broad term of prosocial behaviour and narrow it down to the specific prosocial intentions examined in the present research: Altruistic and egoistic intentions, volunteering, and intergroup helping. Specifically, this chapter explores people's willingness to help across group boundaries. I further discuss the factors preventing individuals from providing help as well as the factors motivating them to help, both on the group and the individual levels of analysis. Finally, I briefly summarise and discuss research on imagined contact and the extent to which it can be helpful in promoting prosocial actions.

3.1 Prosocial Behaviour

Prosocial behaviour refers to any action that is intended to benefit others, regardless of the actor's underlying intention(s) (Piliavin, Dovidio, Gaertner, & Clark, 1981). Prosocial behaviour basically involve any behaviour commonly perceived as *good* from a societal perspective, such as *sharing*, *helping*, *volunteering*, *showing social solidarity,* and *cooperating* (Brief & Motowidlo, 1986). These terms have been used interchangeably with reference to *prosocial behaviour* and closely relate positively to a range of psychological processes that benefit both individuals and society more broadly (Eisenberg & Mussen, 1989). However, there is substantial variation in the extent to which people act prosocially within and across societies (House, Silk, Henrich, et al., 2013). Therefore, understanding the sources of this variability may provide insight into the forces that sustain or diminish prosocial acts, especially with respect to intergroup helping, and thus contribute to the development of psychological interventions.

Over five decades, social psychologists have identified a number of factors which shape the likelihood of help being offered. These include the number of people present (Darley & Latané, 1968, Latané & Darley, 1970), the location of the incident (Milgram, 1970; Levine, Martinez, Brase, & Sorenson, 1994), and the costs of helping (Piliavin, Dovidio, Gaertner, & Clark, 1981). However, psychological theories of prosocial behaviours typically focus on the individual's helping behaviour in general. For example, the cost-reward model (Piliavin, Dovidio, et al., 1981; Piliavin, Rodin, & Piliavin, 1969; Dovidio, Piliavin, Schroeder, Clark, 1991) begins with the aversive arousal caused by the distress of others in need. In this model, it is the balance of cost-reward calculations made by an individual (as a means to reduce aversive arousal) that explains helping behaviour. Similarly, Batson's empathy-altruism model (Batson, 1987; Batson & Shaw, 1991) focuses on the place of emotion in helping. Batson's model suggests that helping is related to the empathic concern an individual feels (defined as an emotional reaction characterised by feelings like compassion, tenderness, softheartedness, and sympathy) for others. Batson's primary aim was to argue that empathy-based helping provides evidence for genuine altruism or selflessness in the motivation to help others.

Taken together, as yet, research on the social psychology of helping behaviour has focused on interpersonal helping and has paid less attention to the problem of intergroup helping (Schroeder, Penner, Dovidio, & Piliavin, 1995). In this case, prosocial behaviour may not only be crucial for the well-being of individuals, but they may also promote positive intergroup relations and benefit society at large. Besides, it is notable that in everyday life numerous helping behaviours occur between groups (e.g., international aid, assistance given by an advantaged to a less advantaged group). Although prosocial behaviours refer to helping less fortunate others, the pathway towards acting prosocially in an intergroup context may be characterised by uncertainty and apprehension. This is due to the fact that

people are more likely to avoid helping other social groups as a result of the distinctive characteristics that exist between them, thus making a decision not to help justifiable (van Leeuwen & Täuber, 2010). In the next section, I focus on the factors that tend to prevent people from engaging in intergroup helping.

3.2 Intergroup Discrimination in Intergroup Helping

Intergroup helping may be inhibited when there is segregation between groups, or numerical or status disparities (Cikara et al., 2011). The decision to help in this context is usually underlies by in-group bias and intergroup discrimination (e.g., Brewer, 1979, Brown & Gaertner, 2001). There are notable yet diverse literatures linking prosocial behaviour and intergroup relations (Abrams & Hogg, 1990; Brewer & Brown, 1998; Hewstone, Rubin, & Willis, 2002). Here, I designate a list of four key findings that can be distilled from the literature.

First, humans spontaneously categorise themselves as different from out-groups, which in turn drives them to help in-group members over out-group members. People sometimes perform quite costly helping acts on behalf of ethnic groups, religious groups, businesses, or states (van Vugt et al., 2000). For example, in life-and-death situations, people are more likely to help kin than non-kin (Burnstein, Crandall, & Kitayama, 1994). Intergroup discrimination also occurs under minimal group conditions. For instance, people preferentially give money or points to in-group rather than out-group members even when people are divided into groups based on trivial criteria, such as their preferences for particular painters (Brewer, 1979; Tajfel & Turner, 1986).

Second, humans have a tendency to derogate or even actively harm out-group members. For instance, people tend to think that out-group members are less moral and trustworthy than members of the in-group (Judd & Park, 1988); thus, they find it easy to morally justify aggressive actions against members of out-groups (Brewer & Brown, 1998).

Moreover, people denigrate members of out-groups when they get an opportunity and feel Schadenfreude when a rival group loses status (Leach, Spears, Branscombe, & Doosje, 2003). This subsequently brings people to deny typical human emotions to out-groups (i.e., infrahumanisation; Leyens et al., 2001).

Third, intergroup contexts are often automatically perceived as competitive and hostile. Some studies report that when individuals play prisoner's dilemma games against other individuals, they tend to make cooperative decisions. However, the group discontinuity effect (e.g., Insko et al., 1994)—underpinned by fear and distrust of out-groups (Insko, Schopler, Hoyle, Dardis, & Graetz, 1990)—occurs when individuals form groups and play the same game against other groups, or play as leaders on behalf of their groups (Johnson et al., 2006), which leads to competitive decisions. Even when groups (rather than individuals) work together, people almost automatically expect the other party to cheat, which then serves as a justification the rights to act biasedly (Johnson et al., 2006; cf. Snyder, 1984).

Finally, when individual members of in-groups and out-groups form a friendship or cooperate, this can serve as a catalyst for reducing intergroup prejudice and hostility. A successful example is the jigsaw classroom in which schoolchildren of different ethnic groups are encouraged to work together on cooperative tasks, and, under the right conditions, these activities have been shown to promote positive intergroup relations (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978). Furthermore, high status groups sometimes offer help to low status groups to affirm their superior status (Hardy & van Vugt, 2006). However, as Nadler and Halabi (2006) have recently shown in the context of relations between Israeli Arabs and Israeli Jews, low status group members (Arabs) might refuse help from high status group members (Jews), if they believe that the status relations between the groups are either unstable or illegitimate. This work shows that intergroup

helping might occur under certain conditions, but the intentions underlying the helping behaviour appear to be of key importance.

Bringing all this together, when people identify distinctions between themselves and other groups, this activates cognitive differentiation (or, "us" versus "them"). This can enhance hostility and distrust of groups that are different from one's own. Furthermore, discrimination may be the product of social competition between groups, especially when resources are limited and when the contact situation is replete with prejudice. Such situations, in turn, will make intergroup helping less likely (Saucier, Miller, & Doucet, 2005; Saucier, Smith, & McManus, 2007). Nevertheless, this does not mean that people entirely close themselves off from helping other groups. Instead, intergroup differences provide the frame for the motivations that can inhibit prosocial behaviour when it might otherwise occur.

3.3 What Motivates People to Act Prosocially?

As discussed above, people may systematically respond less favourably to others whom they perceive to belong to groups other than their own (Sidanius & Pratto, 1999; Tajfel & Turner, 1979). These biases can also extend to the domain of prosocial behaviour and helping (Dovidio et al., 1997; Gaertner, Dovidio, & Johnson, 1982; Levine et al., 2005). However, under some conditions people's tendencies to help outgroup members can be enhanced. Below I discuss what motivates people to help out-group members by considering the *group-level* and *individual-level* perspectives.

3.3.1 Group-Level Perspective: Perceived Similarity and Social Categorisations

At the group level, one important cognitive factor that facilitates helping is the *perceived similarity* between the helper and the target (Batson et al., 1981; Batson, Turk, Shaw, & Klein, 1995; Hornstein, 1976; Krebs, 1975; Stotland, 1969; Park & Schaller, 2005). Cialdini, Brown, Lewis, Luce, and Neuberg (1997) posit that the perception of similarity leads to subsequent helping behaviour because it enables the helper to relate to the recipient. There is evidence that helping is affected by similarity characteristics such as race (Bryan & Test, 1967; Glassman, Packel, & Brown, 1986; Rushton, Russel, & Wells, 1984), gender (Eagly & Crowley, 1986), and appearance (Emswiller, Deaux, & Willits, 1971). When people discover a similarity between themselves with another person, they tend to prioritise the needs of others than themselves (Karylowski, 1976). In other words, perceptions of similarity can help a potential helper empathise with the other person, and imagining how someone feels can cause a person to experience emotional concern vicariously (Krebs, 1975). These feelings in turn, may increase the desire to help. Therefore, a perception of similarity to the person in need increases the would-be helper's decision to intervene.

Moving to *social categorisations*, researchers have recently begun to recognise the importance of group membership in the study of helping behaviours (e.g., Hopkins, Reicher, Harrison, Cassidy, Bull, & Levine, 2007; Levine, Prosser, Evans, & Reicher, 2005; Nadler & Halabi, 2006; Stürmer, Snyder, Kropp, & Siem, 2006; Stürmer, Snyder, & Omoto, 2005). The theorising typically focuses on the degree to which the bystander and the victim can be said to share a common identity and the role this common identity plays in explaining helping behaviour. For example, the most recent formulation of the arousal: cost-reward model (Piliavin, et al., 1981; Dovidio et al., 1991) includes the concept of "we-ness", described as a

"sense of connectedness or a categorization of another person as a member of one's own group" (Dovidio et al., 1991). This model suggests that the categorisation of others as members of the in-group leads to perceptions of similarity, feelings of greater closeness, and increased feelings of responsibility for the welfare of others. This in turn increases both arousal and the costs of not helping a victim whilst decreasing (through feelings of greater familiarity) the cost of helping. The cost-reward model closely relies on the helping intention that benefits the benefactor, provided that it reduces the cost when help is given (e.g., avoid guilt, attain job promotion, and increase group status). However, there is an alternative explanation at the individual level of analysis: People might differ in their intentions to help others, either because they simply want to benefit others (altruistic intention), or because they want to benefit themselves (egoistic intention).

3.3.2 Individual Perspective: Altruistic and Egoistic Motives

Turning to the proximal psychological processes implicated in helping motivations, the helping literature distinguishes between *egoistic* motivation (instrumental help) and *altruistic* motivation ("pure" help) (e.g., Batson, 1991; Batson & Shaw, 1991; Penner, Dovidio, Piliavin, & Schroeder, 2005). Specifically, when egoistically motivated, people prioritise their own welfare, and when altruistically motivated, they primarily show concern for the positive welfare of others.

With regard to egoistic motivation, research suggests two broad classes of motives (see Batson & Shaw, 1991; Dovidio, Piliavin, Schroeder, & Penner, 2006). First, learning from previous experiences, people may perceive helping as an opportunity to gain rewards through helping others. For example, people may help another person as they are expected to receive financial compensation (e.g., when finding lost belongings) or social recognition (e.g., a job promotion), or because they are expecting the person to help them in the future (reciprocal help), or because they want to avoid public harassment/punishment or feeling

guilty if they avoid from helping. Second, people may also be motivated to help out of a desire to reduce aversive arousal resulting from seeing another person suffering (Piliavin, Dovidio, et al., 1981). For instance, encountering another person in distress typically triggers distress, anxiety, or uneasiness resulting from an indirect physiological response (e.g., Eisenberg & Fabes, 1991; Hoffman, 1981). Helping others to deal with their distress may reduce these unpleasant feelings. Accordingly, Dovidio, Piliavin, Gaertner, Schroeder, and Clark (1991) also argue that people may help others by considering that the alternatives cost them less.

The psychological understanding of altruistic motivation, on the other hand, has been influenced by empathy-altruism hypotheses (Batson & Shaw, 1991). That is, it is argued that people will help others when they feel empathy *regardless* of what they can gain from the situation. In line with this perspective, there have been empirical demonstrations showing that feeling empathy for an individual in need increases helping even in situations in which helping is relatively demanding or even self-sacrificing (e.g., Batson, 1991; Davis, 1994; Dovidio et al., 1991). Although empathic concern may promote helping among people in close relationships, the link between empathic concern and helping is less likely to be observed among dissimilar others (Maner & Gailliot, 2007). For example, compared with distant social relationships (e.g., strangers, people with different ethnicities), close relationships (e.g., friends, families) are generally characterised by higher levels of empathic concern and genuine regard for the person's welfare (Aron et al., 1992; Clark & Reis, 1988; Krebs, 1975).

At the group level of analysis, Stürmer and Snyder (2008) investigated the intentions underlying helping in-group or out-group members. The authors found that while in-group helping can be conceived as in-group altruism, out-group helping, on the other hand, can be understood as a form of social exchange underpinned by egoistic

intention. This suggests that people are likely to help out-group members as long as they benefit from it. For instance, in terms of collective outcomes benefiting the in-group as a whole, or in contexts in which group identity is insecure or threatened (e.g., Hopkins et al., 2007; Nadler & Halabi, 2006; van Leeuwen, 2007). In fact, helping out-group members bears many *similarities* with helping strangers in interpersonal contexts governed by social exchange and social reciprocity (e.g., Clark, Mills, & Corcoran, 1989; also Trivers, 1971). Moreover, for intergroup helping to occur, people either have to be specifically attracted to particular others (Stürmer, Snyder, & Omoto, 2005), to have particular strategic reasons for wishing to be seen to help others (Hopkins et al., 2007), or have specific and explicit norms for helping them (Reicher et al., 2005).

Although the studies discussed above suggest that different motives can drive affiliative behaviours in different relationship contexts (e.g., Kenrick et al., 2002; Reis, Collins, & Berscheid, 2000), the extent to which altruistic versus egoistic motives differentially promote helping within different relationship contexts remains relatively unexplored.

3.4 Imagined Contact and Prosocial Behaviour

Imagined contact offers a flexible and relatively minimal intervention that can elicit robust prosocial change (Gaesser, 2012). This has been demonstrated by several studies on the effects of imagined contact on helping behaviour. For example, imagined contact has been shown to increase willingness to work with out-group members (Turner et al., 2007), to foster helping intentions (Vezzali et al., 2015), and to heighten cooperation (Pagotto et al., 2013). More recently, Meleady and Seger (2016) have provided reliable evidence that imagined positive contact can successfully encourage prosocial and cooperative choices by employing a behavioural measure of cooperation (i.e., the prisoner's dilemma game). These findings make it plausible that imagined contact may encourage people to act prosocially.

However, the imagined contact studies discussed so far has focused on helping intentions rather than behaviours (Vezzali et al., 2015; Pagotto, Visintin et al., 2013; Meleady & Seger, 2016). As imagined contact is structured to improve intergroup relations, showing that one generally *intends* to help or economically cooperate with the out-group does not necessarily mean that one will indeed help in a real-life situation. Furthermore, existing studies on imagined contact and intergroup helping were designed based on the in-group identity model (Gaertner & Dovidio, 2000, 2012). The idea is that by enhancing the salience of the superordinate identity, which includes both in-groups and out-groups, this will lead to prejudice reduction. However, it has been argued that using this technique may also hinder from attitude change by increasing the highlight of conflicting identities as opposed to direct reference to a target group. For example, Vezzali et al. (2015) asked participants to imagine a fantasy character instead of making direct references to target groups. Even the re-categorisation principle promote helping between groups by blurring the group boundaries and transforming members' cognitive representations of the memberships from separate groups to one social entity (Brown & Turner, 1981; Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Gaertner et al., 1990; Gaertner et al., 1989), it is, however, might backfire. By reducing the group saliency may only act as a temporary solution to the intergroup discrimination problem and has been characterised as unstable (Brewer & Gaertner, 2001). Moreover, by reducing group saliency one also makes groups less inclusive. This will bring in-group loyalty questionable and depersonalised trust by threatening individuals' social identities and values (Brewer, 2001). Therefore, as re-categorising or de-categorising may reduce or terminate one's group identities, the techniques will not meet the needs of inclusion and differentiation, or of cognitive simplicity and uncertainty reduction (Brewer, 2001; Hogg & Abrams, 1993). This further may have

restricted the psychological processes driving imagined contact effects, such as anxiety reduction (Turner et al., 2007) or perspective-taking (Husnu & Crisp, 2015).

Regardless of that, imagined contact has demonstrated to encourage prosocial actions by retaining group saliency. For example, Pagotto et al. (2013) showed that by imagining interacting with an Arab Muslim either in an intergroup or interpersonal context encourages cooperation by increasing trust. However, this manipulation may have maintained a certain level of anxiety, and it might have failed to reduce competitiveness between the groups. In explaining this, the topics that participants discussed during the imagined interactions may have focused excessively on intergroup issues, such as the need to defend one's status, which in turn may have led to provocation. Overall, given that imagined contact research has focused on prosocial behaviours in general and on intergroup *cooperation* more specifically (e.g., Pettigrew & Tropp, 2006), the present thesis will focus on intergroup *helping*, which is a specific type of prosocial behaviour and a promotion-focused behaviour, thus making a novel empirical contribution to the imagined contact literature.

3.4.1 Improving Imagined Contact: From Intergroup Cooperation to Intergroup Helping

Intergroup cooperation, defined as two different groups working together to achieve the same goal, is the only *behaviour* highlighted by Allport (1954) for a successful intergroup contact to happen. Given that cooperation is one possible prosocial action along with other positive social behaviours that benefit others, including sharing, volunteerism, and social solidarity, another positive behaviour that has received attention in promoting intergroup relations is helping behaviour. While all of these behaviours benefit others (Piliavin, Dovidio, Gaertner, & Clark, 1981), there is a clear distinction to be made between

cooperation and helping behaviour in terms of the process by which the aid is given (Worchel, 1984). According to Wispé (1972), cooperation is the willingness and ability to work with others for the common benefit of *both parties*. Whereas, helping on the other hand, refers to giving assistance or aid toward a specific target for the benefit of *one party*.

Undoubtedly, extensive research on cooperation exists, supporting its effectiveness in reducing intergroup prejudice. For example, in a famous programme of research on cooperation and intergroup conflict, Sherif et al. (1961) showed that cooperation between members of different groups can lead to intergroup attraction. Unlike the helping relationship, individuals or groups involved in a cooperative interaction participate in a *mutual exchange* of effort, information, or materials in order to achieve *similar goals*, which eliminate the saliency of power or a power hierarchy of the groups involved. Supporting this, Allport (1954) in his intergroup contact theory postulates the pivotal role of the cooperation condition for positive intergroup interactions to take place because it helps bring different groups together by increasing intergroup attraction (Amir 1969; Cook 1985; Worchel 1986).

While cooperation may advantage both parties, helping on the other hand involves even more complexity and wide-ranging effects (Grzelak & Derlega, 1982). Helping behaviour usually involves an interpersonal relationship between donor and recipient, which is characterised by empathy and, in turn, increases the desire to help. Further to this, help giving can be seen as the prelude in a positive social exchange. Unlike cooperation, the act of helping does not demand reciprocal exchange, but it still requires the helper to take risk and give up valuable resources. According to Schlenker, Helm, and Tedeschi (1973) and Swinth (1967), these conditions should promote the establishment of *trust* and *attraction* between donors and recipients. Moreover, extrapolated to real life, helping requires individuals' time and effort and in some cases, it even involves risk taking. Thus, the act of

helping is a perfect way to present one's own group in a positive light, as helping is seen as kind and generous that may unite people together (Davis & Maitner, 2010).

Yet, cooperation and helping also share two similarities on the relationship between two groups. On the negative side, Worchel, Andreoli, and Folger (1977) highlighted that cooperation and helping resulted in deteriorating intergroup relations if it led to task failure. On the positive side, there are numerous cases in which cooperation and helping facilitate social interactions and bring participants closer together than they would be otherwise (e.g., Huesman & Levinger, 1976).

Highlighting the similarities between helping and cooperation suggests the importance of *interaction* between groups, because they both provide members the opportunity to work together, to communicate, to express values, and to gain knowledge about the other group, which in turn leads to the unity of two different groups. However, given that intergroup helping is more difficult to achieve than cooperation, especially in intergroup contexts where high status or power disparities will accentuate the risk associated with empathic responding, of this thesis focus will be on helping behaviour as opposed to cooperation. This might expand the helping and imagined contact literatures on the pathway to improving intergroup relations, which have thus far been characterised by a focus on negative behaviours and attitudes (e.g., intergroup discrimination, prejudice, and intergroup anxiety) (Miles & Crisp, 2014).

Moreover, while the importance of intergroup helping has been highlighted, the role of group processes in prosocial behaviours, specifically helping, has been relatively neglected (see for instance, Hogg & Abrams, 2001). Besides, human helping behaviour resides in the complex interconnections among factors affecting their prosocial lives, which usually benefits the in-groups even more. However, as Aristotle argued, humans can be inherently characterised as prosocial animals. If that is the case, then by devising the right

types of psychological interventions one might be able to significantly promote intergroup helping.

3.5 Dispositional Attribution and Prosocial Behaviours

Almost all behaviour, including helping behaviour, is a reflection of an individual's characteristics that includes personality traits, motives, needs, and physical and cognitive abilities (Krebs & Miller, 1985; Kurtines, 1984, 1986; Staub, 1978). It is suggested that helping behaviour is part of a genetic endowment that taps into basic human prosociality needs (McGue & Bouchard, 1998). Meanwhile, Berkowitz (1972) has proposed that individuals have an internal urge to trust, care of, and respect other people. These effects can be explained by empathy that underlies this helping tendency (see also Eisenberg & Miller, 1987; Rushton, 1980). This idea leads to the expectation that people in most cases will be helpful and cooperative (Rand, Greene, & Nowak, 2012). Even helping outweigh the in-groups than out-groups, however, oftentimes groups assist because of genuine caring for the out-group member's plight (e.g., Dovidio & Gaertner, 1981). This, therefore, support to the notion that there is still hope to bring groups together and encourage intergroup relations by offering help to the out-groups.

To support this, Allport (1954) has proposed that even though humans may be thought of as having a strong group loyalty, yet, their preferential attachment to the in-groups does not necessarily imply negativity or hostility toward out-groups, but rather a general concern for the in-group's well-being (see also Brewer, 1999). The group-level perspective on prosocial motivations discussed above supports this view by suggesting that people do not necessarily discriminate against out-group members when it comes to out-group helping. Rather, it is the *motivation* for helping "us" versus "them" that is often of a fundamentally different nature. While in-group helping can be conceived as (empathy-based) in-group *altruism*, out-group helping, on the other hand, can be understood as social

exchange or *egoistic* helping. Thus, whether imagined contact can alter one's intention to act altruistically and help the out-group is of interest.

3.6 Summary

Prosociality is an essential quality of being human. While intergroup helping is a specific type of promotion-focused prosocial behaviour and based on the work reviewed, it is an understudied, but potentially highly fruitful approach to promote intergroup relations. The current research, therefore, aims at encouraging intergroup helping through imagined contact which may, in turn, suggest ways to develop and improve the current imagined contact paradigm.

To examine this, two ways of enhancing imagined contact effects were highlighted in the imagined contact literature (Chapter 2): (1) inducing a behavioural script and (2) taking visual perspective. Inducing a specific behavioural script that directly taps into the intended behavioural outcomes has shown to increase the probability to act towards the behaviour (e.g., Gregory, Cialdini, & Carpenter, 1982). The behavioural script provides informational load that makes the behaviour more accessible in one's mind and therefore influences people to act towards it (Bargh, Chen, & Burrows, 1996; Garcia et al., 2002). Adding to this, according to Attributional Theory (Jones & Nisbett, 1971), people tend to attribute their behaviour to the self (dispositional attribution) when it is imagined from a third-person perspective, and to the environment (situational attribution) when it is imagined from a first-person perspective. Therefore, it can be argued that opposed to the first person-perspective, imagining the contact scenario from the third-person perspective may lead people to reflect and focus on their action even more, which is closely associated with greater sympathy for and willingness to help out-groups (Levy et al., 2002).

Overall, moving to the experimental studies in the next chapter, this thesis tests the proposed theoretical model: If the boundaries between in-groups and the out-groups are

weakened by increased attraction towards the out-groups via imagined positive contact, then by including a behavioural script (i.e., an intergroup helping scenario) and imagining it from the third-person perspective, may provide a clear mental flow of the action and increased self-awareness to one's own actions. In this case, it is hypothesised that imagined prosocial contact from the third-person perspective will increase tendencies to act prosocially and improve attitudes towards the out-groups in question.

CHAPTER 4: ENHANCING IMAGINED CONTACT EFFECTS ON PROSOCIAL BEHAVIOURS

The work reported in this chapter aimed to investigate the conditions under which imagined contact will help promote prosocial behaviour. Specifically, I extend work on imagined contact by including behavioural scripts and visual perspective and testing its effects on prosocial behaviours. In two studies tested in two different contexts (UK and Malaysia), results indicated that participants who imagined prosocial contact from the third-person perspective subsequently reported more altruistic intention than egoistic intention, and increased willingness to donate to a charitable organisation associated with the out-group, compared to a range of imagined contact conditions. The effect of the intervention on prosocial behaviours was mediated by reduced in intergroup anxiety.

4.1 Introduction

The work reported in this chapter adopted imagined contact as a strategy to foster intergroup helping. Although it has been found that simply imagining positive contact is sufficient to produce benefits for intergroup relations (Crisp et al., 2008), it has also been found that including facilitating elements leads to enhanced effects (Crisp & Turner, 2012). Therefore, the work reported here aimed at determining which imagined contact conditions might enhance its effectiveness in fostering positive intergroup helping and attitudes. As highlighted in Chapter 2, including a behavioural script (Kuchenbrandt et al., 2013) or visualising the imagery task from a third-person perspective (Crisp & Husnu, 2011) can enhance the imagined contact effect. Therefore, I expected that combining both elements in the present studies would maximise its effect even more on promoting intergroup helping.

4.2 Study 1

4.2.1 Aims and Hypotheses

The main aim of this thesis is to identify the conditions under which imagined contact effects can enhance outgroup helping. To develop a strategy that would help maximise the imagined contact effects, specifically on prosocial behaviours, four imagined contact conditions were constructed: (1) imagined positive contact, (2) imagined prosocial contact, (3) imagined prosocial contact (*first-person perspective*), and (4) imagined prosocial contact (*third-person perspective*).

As discussed in Chapter 2, imagining a situation from a *third-person perspective* makes people more inclined to make dispositional attributions regarding their own behaviour, thus helping to keep a sense of personal control and enhancing self-esteem (Duck, Hogg, & Terry, 1995). Indeed, the third-person effect may enhance one's self-image by making oneself feel in the spotlight and thus further increase the tendency to act upon the subsequent behaviour. Even it is expected that imagined positive contact alone might encourage one's intention to help others, however, the proposed enhancements to the imagined contact intervention (help-focus and third-person perspective) are expected to facilitate and enhance the imagined contact effects even more in promoting prosocial attitudes and behaviour.

To test this hypothesis, the focus of this first study was imagined contact towards Arab Muslims. A report by the Islamic Human Rights Commission (Ameli & Merali, 2015) has found that between 2010 and 2014 the number of people who reported seeing Islamophobia directed at someone else leapt from 50% to 82%. Following several attacks (e.g., the Westminster and Manchester terror attacks) has led to increased Islamophobic hate crime, including elevated verbal abuse and hate mail, anti-Muslim graffiti, attacks against mosques, physical abuse against Muslims, and continued online abuse against

Muslims through social media. There is a real danger that such prejudice will further stir up anti-Muslim hatred and lead to even more discrimination than already exists, which might attenuate any prosocial actions towards this group.

Whilst the best way to defeat prejudice is to build stronger bonds and stimulate positive interactions between communities (Abrams, Van de Vyver et al., 2017), current high levels of discrimination towards Muslims might prevent positive contact. This constitutes a situation where imagined contact represents an ideal tool to promote intergroup relations—i.e., when there is contact avoidance between the groups. The described context is therefore a highly relevant one with respect to the aim of combating prejudice and promoting tolerance by intergroup helping.

Besides, while intergroup anxiety has been found to be one of the most significant hurdles for intergroup contact to overcome, it also has a well-established role in reducing bias in contact-reduced prejudice relationships (e.g., Stephan & Stephan, 1985; Brown & Hewstone. 2005; Islam & Hewstone, 1993, Pettigrew & Tropp, 2008). However, previous study of imagined contact on prosocial behaviour has failed to reduce intergroup anxiety (Pagotto et al., 2013). In this case, it is crucial to further establish and identify how imagined contact could promote prosocial behaviour by reduce intergroup anxiety as these variables correlate each other. For example, Scwartz (2010) has highlighted anxiety-based values that could inhibit people from acting prosocially towards other groups. According to Schwartz, for instance, security and power values typically oppose prosocial behaviour. With one's motivation to maintain stable and protective environment, security values focus on one's rather than other needs, and they deter prosocial actions that might entail risk. Meanwhile, the pursuit of dominance over people and accumulation of resources inherent in power values justifies self-serving behaviour even at the expenses of others. Moreover, in intergroup context, being part of a dominant group tends to obstruct actions aimed at

granting equality to the minority or disadvantaged groups, for instance, striving for equality could subvert the majority group's social status and prestige and thus reduce their power over limited resources (e.g., job opportunities). Therefore, by examining if imagined contact could reduce any anxious feelings when in contact with the out-group, thus, this might eliminate negative feelings and perspective towards the out-group and foster equality, further promote intergroup helping. This then clarifies the relevance of intergroup anxiety on prosocial behaviour. Therefore, the current study aimed to test again whether imagined contact, using an elaborated variant, can improve prosocial behaviours through reduced intergroup anxiety.

4.2.2 Method

4.2.2.1 Participants and Design

One hundred and forty-seven British Non-Muslim (N = 147) Psychology students from the University of Sheffield (26 male and 121 female; M_{age} = 18.72, SD = 1.27) were recruited to complete an online questionnaire using Qualtrics (Version March 2011, Qualtrics Lab Inc., Provo, UT) in return for course credit. Additionally, by using G*Power 3.1.9.2 (Faul, Erdfelder, Buchner, & Lang, 2009), a power analysis was tested to determine the minimum sample size needed for this study to detect an effect. Therefore, based on the findings reported by Crisp and Husnu (2011), I reasoned that the effect would be medium-to-large in size (Cohen's f = .38). Further A priori statistical power analysis indicated that with an alpha = .05 and power = 0.95, the projected sample size needed with this effect size is approximately N = 123. Thus, the proposed sample size is adequate for the hypotheses of this study and should also allow for expected attrition and additional analyses of controlling for possible mediating analysis.

In addition, for this study, participants were told that they would be participating in a study that requires them to imagine social situations and their associated thoughts and behaviours. Participants were filtered and chosen only among White British students and Non-Muslim faith. Participants were randomly allocated to one of four conditions:

1. Imagined positive contact
2. Imagined prosocial contact
3. Imagined prosocial contact from a first-person perspective
4. Imagined prosocial contact from a third-person perspective

4.2.2.2 Procedure

The contact situation was the same across experimental conditions—only the type of interaction and follow-up instructions on perspective-taking varied. The study took 15-20 minutes to complete. In the positive contact condition, participants received the following instruction: “I would like you to spend a time imagining yourself on a train engaged in conversation with an Arab Muslim who is sitting next to you. The conversation goes on in a relaxed, positive and pleasant manner”.

In the *prosocial* imagined contact condition, the same imagined positive contact instruction has been used with an addition of a *behavioural script* following the positive imagined contact script as follows: "Suddenly the train makes an emergency brake and your conversation partner's belongings fall down and roll forward. You stand up and help to pick up the person's belongings".

To manipulate the *visual perspective*, participants in the perspective taking conditions were additionally instructed after reading the imagined prosocial contact scenario (alternate condition in parentheses):

“I would like you to picture the scenario from a *first-person perspective (third-person)* visual perspective. With the *first-person (third-person)* perspective you see the

event from your own visual perspective (*the visual perspective of an observer*). That is, you look out at the scene through your own eyes (*you see yourself in the scene from an external viewpoint*)."

Following closely the instructions by Crisp and Husnu (2011), whenever participants were picturing the scenario in their mind, they were asked to respond "yes" or "no" to the following question (manipulation check): "As you are picturing it right now, do you see (yourself in) the scene from the visual perspective you (an observer) would have if the event were actually taking place?" All participants passed this check. Additional to that, in each condition, to reinforce the effects of the imaginary task, participants were then asked to write down what they have imagined as vividly as possible. This free-response section is to verify that participants had correctly completed their assigned tasks and to double check that the corresponding scenario really took place during the imaginary process. Participants then completed the dependent measures related to intergroup attitudes and behaviours before being thanked and debriefed.

4.2.2.3 Dependent Variables

Intergroup anxiety. Eleven items were used to measure intergroup anxiety adapted from the work of Britt, Boniecki, et al. (1996). The original scale targeted African Americans as the out-group, however, for the purpose of this research I changed the target group to Arab Muslims. The items used in this scale measure participants' general level of anxiety towards the out-group based on their interactions, and their knowledge about the out-group in different situations (e.g., "I experience little anxiety when I talk to an Arab Muslim", "I would feel nervous if I had to sit alone in a room with an Arab Muslim and start a conversation", "If I were at a party, I would have no problem with starting a conversation with an Arab Muslim", (R); and "I would experience some anxiety if I were the only white in a room full of Arab Muslims", "My lack of knowledge about the Arab Muslim culture

prevents me from feeling completely comfortable around Arab Muslims," "The cultural differences between whites and Arab Muslims make interactions between whites and Arab Muslims awkward"). The scale ranges from 1 (strongly agree) to 5 (strongly disagree) indicating to what extent people feel anxious when interacting with an out-group (α = .83).

Prosocial behaviour tendencies. Ten items were used to measure prosocial tendencies based on the work of Boxer et al. (2004). The original questionnaire classifies three prosocial behaviour tendencies or subtypes, namely *altruistic* (pure helping), *proactive* (help based on mood), and *reactive* (instrumental helping). However, for the purpose of this thesis, I only tested two prosocial subtypes, i.e. *altruistic* and *reactive* prosocial intentions, and I renamed reactive intention to *egoistic* intention that indicates helping as for the reason of reciprocal helping or helping in the intention to be helped in the future. Therefore, for the finalised version, the prosocial behaviour items represent by two subtypes composed of five items each: *Altruistic Intention*, which involves acting voluntarily without an expectation of personal gain (e.g., "I often help people without being asked", α = .79) and *Egoistic Intention*, which involves an instrumental, goal-directed response (e.g., "I often help people to get what I want", α = .83).

Intergroup helping. To measure intergroup helping, participants were asked to report their willingness to donate to an out-group humanitarian appeal. To avoid using leading questions that referred directly to the study goal, the statement was structured carefully. Participants received the following instruction: "*We have been asked by another research team to include in this study a question about your willingness to make charity donations. Specifically, we would like to ask whether you would be willing to donate some money to a humanitarian appeal for Gaza in Palestine. We are not asking for a donation at this point, we are just currently trying to gauge how much funding this might generate. To this end, could you give us an indication of how much you would be willing to contribute (in £) in*

response to an email campaign?". The donation could range between £0 and £50 indicating the amount of money participants were willing to donate.

4.2.3 Results

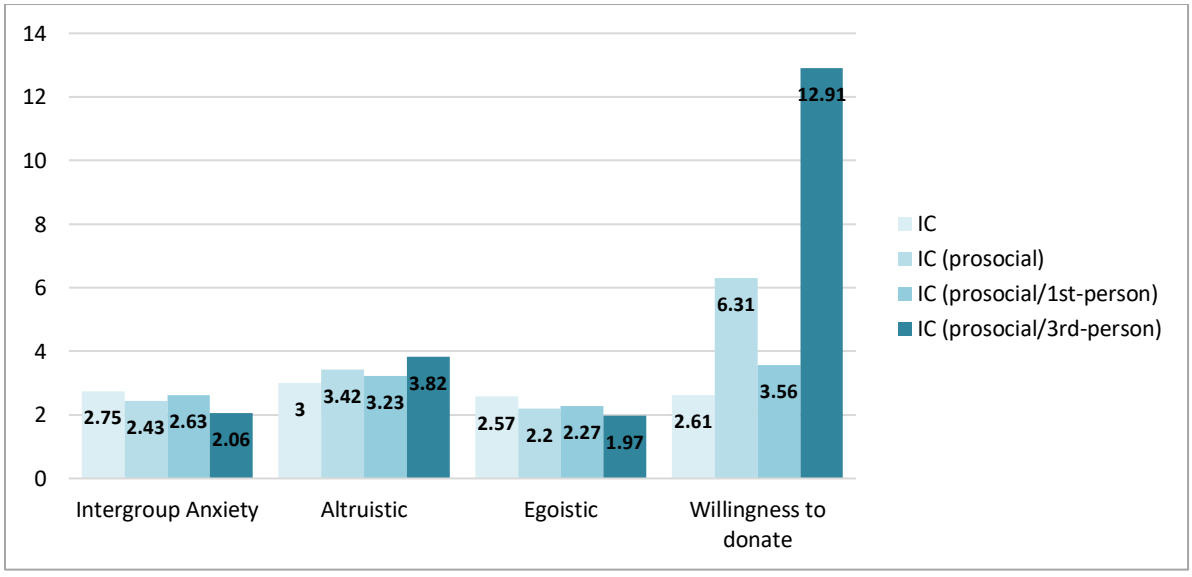
Means and standard deviations of all dependent variables, as a function of imagery task and visual perspective can be seen in Table 1 and Figure 1.

Table 1 Means of intergroup anxiety and prosocial behaviours on imagined contact (Study 1)

	Imagined contact conditions			
	IC (n = 38)	IC (prosocial) (n = 36)	IC (prosocial/1st -person) (n = 37)	IC (prosocial/3rd -person) (n = 36)
	M (SD)	M (SD)	M (SD)	M (SD)
Intergroup anxiety	2.75 (.35)	2.43 (.39)	2.63 (.47)	2.06 (.32)
Prosocial behaviours				
Altruistic	3.00 (.32)	3.42 (.47)	3.23 (.43)	3.82 (.32)
Egoistic	2.57 (.33)	2.20 (.42)	2.27 (.33)	1.97 (.31)
Willingness to donate	2.61 (6.31)	6.31 (5.60)	3.56 (6.07)	12.91 (6.80)

Notes: IC = Imagined contact
IC (prosocial) = Imagined prosocial contact
IC (prosocial/1st–person) = Imagined prosocial contact from a first-person perspective
IC (prosocial/3rd – person) = Imagined prosocial contact from a third-person perspective

Figure 1 Comparison of imagery conditions for all DVs (Study 1)



In the analysis that follows, I used ANOVA and MANOVA to test the manipulations and further run for a Tukey post hoc test to examine if there are any differences between the manipulations tested. A Tukey post hoc test was used to adjust the p-values for multiple testing, so that the family-wise error rate is controlled as multiple significance tests are carried out. The results are presented in Table 2.

Table 2 Post hoc comparisons of intergroup anxiety and prosocial behaviours on imagined contact (Study 1)

Variables/IC conditions	1	2	3	4
Intergroup anxiety				
1-IC	-	.32*	.12	.69*
2-IC (prosocial)		-	-.19*	.37*
3-IC (prosocial/1st-person)			-	.56*
4-IC (prosocial/3rd-person)				-
Prosocial behaviours				
Altruistic intention				
1-IC	-	-.43*	-.23*	-.83*
2-IC (prosocial)		-	.19*	-.40*
3-IC (prosocial/1st-person)			-	-.60*
4-IC (prosocial/3rd-person)				-
Egoistic intention				
1-IC	-	.37*	.30*	.60*
2-IC (prosocial)		-	-.07*	.23*
3-IC (prosocial/1st-person)			-	.30*
4-IC (prosocial/3rd-person)				-
Willingness to donate				
1-IC	-	-3.70*	-.95	-10.30*
2-IC (prosocial)		-	2.75	-6.60*
3-IC (prosocial/1st-person)			-	-9.35*
4-IC (prosocial/3rd-person)				-

4.2.3.1 Intergroup Anxiety

The result of a one-way ANOVA revealed that imagined contact manipulations had a significant effect on intergroup anxiety, $F(3, 143) = 22.10$, $p < .001$, $\eta_p^2 = .32$. The result of a post hoc test comparisons showed that participants who imagined prosocial contact and

imagined prosocial contact from the third-person perspective reported less anxiety than those in the positive imagined contact condition (p < .001). Interestingly, there were no significant differences between imagined prosocial contact from the first-person perspective and for both imagined positive contact (p = .51) and imagined prosocial contact (p = .14). Moreover, as hypothesised, participants who imagined prosocial contact from the third-person perspective reported significantly lower intergroup anxiety than those in other three imagined contact conditions, all p < .001.

4.2.3.2 Prosocial Behaviour Tendencies

Next, a one-way MANOVA was used to test the main effects of the different conditions on prosocial behaviour tendencies. The results revealed that imagined contact manipulations had a significant effect on prosocial behaviour tendencies, $F(6, 284) = 20.06$, p < .001; Wilk's Λ = .49. Univariate testing found the effect to be significant for both prosocial behaviour tendencies subtypes; altruistic intention, $F(3, 143) = 29.40$, p < .001; η^2 = .38, and egoistic intention, $F(3, 143) = 18.34$, p < .001; η_p^2 = .28). Meanwhile, post hoc comparisons showed that participants who imagined prosocial contact and imagined prosocial contact from the third-person perspective reported more altruistic intention than those in the positive imagined contact condition (p < .001). There were no differences reported between imagined prosocial contact from the first-person perspective and for both imagined positive contact (p = .05) and imagined prosocial contact condition (p = .16). As hypothesised, participants who imagined prosocial contact from the third-person perspective reported significantly higher altruistic intention than those in the other three imagined contact conditions, all p < .001.

In terms of egoistic intention, participants who imagined prosocial contact and imagined prosocial contact from the first-person and third-person perspective reported a lower level of egoistic intention than those in the positive imagined contact condition (p

< .001). There was no difference between participants who imagined prosocial contact condition than those who imagined prosocial contact condition from the first-person perspective (p = .83). Finally, also as hypothesised, participants who imagined prosocial contact from the third-person perspective reported significantly lower egoistic intention than those in other three imagined contact conditions, all $p < .001$.

4.2.3.3 Willingness to Donate

The distribution of participants' willingness to donate to an out-group humanitarian appeal was non-normally distributed. Therefore, the data was transformed using a two-step process prior to analysis. In this process, the data were percentile ranked to produce a uniform distribution, which was then used as the probability to calculate a z-score using the inverse error function to produce a normal distribution (Templeton, 2011). Following this, the result of one-way ANOVA revealed that imagined contact had a significant effect on monetary donations, $F(3, 143) = 20.48$, $p < .001$, $\eta_p^2 = .30$. Meanwhile, post hoc comparison showed that participants who imagined prosocial contact from the third-person perspective were willing to donate more money to the out-group humanitarian appeal than those in other three imagined contact conditions, all $p < .001$.

4.2.4 Contrast Analysis

In the analysis that follows, apart from computing ANOVAs and a MANOVA, I also tested a set of planned contrasts. Planned contrasts are ideally applied when the hypothesis is very precise and gives a powerful and clear test of specific effects (see Rosenthal, Rosnow, & Rubin, 2000; Judd & McClelland, 1989), as is the case of this study. The levels of altruistic intention and the amount of donations should be higher, while egoistic intention and intergroup anxiety should be lower when imagined prosocial contact from the third-person

perspective compared to other imagined contact manipulations. In order to test this hypothesis, a planned contrasts order of -1, -1, -1, +3 was used, as shown in Table 3.

Table 3 Primary contrast

	Imagined contact conditions			
	IC	IC (prosocial)	IC (prosocial/first-person)	IC (prosocial/third-person)
Contrast	-1	-1	-1	+3

4.2.4.1 Contrast Analysis for Intergroup Anxiety

The result of the planned contrast was significant for intergroup anxiety, $t(146) = -7.29$, $p < .001$, $d = -1.45$, confirming that participants who imagined prosocial contact from the third-person perspective reported less intergroup anxiety than those in the other three imagined contact conditions.

4.2.4.2 Contrast Analysis for Prosocial Behaviour Tendencies

The result of the planned contrast were significant for altruistic intention, $t(146) = 8.09$, $p < .001$, $d = 1.56$, and egoistic intention, $t(146) = -5.55$, $p < .001$, $d = -1.08$, confirming that participants who imagined prosocial contact from the third-person perspective reported more altruistic intention and less egoistic intention than those in the other three imagined contact conditions.

4.2.4.3 Contrast Analysis for Willingness to Donate

The result of planned contrast was significant for willingness to donate, $t(146) = 7.26$, $p < .001$, $d = 1.36$, confirming that participants who imagined prosocial contact from

the third-person perspective reported a higher willingness to spend more money to the out-group humanitarian appeal than those in other three imagined contact conditions.

4.2.5 Mediational Analysis

The results from the contrast analysis provided support for the hypothesis that imagining positive helping contact from the third-person perspective would encourage more altruistic intention and monetary donations while reducing egoistic intention and intergroup anxiety as compared to the other imagined contact conditions tested. To investigate the possibility that intergroup anxiety mediates the differences between imagined prosocial contact from the third-person perspective to other three imagined contact conditions, a mediational analysis was calculated using bootstrapping (PROCESS model 4; Hayes, 2013). The following bootstrap estimates are based on 5,000 bootstrap samples. The predictor was the contrast code (imagined positive contact: -1, imagined prosocial contact: -1, imagined prosocial contact from the first-person perspective: -1, imagined prosocial contact from the third-person perspective: +3). Intergroup anxiety was the mediator and altruistic and egoistic prosocial behaviour tendencies as well as donations, were the dependent variables. The result of mediational analyses is presented in Figure 2.

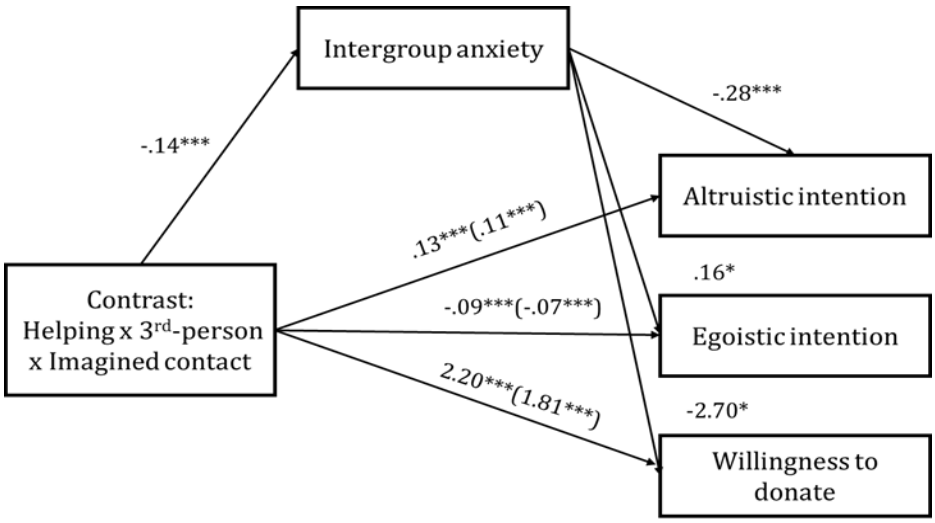


Figure 2 Mediational model of the relationship between contrast and prosocial behaviours through intergroup anxiety (Study 1)

Note. *p < .05. **p < .01. ***p < .001.

Figure 2 is referred. The total effect of imagined contact on altruistic intention was significant, B = .13, SE = .02, p < .001, whereas the effect of imagined contact when intergroup anxiety was controlled was also significant, B = .11, SE = .02, p < .001. Bootstrap analysis revealed that the total indirect effect through the mediator was .04, SE = .01, 95% CI = [.06, .02]. Meanwhile, the total effect of imagined contact on egoistic intention was significant, B = -.09, SE = .02, p < .001, whereas the effect of imagined contact when intergroup anxiety was controlled was also significant, B = -.07, SE = .02, p < .01. Bootstrap analysis revealed that the total indirect effect through the mediator was -.02, SE =.01, 95% CI = [-.02, -.05]. Finally, the total effect of imagined contact on willingness to donate was significant, B = 2.20, SE = .30, p = .001, whereas the effect of imagined contact when intergroup anxiety was controlled was also significant, B = 1.81, SE = .35, p = .001. Bootstrap analysis revealed that the total indirect effect through the mediator was .39, SE = .21, 95% CI = [.81, .01]. All three indirect effects were statistically significant mediation effects (see Figure 2 for full mediational model). This indicates that intergroup anxiety mediated the

contrast on all three prosocial acts: Altruistic intention, egoistic intention, and willingness to donate. These results lend support to the prediction that inducing a helping script in the imagery task and imagining the scenario from the third-person perspective leads to increased positive prosocial actions via reduced intergroup anxiety. These findings constitute initial evidence for the hypothesised relationships.

4.3 Study 2

4.3.1 Aims and Hypotheses

Study 1 provided evidence that imagined prosocial contact from the third-person perspective provides the strongest effects in encouraging prosocial acts towards the out-group as compared to other imagined contact conditions tested. Study 2 then was designed specifically with the aim of replicating these results. I sought to establish the generalisability of the imagined contact effect on prosocial behaviours by changing the group context. While there is a lot of evidence that imagined contact tends be an effective psychological intervention in the Western countries, it is not clear whether this intervention is effective in the Asian populations and for other prejudice targets. To examine this, Study 2 was carried out in Malaysia, a country that comprises diverse ethnic groups that are dispersed unevenly in the country's economy and labour opportunities. Malaysia is made up of 60% ethnic *Malays*, 23% ethnic *Chinese* and 7% ethnic *Indians*, with the remainder made up of other ethnic groups. While Malays represent the *majority group* in Malaysia, the Chinese and the Indians represent *minority groups*. It was stated in the social contract reaching back to independence (from the British) that the Malays have special privileges and rights (as the original habitants of Malaysia), whereas the non-Malays could only gain their citizenship (when immigrating to Malaysia as traders and labourers). This privilege continues to apply until today. For example, the Malays have privileged access to

government jobs, business licenses, and they have more opportunities to be placed in Malaysian public universities. This further creates unequal authority environments.

For instance, in the education system, the Malaysian Ministry of Education used to set ethnic quotas in government-funded universities to ensure that more Malays had access to public universities. However, the system was abolished back in 2002. Since then, even though the system has now changed to a meritocratic system, it is still replete with biases, prejudices, and discrimination towards the minority groups. For example, of 40,000 places available in government-funded universities, only 19% were awarded to ethnic Chinese and 4% to ethnic Indians. The rest of the seats were mainly allocated to the Malays. The odds of opportunities in the public higher education limited the contact between the Malays and other ethnic minorities, kindled further polarisations between the groups, and .ultimately led to more intergroup conflict.

Based on this situation and in light of the current status relations and the privilege the Malays have compared to other ethnic groups, I argue that imagined contact intervention should be conducted with the Malays as a starting point in order to create more positive intergroup relations. For this reason, identifying imagined contact conditions that lead to the most robust effects might be beneficial. As in Study 1, it is expected that imagined prosocial contact from the third-person perspective will encourage more altruistic than egoistic intentions, increase monetary donations to the out-group organisation, and reduce intergroup anxiety.

4.3.2 Method

4.3.2.1 Participants and Design

Two hundred and fifty-one Malay students (N = 251) from a public Malaysian University (26 male, 225 female, M_{age} = 21.62, *SD* = 1.53) were recruited to complete an

online questionnaire using the Qualtrics survey software. An A priori statistical power analysis for sample size estimation (G*Power 3.1.9.2) was also performed. With an alpha = .05 and power = 0.95, the projected sample size needed with an effect size of Cohen's f = .38 is approximately N = 123. Thus, the proposed sample size will be more than adequate for the hypotheses of this study and should also allow for expected attrition and additional analyses of controlling for possible mediating analysis.

In this study, participants were entitled a prize draw of RM20 x 5 upon participation. Participants were explained that the study requires them to imagine social situations and their associated thoughts and behaviours. The sample consisted of Malay students only. The questionnaire for this study was translated from English into Malay by two native speakers of Malay and was back-translated by a bilingual person (for a similar procedure see Darley & Latane, 1968). Similar to Study 1, participants were randomly allocated to one of four conditions:

1. Imagined positive contact
2. Imagined prosocial contact
3. Imagined prosocial contact from a first-person perspective
4. Imagined prosocial contact from a third-person perspective

4.3.2.2 Procedure

Participants were presented with the same instructions used in Study 1. Changes only made on the scenario used in the imagined contact intervention. This changes was made to increase the cognitive availability of the imagined script (Anderson, 1983; Husnu & Crisp, 2010). In the positive contact condition, participants received the following scenario: "I would like you to spend time imagining yourself on a crowded commuter tram engaged in a conversation with a Malaysian Chinese/Indian who is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner".

In the positive helping contact condition, the identical imagined positive description was used and the following helping interaction was added to the imagination task: "When the commuter arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand".

To test the visual perspective on contact conditions, participants were instructed to imagine the positive helping contact scenario described above and instructed to visualise the scenario either from a first-person perspective or third-person perspective prior to imagining the scenario. The instructions used for the visual perspective were the same as in Study 1. After the imagination task, participants were required to write down as vividly as possible their thoughts while imagining the scenario in order to reinforce the imagery task. Participants completed the dependent measures before being thanked and debriefed.

4.3.2.3 Dependent Variables

Intergroup anxiety. Eleven items were used to measure intergroup anxiety similar to the original scale used in Study 1. The only changes were related to the targeted group (i.e., the Chinese/Indians) and for some items the scenario had been adjusted to fit the Malaysian context (e.g., "My lack of knowledge about Buddhism/Hinduism or Chinese/Indian culture prevents me from feeling completely comfortable around Chinese/Indians people", "It makes me uncomfortable to bring up topic regarding racial issues or racial equality around Chinese/Indian people") (α = .85).

Prosocial behaviour tendencies. Ten items were used to measure prosocial behaviour tendencies (similar to in Study 1): *Altruistic Intention*, which involves acting voluntarily without the expectation of personal gain (e.g., "I often share things with people to get what I want"; α = .82) and *Egoistic Intention*, which involves an instrumental, goal-directed response (e.g., "I often do favours for people to get what I want"; α = .80).

Intergroup helping. To measure intergroup helping, participants were asked about their willingness to donate to an out-group organisation. Similar to Study 1, the scenario was carefully crafted in an attempt to avoid leading questions that referred to the study goal. In addition, this idea was in order to reduce demand characteristics and social desirability. Participants received the following instructions: *"We have been asked by another research team to include in this study a question about people's willingness to make charity donations. Specifically, we would like to ask whether you would be willing to donate some money to Chinese/Indian Orphanages and Old Folks Home. We are not asking for a donation at this point, we are just currently trying to gauge how much funding this might generate. To this end, could you give us an indication of how much you would be willing to contribute (in MYR) in response to an email campaign?".* The donation ranged between RM0 – RM100 indicating the amount of money participants were willing to donate. All measures used in this study were translated into Malay and verified through back-to-back translation.

4.3.3 Results

Means and standard deviations of all dependent variables, as a function of imagery task and visual perspective can be seen in Table 4 and Figure 3. The analysis that follows is similar to the analyses used in Study 1.

Table 4 Means of intergroup anxiety and prosocial behaviours on imagined contact (Stduy 2)

	Imagined contact conditions			
	IC (n = 62)	IC (prosocial) (n = 63)	IC (prosocial/1st -person) (n = 64)	IC (prosocial/3rd -person) (n = 62)
	M (SD)	M (SD)	M (SD)	M (SD)
Intergroup anxiety	2.87 (.41)	2.39 (.32)	2.75 (.47)	2.15 (.37)
Prosocial tendencies				
Altruistic	3.31 (.42)	3.70 (.52)	3.53 (.37)	4.05 (.46)
Egoistic	3.09 (.39)	2.40 (.53)	2.58 (.44)	1.98 (.38)
Willingness to donate	26.35 (24.21)	34.35 (27.31)	29.54 (29.68)	39.01 (24.46)

Figure 3 Comparison of imagery conditions for all DVs (Study 2)

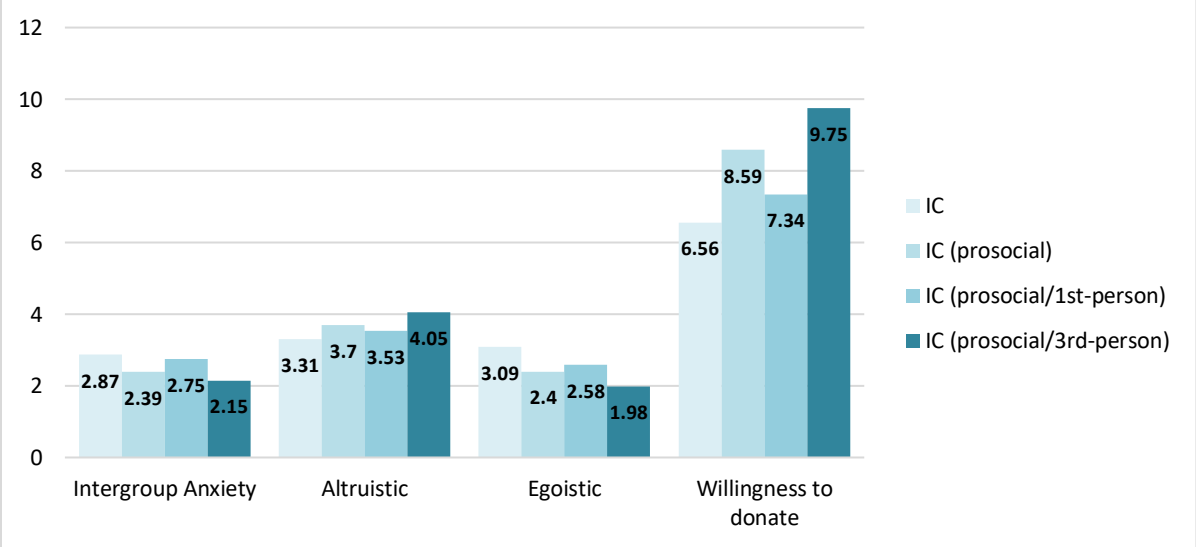


Table 5 Post hoc comparisons of imagined contact on intergroup anxiety and prosocial behaviours (Study 2)

Variables/IC conditions	1	2	3	4
Intergroup anxiety				
1. IC	-	.48*	.13	.72*
2. IC (prosocial)		-	-.35*	.25*
3. IC (prosocial/1st-person)			-	.60*
4. IC (prosocial/3rd-person)				-
Prosocial behaviours				
Altruistic intention				
1. IC	-	-.39*	-.22*	-.74*
2. IC (prosocial)		-	.17	-.35*
3. IC (prosocial/1st-person)			-	-.52*
4. IC (prosocial/3rd-person)				-
Egoistic intention				
1. IC	-	.69*	.52*	1.11*
2. IC (prosocial)		-	-.18	.42*
3. IC (prosocial/1st-person)			-	.60*
4. IC (prosocial/3rd-person)				-
Willingness to donate				
1. IC	-	-8.00	-3.20	-12.67
2. IC (prosocial)		-	4.81	-4.67
3. IC (prosocial/1st-person)			-	-9.47
4. IC (prosocial/3rd-person)				-

4.3.3.1 Intergroup Anxiety

The result of one-way ANOVA revealed that imagined contact manipulations had a significant effect on intergroup anxiety, $F(3, 247) = 43.97$, $p < .001$, $\eta_p^2 = .35$. Further post hoc test showed that participants who imagined prosocial contact and imagined prosocial contact from the third-person perspective reported a lower level of intergroup anxiety than those who imagined positive contact ($p < .001$), while no difference was reported between imagined positive contact and imagined prosocial contact from the first-person perspective ($p = .45$). Participants who imagined prosocial contact also reported a lower level of intergroup anxiety than those who imagined prosocial contact from the first-person perspective ($p < .001$). Moreover, as hypothesised, participants who imagined prosocial

contact from the third-person perspective reported significantly lower intergroup anxiety than those in the other three imagined contact conditions, all $p < .01$.

4.3.3.2 Prosocial Behaviour Tendencies

The result of a one-way MANOVA revealed that imagined contact manipulations had a significant effect on prosocial behaviour tendencies, $F(6, 492) = 40.33$, $p < .001$; Wilk's $\Lambda = .45$. Univariate testing found the effect to be significant for both prosocial behaviour tendencies subtypes; altruistic intention, $F(3, 247) = 30.31$, $p < .001$; $\eta_p^2 = .27$, and egoistic intention $F(3, 247) = 67.99$, $p < .001$; $\eta_p^2 = .45$. Further post hoc comparisons showed that participants who imagined positive contact reported the lowest level of altruistic intention compared to the other three imagined contact conditions ($p < .001$); however, the mean was still above the midpoint (> 2.5), indicates a higher level of altruistic intention. There was no difference reported between participants who imagined prosocial contact and those who imagined prosocial contact from the first-person perspective ($p = .21$). As hypothesised, participants who imagined prosocial contact from the third-person perspective reported significantly higher altruistic intention than those in the other three imagined contact conditions, all $p < .001$.

In terms of egoistic intention, participants who imagined prosocial contact and imagined prosocial contact from the first-person and third-person perspectives reported lower levels of egoistic intention than those in the positive imagined contact ($p < .001$). No difference reported between those who imagined prosocial contact and those who imagined prosocial contact from the first-person perspective ($p = .14$). Finally, also as hypothesised, participants who imagined prosocial contact from the third-person perspective reported significantly lower egoistic intention than those in the other three imagined contact conditions, all $p < .001$.

4.3.3.3 Willingness to Donate

As the data for donations was non-normally distributed, the same transformation as in Study 1 was used prior to analysis. A further one-way ANOVA revealed that imagined contact had a statistically significant effect on willingness to donate, $F(3, 143) = 2.72$, $p = .05$, $\eta_p^2 = .03$. Post hoc comparisons found that participants who imagined prosocial contact from the third-person perspective were willing to donate more money to the out-group organisation than those in the other three imagined contact conditions.

4.3.4 Contrast Analysis

Apart from computing ANOVAs and MANOVA, a set of planned contrasts of: -1 (imagined positive contact), -1 (imagined prosocial contact), -1 (imagined prosocial contact from the first-person perspective), +3 (imagined prosocial contact from the third-person perspective) was used to prove that imagined prosocial contact from the third-person perspective would encourage participants to help with a more altruistic than egoistic intention, willing to donate more money towards the out-group organisation, and to be less anxious towards the out-group compared to the other imagined contact conditions.

4.3.4.1 Contrast Analysis for Intergroup Anxiety

The result of planned contrast was significant for intergroup anxiety, $t(251) = -9.09$, $p < .001$, $d = -1.26$, confirming that participants who imagined prosocial contact from the third-person perspective reported less intergroup anxiety than those in the other three imagined contact conditions.

4.3.4.2 Contrast Analysis for Prosocial Behaviour Tendencies

The result of planned contrast was significant for altruistic intention, $t(251) = 8.21$, $p < .001$, $d = 1.14$, and egoistic intention, $t(251) = -11.02$, $p < .001$, $d = -1.52$, confirming that participants who imagined prosocial contact from the third-person perspective reported

more altruistic intention and less egoistic intention than those in the other three imagined contact conditions.

4.3.4.3 Contrast Analysis for Willingness to Donate

The result of planned contrast was significant for willingness to donate, $t(251) = 2.30$, $p = .02$, $d = 0.34$, confirming that participants who imagined prosocial contact from the third-person perspective reported more willingness to spend more money to the out-group organisation than those in the other three imagined contact conditions.

4.3.5 Mediational Analysis

The result from the contrast analysis provided support for the prediction that imagining prosocial contact from the third-person perspective encouraged more altruistic intention and increase willingness to donate more money to the charitable organisation while reducing egoistic intention and intergroup anxiety as compared to the other imagined contact conditions. Similar to Study 1, to investigate the possibility that intergroup anxiety mediates the differences between imagined prosocial contact from the third-person perspective as compared to the other three imagined contact conditions, a bootstrapped mediational analysis was used (PROCESS model 4, Hayes, 2013). The following bootstrap estimates are based on 5,000 bootstrap samples. The predictor was the contrast code (imagined positive contact: -1, imagined prosocial contact: -1, imagined prosocial contact from the first-person perspective: -1, imagined prosocial contact from the third-person perspective: +3). Intergroup anxiety was the mediator and both altruistic and egoistic prosocial behaviour tendencies together with willingness to donate were the dependent variables. The result of the mediational analyses is presented in Figure 4.

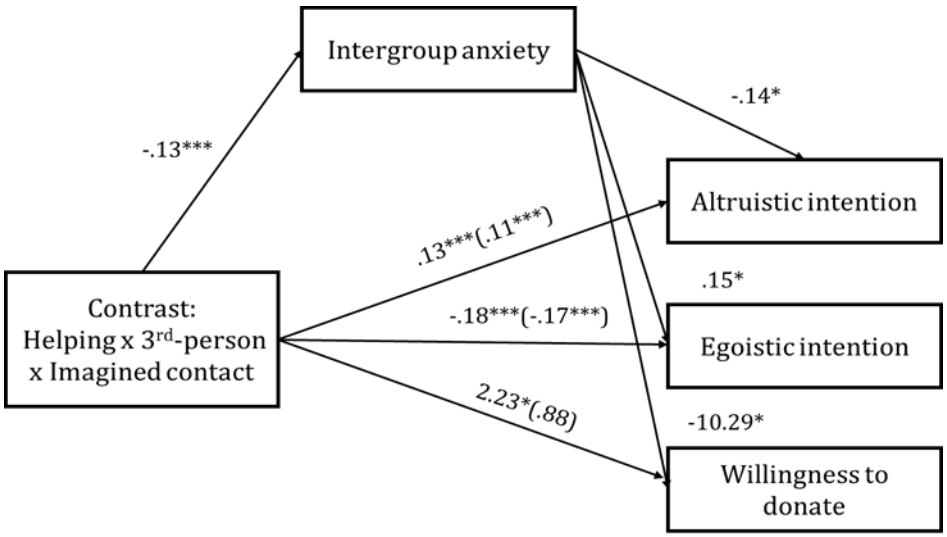


Figure 4 Mediational model of the relationship between contrast and prosocial behaviours through intergroup anxiety (Study 2)

Note. *p < .10. **p < .05. ***p < .01.

Figure 4 is referred. The total effect of imagined contact on altruistic intention was statistically significant, B = .13, SE = .02, p < .001, and the effect of imagined contact when intergroup anxiety was controlled was also significant, B = .11, SE = .02, p < .001. Bootstrap analysis revealed that the total indirect effect through the mediator was .02, SE = .01, 95% CI = [-.04, -.00]. Meanwhile, the total effect of imagined contact on egoistic intention was also significant, B = -.18, SE = .02, p < .001, as was the effect of imagined contact when intergroup anxiety was controlled, B = -.16, SE = .02, p < .01. Bootstrap analysis revealed that the total indirect effect through the mediator was -.02, SE =.01, 95% CI = [-.01, -.04]. Finally, the total effect of imagined contact on willingness to donate was significant, B = 2.23, SE = .97, p = .02, whereas the effect of imagined contact when intergroup anxiety was controlled reported as non-significant, B = .88, SE = 1.09, p = .42. Bootstrap analysis revealed that the total indirect effect through the mediator was 1.35, SE = .56 95% CI =

[2.49, .28]. All three indirect effects revealed significant mediation effects. The results of Study 2 again demonstrated that intergroup anxiety mediated the association between contrast and prosocial actions and thus, provides evidence for the reliability of the experimental effect.

4.3.6 Discussion

Results from two studies provided strong and reliable support for the role of inducing positive behavioural interactions (Gaertner, Dovidio, & Kawakami, 2003) and attributing from the third-person perspective (Crisp & Husnu, 2011; Libby et al., 2007) in maximising the imagined contact effects. Participants who imagined prosocial contact from the third-person perspective showed more altruistic than egoistic intentions, a higher willingness to donate more money to the out-group organisation, and less anxiety towards the out-group compared to the other imagined contact conditions.

These results can be explained from previous research that has shown that imagining positive contact with an out-group activates psychological processes that parallel those involved in actual contact (Crisp & Turner, 2012). From the direct contact perspective, positive contact can influence how people feel during an interaction with an out-group member and increase knowledge about the out-groups in question. Consequently, it will produce more positive perceptions towards the out-groups (Crisp & Turner, 2009, 2012). Moreover, positive direct contact has also been shown to reduce prejudice by blurring the intergroup boundaries (Gaertner & Dovidio, 2000). Therefore, this explains from the present research why *imagined* positive contact successfully promoted more prosocial behaviours and reduced intergroup anxiety.

Meanwhile, in explaining the function of inducing behavioural script in the imagined contact task, according to Gaertner, Dovidio, and Kawakami (2003), establishing *positive behavioural interactions* within the positive contact situation can facilitate the development

of new norms of intergroup *acceptance* that can generalise to new situations and the out-group as a whole. Moreover, in line with the literature broadly demonstrating that imagining hypothetical events makes individuals believe that the events are more likely to occur (e.g., Anderson, 1983; Pham & Taylor, 1999), it was observed that when a behavioural script was induced in the imagery task, participants tended to help more in an altruistic manner and were willing to donate more money to the out-group organisation than participants who simply imagined positive contact. This can also be explained based on the extent of elaboration in the imagined contact task (Husnu & Crisp, 2010). Elaborating on the imagery task by including specific details about the scenario makes it appear more concretely and vividly as it provides a plan of action in the individuals' minds that makes the action accessible.

Another study that supports this notion was conducted by Anderson (1983) demonstrating that students who were asked to imagine themselves donating blood subsequently expressed greater intentions to donate their blood compared to students who had not imagined themselves doing so. The imagination of scripts can be accomplished by instructing individuals to imagine sequences of events that guide up to the target behaviour (Anderson, 1983). As there is a clear-cut effect of behavioural scripts in enhancing the imagined contact effects towards the intended behaviour; however, in conjunction to visual perspective (first-person and third-person), these two effects potentially cancel each other out. While participants who imagined prosocial contact from the third-person perspective showed the most prosocial behaviours and the least anxiety, participants who imagined contact from the first-person perspective, on the other hand, reported to act less altruistically compared to participants who imagined prosocial contact.

One can try to explain this through the lens of the actor-observer bias. When imagining contact from the first-person perspective, people tend to observe the scenario

from an external disposition (Jones & Nisbett, 1971). This means that when reacting to such actions, the situation and external environment become more salient whereas self-attribution, i.e. the attribution of one's behaviour as being caused by internal characteristics, becomes less salient. Moreover, in the intergroup context, as intergroup helping underlies bias, imagining the behaviour from the view of an actor might make individuals rethink of their intention to help. This is because their attention is likely to get directed towards the situation and away from the self. However, the current studies also suggested that the first-person effect is still stronger compared to the imagery task without being induce with any facilitating techniques. This effect can be justified through imagining oneself in a helping scenario alone should influence expectations about the self in performing such action (Anderson & Godfrey, 1987).

Overall, results from two studies therefore supported the hypothesis that imagined prosocial contact from the third-person perspective provides the most robust effects on prosocial behaviours. By testing the intervention in two intergroup contexts (the UK and Malaysia), the reported studies helped to confirm the reliability of the intervention, thus providing support for the generalisability of the positive behavioural effects of imagined contact from the third-person perspective. Below I outline the strengths of the present studies.

This research holds a number of important strengths. Previous research has successfully shown that imagined contact can improve intergroup behaviour, however, the behavioural measure used was subtle and nonverbal (Birtel & Crisp, 2012b; Turner & West, 2012; West et al., 2015). Recently, Meleady and Seger (2016) extended this line of research and used more deliberative behavioural measures by adopting the Prisoner's Dilemma Game. In three studies, participants reported more cooperative behaviour over competitive behaviour towards out-group members as a consequence of imagined contact. However,

given that the prisoner's dilemma game is an economic game and involves profit, whereby cooperation brings people together to work towards a common goal that will benefit both parties, it seems likely that egoistic intention underlies this type of prosocial acts. Meanwhile, the present research tested the effects of different types of imagined contact on helping behaviour, where a helper delivers assistance to a benefactor (Dovidio, Piliavin, Schroeder, & Penner, 2006). Therefore, the present studies does not only provide evidence that imagined contact can increase the willingness to donate to an out-group's charitable organisation, but it also shows that imagined contact can encourage people to act in an altruistic rather than egoistic manner. These results clearly indicate a clear effect of imagined contact on altruistic and egoistic prosocial intentions.

Additionally, adding desired behaviour into the imagery script has proven to enhance the imagery effect. In an imagined contact study, Kuchenbrandt et al. (2013) asked participants to imagine a scenario with a Roma stranger which required them to find chairs so that they could join in the fully seated class. Adding a cooperative component to the imagery instructions increased the intervention effect compared to a standard positive contact scenario. However, in this study the cooperative component itself was not directly measured, but instead prejudice was measured. The present research answered this question by adopting a helping behavioural script into the imagery instruction, thus providing clear evidence that imagining helping action makes participants more likely to engage in that behaviour. Therefore, it can be argued that the helping variant of the imagined contact manipulation supplemented the effects of the intervention on helping behaviour, helping to ensure sustained helping action.

Finally, in one relevant line of research on prosocial behaviours, Pagotto et al. (2013) found no significant effect of imagined contact on intergroup anxiety. This non-significant effect is presumably due to the anxiety items that they used, which may have

been experienced as stressful by participants (i.e., participants were instructed to imagine an entire out-group member instead of just one outgroup member). However, the current research finding runs contrary to this finding. By using a similar context, that is, participants imagining themselves in a crowd of out-groups and in a situation related to religious and cultural backgrounds, imagined contact has successfully reduced intergroup anxiety, and the effects were stronger when the imagery script included aspects of helping behaviour and was imagined from the third-person perspective.

4.4 General Discussion

Recently, imagined contact studies support its effectiveness in encouraging prosocial behaviour (e.g., Meleady & Seger, 2016; Pagotto et al., 2013). The present research therefore aimed to extend this line of research by determining which elements added to the imagined contact conditions provide the strongest effects. Previous research has shown that imagined contact from the third person perspective can enhance the imagery effect and encourage people to act on their intended behaviour (Libby et al., 2007, Crisp & Husnu, 2011). This finding is supported by the two present studies, which were conducted in conjunction to see the effect of third person perspective on prosocial behaviours. The present studies yielded strong support for the notion that imagined prosocial contact from the third-person perspective compared to other imagined contact conditions encouraged participants to help more with an altruistic rather egoistic intention and made them more willing to donate money towards the out-group organisation, an effect that was mediated by reduced intergroup anxiety. I discuss in detail the theoretical and practical implications of this research below.

4.5 Theoretical Implications

Theorists have argued that the ultimate goal of imagined contact is to help prepare people for direct contact by changing how people behave towards members of another group (e.g., Crisp & Turner, 2009; Turner & West, 2012). This research provides evidence that this goal can be realised by integrating contact and Attribution Theory (Heider, 1958; Jones & Nisbett, 1971), yielding to the most robust imagined contact effect as an intervention technique in promoting intergroup behaviour. In related literature on imagined contact, Crisp and Husnu (2011) have argued that actions are perceived as more reflective of one's character when imagined from the third-person perspective, thus strongly influenced on how they will act (see also Libby et al., 2007). In further explaining this, when people imagine themselves involved in a positive helping contact, this can create a sense of intergroup acceptance by increase knowledge about the out-groups, while imagery actions stimulates emotional reactions that can influence a wide range of emotional states including sympathy and motivation (Miller & McFarland, 1987) that further lead to the subsequent behaviour. However, this effect can be enhanced by imagining the scenario from the third-person perspective and boost their self-image by making the self-appear in a favourable light (Duck, Hogg, & Terry, 1995). This third-person effect may further influence their self-perceptions on how they might react to the situation. As the spotlight was on the self, people may have put an effort to retain a sense of personal control to avoid appearing prejudiced, therefore, which may have indirectly influenced and encouraged people to act in a positive way towards the out-group.

4.6 Practical Implications and Limitations

It can be suggested that when cross-group experiences do arise, imagined prosocial contact from the third-person perspective will help increase the likelihood that they will help other groups in need. Specifically, it is suggested that if people spend some time imagining themselves having positive contact and helping the out-group before engaging in such encounters, it will increase the chances that individuals will help the out-group.

The findings presented in this chapter also have important implications for the populations tested. Through carefully created imagined contact instructions, the present research provided evidence that imagined prosocial contact from the third person perspective can be effective in two different intergroup contexts—in the UK and in Malaysia. As noted earlier, in the UK context, Islamophobic and hate crime has risen swiftly, and this phenomenon is accompanied by prejudice and discrimination against Muslims. Meanwhile, in the Malaysian context, colonisation and the "divide and rule" policy have brought negative effects to the multicultural people of Malaysia. Rooted in segregation, this effect continues until now. While the present research focused on intergroup helping, which reflects a positive social behaviour, it might however be difficult to implement direct contact interventions directly in contexts characterised by inequality and conflict. However, if practitioners apply the core ideas of the suggested technique on imagined contact in these contexts, one can be optimistic that promoting positive helping contact from the third-person perspective will result in better relations with people representing the in-groups. Imagined positive contact comes with a positive tone that can highlight the feeling of acceptance. Moreover, adding a helping script into the imagery instruction encourage the desired behaviour, while taking third-person perspective, positioning one's action to the spotlight, thus increase the likelihood to perform the intended behaviour. Combined all, imagining positive helping contact from the third-person perspective can allow people to

imagine themselves helping the out-group, decreasing anxiety and finally encouraging them to act prosocially. If we are to combat stereotypes, prejudice, and discrimination against out-groups and enhance the prosperity and unity in intergroup relations, then we can draw on imagined contact as an effective intervention. I believe that this research has helped towards acknowledging prosocial behaviour as a positive social behaviour to encourage intergroup relations and provided some answers in how imagined contact can be enhanced in the contexts tested.

However, an important limitation of these studies is that it does not include a control group as a baseline. In experimental studies, scientific control groups help the researcher to show that the experimental design is capable of generating results. Furthermore, control groups are important in experimental design studies, because it is practically impossible to eliminate all of the confounding variables and bias. Another limitation of this study is the intergroup helping measure that is group-focused. This might limit the generalisation of the predicted effect. Considering the importance of both limitations in the current studies, therefore, the studies onwards will incorporate both limitations by including control groups and willingness to donate towards a general charitable organisation - without specifying any groups.

4.7 Conclusion

The aim of this chapter was to determine which imagined contact conditions have the most impact on prosocial behaviours. The results showed that imagining prosocial contact from the third-person perspective revealed the strongest impact. This effect can be explained in two ways. Firstly, framing helping behaviour in the imagined contact script creates more accessible scripts aiding more positive intergroup behaviours (Turner, Crisp, & Lambert, 2007; Husnu & Crisp, 2010). Secondly, imagining the scenario from the third person perspective (compared to imagining from the first-person perspective or without

providing any perspective) can increase self-awareness (Sutin & Robins, 2008) and help people attribute actions to the self (dispositional attribution, Jones & Nisbett, 1971; Watson, 1982), which makes the actions more available. Combining both, imagining prosocial contact from the third-person perspective works most because it makes the imagery self-relevant and provide a clear mental representation of the intended behaviour thus enhance the effects (Libby et al., 2007). This research therefore serves to both confirm the benefits of third-person effect and adding intended behaviour into the imagery task outlined in previous work, and to extend the interventions in order to target not only the reduction of prejudice but also the improvement of positive behavioural outcomes, that is, prosocial behaviours.

CHAPTER 5: THE EFFECTS OF IMAGINED CONTACT AND SOCIAL DISTANCE ON PROSOCIAL BEHAVIOURS

Results from Chapter 4 supported the hypothesis that imagined prosocial contact from the third-person perspective provides an effective way to promote helping behaviours by reducing intergroup anxiety. The aim of this chapter was to further replicate this finding compared to a range of control conditions to precisely quantify the conditions under which imagined contact will most effectively improve prosocial attitudes. Results from two studies demonstrated that regardless of the imagined target, whether a stranger, in-group or out-group member, imagined prosocial contact from the third-person perspective successfully promoted more altruistic intention over egoistic intention. The same was found on a measure of support for willingness to donate, and these pathways were mediated by reduced intergroup anxiety. The findings suggest that imagining helping others exerts a powerful effect on prosocial attitudes that transcends in-group versus outgroup differences.

5.1 Introduction

The findings from two experimental studies (Study 1 and Study 2) reported in the previous chapter provided support for the role of help focus and third-person perspective in maximising the imagined contact effects on intergroup behaviour and attitudes. It was shown that after imagined prosocial contact from the third-person perspective (in comparison with the other imagined contact conditions tested), altruistic helping intention was enhanced and willingness to donate was increased. Meanwhile, this relation was mediated by reduced in intergroup anxiety. The findings therefore supported the theoretical proposition that imagining a helping contact from the third-person perspective enhances focal attitudes and behaviour through a meta-cognitive attributional process

(whereby the imagined behaviour is perceived as more dispositionally than situationally ascribed).

The aim of this chapter is to further examine whether this particular imagined contact approach –imagined prosocial contact from the third-person perspective – is effective beyond imagined contact with a specific out-group; for instance, imagining a stranger, intragroup members or close others. In particular, it is argued that interacting with specific out-group is more difficult as it invokes intergroup anxiety and uncertainty (Gudykunst & Shapiro, 1996). This interaction may lead to stereotypes (Stephan & Stephan, 1985; Wilder, 1993), negative out-group evaluations (Stephan & Stephan, 1985) and negatively affecting the quality of communications (Gudykunst & Shapiro, 1996; Hubbert, Gudykunst, & Guerrero, 1999). However, despite the fact that out-group contact is associated with self-regulatory demands, it can be prevented by controlling the cognitive representations (Amodio, 2009; Richeson & Shelton, 2003; Richeson & Trawalter, 2005; Trawalter & Richeson, 2006). It is therefore important to distinguish the effects of imagined contact regardless the identity of the imagined target. By identifying this effect, it could enhance the intervention's potential to improve intergroup helping in general.

Specifically, research in social psychology has demonstrated that as a result of social comparison, conflict not only activates at the intergroup level, but also within the inter-individual and intragroup level (Suls & Wheeler, 2000). This conflict, which is also known as affective conflict (Amason, 1996; Pinkley, 1990), is an awareness of interpersonal incompatibilities and disagreement about interpersonal issues among similar group members including irritation, friction, annoyance, frustration, and feeling tension (Jehn & Mannix, 2001). These affective components thus trigger conflict within the group relations such as conflict about personally dislike among group members, personality differences, interpersonal style or differences in norms and values (De Dreu & Weingart, 2003).

Consequently, even in a context where people belong to the similar group, conflict might happen. Whereas numerous studies on imagined contact highlight the effect of the technique in intergroup contexts, conflict can also exist within the intragroup context. It is argued that, if imagined contact could improve one's behaviours and attitudes towards both out-groups and similar others, this will not just enable improving intergroup relations, but also create better citizenship in general.

Furthermore, the aim of this chapter is to also address methodological issues regarding the studies reported in the previous chapter. A limitation of these studies could derive from the absence of control conditions. In order to examine more thoroughly the imagined contact effect in this context, the studies in this chapter will progressively test a range of control conditions to isolate precisely the benefits of the approach. Moreover, as intergroup helping is related closely to people feeling affectionate to others (Grant & Brown, 1995; Guimond & Dubé-Simard, 1983; Kawakami & Dion, 1995), in the present chapter, I also included perceived similarity as a possible affective mediator to attain a better understanding of how imagined contact could improve intergroup relations through intergroup helping.

Overall, the experimental manipulation of imagined contact used in this chapter took the form of imagined prosocial contact from the third-person perspective and a comparison of a range of different controls, groups and mediators. In Study 3 I sought to test whether the imagined contact effect can generalise to an unspecified group; that is, a stranger, and to test again whether intergroup anxiety mediates this relation. In Study 4, I aimed to expand the target groups tested to include both ingroup and outgroup members. Furthermore, *perceived similarity* was added as a potential cognitive mediator. I elaborate on the theoretical reasoning to include perceived similarity in the next section.

5.2 Social Distance and Intergroup Helping

People may react differently when it comes to intergroup helping. According to social identity approach (Tajfel & Turner, 1986; Turner, Hogg, et al., 1987), there is a distinction that people make between behaviour motivated by intergroup versus interpersonal identities, which may influence their intention to help others. This claim has shown to be relevant to a wide range of social behaviours and contexts (e.g., Haslam & Ellemers, 2005; Haslam, Jeten, et al., 2009). For example, people are more likely to offer help to in-group members (i.e., same race) or similar others (i.e., cross-group friends) than they are to out-group members (Wegner & Crano, 1975). This type of attachment carries positive emotional significance that is activated automatically and unconsciously (e.g., Perdue, Dovidio, Gurtman, & Tyler, 1990).

Moreover, data from the cross-sectional and experimental studies have provided support that the degree of interpersonal closeness with a cross-ethnic friend predicted more positive attitudes towards the out-group (Wright et al., 2005; Aron et al., 2004; Wright, Comeau, & Aron, 2007). Additionally, a growing research literature showing that a frequent interaction with a cross-group friend can most likely inspire meaningful intergroup attitude change (e.g., Brown & Hewstone, 2005; Pettigrew, 1998). Correspondingly, this positive orientation towards the out-group friend also results in increased helping towards the out-group and its members as a whole (Haddock, Zanna, & Esses, 1993). Therefore, as one feels more interpersonal closeness to another individual, this might as well have something to offer on the intergroup contact effects. For instance, imagined positive contact has proven its function as "an anxiety-buffer mechanism by introducing people gradually to interactions with out-groups" (Stathi & Crisp, 2008, p. 953) and prompt people to perceived similarity toward the out-groups (Stathi, Cameron, et al., 2014). Hence, it is likely that imagined contact could reduce the intergroup boundaries by

altering the negative beliefs toward other groups and further encourage positive attitudes and behavioural changes.

Overall, intergroup contact does not always bring the groups closer together, instead it might increase intergroup prejudice and discrimination (Dixon, Durrheim, & Tredoux, 2007), while segregation remains pervasive (Dixon & Durheim, 2003). Thus, in the present studies, it is important to understand how imagined contact might works in reducing the social distance that exist between groups and further promote similarity between them.

5.3 Study 3

5.3.1 Aims and Hypotheses

Studies on imagined contact have substantially focused on interactions with a specific out-group. There are still limited studies that identify whether imagining *any* group contact would encourage intergroup helping. In the present study, therefore, I tested whether imagined contact with a specific out-group is harder compared to imagined contact with a stranger. Furthermore, it is interesting to explore whether this interaction would lead to a greater or lesser impact on generalise prosocial behaviour. It is reasonable to expect that imagining contact with a stranger would be less stressful and easier than with an outgroup member because it does not focus to specific groups that might carry with them the weight of categorisation bias and negative stereotypes. Conversely, imagining an out-group typically invokes negative expectations of rejection or discrimination during intergroup interactions that leads to intergroup anxiety (Stephan & Stephan, 1985; Islam & Hewstone, 1993).

Specifically, for this study, I tested whether the effect of imagined contact is similar or dissimilar when an out-group (Arab Muslim) versus a stranger is imagined. I also

included two control groups as the baseline in order to justify the effect of imagined contact conditions compared to the non-contact conditions. These two control conditions consists of imagined an out-door scene and imagined an out-door scene from the third-person perspective. These conditions were constructed to identify and isolate whether third-person effects influence one's intention to improve intergroup relations in the absence of contact. Participants in the control groups were required to rate their attitudes and behaviours towards people close to them (in-group) in response to the non-contact conditions. In justifying the reason of rating the in-group, people are usually highly attached to people that they are similar with and this may influence their intention to help the same group even more than the out-group. Whether this is always true has not been investigated thoroughly. Therefore, the present study examine whether these non-contact conditions will reduce or increase prosocial actions and compare with imagined contact conditions that rate the imagined group. Overall, for this study, in line with the broader literature on mental imagery (see Miles & Crisp, 2014 for meta-analysis), I am simply predicting that imaginary enhances subsequent action, specifically on prosocial actions.

This study was conducted in the UK, investigating the relations between non-Muslim people towards an Arab Muslim or a stranger. As described in the previous chapter (Study 1), in the current climate, Muslims worldwide encounter prejudice as they are often associated with bombings and terrorist attacks that can be linked to violent extremist interpretations of Islam. A study of British Muslims revealed that, post September 11 attacks, levels of implicit and indirect discrimination increased by 83 per cent and experiences of overt discrimination by 7 per cent (Sheridan, 2006).

5.3.2 Method

5.3.2.1 Participants and Design

In total, two hundred and fifty-two students (N = 252) were recruited. Participants that identified themselves as Muslim were excluded and the final sample was reduced to N = 245 (88 male, 157 female M_{age} = 22.80, *SD* = 2.92). 80 were students from various academic tracks (including law, engineering, communication and economic students) in the Sheffield University. Students were approached in the St. James library and filled in the questionnaire in return for entering a raffle at the end of the study. The remaining 165 participants were recruited from the Prolific participants' pool with the experiment being ran using Qualtrics (Qualtrics Labs Inc., Provo, UT) with a small payment of £1 for their participations. Additionally, an A priori statistical power analysis (G*Power 3.1.9.2) was performed. With an alpha = .05 and power = 0.95, the projected sample size needed with an effect size of Cohen' f = .38 is approximately N = 123. Thus, the proposed sample size is adequate for the hypotheses of this study and should also allow for expected attrition and additional analyses of controlling for possible mediating analysis. For this study, participants were randomly allocated to one of four conditions:

1. Imagined outdoor scene
2. Imagined outdoor scene from a third-person perspective
3. Imagined prosocial contact from a third-person perspective with an Arab Muslim
4. Imagined prosocial contact from a third-person perspective with a stranger

5.3.2.2 Procedure

Participants were presented with the same instructions used in previous studies (Study 1 and Study 2) on imagined prosocial contact from a third-person perspective with changes only made to the target group, which in this case was a stranger or an Arab Muslim. After reading the participant information sheet and filling the informed consent form, participants were presented to the manipulation. In the non-contact conditions, compared to Study 1 and Study 2, the current study used the standard non-contact scene used in previous research in imagined contact (Crisp et al., 2008). The non-contact condition was intended to serve as a baseline and to assure a positive toned imagery experience, as in the other conditions (Stathi et al., 2011). Participants in the non-contact condition were therefore presented the instruction: "We would like you to spend a time imagining an outdoor scene. Try to imagine aspects of the scene about you (e.g., is it a beach, a forest, are there trees, hills, what's on the horizon)". In the second control condition participants were asked to imagine the similar non-contact scenario as above in conjunction to imagining the scenario from the *third-person perspective*.

Participants in the imagined contact conditions were presented the instruction: "We would like you to spend a time imagining yourself on a bus engaged in a conversation with an *Arab Muslim* (or a *stranger*) who is sitting next to you. The conversation goes on in a relaxed, positive and pleasant manner. Suddenly the bus makes an emergency brake and your conversation partner's belongings fall and roll forward. You stand up and help to pick up the person's belongings".

The instruction used for the visual perspective was the same as used in Study 1. Upon imagination, participants were asked to write down as vividly as possible what came across their mind during the imagination. Following the manipulations, participants were then required to answer measurements on intergroup anxiety, prosocial behaviour

tendencies (altruistic and egoistic intentions) and willingness to donate to the *designated target.* While participants in the non-contact conditions rated the *in-group*. All participants were informed that the questionnaire was anonymous, that the data would be used only for research, and that questions were to be answered in the order of their appearance. After completing the dependent measures, participants were being thanked and debriefed.

5.3.2.3 Dependent Variables

Intergroup anxiety. 11 items were used to measure intergroup anxiety towards the targeted group similar to the one used in Chapter 3 (α = .81).

Prosocial behaviour tendencies. 10-item of altruistic and egoistic prosocial behaviour tendencies was used similar to the one used in Chapter 3 (α = .84).

Willingness to donate. To measure *generalised* helping behaviour, and to avoid referring giving donations to any specific group, participants were asked the following: "This study offers a price draw of £10/person for 3 lucky participants. Let's say if you win the draw, what proportion of this sum that you would like to donate for a *child cancer aid organisation*?". The question was also improved to avoid using any leading questions that referred directly to the study goal and reflect a real helping action and beyond willingness. Compared to Study 1 and Study 2, I also reduced the range of the price draw so that the standard deviation can be kept low.

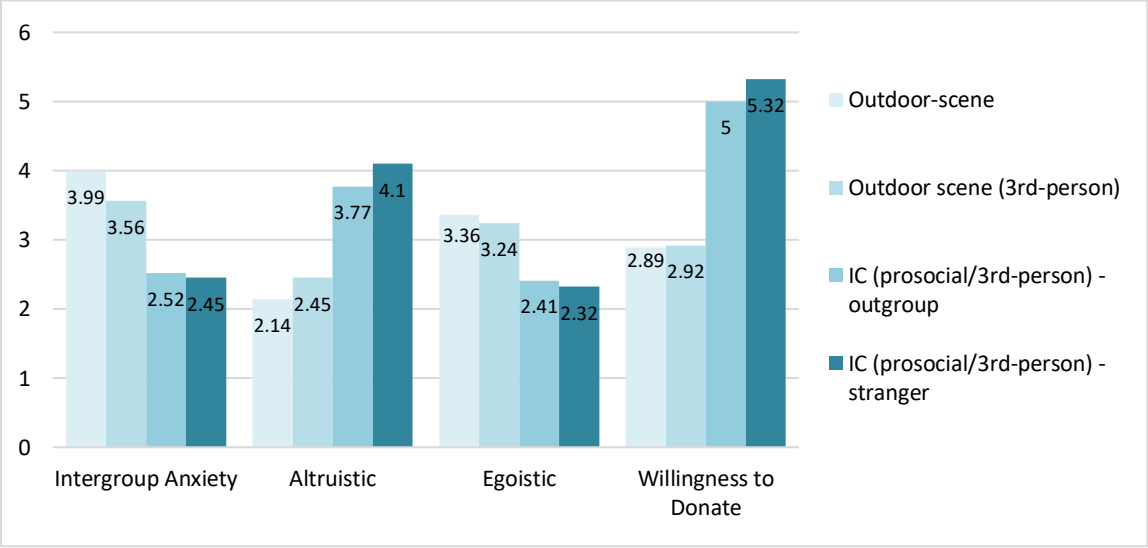
5.3.3 Results

Means and standard deviations of all dependent variables, as a function of imagined contact condition are depicted in Table 6 and Figure 5.

Table 6 Means of intergroup anxiety and prosocial behaviours on imagined contact (Study 3)

	Imagined contact conditions			
	Outdoor scene	Outdoor scene (3rd-person)	IC (prosocial/3rd-person) - outgroup	IC (prosocial/3rd – person) - stranger
	(n = 62)	(n = 59)	(n = 62)	(n = 62)
	M (SD)	M (SD)	M (SD)	M (SD)
Intergroup anxiety	3.99 (.20)	3.56 (.25)	2.52 (.19)	2.45 (.27)
Prosocial behaviours				
Altruistic	2.14 (.29)	2.45 (.27)	3.77 (.23)	4.10 (.29)
Egoistic	3.36 (.21)	3.24 (.17)	2.41 (.23)	2.32 (.31)
Willingness to Donate	2.89 (2.38)	2.92 (2.25)	5.00 (2.91)	5.32 (2.95)

Figure 5 Comparison of imagery conditions for all DVs (Study 3)



In the analysis that follows, I used ANOVA and MANOVA to test the manipulations and further run for a Tukey post-hoc test to examine if there are any differences between the manipulations tested. The results of post hoc test are depicted in Table 7.

Table 7 Post hoc comparisons of imagined contact on intergroup anxiety and prosocial behaviours (Study 3)

Variables/IC conditions	1	2	3	4
Intergroup anxiety				
1-Outdoor scene	-	.44*	1.54*	1.47*
2-Outdoor scene (3rd-person)		-	1.11*	1.03*
3-IC (prosocial/3rd-person) - out-group			-	.07
4-IC (prosocial/3rd-person) - stranger				-
Prosocial behaviour				
Altruistic intention				
1-Outdoor scene	-	-.31*	-1.96*	-1.63*
2-Outdoor scene (3rd-person)		-	-1.65*	-1.32*
3-IC (prosocial/3rd-person) - out-group			-	-.33*
4-IC (prosocial/3rd-person) - stranger				-
Egoistic intention				
1-Outdoor scene	-	.13*	1.04*	.95*
2-Outdoor scene (3rd-person)		-	.91*	.82*
3-IC (prosocial/3rd-person) - out-group			-	.09
4-IC (prosocial/3rd-person) - stranger				-
Willingness to donate				
1-Outdoor scene	-	-.03	-2.44*	-2.11*
2-Outdoor scene (3rd-person)		-	-2.41*	-2.09*
3-IC (prosocial/3rd-person) - out-group			-	-.32
4-IC (prosocial/3rd-person) - stranger				-

5.3.3.1 Intergroup Anxiety

The result of one-way ANOVA revealed that the manipulation had a significant effect on intergroup anxiety, $F(3, 241) = 691.44$, $p < .001$, $\eta_p^2 = .90$. Further post hoc test comparisons showed that participants in the imagined contact conditions reported less anxiety compared than those imagined outdoor scene conditions ($p < .001$). There was also significant difference showed between participants imagined an outdoor scene than those imagined outdoor scene from the third person perspective with less anxiety in the perspective taking condition ($p < .001$). However, for both conditions, the means were above the midpoint (> 2.5), which indicates a higher level of intergroup anxiety. As expected, there was no difference reported between imagined helping an Arab Muslim to

imagined helping a stranger (p = .76). However, imagined helping a stranger showed less intergroup anxiety than imagined helping an Arab Muslim. Details of the post hoc test reported in Table 7.

5.3.3.2 Prosocial Behaviour Tendencies

The result of one-way MANOVA revealed that the manipulation had a significant effect on prosocial behaviour tendencies, $F(6, 482) = 69.27$, $p < .001$; V = .93, $\eta_p^2 = .46$. Univariate testing found the effect to be significant for both prosocial behaviour tendencies subtypes; altruistic intention, $F(3, 241) = 637.28$, $p < .001$; $\eta_p^2 = .89$, and egoistic intention $F(3, 241) = 323.37$, $p < .001$; $\eta_p^2 = .80$. The result of post hoc comparisons showed that participants reported more altruistic intention in the imagined contact manipulations than those imagined outdoor scene conditions ($p < .001$). There was also difference reported between participants imagined outdoor scenes with higher level of altruistic intention from the perspective taking condition (p = .02). However, for both conditions, the means were below the midpoint (< 2.5), which indicates a low level of altruistic intention. Nevertheless, there was difference reported between participants in imagined contact manipulations ($p < .001$), with participants imagined helping a stranger reported higher altruistic intention than those imagined helping an Arab Muslim. Moving to egoistic intention, participants reported less egoistic intention in the imagined contact manipulations compared to imagined outdoor scene conditions ($p < .001$). There was also difference reported between participants' imagined outdoor scenes with lower level of egoistic intention from the perspective taking condition ($p < .001$). However, for both conditions, the means were above the midpoint (> 2.5), which indicates a higher level of egoistic intention. There was no difference reported between participants in imagined helping stranger than those imagined helping an Arab Muslim (p = .15). Details of the post hoc test reported in Table 7.

5.3.3.3 Willingness to Donate

The result of one-way ANOVA revealed that the manipulation had a significant effect on the willingness to donate, $F(3, 241) = 15.04$, $p < .001$, $\eta_p^2 = .16$. Further post hoc test comparisons showed that participants in the imagined contact manipulations reported to donate more money to the charitable organisation than those imagined outdoor scene conditions ($p < .001$). There was no significant difference showed between participants imagined an outdoor scene than those imagined outdoor scene from the third person perspective ($p = .92$). As expected, there was no difference reported between imagined helping a stranger to imagined helping an Arab Muslim ($p = .65$). However, imagined helping a stranger showed willingness to donate more money to the charitable organisation than participants who imagined helping an out-group. Details of the post hoc test reported in Table 7.

5.3.4 Contrast Analysis

I also tested a planned contrast as, in line with expectations, there were generally no differences reported between the two imagined contact conditions and also between the two control conditions. The contrast was: -1 (outdoor scene), -1 (outdoor scene [3rd-person]), +1 (stranger [prosocial/3rd – person]), and +1 (Arab Muslim [prosocial/3rd – person]).

5.3.4.1 Contrast Analysis for Intergroup Anxiety

The result of the planned contrast was significant for intergroup anxiety, $t(241) = -44.09$, $p < .001$, $d = -4.73$, confirming that participants in imagined contact conditions reported less intergroup anxiety to those in the outdoor scene conditions.

5.3.4.2 Contrast Analysis for Prosocial Behaviour Tendencies

The result of the planned contrast was significant for altruistic intention, t (241) = 42.80, p < .001, d = 4.82, and egoistic intention, t (241) = -31.05, p < .001, d = -3.82, confirming that participants in imagined contact conditions reported more altruistic intention and less egoistic intention to those in the outdoor scene conditions.

5.3.4.3 Contrast Analysis for Willingness to Donate

The result of the planned contrast was significant for willingness to donate, t (241) = 6.68, p < .001, d = .86, confirming that participants in imagined contact conditions reported to donate more money to the charitable organisation to those in the outdoor scene conditions.

5.3.5 Mediational Analysis

The result of the contrast analysis supported the hypothesis that imagined contact manipulations encouraged more prosocial behaviours and attitudes compared to the non-contact conditions. Following this, to examine whether intergroup anxiety mediates the relations between imagined contact conditions to prosocial behaviours, I conducted a mediational analysis (PROCESS model 4, Hayes, 2013). In the analyses, the same contrast code as above was used: outdoor scene: -1, outdoor scene (prosocial /3rd – person): -1, Arab Muslim (prosocial /3rd – person): +1, and stranger (prosocial /3rd-person): +1. The results of the analyses are shown in Figure 6.

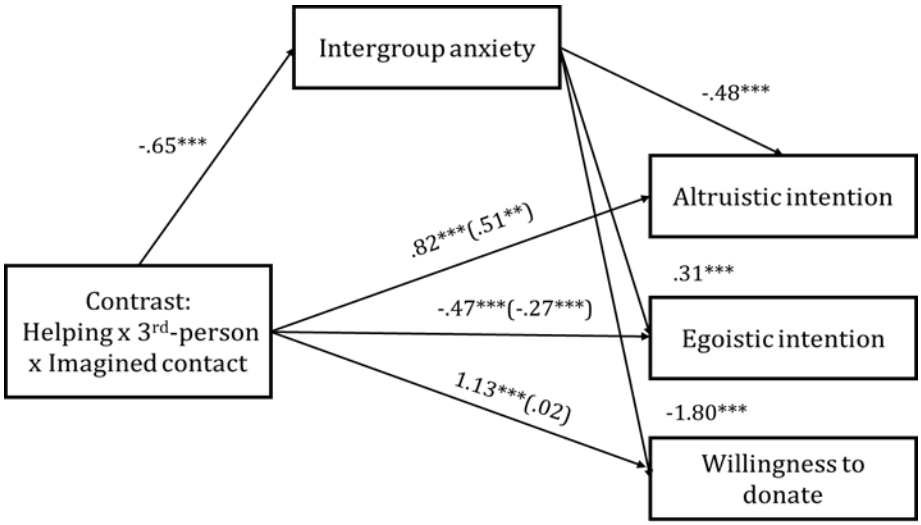


Figure 6 Mediational model of the relationship between contrast and prosocial behaviours through intergroup anxiety (Study 3)

Note. *p < .05. **p < .01. ***p < .001.

The total effect of contrast on altruistic intention was significant, B = .82, SE = .02, p < .001, whereas the direct effect was slightly reduced but also shows a significant, B = .51, SE = .05, p < .001. Moreover, bootstrap analysis revealed that the total indirect effect through the mediator was .31, SE = .05, 95% CI = [.20, .41]. Thus, this indicates that intergroup anxiety mediated the relationship between contrast and altruistic intention. Next, the total effect of imagined contact on egoistic intention was significant, B = -.47, SE = .02, p < .001, whereas the effect of imagined contact when intergroup anxiety was controlled shows a significant, B = -.27, SE = .04, p < .001. Moreover, bootstrap analysis revealed that the total indirect effect through the mediator was -.20, SE =.03, 95% CI = [-.26, -.14]. Thus, this indicates that intergroup anxiety mediated the relationship between contrast and egoistic intention. Finally, the total effect of contrast on willingness to donate was also significant, B = .49, SE = .11, p < .001, whereas the effect of imagined contact when intergroup anxiety was controlled shows a non-significant, B = -.01, SE = .05, p = .13. Moreover, bootstrap analysis revealed that the total indirect effect through the mediator

was .50, *SE* =.13, 95% CI = [.34, .67]. Thus, it can be concluded that the effect of imagined contact manipulations compared to imagined outdoor scenes on prosocial actions was mediated by reduced intergroup anxiety.

5.3.6 Discussion

The findings of Study 3 demonstrate that, generally, there were no differences between imagined a stranger and imagined an Arab Muslim on intergroup anxiety and prosocial behaviours. Specifically, following imagined prosocial contact, participants reported less anxiety towards the out-group, tend to act more altruistic than egoistic intention, and willing to donate more money to the charitable organisation. More compelling, the results revealed that under both non-contact conditions, participants reported less altruistic and more egoistic intention, while there was less willingness to donate money to the charitable organisation. Moreover, there was a relatively large difference in the prosocial effects between participants in the imagined contact conditions and the non-contact conditions. This difference might initially suggest the importance of *positivity* and *interaction* in the imagined task that might influence one's attitudes and behaviours towards the out-groups.

5.4 Study 4

5.4.1 Aims and Hypotheses

In order to further investigate the effects and the generalisability of imagined contact focusing this time to a range of groups (i.e., in-group - out-group friend - stranger - out-group), the next study was designed and carried out in Malaysia, a multiracial country segregated by the government policy and cultural factors. The population tested was the same as in Study 2, with the Malays representing the majority groups. In this setting, where conditions for optimal contact (equal status, common goals, co-operation, support by

authorities, Allport, 1954) are rarely met, it is intriguing to examine the imagined contact effect would offer. I expect that in this context, imagine contact manipulations will elicit more positive reactions towards the target groups that they are familiar with (i.e., in-group and out-group friend) than target groups that they are unfamiliar with (i.e., stranger and out-group). This effect can be explained by the close proximity that exist with the in-groups, thus increase one tendency to help members of the groups even more (Cialdini et al., 1997). However, this does not give detrimental effect on the target groups used; neither in-group nor out-group. Moreover, with an addition of *in-group* and *out-group friends* in this study, it can answer and indicate that it is imagined contact manipulations that encourage one's to react positively towards the in-groups compared to the non-contact conditions. As for that, both non-contact conditions by evaluating the in-group as in Study 3 were also used in the present study.

A further aim of this study was to address perceived similarity as another mediating variable with respect to intergroup behaviour. The importance of intergroup similarities during contact was first pointed out by Allport (1954), who stated that intergroup contact is effective in reducing prejudice provided that "contact is of a sort that leads to the perception of common interest and common humanity between members of the two groups" (p. 281). To explain this, in an interracial context, any interaction with another race can be a powerful antecedent of negative experiences. This interracial contact may elevate anxiety and uncertainty in anticipation of contact (Stephan & Stephan, 1985; Fiske, Lin, & Neuberg, 1999; Gaertner & Dovidio, 1986; Plant, 2004; Mallet, Wilson, & Gilbert, 2008) and misattributions of partner's intentions and behaviour (Dovidio, Pearson, Smith-McLallen, Kawakami, 2005; Shelton & Richeson, 2005; Trawalter & Richeson, 2006; Vorauer, 2006; West, Shelton, & Trail, 2009). Consequently, this negative emotion might lead to intergroup prejudice and bias. However, according to Stephan (1999), research on intergroup contact

and closeness has shown that similarity is a key factor in reducing bias. Perceived similarity provides a buffer for relationships by enhancing mutual understanding, communication, and conflict resolution (West, Magee, Gordon, & Gullet, 2014; Holmes & Rempel, 1989; Murray et al., 2002; Linden-Anderson, Markiewicz, & Doyle, 2009) which can be encouraged through positive intergroup contact. Through contact it may lead towards the reduction of intergroup bias by which the out-group moving closer to the self (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Gaertner, Mann, Dovidio, Murrell, & Pomare, 1990).

Moreover, one cognitive factor facilitating helping is the perception of the similarities between the helper and the target (e.g., Batson et al., 1981; Hornstein, 1976; Stotland, 1969). Therefore, for the purpose of the present research, the role of perceived similarities on intergroup helping is particularly interesting, because salient in-group/out-group categories play an important role in influencing perceptions of self-other (dis)similarities among people.

Altogether, people generally have a positive self-concept (Diener & Diener, 1996; Sears, 1983). Thus, by promoting positive helping contact and increase self-awareness through imagining the contact from the third-person point of view may activate one's positive traits. This activation eventually may increase tendency to act positively towards the out-groups. For the next study, therefore, I use the similar imagined contact approach as in Study 3 that is imagined prosocial contact from the third-person perspective. I predicted that this approach would result in the target group coming closer to the self and forming an emotional attachment that further leads to the subsequent behaviour compare to the non-contact conditions, even when rating the in-group.

5.4.2 Method

5.4.2.1 Participants and Design

An experiment was carried out with 448 students (207 male, 241 female, M_{age} = 19.74, *SD* = .82) of the Seremban MARA college in Malaysia. This college is only for the Malay students who excel in their studies in preparation for A-level. It was built upon the privileged of the Malays had as the early inhabitants reside in Malaysia. The experiment was designed to measure Malay - Chinese/Indian interaction from the Malay perspective. In this study, the Malay students (the participants of the study) representing as in-group members, while Chinese/Indian representing as out-group members. Participants were randomly allocated to one of six conditions:

1. Imagined outdoor scene
2. Imagined outdoor scene from a third-person perspective
3. Imagined prosocial contact from a third-person perspective with an in-group (Malay)
4. Imagined prosocial contact from a third-person perspective with an out-group friend (Chinese/Indian friend)
5. Imagined prosocial contact from a third-person perspective with an out-group (Chinese/Indian)
6. Imagined prosocial contact from a third-person perspective with a stranger

Following the imagined contact, participants were then required to answer measurements related to their intergroup anxiety level, prosocial behaviour tendencies (altruistic and egoistic intentions) towards the *designated target group* and their willingness to donate to a charitable organisation. For participants in the non-contact conditions, similar to Study 3, they were requested to rate the in-group members. All

participants were informed that the questionnaire was anonymous, where the data would be used only for research, and the questions were to be answered in the order of their appearance.

Additionally, an A priori statistical power analysis (G*Power 3.1.9.2) was performed to determine the required sample size to detect an effect. With an alpha = .05 and power = 0.95, the projected sample size needed with an effect of Cohen's f = .38 is approximately N = 143. Thus, the proposed sample size is adequate enough for the hypotheses of this study and should also allow for expected and additional analyses of controlling for possible mediating analysis.

5.4.2.2 Procedure

Participants were recruited using Qualtrics (Qualtrics Labs Inc., Provo, UT). The study took approximately 15-20 minutes to complete. Participants were presented with the same instructions used in Study 3 that specified on the third-person perspective while expending the effects to in-group and close other (i.e., cross-group friend). In the imagined contact manipulation participants were required to imagine having a contact with the subsequent target group; Malay (in-group), Chinese/Indian friend (out-group friend), a stranger, or Chinese/Indian (out-group), while received the following scenario: "We would like you to spend a time imagining yourself on a crowded tram engaged in conversation with a [targeted group] who is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner. When the tram arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand". Following this, participants received the similar instruction used in the previous study.

In the non-contact conditions, participants received the same outdoor scene scenario used in Study 3. Results from Study 3 which reported that participants in the imagined outdoor scene condition showed a significantly higher in the anxiety level and

lower in prosocial outcomes even when evaluating the in-group and adopting the third-person perspective, the present study replicates closely this design to isolate exactly the benefits of third-person can offer. Thus, the instruction used for the third-person perspective for this non-contact condition was the same as in the imagined contact manipulations. For participants in the non-contact conditions, similar to Study 3, they were requested to rate the in-group members. Upon imagination, participants completed the dependent measures by rating the *imagined group*, while participants in the non-contact conditions rate the *in-group*, in this context it is the Malay. Participants then being thanked and debriefed.

5.4.2.3 Dependent Variables

Intergroup anxiety. The similar 11 items were used to measure intergroup anxiety with suits to the Malaysian context as in Study 2 (α = .83).

Perceived similarity. The "inclusion of others in the self" scale (Aron, Aron, & Smollan, 1992) was adopted to measure perceived similarity to the out-group. This scale consisted of seven pairs of circles varying in their degree of overlap between the self (as one circle), and a sketch an out-group counter (as another circle). Participants were asked to choose the pair of circles that best described how similar they are to their imaginary encounter. Higher numbers indicate higher perceived similarity (α = .86).

Prosocial behaviour tendencies. 10-item scale of altruistic and egoistic prosocial behaviour tendencies was used similar to the one used in Study 3 (α = .79).

Willingness to donate. To measure willingness to donate, the similar measurement as in Study 3 was used which intended to examine if imagined contact manipulations can encourage people to donate money by asking participants the following instruction: "This study offers a price draw of RM10/person for 5 lucky participants. Let's say if you win the draw, what proportion of this sum that you would like to donate for a child cancer aid

organisation?". The question also built up by avoiding using leading questions that referred directly to the study goal and this type of question also portrayed a real action. The reason of using charitable organisation unrelated to the specific imagined group is that to allow the generalisation of the imagined contact effects beyond intergroup relations, that is, regardless of whom participants imagined contact with, it could generate helping behaviour.

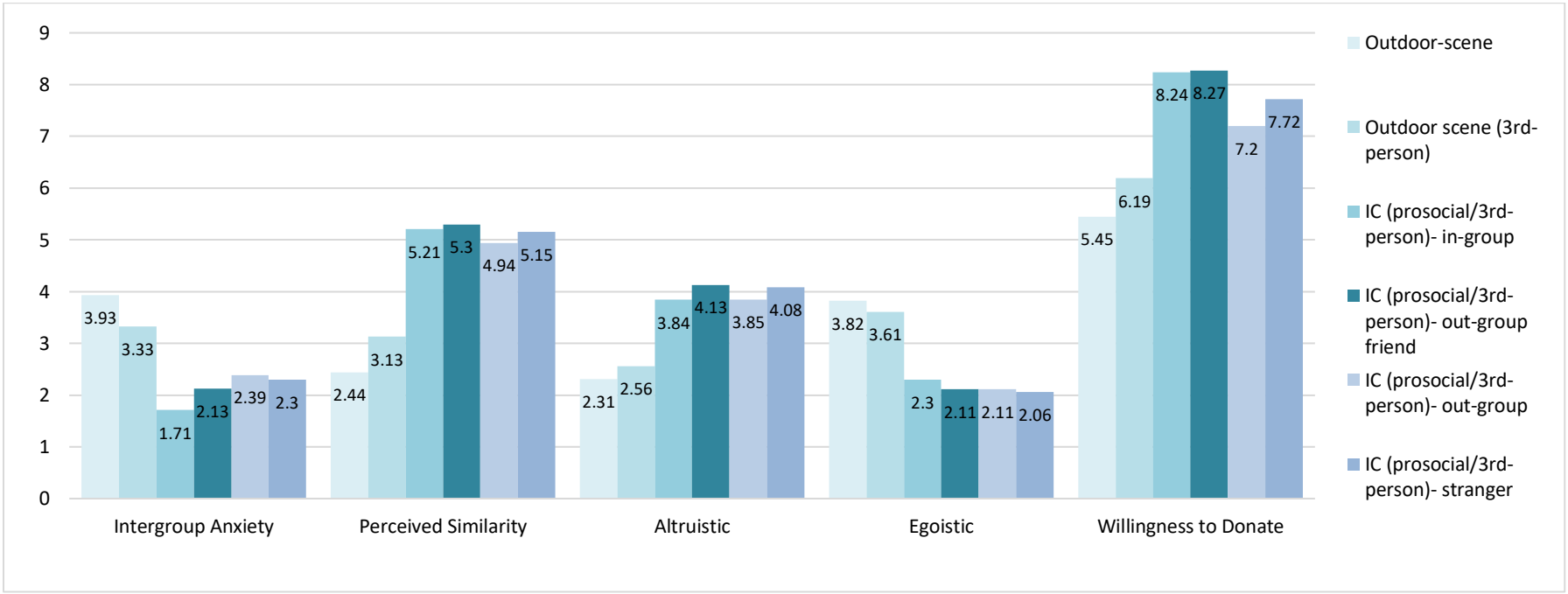
5.4.3 Results

Means and standard deviations of all dependent variables, as a function of imagined contact condition can be seen in Table 8 and Figure 7.

Table 8 Means of intergroup anxiety, perceived similarity, and prosocial behaviours on imagined contact (Study 4)

	Imagined contact conditions					
	Outdoor scene	Outdoor scene (3rd-person)	IC (prosocial/3rd-person) - in-group	IC (prosocial/3rd-person) -out-group friend	IC (prosocial/3rd-person) - out-group	IC (prosocial/3rd-person) - stranger
	(n = 75)	(n = 75)	(n = 72)	(n = 74)	(n = 74)	(n = 78)
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Intergroup anxiety	3.93 (.27)	3.33 (.31)	1.71 (.29)	2.13 (.31)	2.39 (.40)	2.30 (.32)
Perceived similarity	2.44 (1.03)	3.13 (.98)	5.21 (1.05)	5.30 (1.00)	4.94 (1.09)	5.15 (1.48)
Prosocial Behaviours						
Altruistic	2.31 (.36)	2.56 (.30)	3.84 (.33)	4.13 (.34)	3.85 (.34)	4.08 (.34)
Egoistic	3.82 (.32)	3.61 (.37)	2.30 (.39)	2.11 (.27)	2.11 (.31)	2.06 (.34)
Willingness to donate	5.45 (2.70)	6.19 (2.51)	8.24 (2.23)	8.27 (2.20)	7.20 (2.60)	7.72 (2.20)

Figure 7 Comparison of imagery conditions for all DVs (Study 4)



In the analysis that follows, I used ANOVA and MANOVA to test the manipulations and further run for a Tukey post hoc test to examine if there are any differences between the manipulations tested. The results are presented in Table 9.

Table 9 Post hoc comparisons of imagined contact on intergroup anxiety, perceived similarity, and prosocial behaviours (Study 4)

Variables /Conditions	1	2	3	4	5	6
Intergroup anxiety						
1-Outdoor	-	.60*	2.22*	1.80*	1.63*	1.55*
2-Outdoor (3rd-person)		-	1.63*	1.20*	1.04*	.95*
3-IC (prosocial/3rd-person)- in-group			-	-.43*	-.59*	-.68*
4-IC (prosocial/3rd-person)- outgroup friend				-	-.16*	-.25*
5-IC (prosocial/3rd-person)- out-group					-	-.09
6-IC (prosocial/3rd-person)- stranger						-
Perceived similarity						
1-Outdoor	-	-.69*	-2.77*	-2.86*	-2.71*	-2.50*
2-Outdoor (3rd-person)		-	-2.08*	-2.16*	-2.02*	-1.80*
3-IC (prosocial/3rd-person)- in-group			-	-.09	.06	.27
4-IC (prosocial/3rd-person)- outgroup friend				-	.15	.36
5-IC (prosocial/3rd-person)- out-group					-	-.21
6-IC (prosocial/3rd-person)- stranger						-
Prosocial Behaviour						
Altruistic intention						
1-Outdoor	-	-.25*	-1.53*	-1.82*	-1.77*	-1.54*
2-Outdoor (3rd-person)		-	-1.28*	-1.57*	-1.51*	-1.29*
3-IC (prosocial/3rd-person)- in-group			-	-.29*	-.01	-.23*
4-IC (prosocial/3rd-person)- outgroup friend				-	.28*	.05
5-IC (prosocial/3rd-person)- out-group					-	-.23*
6-IC (prosocial/3rd-person)- stranger						-
Egoistic intention						
1-Outdoor	-	.21*	1.52*	1.70*	1.76*	1.70*
2-Outdoor (3rd-person)		-	1.31*	1.49*	1.55*	1.49*
3-IC (prosocial/3rd-person)- in-group			-	.18*	.18*	.24*
4-IC (prosocial/3rd-person)- outgroup friend				-	.00	.05
5-IC (prosocial/3rd-person)- out-group					-	.05
6-IC (prosocial/3rd-person)- stranger						-
Willingness to donate						
1-Outdoor	-	-.73	-2.78*	-2.82*	-2.26*	-1.74**
2-Outdoor (3rd-person)		-	-2.05*	-2.08*	-1.53*	-1.01*
3-IC (prosocial/3rd-person)- in-group			-	-.03	.52	1.04
4-IC (prosocial/3rd-person)- outgroup friend				-	.55	1.08
5-IC (prosocial/3rd-person)- out-group					-	-.52
6-IC (prosocial/3rd-person)- stranger						-

5.4.3.1 Intergroup Anxiety

The result of a one-way ANOVA revealed there was a significant effect of imagined the manipulations on intergroup anxiety, $F(5, 442) = 507.49$, $p < .001$, $\eta_p^2 = .85$. The result of a post hoc test comparisons showed that participants who imagined contact manipulations reported less anxiety than those imagined outdoor scene conditions ($p < .001$). There was also significant difference showed between participants who imagined an outdoor scene than those who imagined outdoor scene from the third person perspective with less anxiety in the perspective taking condition ($p < .001$). However, for both conditions, the means were above the midpoint (> 2.5), indicates a higher level of intergroup anxiety. As expected, participants who imagined helping a Malay or a Chinese/Indian friend reported less intergroup anxiety when evaluating the same imagined group than participants in other imagined contact conditions ($p < .01$). Interestingly, there was no significant difference reported between participants who imagined helping stranger than those who imagined helping a Chinese/Indian ($p = .87$). Details of the post hoc test reported in Table 9.

5.4.3.2 Perceived Similarity

The result of a one-way ANOVA revealed a significant effect on perceived similarity, $F(5, 442) = 92.82$, $p < .001$, $\eta_p^2 = .51$. Further post hoc test comparisons showed that participants in imagined contact manipulations perceived more similarity when rating the imagined group compared to those imagined outdoor scene conditions ($p < .001$). There was also a significant difference reported between participants in the imagined outdoor scenes with more similarity was perceived in the perspective taking condition ($p < .001$). Interestingly, there were no significant differences reported between participants imagined helping a Chinese/Indian friend to participants imagined helping a stranger and helping a

Chinese/Indian (p = .98 and p = .70 respectively). Details of the post hoc test reported in Table 9.

5.4.3.3 Prosocial Behaviour Tendencies

The result of one-way MANOVA revealed that the manipulations had a significant effect on prosocial behaviour tendencies, $F(5, 442) = 202.10$, $p < .001$; Wilk's $\Lambda = .09$, $\eta_p^2 = .70$. Univariate testing found the effect to be significant for both prosocial behaviour tendencies subtypes; altruistic intention, $F(5, 442) = 436.12$, $p < .001$; $\eta_p^2 = .83$, and egoistic intention, $F(5, 442) = 443.36$, $p < .001$; $\eta_p^2 = .83$. Meanwhile, post hoc comparisons showed that participants reported more altruistic intention in the imagined contact manipulations than those in imagined outdoor scene conditions ($p < .001$). There was also significant difference showed between participants imagined outdoor scenes with more altruistic intention reported in the perspective taking condition ($p < .001$). However, for both conditions, the means were below the midpoint (< 2.5), which indicates a lower level of altruistic intention. Interestingly, there was no significant difference reported between participants imagined helping a Malay than those imagined helping a Chinese/Indian (p = .99). There was also no significant difference reported between participants imagined helping a Chinese/Indian friend than those imagined helping stranger (p = .99). Generally, even there was significance reported between imagined contact conditions on altruistic intention, yet the differences in the means were small (see Table 8).

In terms of egoistic intention, participants in the imagined contact conditions reported less egoistic intention than those in the imagined outdoor scene conditions, where the difference was significant ($p < .001$). There was also a significant difference shown between participants who imagined outdoor scenes with less egoistic intention reported in the perspective taking condition ($p < .001$). However, for both conditions, the means were above the midpoint (> 2.5), which indicates a higher level of egoistic intention. Interestingly,

there were no differences reported between participants imagined a Chinese/Indian friend to participants imagined helping a stranger and helping a Chinese/Indian (p = .93 and p = .98 respectively), however, a significant difference when compared to imagined a Malay (p > .001). Details of the post hoc test reported in Table 9.

5.4.3.4 Willingness to Donate

The result of one-way ANOVA revealed that the manipulations had a significant effect on the willingness to donate, $F(5, 442) = 16.67$, $p < .001$, $\eta_p^2 = .16$. Further post hoc test comparisons showed that participants in the imagined contact manipulations reported to donate more money to the charitable organisation than those in the imagined outdoor scene conditions (p < .001). There was only no significant difference reported between participants imagined an outdoor scene from the third-person perspective with those imagined helping a stranger (p = .16). However, by comparing the means, participants imagined helping a stranger reported more money they willing to donate to the charitable organisation (see Table 9). Interestingly, there were no significant differences reported between participants in the imagined contact manipulations on their willingness to donate (p > .05). Details of the post hoc test reported in Table 9.

5.4.4 Contrast Analysis

In the analysis that follows, apart from computing ANOVAs and MANOVA, I also tested a set of planned contrast to specifically test the hypothesis that imagined contact manipulations will reduce intergroup anxiety, increase perceive similarity, and further promotes positive prosocial behaviour tendencies when evaluating the imagined targets compared to non-contact conditions. In order to test this hypothesis, I used a contrast of -2 (outdoor scene), -2 (outdoor scene [3rd-person), +1 (Malay [prosocial/3rd-person]), +1 (Chinese/Indian friend [prosocial/3rd-person]), +1 (stranger [prosocial/3rd-person]), and

+1 (Chinese/Indian [prosocial/3rd-person). This contrast was used because it could provide support for the hypothesis that imaginary enhances subsequent action, in line with the broader literature on mental imagery.

5.4.4.1 Contrast Analysis on Intergroup Anxiety

The result of planned contrast was significant for intergroup anxiety, t (443) = -49.30, p < .001, d = -3.55, confirming that participants in imagined contact conditions reported less intergroup anxiety than those who imagined outdoor scenes.

5.4.4.2 Contrast Analysis for Perceived Similarity

The result of planned contrast was significant for perceived similarity, t (442) = 21.13, p < .001, d = 2.11, confirming that participants in imagined contact conditions perceived more similarity towards the imagined targets than those who imagined outdoor scenes that perceived less similar even with the similar in-group.

5.4.4.3 Contrast Analysis for Prosocial Behaviour Tendencies

The result of planned contrast was significant for altruistic intention, t (442) = 45.99, p < .001, d = 4.34, and egoistic intention, t (442) = -46.66, p < .001, d = -4.48, confirming that participants in imagined contact conditions reported more altruistic intention and less egoistic intention than those who imagined outdoor scenes.

5.4.4.4 Contrast Analysis for Willingness to Donate

The result of the planned contrast was significant for willingness to donate, t (441) = 3.80, p < .001, d = .82, confirming that participants in imagined contact conditions willing to donate more money to the respective organisation than those who imagined outdoor scenes.

5.4.5 Mediational analysis

The results of the contrast analysis provided support for the hypothesis that imaginary enhances the subsequent action when participants evaluated the person they imagined meeting compared to the non-contact conditions. To investigate the possibility that intergroup anxiety and perceived similarity could explain the mediation effects of imagined contact and prosocial behaviours, I conducted a mediational analysis (PROCESS, Model 4, Hayes, 2013) based on 5,000 bootstrap samples. To test this mediational effect, the contrast code (outdoor scene: -2, outdoor scene [3rd-person]: -2, Malay [prosocial /3rd-person]: +1, Chinese/Indian friend [prosocial /3rd-person]: +1, Chinese/Indian [prosocial /3rd-person]: +1, and stranger [prosocial /3rd-person]: +1,), was used. The results of the analyses are shown in Figure 8, Figure 9, and Figure 10.

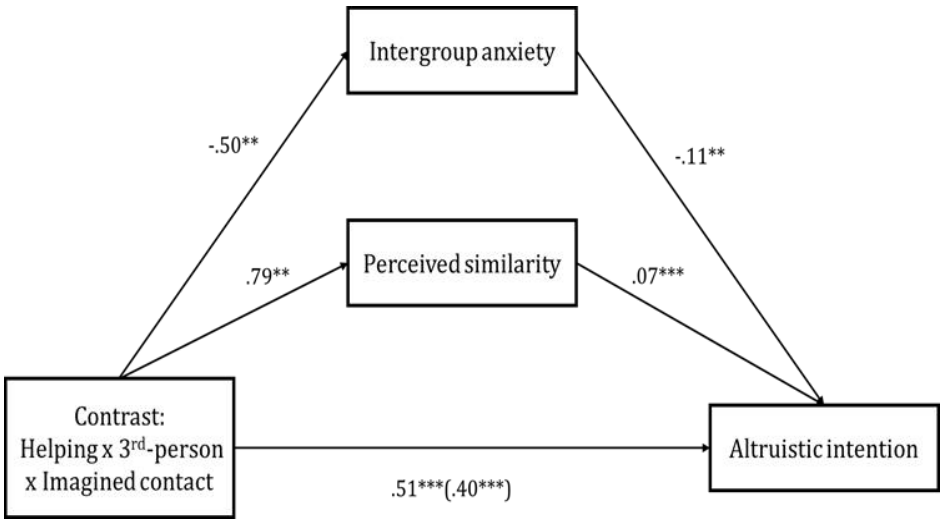


Figure 8 Mediational model of the relationship between contrast and altruistic intention through intergroup anxiety and perceived similarity (Study 4)

Figure 8 is referred. The total effect of contrast on altruistic intention was significant, B = .51, SE = .01, p < .001, and the direct effect was slightly reduced but still significant, B = .40, SE = .02, p < .001. Meanwhile, bootstrap analysis revealed that the total

indirect effect through the mediators was significant, .13, *SE* = .02, 95% CI = [.07, .16]. Specifically, the indirect effects through anxiety was .06, *SE* = .02, 95% CI = [.02, .10] and perceived similarity was .06, *SE* = .01, 95% CI = [.03, .08], thus this indicates that intergroup anxiety and perceived similarity mediates the relationship between contrast and altruistic intention.

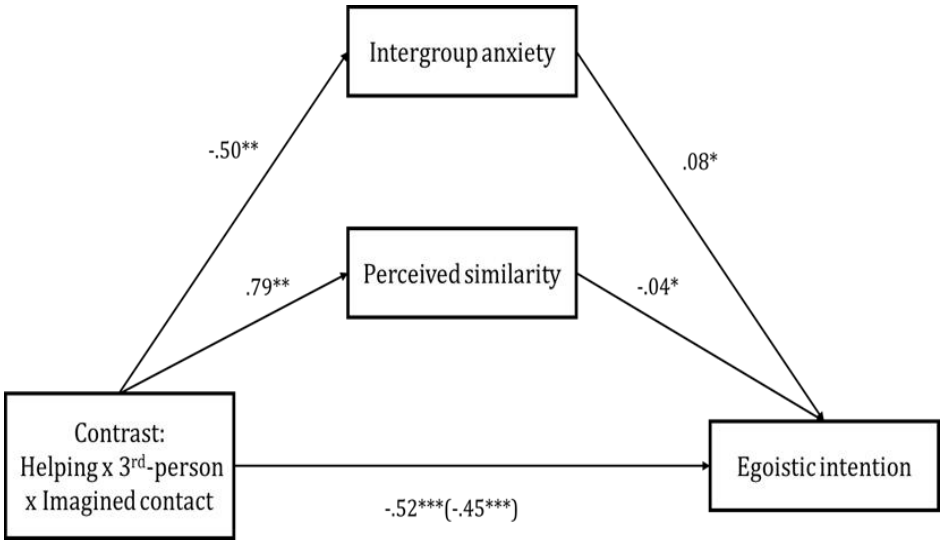


Figure 9 Mediational model of the relationship between contrast and egoistic intention through intergroup anxiety and perceived similarity (Study 4)

Figure 9 is referred. The total effect of imagined contact on egoistic intention was significant, *B* = -.52, *SE* = .01, $p < .001$, whereas the direct effects was slightly reduced, *B* = -.45, *SE* = .02, $p < .001$. Result of the bootstrap analysis revealed that the indirect effect through the mediators was significant, -.07, *SE* =.02, 95% CI = [-.11, -.03]. Specifically, the indirect effects through anxiety was -.04, *SE* = .02, 95% CI = [-.08, .01] and perceived similarity was -.03, *SE* = .01, 95% CI = [-.05, -.01], thus indicating that intergroup anxiety and perceived similarity mediates the relationships between contrast and egoistic intention.

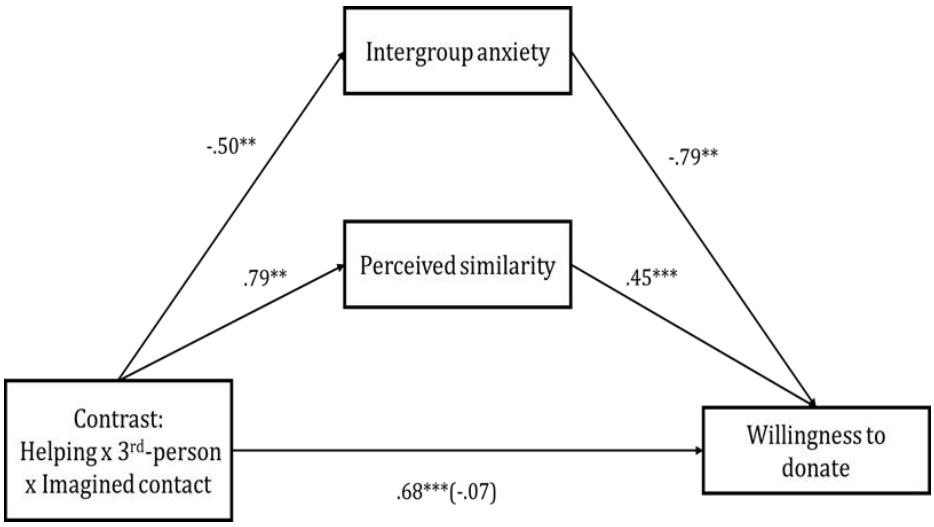


Figure 10 Mediational model of the relationship between contrast and willingness to donate through intergroup anxiety and perceived similarity (Study 4)

Figure 10 is referred. The total effect of contrast on willingness to donate was also significant, B = .68, SE = .08, p < .001, whereas the effect of imagined contact when the mediators were controlled showed a non-significant, B = -.07, SE = .16, p = .66. The bootstrap analysis revealed that the total indirect effect through the mediator was significant, .75, SE =.15, 95% CI = [46, 1.04. Specifically, the indirect effect of willingness to donate money was .15, SE = .05, 95% CI = [.06, .25] and perceived similarity was .13, SE = .03, 95% CI = [.08, .19], thus this indicates that intergroup anxiety and perceived similarity mediates the relationships between contrast and willingness of monetary donations. Overall, I can conclude that the effect of imagined contact conditions compared to no contact conditions on both prosocial behaviour tendencies and willingness to donate was mediated by intergroup anxiety and perceived similarity parallelly.

5.4.6 Discussion

The findings of Study 4 demonstrate that, generally, there were no significant differences reported on the attitudes and behaviours between participants who imagined a cross-group friend to stranger or out-group. From past research we know friendship is the type of cross-group contacts which most likely to inspire meaningful intergroup attitude change (e.g., Brown & Hewstone, 2005; Pettigrew, 1998) where the nature of the relation itself brings people's feelings of closeness (Aron, Aron, & Smollan, 1992). When people judge their current and previous intergroup contact, they are likely to favour familiar people more than unfamiliar people, given the chronic salience of close others (Andersen, Glassman, Chen, & Cole, 1995). As the results were showing similar effects within these range of groups, they provide a strong evidence that the imagined contact approaches successfully bring the dissimilar other (i.e., stranger and out-group) close to the self, to the same level as when imagined a cross-group friend.

Furthermore, as expected, imagining helping an in-group member led participants to feel less anxiety compared to imagining helping other groups. Moreover, supporting the results in Study 3, participants under non-contact conditions showed lower altruistic intention over egoistic intention, and less willing to donate money to the charitable organisation. Overall, the results in Study 4 are in line with the hypothesis that imagined prosocial contact from the third-person perspective supported for intergroup attitudes and behaviours compared to the non-contact conditions. Meanwhile, this relation was mediated by reduced in intergroup anxiety and increased perceived similarity.

5.5 General Discussion

This study aimed at generalising the role of induced behavioural script and third-person effect in explaining the relationship between imagined contact and intergroup behaviour. In these two studies (Study 3 and Study 4), I tested the idea that imagined prosocial contact could lead participants to act altruistically and promote helping through reduced intergroup anxiety and increased similarity towards the imagined groups. The findings which I have reported support the generalisability of the imagined contact effects in varied contexts, and explained how this technique improved prosocial actions through a range of affective mediators. I discussed in detail the theoretical and practical implications of this research below.

5.6 Theoretical Implications

5.6.1 The Role of Positive Contact

The findings from the two studies clearly showed that imagined contact manipulations have contributed to improved prosocial behaviours via reduced intergroup anxiety and increased similarity for both stranger and out-group contact. It was expected that people have the tendency to respond more positively to people from the in-groups than they do to people from the out-groups, a term that called as in-group favouritism (Tajfel, Billig, Bundy, & Flament, 1971). However, I found that in both non-contact conditions, prosocial behaviours were less reported even when evaluating the same in-group. Moreover, intergroup anxiety was also reported as high. In order to find answer whether the positive contact manipulation that caused one to behave prosocially, I further tested this effect by making the in-group the targeted group in Study 4. Interestingly, findings showed that imagined contact improved prosocial behaviours and reduced intergroup anxiety towards the same in-group. However, this was not the case in the non-contact conditions

even when evaluating the in-group. This shows the significant role of positive contact speaks to the notion that interaction and experiences with others can improve one's attitudes and behaviours towards others (Pettigrew & Tropp, 2011), even between colleagues in the in-groups.

Supporting this notion, according to Crisp and Turner (2007), engaging in a positive interaction through the mental script is crucial for observing positive effects. In contrast, the absence of simulated positive interaction through the mental imagery process has no positive effects instead exacerbate bias towards the imagined out-group (Turner, Crisp, & Lambert, 2007), however, in the present studies, it is also implies when imagined in-groups. Therefore, designated positive interaction during the imagery is critical to shield against negative effects and provide a clear direction on benefiting intergroup relations (e.g., Stathi & Crisp, 2008: West, Holmes, & Hewstone, 2011).

5.7 Practical Implications

Practically, the findings revealed that there was no difference between imagining helping an out-group and a stranger. This suggests that imagined contact can be applied in the educational settings and potentially has positive benefits on helping towards outgroup, even if those outgroups do not feature in the imagined interaction. Considering that both contexts involve potential limited interactions between group members (British - Arab Muslim context) and socially segregated and unequal opportunities (Malaysian context), this is a positive finding for the prospects of imagined contact. Finally, as the result provided a positive support for a range of groups, it provides way to not only improve intergroup relations, but also produce a better citizenship as a whole.

5.8 Conclusion

The aim of this chapter was to explore the role of help focus and third-person in order to generalise the effects of imagined contact on intergroup behaviour. To quantify and isolate the benefits these approaches on imagined contact, I compared to a range of non-contact conditions that served as the control groups. These ideas led to the prediction that by imagining a positive helping contact from the third-person perspective makes a person become self-aware of their dispositional traits that reflect their character or personality during the imagery process. Subsequently, this could influence their self-perception in determining whether to help or not. In the two studies it was consistently found that imagined prosocial contact from the third-person perspective with any contact groups has improved intergroup relations by promoting positive intergroup attitudes and fostering prosocial actions. These findings therefore serve to confirm the processes outlined in previous work on contact and attribution (Crisp & Husnu, 2011; Libby et al., 2007), while extending and applying them to the development of interventions to reduce prejudice, discrimination, and interethnic and interracial conflicts.

CHAPTER 6: GENERALISATION OF IMAGINED CONTACT EFFECTS

Chapter 5 supports the benefits of help focus and third-person perspective approaches on imagined contact in a range of different context groups and mediators. This chapter further examines so-called secondary transfer effects (STEs) of imagined contact, a phenomenon whereby imagined positive contact experiences can influence attitudes not only toward encountered (primary) out-groups but also toward other (secondary) out-groups that were not initially involved in the intergroup encounter. By adopting the same imagined contact approach - imagined prosocial contact from the third-person perspective, I propose that this approach can be generalised directly towards out-group not involved in the imagined encounter without directly examining the primary groups. Results from the two studies demonstrated that imagined contact was not only directly related to secondary out-group attitudes and behaviours, but also the effect could be generalised when the imagined target was among the in-groups.

6.1 Introduction

Chapter 5 revealed positive findings that imagined out-group has no detrimental effects when compared to the effects of imagined stranger, and also highlighted the importance of simulating positive interaction through the mental script to fully benefit its effectiveness. Despite the strength imagined contact has distinguished in promoting prosocial actions in Chapter 5, this Chapter further examined the infrequently studies of secondary transfer effects (STEs) (Pettigrew, 2009), by which contact with a primary group reduces prejudice towards secondary groups which is not involved in the contact. As the effectiveness of an intervention relies closely on its generalisability, therefore, it is vital to test whether any positive effects of imagined contact are generalised from the immediate

imagined contact experiences to attitudes and behaviours toward out-group which was not initially involved in the contact. It is imperative to establish this in order to support the generalisation of imagined contact effects as a prejudice reduction strategy which is more far-reaching and efficient than originally conceived.

In order to test this effect, I employed the same experimental manipulations and target groups in Study 4 (Chapter 5). Specifically, as the results in Study 4 shows that participants reported positive attitudes and behaviours when evaluating the *imagined target*, therefore, in this chapter I aimed to generalise this effect by examining it on STEs by modifying the original design. As in Study 5, by using the same imagined contact approach - imagined prosocial contact from the third-person perspective, I sought to generalise its effects, instead of rating the primary group (encountered group) as the original STEs design, participants were needed to directly evaluate the secondary group (out-group uninvolved in the contact). In this Study 6, I further examined the same STEs design on imagined contact by addressing intergroup trust as another potential underlying mechanism in line with intergroup anxiety and perceived similarity as it has demonstrated to closely influence intergroup helping (e.g., Halabi, Nadler, & Dovidio, 2012). Altogether, by addressing these extensions, it could stipulate strong evidence that imagined prosocial contact from the third-person perspective not only supports the enduring findings of imagined contact, but also expand the generalisation gradient.

6.2 Secondary Transfer Effects (STEs) on Contact

The prominent research in intergroup contact in reducing prejudice is undebatable. However, critical issue that has long concerned some of the researchers in intergroup contact is whether the effects of intergroup contact could generalise beyond the specific contact experience, to new situations, the entire group, and other out-groups which are not directly involved in the contact (e.g., Amir, 1969, 1976; Ford, 1986; Hewstone & Brown,

1986; Pettigrew, 1997, 1998; Pettigrew & Tropp, 2006; Tausch et al., 2010). Indeed, if the positive effects of contact with a target group do not generalise to other out-groups, the usefulness and practical value of contact strategies for reducing prejudice within the whole society is strictly narrowed (Vezzali & Giovannini, 2012). Although there were several studies in intergroup contact that had proven its effects on STEs (e.g., Eller & Abrams, 2003; Pettigrew, 1997, 2009; Van Laar et al., 2005; Weigert, 1976; Wilson, 1996), however, research that examine this type of generalisation is still limited. Of 515 studies tested the impact of intergroup contact, only 15 studies tested the emergence of the STEs (see Pettigrew & Tropp, 2006, for a meta-analysis).

Of some research examining the effects of intergroup contact and STEs, Vezzali and Giovannini (2012) has studied the intergroup contact effects on Italian students towards immigrants (primary groups) and whether the attitudes could generalise to two other dissimilar out-groups which were not involved in the contact: Disabled and homosexuals (as secondary groups). The results of the study showed that there were secondary transfer effects on intergroup attitudes that generalised from immigrants to disabled and homosexuals which were mediated by reduced intergroup anxiety and increased perceived similarity. In a similar manner, an extensive research conducted by Schmid, Hewstone, Küpper. Zick and Wagner (2012) using cross-sectional sample of eight European countries (N = 7,042). The results revealed that attitudes generalised not only to immigrants as the primary groups but also expanded to the Jews and homosexuals which was mediated by attitude generalisation.

More recently, longitudinal research has corroborated earlier cross-sectional results. Eller and Abrams (2004), for instance, found that British students' contact with French people had a direct, positive effect on their attitudes toward Algerians; while Van Laar, Levin, Sinclair, and Sidanius (2005) found that American college students who had

Black or Latino roommates (whether randomly assigned or intentionally chosen) exhibited improved attitudes toward Latinos or Blacks, respectively. Moreover, German adults' interactions with foreigners predicted decreases in anti-homeless and antigay prejudice (Pettigrew, 2009); and Americans whose friendship networks became more religiously diverse had improved feelings toward other "religious" minority groups (Mormons and people who were not religious) (Putnam & Campbell, 2010). Finally, in a sample from Northern Ireland, Tausch et al. (2010) found that interactions with members of a religious out-group were associated with improved attitudes toward racial minorities. The series of studies reported in Tausch et al. are particularly important, because they effectively ruled out alternative explanations for the STEs, such as social desirability bias.

To the best of my knowledge, only one study by Harwood, Paolini, Joyce, Rubin, and Arroyo (2011) that examined imagined contact on STEs. Harwood and colleagues (2011) examined STEs among 128 American undergraduates by asking them to imagine either a positive or negative imagined contact with an illegal immigrant (primary group) while imagine an outdoor scene as the control condition. Results revealed that participants' imagined positive contact expressed positive attitudes not only towards the illegal immigrant as the primary group but also towards secondary groups (e.g., Mexican Americans, legal immigrants, Asian-Americans, the homeless, among others). This result also provides evidence that the STEs were strong to other groups that were independently ranked as similar to illegal immigrants, but not to dissimilar groups.

Bringing all together, as most studies focussed the STEs on the whole community at large and specific stigmatised groups (e.g., immigrants, homosexuals), this current study focuses on imagined contact and STEs specifically to interracial contact. Despite the increasing rate of cross-contact, for most people, interracial interactions are still experienced more negatively than are intraracial interactions (Brown & Hewstone, 2005;

Pettigrew & Tropp, 2008; Plant & Butz, 2006). With that reason, for the current study, I sought to expand the benefits of imagined helping contact from the third-person perspective. Moreover, in spite of the STEs research extensively focused on intergroup attitudes (e.g., Schmid, Hewstone, Tausch, 2014; Vezzali and Giovannini, 2011; Tausch et al., 2010), and parallel to the notion that intergroup relations rely strongly on intergroup behaviour (Turner et al., 2013), I am interested further to examine this particular imagined contact manipulation on prosocial actions in Malaysia.

The next study (Study 5) was conducted in Malaysia among Malay students, replicating the same design as in Study 4. In this Study 5, I was interested to explore whether by implementing imagined contact manipulation to the *primary* groups - Malay (in-group), Indian friend (out-group friend), Indian (out-group), and stranger can influence or improve one's behaviour and attitudes towards the secondary group - the Chinese (out-group) in order to identify for a secondary transfer effects.

6.3 Study 5

6.3.1 Aims and Hypotheses

The present study addresses the limitations in previous research of STEs on imagined contact and examined its effects on intergroup attitudes and prosocial actions. Currently, STEs is well known by expanding primary out-group effects toward other out-groups which is not involved in the contact. In the present study, given that the robust impact of the imagined contact manipulation offers, I therefore intended to further examine the imagined contact effect, not just towards a range of out-groups, but also towards in-groups. With a little modification from the original STEs design, that is, instead of testing the effects towards the primary out-group and how it may influence one's perceptions towards the secondary group, the current study directly examined the STEs towards *a single out-*

group that was not involved in the imagined contact. Particularly, this study was conducted in Malaysia aiming to examine whether the effect of imagined prosocial contact (with a *primary* group: Malays, Indian friend, stranger, and Indian out-group) from the third-person perspective can be generalised to the group uninvolved in the interaction (*secondary* group: Chinese), and whether imagined contact could enhance action to the extent that the imagined target (primary group) is similar to the evaluated target group.

Corresponding to this, even though it is expected that imagined primary contact with a stranger or an Indian may improve attitudes and behaviours towards the Chinese, and even stronger when the imagined encounter is an Indian *friend*, however, by imagining an individual that is close to the self, such as the Malay as the primary group, this might probably lessen the STEs on the Chinese as the secondary group. In explaining this, given that the Malays power-status and superordinate position in the present context, it is expected that this will reduce but not eliminate the STEs on attitudes and behaviours towards the Chinese due to in-group - out-group bias. This is supported by several studies. For instance, the motivations of Whites to preserve their status quo, protect their identities, and maintain positive distinctiveness (Blumer, 1958; Dovidio et al., 2009; Fiske, 1993; Levine & Campbell, 1972; Scheepers, Spears, Doosje, & Manstead, 2006), all of which makes STEs unlikely. Following to that, as the present context is a reflection of collective society, therefore, it is said that people in the collective society are more likely motivated to enhance their status and collective identity of their group within intergroup settings (Blumer, 1958; Bobo, 1999; Dovidio et al., 2009; Levine & Campbell, 1972). This motivation could, in turn, make the limitations of STEs, providing that primary contact was towards their encounters, thus help them in achieving their status and identity enhancement (e.g., Cole, 2009). Additionally, a more predictable partner is less threatening and less anxiety-provoking than an unpredictable out-group member (Mendes et al., 2007). It is expected that STEs will be

less pervasive if the imagined primary group is among the in-groups than among the out-groups due to identity prevalence. Considering that imagined contact leads people to share commonality and weakens the boundaries between groups, thus, it is expected to benefit more when imagined the out-groups than the in-groups. Nevertheless, it is also predicted that the imagined contact approach may still offer benefits in reducing prejudice when imagined in-group on the STEs towards the out-groups as it can still generates positive self-image that further attributes to other regardless groups compared to the non-contact conditions. Overall, in this study I am predicting that whatever is imagined will enhance action to the imagined target is similar to the evaluate target.

6.3.2 Method

6.3.2.1 Participants and Design

An experiment was carried out with 423 Malay students (207 male, 241 female, M_{age} = 21.24, *SD* = 1.53) of Universiti Putra Malaysia, a Malaysian public university. The experiment was designed to measure Malay – Malay/Indian friend/Indian/stranger contact from the Malay's perspective and its effects towards the Chinese. Participants were randomly allocated to one of six conditions:

1. Imagined outdoor scene
2. Imagined outdoor scene from a third-person perspective
3. Imagined prosocial contact from a third-person perspective with an in-group (Malay)
4. Imagined prosocial contact from a third-person perspective with an out-group friend (Indian friend)

5. Imagined prosocial contact from a third-person perspective with an out-group (Indian)
6. Imagined prosocial contact from a third-person perspective with a stranger

Following the imagined contact, participants were then required to respond to measurements in order to identify their intergroup anxiety level, perceived similarity, prosocial behaviour tendencies (altruistic and egoistic prosocial intentions) and willingness to donate to a charitable organisation. The imagined *groups* and the imagined contact instructions were similar to the one used in Study 4. Changes only made on the *group evaluated*, that is, each group were required to rate their attitudes and behaviours towards the *Chinese* representing the out-group. Participants in the imagined outdoor scene conditions also rated the *Chinese.* This was aimed to examine the STEs of imagined contact by directing participants to rate an out-group that does not involve in the imagined task. Aforementioned, as Indian also categorised as out-group amongst the Malays, and similar to the Chinese, they are opened to stereotypes and discrimination. For that reason, in the current study, the Indian will represent as the out-group in the imagined contact task. All participants were informed that the questionnaire was anonymous, that the data would be used only for research, and that questions were to be answered in the order of their appearance.

Additionally, an A priori statistical power analysis (G*Power 3.1.9.2) was performed to determine the required minimum sample size to detect an effect. With an alpha = .05 and power = 0.95, the projected sample size needed with an effect size of Cohen's f = .38 is approximately N = 143. Thus, the proposed sample size will be more than adequate for the hypotheses of this study and also should allow for expected attrition and additional analyses of controlling for possible mediating analysis.

6.3.2.2 Procedure

Participants were recruited using Qualtrics (Qualtrics Labs Inc., Provo, UT). The study took approximately 30-35 minutes to complete. Participants in the imagined helping contact received the following scenario: "I would like you to spend a time imagining yourself on a crowded commuter (tram) engaged in a conversation with a [target groups] who is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner, when the commuter arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand".

Participants in the imagined contact manipulations received the same instructions used in Study 4. In the imagined contact manipulation, participants (the Malays) were required to imagine having a contact with the following target group: Malay (in-group); Indian friend (out-group friend); Indian (out-group); or a stranger, while received the following scenario: "We would like you to spend a time imagining yourself on a crowded tram engaged in conversation with a [targeted group] who is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner. When the tram arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand". Following this, participants received the similar instruction used in the previous study.

In the non-contact conditions, participants received the same outdoor scene scenario used in Study 4. The instruction used for the visual perspective for non-contact condition was the same as in the imagined contact manipulation conditions. Upon imagination, participants completed the dependent measures by rating the *out-group* that is the Chinese. Participants then being thanked and debriefed.

6.3.2.3 Dependent Variables

The similar variables were tested as in Study 4. However, there were certain changes made on the evaluated target where attitudes and behaviours assess were referral to the *out-group* as the target group throughout all conditions tested (outdoor scene and imagined contact manipulations).

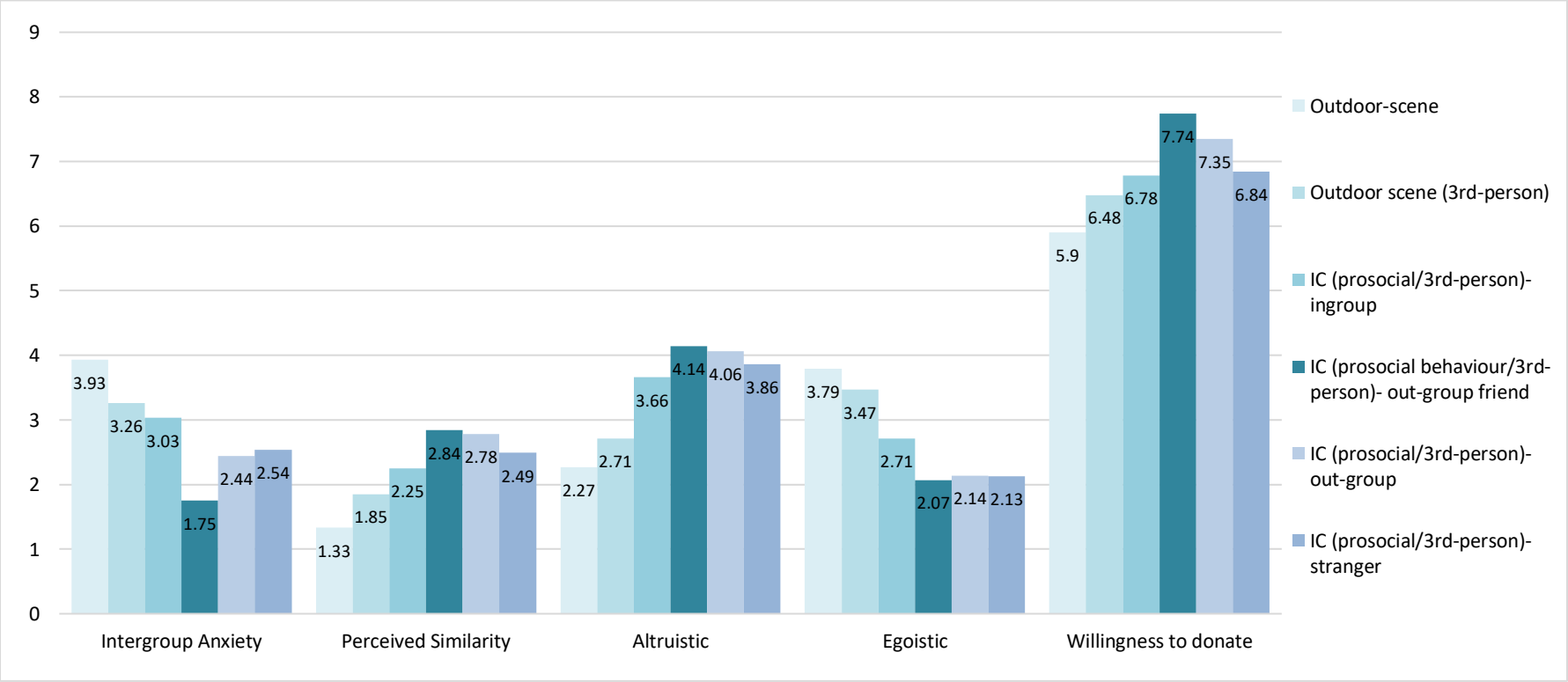
6.3.3 Results

Means and standard deviations of all dependent variables, as a function of imagined contact condition can be seen in Table 10 and Figure 11.

Table 10 Means of intergroup anxiety, perceived similarity, and prosocial behaviours on imagined contact (Study 5)

	Imagined contact conditions					
	Outdoor scene	Outdoor scene (3rd-person)	IC (prosocial/3rd-person) - in-group	IC (prosocial/3rd-person) -out-group friend	IC (prosocial/3rd-person) - outgroup	IC (prosocial/3rd-person) - stranger
	(n = 72)	(n = 73)	(n = 65)	(n = 68)	(n = 69)	(n = 76)
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Intergroup anxiety	3.93 (.28)	3.26 (.28)	3.03 (.29)	1.75 (.30)	2.44 (.21)	2.54 (.28)
Perceived similarity	1.33 (.56)	1.85 (.64)	2.25 (.47)	2.84 (.37)	2.78 (.42)	2.49 (.50)
Prosocial behaviours						
Altruistic	2.27 (.36)	2.71 (.43)	3.66 (.30)	4.14 (.32)	4.06 (.33)	3.86 (.34)
Egoistic	3.79 (.33)	3.47 (.42)	2.71 (.41)	2.07 (.34)	2.14 (.32)	2.13 (.30)
Willingness to donate	5.90 (2.33)	6.48 (2.80)	6.79 (2.77)	7.74 (2.54)	7.35 (2.51)	6.84 (2.19)

Figure 11 Comparison of imagery conditions for all DVs (Study 5)



In the analysis that follows, I used ANOVA and MANOVA to test the manipulations and further run for a Tukey post-hoc test to examine if there are any differences between the manipulations tested. The results are presented in Table 11.

Table 11 Post hoc comparisons of imagined contact on intergroup anxiety, perceived similarity, and prosocial behaviours (Study 5)

Variables / Conditions	1	2	3	4	5	6
Intergroup anxiety						
1-Outdoor scene	-	.67*	.90*	2.18*	1.49*	1.39*
2-Outdoor scene(3rd-person)		-	.23*	1.51*	.82*	.72*
3-IC (prosocial/3rd-person)- in-group			-	1.28*	.59*	.49*
4-IC (prosocial/3rd-person)- outgroup friend				-	-.69*	-.79*
5-IC (prosocial/3rd-person)- out-group					-	-.10
6-IC (prosocial/3rd-person)- stranger						-
Perceived similarity						
1-Outdoor	-	-.52*	-.91*	-1.51*	-1.45*	-1.15*
2-Outdoor scene(3rd-person)		-	-.40*	-.99*	-.93*	-.64*
3-IC (prosocial/3rd-person)- in-group			-	-.59*	-.54*	-.24*
4-IC (prosocial/3rd-person)- outgroup friend				-	.06	.35*
5-IC (prosocial/3rd-person)- out-group					-	.30*
6-IC (prosocial/3rd-person)- stranger						-
Prosocial Behaviours						
Altruistic intention						
1-Outdoor	-	-.45*	-1.39*	-1.87*	-1.79*	-1.60*
2-Outdoor scene(3rd-person)		-	-.95*	-1.42*	-1.34*	-1.15*
3-IC (prosocial/3rd-person)- in-group			-	-.48*	-.40*	-.21*
4-IC (prosocial/3rd-person)- outgroup friend				-	.08	.27*
5-IC (prosocial/3rd-person)- out-group					-	.19*
6-IC (prosocial/3rd-person)- stranger						-
Egoistic intention						
1-Outdoor	-	.32*	1.08*	1.72*	1.66*	1.66*
2-Outdoor scene(3rd-person)		-	.76*	1.40*	1.34*	1.34*
3-IC (prosocial/3rd-person)- in-group			-	.64*	.58*	.58*
4-IC (prosocial/3rd-person)- outgroup friend				-	-.06	-.06
5-IC (prosocial/3rd-person)- out-group					-	.01
6-IC (prosocial/3rd-person)- stranger						-
Willingness to donate						
1-Outdoor	-	-.58	-.88	-1.83*	-1.45*	-.94
2-Outdoor scene(3rd-person)		-	-.31	-1.26*	-.87	-.36
3-IC (prosocial/3rd-person)- in-group			-	-.95	-.56	-.06
4-IC (prosocial/3rd-person)- outgroup friend				-	.39	.89
5-IC (prosocial/3rd-person)- out-group					-	.51
6-IC (prosocial/3rd-person)- stranger						-

6.3.3.1 Intergroup Anxiety

The result of a one-way ANOVA analysis revealed there was a significant effect of the manipulations on intergroup anxiety, $F(5, 417) = 529.98$, $p < .001$, $\eta_p^2 = .86$. Further post hoc test comparisons showed that participants in imagined contact manipulations reported less anxiety compared to those in the imagined outdoor scene conditions ($p < .001$). There was also significant difference showed between participants who imagined an outdoor scene compared than those who imagined outdoor scene from the third person perspective with less anxiety in the perspective taking condition ($p < .001$). However, for both conditions, the means were above the midpoint (> 2.5), indicates a higher level of intergroup anxiety. Meanwhile, there was no significant difference shown between participants who imagined helping stranger than those who imagined helping an Indian in rating the Chinese ($p = .54$). However, the results showed that in the imagined contact conditions, there were significant differences between participants who imagined helping a Malay compared to participants in the other imagined contact conditions ($p < .001$), with mean reported above the midpoint (> 2.5) which indicates a higher level of intergroup anxiety. Yet, it is still significantly low than participants in the imagined outdoor scene conditions ($p < .001$). Details of the post hoc test reported in Table 11.

6.3.3.2 Perceived Similarity

The result of a one-way ANOVA revealed that there was a significant effect of the manipulations on perceived similarity, $F(5, 417) = 94.67$, $p < .001$, $\eta_p^2 = .53$. The result of a post hoc test comparisons showed that participants in the imagined contact conditions perceived more similarity when rating the Chinese compared to those who imagined outdoor scene conditions ($p < .001$). The result of the study also showed that there was a significant difference between participants who imagined outdoor scenes with more

similarity was perceived to the Chinese when involved perspective taking condition (p < .001). However, for both conditions, the means were below the midpoint (<2.5), which indicates participants perceived less similar to the Chinese. Furthermore, there was a significant difference reported between participants who imagined helping contact with a stranger compared to those who imagined helping contact with an Indian (p < .001). Meanwhile, there was also significant difference reported between participants who imagined helping contact with a Malay compared to those in the other imagined contact conditions (p < .001) with a slightly lower of perceived similarity towards the Chinese. Details of the post hoc test reported in Table 11.

6.3.3.3 Prosocial Behaviour Tendencies

The result of one-way MANOVA revealed that the manipulations had a significant effect on prosocial behaviour tendencies, $F(2, 416) = 73.19$, $p < .001$; V = .94, $\eta_p^2 = .47$. Univariate testing found the effects were significant for both prosocial behaviour tendencies subtypes - altruistic intention, $F(5, 417) = 345.05$, $p < .001$; $\eta_p^2 = .81$, and egoistic intention, $F(5, 417) = 323.36$, $p < .001$; $\eta_p^2 = .80$. Meanwhile, post hoc comparisons showed that participants reported more altruistic intention in the imagined contact conditions than those in the imagined outdoor scene conditions (p < .001). There was also a significant difference shown between participants who imagined outdoor scenes with more altruistic intention reported in the perspective taking condition (p < .001). However, for both conditions, the means were below the midpoint (< 2.5), which indicates a low level of altruistic intention. There was also a significant difference shown between participants who imagined helping contact with a Malay than those in other imagined contact conditions (p < .001). Generally, although there were significant differences reported between imagined contact conditions on altruistic intention, yet the differences in the means were small, but

they were above the midpoint (> 2.5), which indicates high tendency to act altruistically (see Table 10).

In terms of egoistic intention, participants in the imagined contact conditions reported less egoistic intention than those in the imagined outdoor scene conditions, where the difference was significant (p < .001). There was also a significant difference shown between participants who imagined outdoor scenes with less egoistic intention reported in the perspective taking condition (p < .001). However, for both conditions, the means were above the midpoint (> 2.5), which indicates a higher level of egoistic intention. There was also significant difference reported between participants who imagined helping contact with a Malay than those in other imagined contact conditions (p < .001) with a slightly higher in egoistic intention (> 2.5). Interestingly, there was no significant difference reported between participants who imagined helping contact with an Indian friend than participants who imagined helping contact with a stranger and Indian (p = .97 and p = .96 respectively). Details of the post hoc test are depicted in Table 11.

6.3.3.4 Willingness to Donate

The result of a one-way ANOVA revealed there was a significant effect of the manipulations on willingness to donate, F (5, 417) = 4.69, p < .001, η_p^2 = .05. Further post hoc test comparisons result showed that there was no significant difference reported between participants in the imagined outdoor scene conditions in the amount of money they willing to donate to the charitable organisation (p = .73). Generally, there was a significant difference reported between participants who imagined contact with an Indian friend compared to those in the imagined outdoor scene conditions (p < .001). Moreover, there were no significant differences reported on the amount of money participants willingly to donate to the charitable organisation between the manipulations tested. Details of the post hoc test were depicted in Table 11.

6.3.4 Contrast Analysis

Above mentioned results have demonstrated that the STEs on attitudes and behaviours can be transferred to both similar (in-group and out-group friend) and dissimilar others (out-groups), I believed that participants in imagined contact manipulations showed more positive prosocial behaviours and attitudes on STEs compared to participants in imagined outdoor scenes. To test this, I used a planned contrast of: outdoor scene: -2, outdoor scene (3rd-person): -2, Malay (prosocial /3rd-person): +1, Indian friend (prosocial /3rd-person): +1, Indian (prosocial /3rd-person): +1, and stranger (prosocial /3rd-person): +1.

6.3.4.1 Contrast Analysis for Intergroup Anxiety

The result of the planned contrast was significant for intergroup anxiety, t (417) = -41.10, p < .001, d = -2.43, confirming that participants in the imagined contact conditions reported less intergroup anxiety towards the Chinese than those who imagined outdoor scenes.

6.3.4.2 Contrast Analysis for Perceived Similarity

The result of the planned contrast was significant for perceived similarity, t (417) = 17.70, p < .001, d = 1.72, confirming that participants in the imagined contact conditions perceived more similarity towards the Chinese than those who imagined outdoor scenes.

6.3.4.3 Contrast Analysis for Prosocial Behaviour Tendencies

The result of the planned contrast was significant for altruistic intention, t (417) = 39.89, p < .001, d = 3.45, and egoistic intention, t (417) = -37.75, p < .001, d = -3.30, confirming that participants in the imagined contact conditions reported more altruistic

intention and less egoistic intention towards the Chinese than those who imagined outdoor scenes.

6.3.4.4 Contrast analysis for Willingness to Donate

The result of the planned contrast was significant for monetary donations, t (417) = 3.80, $p < .001$, $d = .39$, confirming that participants in imagined contact conditions willing to donate more money to the respective charitable organisation than those who imagined outdoor scenes.

6.3.5 Mediational Analysis

The results of the contrast analysis mostly supported the hypothesis that there were differences on STEs between imagined contact conditions and non-contact conditions on attitudes and behaviours towards the secondary out-group. With that being said, I further examine whether intergroup anxiety and perceived similarity can explain the effects of the relations between imagined contact conditions to prosocial behaviours. In the analyses, the same contrast code as above was used: outdoor scene: -2, outdoor scene (3rd-person): -2, Malay (prosocial /3rd-person): +1, Indian friend (prosocial /3rd-person): +1, Indian (prosocial /3rd-person): +1, and stranger (prosocial /3rd-person): +1. The results of the analyses are shown in Figure 12, Figure 13 and Figure 14.

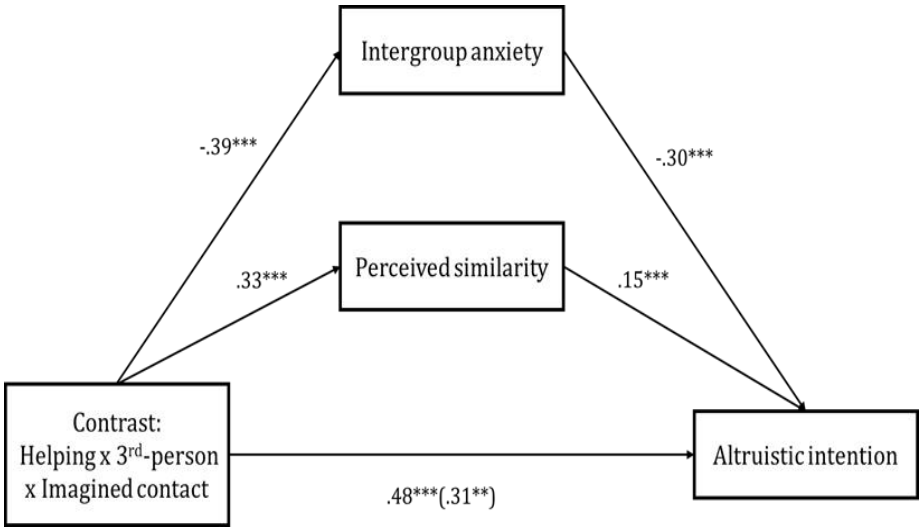


Figure 12 Mediational model of the relationship between contrast and altruistic intention through intergroup anxiety and perceived similarity (Study 5)

Figure 12 is referred. The total effect of contrast on altruistic intention was significant, B = .48, SE = .01, p < .001, and the direct effect was also significant, B = .31, SE = .02, p < .001. Bootstrap analysis revealed that the total indirect effect through the mediators was significant, .03, SE = .01, 95% CI = [.02, .04]. Specifically, the indirect effects through anxiety was .12, SE = .01, 95% CI = [.09, .14] and perceived similarity was .05, SE = .01, 95% CI = [.03, .07]. Thus, this indicates that intergroup anxiety and perceived similarity mediated the relationship between contrast and altruistic intention.

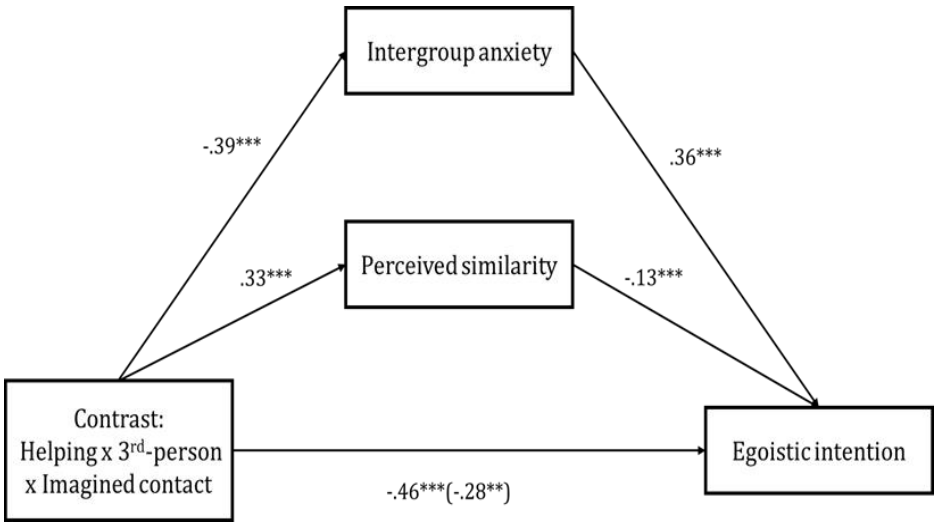


Figure 13 Mediational model of the relationship between contrast and egoistic intention through intergroup anxiety and perceived similarity (Study 5)

Figure 13 is referred. The total effect of imagined contact on egoistic intention was significant, B = -.46, SE = .01, p < .001. Meanwhile, there was a significant effect of imagined contact when intergroup anxiety and perceived similarity was controlled, B = -.28, SE = .02, p < .001. Moreover, bootstrap analysis revealed that the indirect effect through the mediators was significant, -.02, SE =.01, 95% CI = [-.04, -.01]. Specifically, the indirect effects through anxiety was -.14, SE = .02, 95% CI = [-.17, -.11] and perceived similarity was -.04, SE = .01, 95% CI = [-.07, -.02], thus this indicates that intergroup anxiety and perceived similarity mediates the relationship between contrast and egoistic intention.

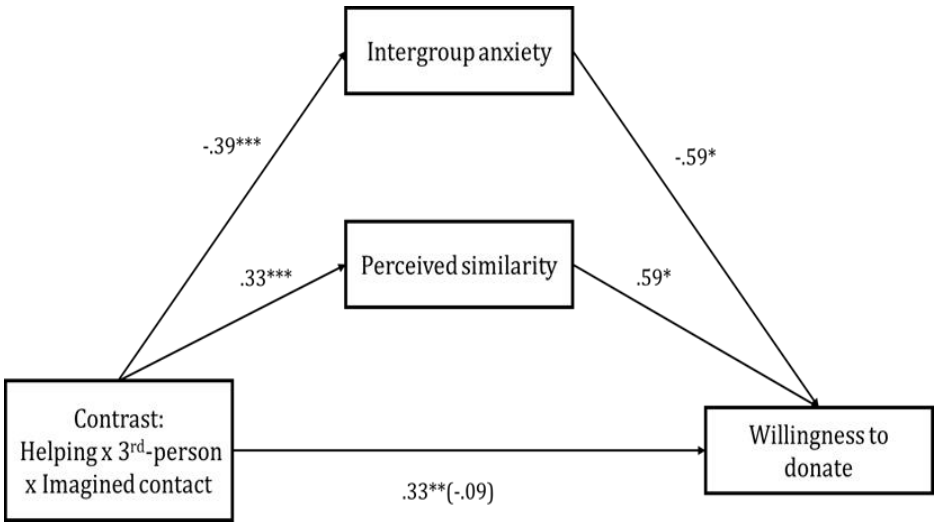


Figure 14 Mediational model of the relationship between contrast and willingness to donate through intergroup anxiety and perceived similarity (Study 5)

Figure 14 is referred. The total effect of contrast on willingness to donate was significant, B = .33, SE = .09, p < .001, whereas the effect of imagined contact when intergroup anxiety and perceived similarity was controlled was not significant, B = -.09, SE = .13, p = .51. However, bootstrap analysis revealed that the indirect effect through the mediators was significant, .11, SE =.05, 95% CI = [.03, .21]. Specifically, the indirect effects through anxiety was .22, SE = .10, 95% CI = [.02, .42] and perceived similarity was .19, SE = .08, 95% CI = [.04, .36], thus this indicates that intergroup anxiety and perceived similarity mediates the relations between contrast and willingness to donate. Thus, I could conclude that the effects of imagined contact on STEs to both prosocial behaviour tendencies and willingness to donate mediated by intergroup anxiety and perceived similarity were similar.

As hypothesised, imagined contact could enhance action to the extent that the imagined target was perceived as similar to the evaluated target, that is, the out-group. Specifically, Study 5 showed that the imagined contact approach has successfully generalised its effects on out-group that was not involved in the imagined contact task by promoting more altruistic intention, lowered egoistic intention and increased willingness to

contribute more amount of money to a charitable organisation. These effects were mediated by reduced intergroup anxiety and increased similarity with the out-group.

6.3.6 Discussion

This study provided initial support for the proposed hypothesis that imagined contact effect can be generalised towards out-group that does not involve in the imagined interaction at the first place. The results revealed strong indicator and clearly showed that the effects of imagined prosocial contact from the third-person perspective can be generalised to both similar and dissimilar others by encouraging more positive prosocial behaviours and the effects were mediated by reduced in intergroup anxiety and increased perceived similarity compared to the non-contact conditions. Contrary to the previous studies on STEs that examine the contact effect on a primary out-group and whether it can also be generalised to a range of out-groups (secondary groups), however, in this present study, I modified the design by also including the in-group as the primary group. As the study needed participants to evaluate the out-group, by imagining an in-group can be a threat towards one's social identity. Interestingly, although the results of imagined in-group were not in line with other imagined contact conditions, by comparing the means, however, there was an improvement in intergroup relations compared to non-contact conditions. Thus, this study is among the first study to empirically demonstrate that imagined contact effects can be generalised towards out-group even the encountered group was among the in-group.

To further generalise and understand how imagined contact works on intergroup helping, I therefore examine intergroup trust as another crucial mediator in imagined contact studies. Trust is conceptualised as a positive affective state that would be highly related to interpersonal comfort and predictability. Individuals will be more likely to assume that their counterparts have similar values and beliefs to themselves if they

perceived themselves to be racially similar. This perceived similarity in terms of values will then lead to an increased sense of interpersonal comfort and trust. Simply stated, individuals are more likely to trust others perceive to be similar to them (Brewer, 1979; Brewer & Kramer, 1985; Kramer & Brewer, 1984). With that being said, as people tend to trust members of their in-group more than out-group members (e.g., Kramer, 1999), this makes people to be more generous in their allocation of resources and tend to help people from their own group even more (e.g., Tajfel, Billig, Bundy, & Flament, 1971). However, to date, there is still limited research investigating out-group trust on prosocial actions and how imagined contact could enhance prosocial actions in relations to out-group trust. Thus, it is important to establish that imagined contact can promote out-group trust in order to support the generalisation of imagined contact effects as a prejudice reduction strategy that is more far-reaching and efficient than originally conceived.

6.4 Study 6

6.4.1 Aims and Hypotheses

The goal of Study 6 was to further replicate study 5 on the effects of imagined contact on STEs by adding another underlying mediator that is intergroup trust in line with intergroup anxiety and perceived similarity. Researchers argued that the strength of STEs may depend upon the similarity in status among the out-groups (Pettigrew, 2009), as well as the degree to which the secondary out-group is well known or perceived as threatening (Tausch et al., 2010; Harwood et al., 2011). Moreover, STEs was present when the attitude was generalised between out-groups that are similar in some dimension (Van Laar et al., 2005; Bowman & Griffin, 2012). This is because attitudes should be the most likely to spread from one racial/ethnic out-group to another when those two groups are mentally associated. With that being said, in this study, it was expected that regardless of imagined

either in-group or out-group, imagined contact may generalise its effects on the particular out-group, in this case the Chinese, by considering that this group share the same nationality as the participants, thus may foster similarity. It is argued that imagined positive contact represent positive perception towards the out-group and bring distant other together by weakening the group boundaries, and thus increase the possibility to react prosocially towards the out-group.

6.4.2 Method

6.4.2.1 Participants and Design

In this study a total number of 358 students were recruited from a Malaysian community college. Thirty-three participants (33) were removed from the analysis and recoded as missing as they failed to fill in the main variables in the questionnaire and left a large part of the questionnaire unanswered. The final number of participants was reduced to 325 (146 male, 179 female, M_{age} = 18.75, SD = 1.32). The questionnaire for this study was translated from English into Malay by two native speakers of Malay and was back-translated by a bilingual person. Participants were randomly allocated to one of six conditions:

1. Imagined outdoor scene
2. Imagined outdoor scene from a third-person perspective
3. Imagined prosocial contact from a third-person perspective with an in-group (Malay)
4. Imagined prosocial contact from a third-person perspective with an out-group friend (Indian friend)

5. Imagined prosocial contact from a third-person perspective with an out-group (Indian)
6. Imagined prosocial contact from a third-person perspective with a stranger

Additionally, to determine the required minimum sample size needed to detect an effect, an A priori statistical power analysis (G*Power 3.1.9.2) was performed. With an alpha = .05 and power = 0.95, the projected sample size needed with an effect size of Cohen's f = .38 is approximately N = 143. Thus, the proposed sample size will be more than adequate for the hypotheses of this study and should also allow for expected attrition and additional analyses for controlling for possible mediating analysis.

6.4.2.2 Procedure

During the study, the participants were separated randomly into two groups: control condition and experimental conditions. They were recruited in two separated college lecture halls unbeknownst to the participants. This is because as the college is a technical based college, participants have limited knowledge about psychological terms used in the experiment that is the third-person perspective. Therefore, participants in the experimental conditions were given a brief explanation about the concept before proceeding to the manipulations. The study took approximately 25 - 30 minutes to complete. Similar to previous Study 5, in this Study 6 I created a new helping contact scenario and the instructions and manipulations for the imagined contact were exactly the same as in Study 5 which targeted to the Malay, Indian friend, Indian out-group, and stranger with evaluating the Chinese as the out-group. In the imagined contact manipulations, participants received the following scenario: "We would like you to spend a time imagining yourself at a bus stop engaged in conversation with a [targeted groups] that is standing next to you. The conversation goes on in a relaxed, positive and pleasant

manner. Suddenly your conversation partner unintentionally dropped its belongings. You quickly help to pick up the belongings and handed back". The instruction used for the visual perspective was the same as the previous study.

In the control conditions, participants received the same non-contact conditions used in Study 5. The instruction used for the visual perspective was the same as the previous study. Upon imagination, participants were required to write down as vividly as possible what came across into their mind during the imagination. Participants have to complete the questionnaire (the dependent measures) before being thanked and debriefed.

6.4.2.3 Dependent Variables

The key dependent measures were the intergroup anxiety, perceived similarity, and prosocial behaviour tendencies measures, similar as measured in previous studies with evaluating the *Chinese* as the out-group. Additionally, to assess the participants' *intergroup trust*, I used the intergroup trust scale (Brehm & Rahn, 1997). Intergroup trust was measured by asking participants three questions, to which they responded on seven-point scales: "Do you think most people from the other community would try to take advantage of you if they got the chance, or would they try to be fair?"; "Would you say that most of the time people from the other community try to be helpful, or that they are mostly just looking out for themselves?; and "Generally speaking, would you say that most people from the other community can be trusted, or that you can't be too careful?" (α = .84).

Finally, to assess willingness to donate, the same measurement in Study 5 was used which intended to assess if the imagined contact manipulation could go beyond particular imagined group by asking participants the following instruction: "This study offers a price draw of RM10/person for 10 lucky participants. Let's say if you win the draw, what proportion of this sum that you would like to donate for a child cancer aid organisation?".

The question also built up by avoiding using leading questions that referred directly to the study goal and this type of question also portrayed a real action.

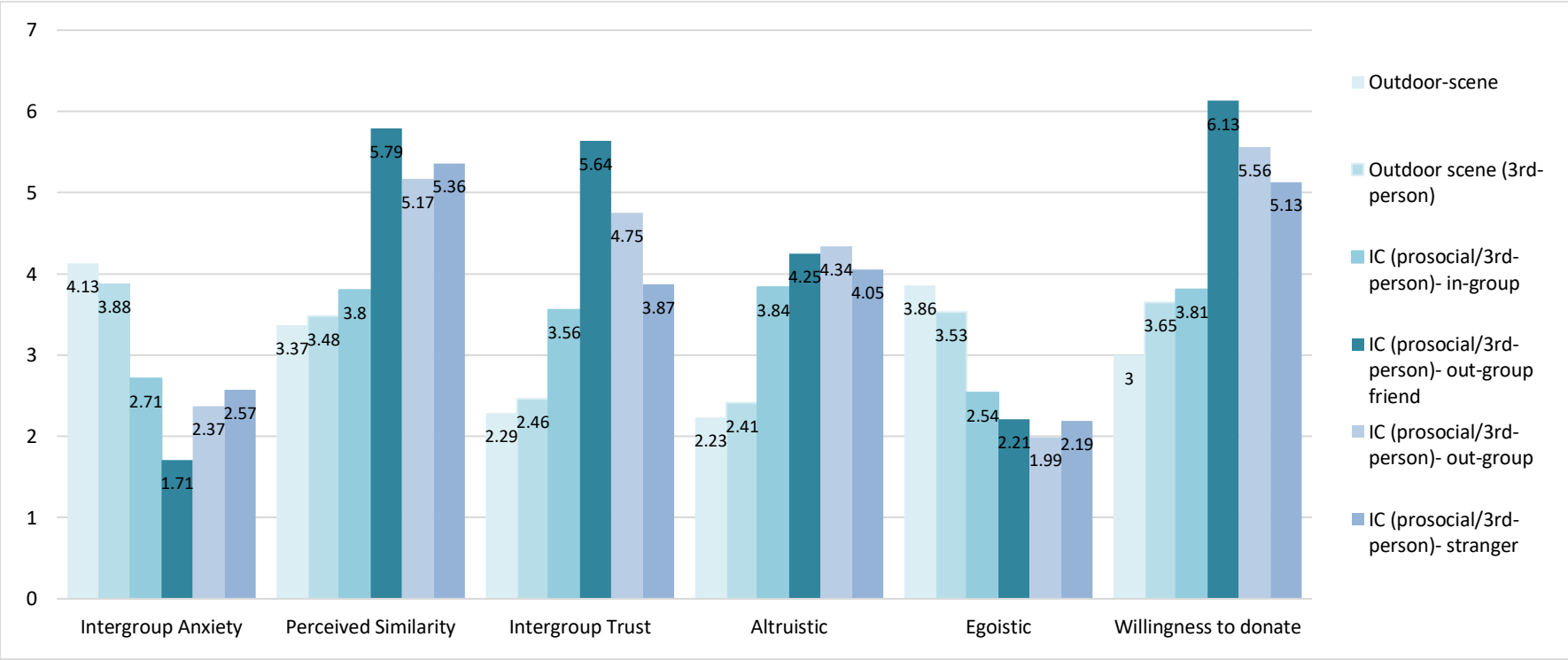
6.4.3 Results

Means and standard deviations of all dependent variables, as a function of imagined contact condition are depicted in Table 12 and Figure 15.

Table 12 Means of intergroup anxiety, perceived similarity, intergroup trust, and prosocial behaviours on imagined contact (Study 6)

	Imagined contact conditions					
	Outdoor scene (n = 54)	Outdoor scene (3rd-person) (n = 54)	IC (prosocial/3rd-person) - in-group (n = 54)	IC (prosocial/3rd-person) -out-group friend (n = 56)	IC (prosocial/3rd-person) - out-group (n = 52)	IC (prosocial/3rd-person) - stranger (n = 55)
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Intergroup anxiety	4.13 (.39)	3.88 (.45)	2.71 (.34)	1.71 (.31)	2.37 (.35)	2.57 (.37)
Perceived similarity	3.37 (1.05)	3.48 (1.24)	3.80 (.98)	5.79 (1.29)	5.17 (1.26)	5.36 (1.16)
Intergroup trust	2.29 (.54)	2.46 (.54)	3.56 (.40)	5.64 (.46)	4.75 (.47)	3.87 (.27)
Prosocial behaviours						
Altruistic	2.23 (.29)	2.41 (.36)	3.84 (.42)	4.25 (.34)	4.34 (.28)	4.05 (.31)
Egoistic	3.86 (.36)	3.53 (.35)	2.54 (.28)	2.21 (.35)	1.99 (.25)	2.19 (.33)
Willingness to donate	3.00 (2.64)	3.65 (3.19)	3.81 (2.82)	6.13 (2.80)	5.56 (2.73)	5.13 (2.87)

Figure 15 Comparison of imagery conditions for all DVs (Study 6)



In the analysis that follows, I used ANOVA and MANOVA to test the manipulations and further run for a Tukey post-hoc test to examine if there are any differences between the manipulations tested. The results of post hoc test are depicted in Table 13.

Table 13 Post hoc comparisons of imagined contact on intergroup anxiety, perceived similarity, intergroup trust, and prosocial behaviours (Study 6)

Variables / Conditions	1	2	3	4	5	6
Intergroup anxiety						
1-Outdoor	-	.26*	1.43**	2.42*	1.76*	1.56*
2-Outdoor (3rd-person)		-	1.17*	2.16*	1.51*	1.31*
3-IC (prosocial/3rd-person)- in-group			-	.99*	.34*	.14
4-IC (prosocial/3rd-person)- outgroup friend				-	-.65*	-.85*
5-IC (prosocial/3rd-person)- out-group					-	-.20
6-IC (prosocial/3rd-person)- stranger						-
Perceived similarity						
1-Outdoor	-	-.11	-.43	-2.42*	-1.80*	-1.99*
2-Outdoor (3rd-person)		-	-.32	-2.30*	-1.69*	-1.88*
3-IC (prosocial/3rd-person)- in-group			-	-1.99*	-1.38*	-1.57*
4-IC (prosocial/3rd-person)- outgroup friend				-	.61	.42
5-IC (prosocial/3rd-person)- out-group					-	-.19
6-IC (prosocial/3rd-person)- stranger						-
Intergroup trust						
1-Outdoor	-	-.17	-1.27*	-3.35*	-2.46*	-1.58*
2-Outdoor (3rd-person)		-	-1.10*	-3.18*	-2.29*	-1.40*
3-IC (prosocial/3rd-person)- in-group			-	-2.08*	-1.19*	-.31*
4-IC (prosocial/3rd-person)- outgroup friend				-	.90*	1.77*
5-IC (prosocial/3rd-person)- out-group					-	.88*
6-IC (prosocial/3rd-person)- stranger						-
Prosocial Behaviours						
<u>Altruistic intention</u>						
1-Outdoor	-	-.18	-1.61*	-2.02*	-2.11*	-1.82*
2-Outdoor (3rd-person)		-	-1.43*	-1.84*	-1.93*	-1.65*
3-IC (prosocial/3rd-person)- in-group			-	-.41*	-.50*	-.21*
4-IC (prosocial/3rd-person)- outgroup friend				-	.09	.20*
5-IC (prosocial/3rd-person)- out-group					-	.29*
6-IC (prosocial/3rd-person)- stranger						-
<u>Egoistic intention</u>						
1-Outdoor	-	.32*	1.32*	1.65*	1.86*	1.67*
2-Outdoor (3rd-person)		-	1.00*	1.32*	1.54*	1.35*
3-IC (prosocial/3rd-person)- in-group			-	.33*	.54*	.35*
4-IC (prosocial/3rd-person)- outgroup friend				-	.21*	.02
5-IC (prosocial/3rd-person)- out-group					-	-.19*
6-IC (prosocial/3rd-person)- stranger						-
<u>Willingness to donate</u>						
1-Outdoor	-	-.65	-.82	-3.13*	-2.56*	-2.13*
2-Outdoor (3rd-person)		-	-.27	-2.48*	-1.91*	-1.48
3-IC (prosocial/3rd-person)- in-group			-	-2.31*	-1.74*	-1.31
4-IC (prosocial/3rd-person)- outgroup friend				-	.56	1.00
5-IC (prosocial/3rd-person)- out-group					-	.43
6-IC (prosocial/3rd-person)- stranger						-

6.4.3.1 Intergroup Anxiety

The result of one-way ANOVA revealed that the manipulations had a significant effect on intergroup anxiety, $F(5, 319) = 341.43$, $p < .001$, $\eta_p^2 = .84$. Further post hoc test comparisons showed that participants in the imagined contact conditions reported less anxiety compared to those in the imagined outdoor scene conditions ($p < .001$). Furthermore, there was also a significant difference shown between participants who imagined an outdoor scene compared to those who imagined outdoor scene from the third person perspective with less anxiety in the perspective taking condition ($p < .001$). However, for both conditions, the means were above the midpoint (> 2.5), which indicates a higher level of intergroup anxiety. Interestingly, there were no differences reported between participants who imagined an Indian to those who imagined a stranger on their rating towards the Chinese ($p = .06$). While participants who imagined helping an Indian friend showed less anxiety than those in the other imagined contact conditions on their rating towards the Chinese ($p < .001$). Details of the post hoc test are shown in Table 13.

6.4.3.2 Perceived Similarity

The result of one-way ANOVA revealed that the manipulations had a significant effect on perceived similarity, $F(5, 319) = 45.15$, $p < .001$; $\eta_p^2 = .41$. Further post hoc test comparisons result showed that participants in the imagined contact conditions perceived more similarity when rating the Chinese compared to those in the imagined outdoor scene conditions ($p < .001$). However, there was no significant difference shown between participants who imagined outdoor scenes ($p = .99$). No significant differences were also reported between participants who imagined helping a Malay compared to those imagined outdoor scenes ($p = .41$ and $p = .73$ respectively). However, the mean for participants imagined a Malay was still above the midpoint (> 3.5) (see Table 12), which indicates an average level of perceived similarity towards the Chinese. Interestingly, there were also no

significant differences reported between participants who imagined an Indian friend compared to those who imagined helping an Indian and a stranger in their perceived similarity towards the Chinese (p = .40 and p = .07 respectively). Details of the post hoc test are shown in Table 13.

6.4.3.3 Intergroup Trust

The result of one-way ANOVA revealed that the manipulations had a significant effect on intergroup trust, $F(5, 319) = 442.96$, $p < .001$; $\eta_p^2 = .87$. Further post hoc test comparisons showed that participants in the imagined contact conditions trust the Chinese even more than those in the imagined outdoor scene conditions ($p < .001$). However, there was no significant difference shown between participants who imagined outdoor scenes (p = .34). Interestingly, participants who imagined an Indian friend reported more trust towards the Chinese than those who imagined other contact conditions ($p < .001$). Generally, there was a significant difference reported between participants in the imagined contact conditions ($p < .001$) on intergroup trust with an indication of average-high intergroup trust (> 3.5). Details of the post hoc test are shown in Table 13.

6.4.3.4 Prosocial Behaviour Tendencies

The result of one-way MANOVA revealed that the manipulations had a significant effect on prosocial behaviour tendencies, $F(10, 638) = 58.55$, $p < .001$; V = .96, $\eta_p^2 = .48$. Univariate testing found the effects were significant for both prosocial behaviour tendencies subtypes; altruistic intention, $F(5, 319) = 421.87$, $p < .001$; $\eta_p^2 = .87$, and egoistic intention, $F(5, 319) = 316.85$, $p < .001$; $\eta_p^2 = .83$. The result of post hoc comparisons showed that participants in the imagined contact conditions reported more altruistic intention than those in the imagined outdoor scene conditions ($p < .001$). However, there was no significant difference reported between both participants who imagined outdoor scenes in

their altruistic rating towards the Chinese (p = .07). There was also no significant difference reported between participants who imagined helping an Indian friend compared to helping an Indian (p = .77). Despite of that, generally there was a significant difference reported between participants in the imagined contact conditions (p < .001) with higher level of altruistic was reported (> 2.5) when rating their altruistic intention towards the Chinese.

In terms of egoistic intention, participants in the imagined contact conditions reported less egoistic intention than those in the imagined outdoor scenes (p < .001). There was also a significant difference shown between participants who imagined outdoor scenes with less egoistic intention reported in the perspective taking condition (p < .001). However, for both conditions, the means were above the midpoint (> 2.5), which indicates a higher level of egoistic intention. Interestingly, there was also no significant difference reported between participants who imagined helping an Indian friend to those who imagined helping a stranger on their egoistic rating towards the Chinese (p = .98). Despite of that, generally there was a significant difference reported between imagined contact conditions (p < .001) with lower level of egoistic was reported (< 2.5) when rating their egoistic intention towards the Chinese. Details of the post hoc test are shown in Table 13.

6.4.3.5 Willingness to Donate

The result of one-way ANOVA revealed that the manipulations had a significant effect on the willingness to donate, $F(5, 319) = 10.18$, p < .001; η_p^2 = .14. Further post hoc test comparisons showed that there was no significant difference reported between participants in the imagined outdoor scene conditions in the amount of money they willing to donate towards the charitable organisation (p = .85). There were also no significant differences reported between participants who imagined a Malay to those in the imagined outdoor scene conditions (p = .67 and p = .99 respectively). Generally, there was no

significant difference reported on the amount of money the participants willing to donate ($p > .05$). Details of the post hoc test are shown in Table 13.

6.4.4 Contrast Analysis

From the results reported above, it has been demonstrated that the STEs on attitudes and behaviours can be transferred to both similar (in-groups and out-group friends) and dissimilar others (out-groups), therefore, I believed that participants in the imagined contact manipulations than those in the imagined outdoor scene conditions will demonstrate more positive prosocial behaviours and attitudes on STEs. To further test this, I used a planned contrast of: outdoor scene: -2, outdoor scene (3rd-person): -2, Malay (prosocial /3rd-person): +1, Indian friend (prosocial /3rd-person): +1, Indian (prosocial /3rd-person): +1, and stranger (prosocial /3rd-person): +1.

6.4.4.1 Contrast Analysis for Intergroup Anxiety

The result of the planned contrast was significant for intergroup anxiety, t (319) = -35.52, $p < .001$, d = -3.51, confirming that participants in the imagined contact conditions reported less intergroup anxiety towards the Chinese than those who imagined outdoor scenes.

6.4.4.2 Contrast Analysis for Perceived Similarity

The result of the planned contrast was significant for perceived similarity, t (319) = 11.74, $p < .001$, d = 1.26, confirming that participants in the imagined contact conditions perceived more similarity towards the Chinese than those who imagined outdoor scenes.

6.4.4.3 Contrast Analysis for Intergroup Trust

The result of the planned contrast was significant for out-group trust, t (319) = 35.38, p < .001, d = 2.76, confirming that participants in the imagined contact conditions trust the Chinese more than those who imagined outdoor scenes.

6.4.4.4 Contrast Analysis for Prosocial Behaviour Tendencies

The result of the planned contrast were significant for altruistic intention, t (417) = 45.86, p < .001, d = 4.92, and egoistic intention, t (417) = -38.50, p < .001, d = -3.89, confirming that participants in the imagined contact conditions reported more altruistic intention and less egoistic intention towards the Chinese than those who imagined outdoor scenes.

6.4.4.5 Contrast Analysis for Willingness to Donate

The result of the planned contrast was significant for willingness to donate, t (319) = 5.39, p < .001, d = .63, confirming that participants in the imagined contact conditions reported more amount of money that they willing to donate to the respective charitable organisation than those who imagined outdoor scenes.

6.4.5 Mediational Analysis

The results of the contrast analysis mostly supported the hypothesis that participants in the imagined contact manipulation reported more positive prosocial actions and attitudes towards the out-group. Considering that there were significant differences reported in most variables tested between imagined contact manipulations and non-contact conditions, therefore, I am further interested to examine whether intergroup anxiety, perceived similarity, and intergroup trust can explain the effects of imagined contact manipulations on prosocial behaviours compared to non-contact conditions, I conducted a mediational analysis (PROCESS, Model 4, Hayes, 2013) based on 5,000 bootstrap samples.

For that reason, the same contrast code as above was used: outdoor scene: -2, outdoor scene (3rd -person): -2, Malay (prosocial/3rd-person): +1: Indian friend (prosocial /3rd-person): +1, Indian (prosocial /3rd-person): +1, and stranger (prosocial 3rd-person): +1. The results of mediational analyses are presented in Figure 16, Figure 17, and Figure 18.

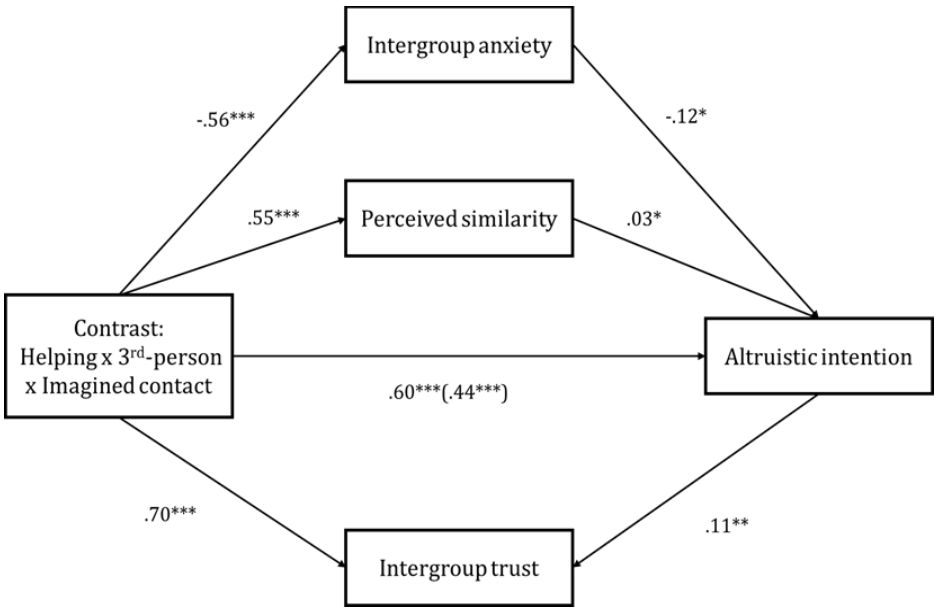


Figure 16 Mediational model of the relationship between contrast and altruistic intention through intergroup anxiety, perceived similarity, and intergroup trust (Study 6)

Figure 16 is referred. The total effect of contrast on altruistic intention was significant, B = .60, SE = .01, p < .001, whereas the direct effect was slightly significant, B = .44, SE = .03, p < .001. Result of bootstrap analysis revealed that the indirect effect through the mediators was .16, SE = .02, 95% CI = [.11, .21]. Specifically, the indirect effects through anxiety was .06, SE = .03, 95% CI = [.01, .12], perceived similarity was .02, SE = .01, 95% CI = [.00, .04], and intergroup trust was .07, SE = .02, 95% CI = [.03, .12], thus indicating that these mediators mediated the relationships between contrast and altruistic intention.

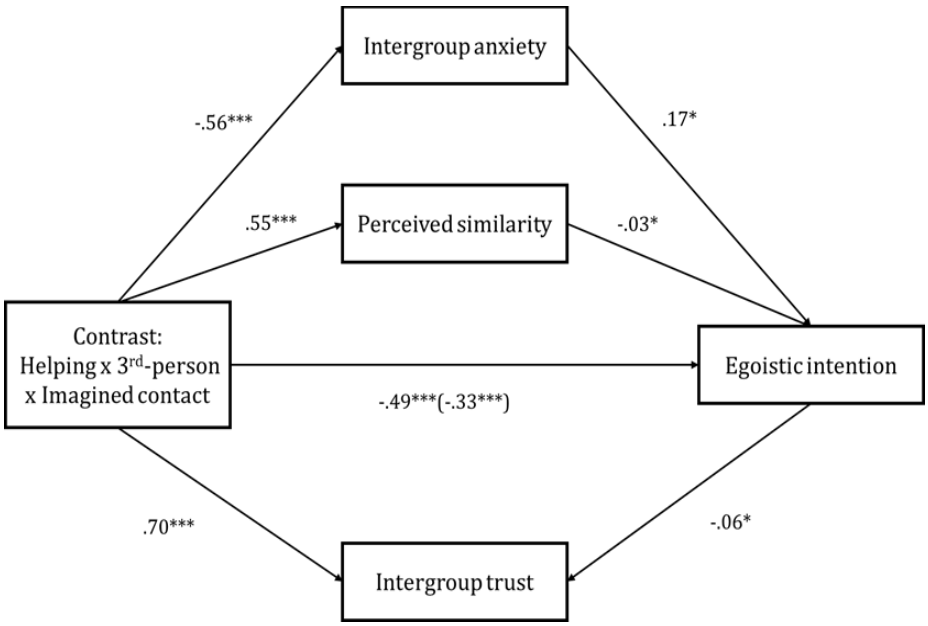


Figure 17 Mediational model of the relationship between contrast and egoistic intention through intergroup anxiety, perceived similarity, and intergroup trust (Study 6)

Figure 17 is referred. The total effect of contrast on egoistic intention was significant, B = -.49, SE = .01, p < .001, and the direct effect was also significant, B = -.33, SE = .03, p < .001. Result of bootstrap analysis revealed that the indirect effect through the mediators was -.16, SE = .03, 95% CI = [-.20, -.10]. Specifically, the indirect effects through anxiety was -.10, SE = .03, 95% CI = [-.15, -.04], perceived similarity was -.02, SE = .01, 95% CI = [-.03, -.01] and intergroup trust was -.04, SE = .02, 95% CI = [-.08, -.01], thus indicating that these mediators mediated the relationships between contrast and egoistic intention.

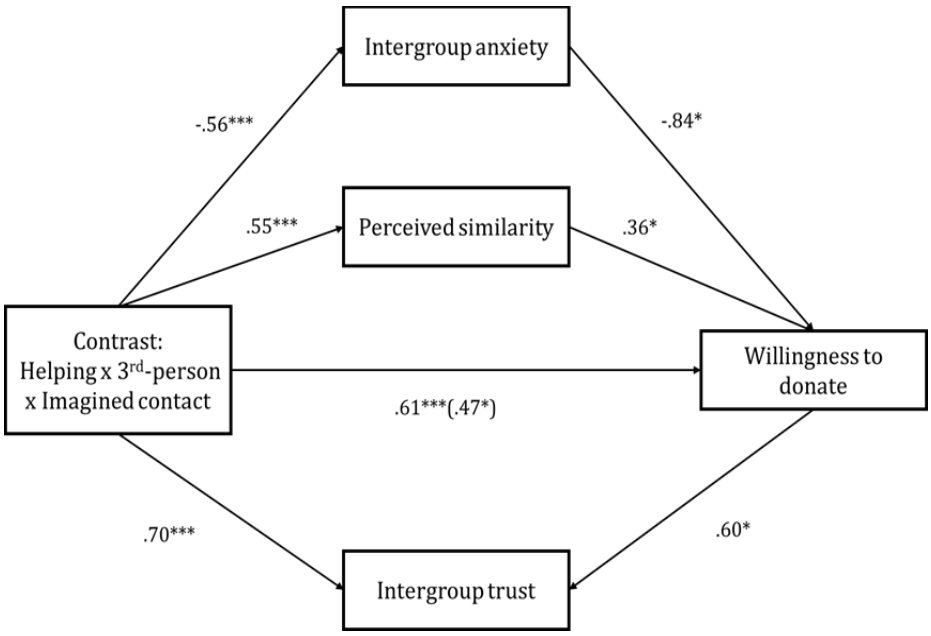


Figure 18 Mediational model of the relationship between contrast and willingness to donate through intergroup anxiety, perceived similarity, and intergroup trust (Study 6)

Figure 18 is referred. The total effect of contrast on willingness to donate was significant, B = .61, SE = .11, p < .001, whereas the direct effect was slightly significant, B = .47, SE = .21, p = .02. Result of bootstrap analysis revealed that the indirect effect through the mediators was 1.08, SE = .17, 95% CI = [.75, 1.40]. Specifically, the indirect effects through anxiety was .47, SE = .20, 95% CI = [.07, .87], perceived similarity was .19, SE = .07, 95% CI = [.06, .34], and intergroup trust was .42, SE = .16, 95% CI = [.12, .73], thus indicating that these mediators mediated the relationships between contrast and willingness to donate. Thus, I could conclude that the effect of imagined contact on STEs to both prosocial behaviour tendencies and willingness to donate mediated by intergroup anxiety, perceived similarity and intergroup trust were similar.

6.4.6 Discussion

In this study I replicated and extended the results in Study 5. As has been hypothesised, imagined contacts enhance actions to the extent that the imagined target is perceived as similar to the evaluated target, (that is, the out-group). The current study also showed that not only reduced in intergroup anxiety and increased perceived similarity explained the improvement of prosocial actions as a result from imagined contact, but it was also explained by the increased in intergroup trust. Specifically, Study 6 further supports the help focus and third-person approaches in enhancing the imagined contact effects successfully generalised its effect towards an out-group which was not involved in the imagined contact task by promoting more altruistic intention and lowered egoistic intention with willingness to contribute more amount of money to a charitable organisation. These effects were mediated by reduced in intergroup anxiety, increased similarity, and increased trust towards the out-group.

6.5 General Discussion

This research further investigated the role of help focus and third-person in enhancing the imagined contact effects, and the emphasis was on the secondary transfer effects (STEs). Compared to previous studies on STEs (e.g., Harwood, Paolini, Rubin, & Arroyo, 2011), the present research examine a different design of STEs by asking participants to directly evaluate an out-group which was not involved in the contact, right after the manipulations. By using a range of different group contexts as the imagined group (including the in-group), the results of this supported the studies discussed in Chapter 4 and Chapter 5 where this imagined contact approach generalised its effects directly towards the out-group by promoting more prosocial actions and attitudes. This provides ameliorating effects of imagined contact. This technique is not only successfully expand its effects directly towards the secondary group without creating any bias by evaluating the

primary group, but furthermore it also has proven to benefit when the target group was among the in-group which by default imagined contact may intensify one's identification stronger towards their in-groups. Furthermore, imagined contact approach used has successfully breaks the boundaries.

Overall, regardless the important of positivity and interaction elements in making the contact interventions a useful tool for improving intergroup relations, inducing a targeted behaviour and imagining oneself to take the third-person perspective added to the imagined contact impact. It is argued that positive contact put a positive tone in the interaction, thus this would increase information sharing during the interaction, while taking the third-person perspective makes one focuses even more on their *behaviour* towards the "imagined" group. This might also explain why this approach successfully promotes behavioural and attitudinal changes even when the imagined group was among the in-group. Moreover, this might be caused by people mind's which focuses on the helping behaviour as the results of using a promotion-focused behaviour (i.e., helping) that is directed towards achieving that particular goal regardless of whom they are contacting.

6.6 Theoretical Implications

As imagined contact leads people to bring others close to the self and accept others by increase intergroup trust (Stathi, Cameron, et al., 2014; Turner, West, & Christie, 2013), thus, in turn, it allows the emergence of more positive intergroup attitudes and behavioural intentions. In studies 5 and 6, I generalised this effect by testing the imagined contact manipulation on a range of groups that differs in its social distance, and by evaluating out-group that does not directly involved in the imagined contact. Findings showed that, compared to non-contact conditions, imagined contact manipulations encouraged helping behaviour via improved in intergroup attitudes, and this result was stronger in the contact with a cross-group friend compared to other groups. According to the STEs, this effect is

most pronounced when individuals generalise attitudes from a primary out-group to a similar, secondary out-group (Fazio, Eiser, & Shook, 2004; Van Laar et al., 2005). Realistically, cross-group friendship is motivated by feeling attach and acceptance between two different groups due to commonality between them, and was initially built up from a positive contact that occur between them earlier. However, this was not the case when the imagined target is among the in-group. Even though the means of each variable was within the average, however, it is somehow low compared to other imagined contact conditions.

Social Identity Theory (Tajfel & Turner, 1979) could provide explanations about the observed phenomena. Positive contact with an in-group can threaten the positive distinctiveness of the groups, especially in the case of people who identify strongly with their national group (Crisp et al., 2006) by resisting the similarity-evoking impact of positive contact they may seek to protect the distinctiveness of their nationality (Ellemers et al., 2002; Hornsey & Hogg, 2000). Therefore, during the imagined contact, one might identify oneself to their group, thus makes the evaluations towards the out-group less likely. However, this does not totally detriment the effect as compared to non-contact conditions; imagined contact still provides potential benefits in promoting intergroup attitudes and behaviours.

6.7 Practical Implications

It is suggested that the findings from the secondary transfer effects (STEs) on imagined contact is of limited research. The findings from the present studies suggest that imagined contact may be a useful technique not just for improving attitudes about other groups but also behavioural intentions beyond targeted group. Where people are resistant to form intergroup contact (e.g., for sociohistorical reasons), this imagined contact might be a useful technique employed in an attempt to change one's attitude and behaviour towards other groups. Particular to the recent context, inducing help focus and third-person

perspective to imagined contact instruction between the Malays towards their social groups may help improve relationships with the Chinese, an ethnic group that the Malays often discriminate to due to economic competition. Moreover, to the extent that the existence of unequal opportunities in public colleges and universities that favour and benefit the Malays makes the interventions based on contact may be difficult to put into practice due to the communication gaps. Therefore, as imagined contact provides support for positive behavioural intentions towards the Chinese even when the imagined contact was to the Malays itself (in-group), this indicates the practicality of the approaches used in imagined contact successfully enhanced the benefits of this technique to be practiced regardless of who is the imagined group. Furthermore, as the present studies suggested that imagined contact with a cross-group friend is sufficient to transfer the positive attitudes and behavioural changes to an out-group. In such contexts, research might uncover proxy groups to be used in the interventions, especially in a segregated setting where contact is scarce, and prejudice is high. Research in this chapter thus supported this notion.

However, one might argue with the current design used to examine the STEs. Firstly, this design did not examine the effect of the imagined contact approach on the primary groups. Secondly, it did not generalise to a range of secondary groups; instead only one specific out-group was evaluated. Nonetheless, seen in the context of the whole thesis, imagined prosocial contact from the third-person perspective approach successfully impacted on prosocial actions (as discussed in Chapter 4 and Chapter 5). Therefore, it is suggested that by using the similar imagined contact approach might also benefit the same results, by considering that the sample groups used were tertiary-level students. Moreover, in the previous studies that evaluated the primary group at the first place, followed by evaluating the secondary-groups, this might put a highlight on the characteristics demand as people might adjust their perception and create bias when evaluating the secondary out-

groups, as there might already a positive mental knowledge happening earlier. Therefore, by evaluating directly on the secondary group may reduce this consequence.

Finally, previous studies on STEs tested a range of out-groups. Even though this research might be limited in terms of the amount of the targeted out-groups evaluated, outstandingly the current studies have successfully goes beyond the common STEs design by testing the in-group as the imagined group. Knowing that people identify themselves strongly towards their in-group members (e.g., Terry & Hogg, 1999), thus by activating imagined contact with their in-group encounters might inspire them to identify themselves even stronger as it intensifies the "we"-ness. However, the current researches have proven the powerful effect of the imagined contact approach used, which has successfully break the boundaries towards the out-group which was not involved in the contact. Therefore, this fully supported the important role of help focus and third-person elements in enhancing the imagined contact effects.

6.8 Conclusion

The aim of this chapter was to explore the role of help focus and third-person perspective on imagined contact by generalising its effectiveness on secondary transfer effects. The two studies consistently found that imagined contact successfully improved prosocial actions by reducing intergroup anxiety, perceive more similarity and increasing trust towards the out-group uninvolved initially in the imagined contact which further supports the impact these additional elements had in extending the imagined contact benefits.

CHAPTER 7: IMAGINED CONTACT IN MAJORITY-MINORITY SCHOOLING CONTEXTS AND ITS EFFECTS ON ACTUAL INTERGROUP HELPING

In this chapter, again, I aim to expand the idea on imagined prosocial contact from the third-person perspective related to attitudes and behavioural changes that stipulates in school settings which involves both majority and minority groups. In the two studies (Study 7 and Study 8), this chapter highlighted two significant effects, firstly, imagined contact is not only benefited the majority groups, but it is also beneficial to the minority groups, as well as promoting positive intergroup attitudes and behaviours. Secondly, Study 8 extends the intention effects to an actual helping behaviour in a real-life scenario. Overall, these findings give an enlightenment that imagined contact is equally benefited by both majority and minority groups and also expand its effect to an actual behaviour.

7.1 Introduction

Studies on the secondary transfer effects (STEs) elaborated in Chapter 6 revealed that there were positive attitudes and behavioural changes towards out-groups beyond the imagined target. This reflects the robust effects of imagined contact by adding help focus and third-person approaches. In expanding the generalisations of imagined contact effects in terms of social contexts, age range, and particularly on the group status, I was further interested to examine the imagined contact effects from an interracial perspective of majority-minority group contexts.

One of the main challenges in multiracial societies is to ensure the recognition of both majority and minority rights in order to enable positive contact to happen. In a multiracial society where one is dominant than the other, interracial contact is marked by

higher levels of stress and anxiety than intraracial contact (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001; Dovidio, 2001; Dovidio, Gaertner, Kawakami, & Hodson, 2002; Pearson et al., 2008; Trawalter, Richeson, & Shelton, 2009). The physiological and psychological discomfort of interracial interaction begins when anticipating the interaction (Mendoza-Denton, Page-Gould, & Pietrzak, 2006), thus reducing the likelihood that people will initiate (Shelton & Richeson, 2005) or maintain interest in prolonged contact (Pearson et al., 2008; Plant, 2004; Plant & Butz, 2006). This may affect the effort to sustain intergroup relations.

Although researchers have significantly documented the positive effect of intergroup contact, the process through which both majority and minority groups come to fully utilise imagined contact as a preparatory tool towards a more positive direct contact to occur is not yet well understood. Therefore, in this chapter, I sought to address this gap by examining specifically the role of imagined contact in a multiracial school context level (which is dominated by the majority) in benefiting not just the majority groups, but also the minority groups. In particular, the present studies (study 7 and study 8) have a hope to shed light on the extent to which both majorities and minorities are influenced by the imagined contact experiences of the respective out-groups in a schooling context; and how this encourage them to behave more altruistically, and support for intergroup helping significance to attitude changes. I was further interested to examine whether the imagined contact could expand from behavioural intention to actually performing the behaviour in a real-life scenario.

7.2 Imagined Contact among Majority-Minority Status Groups

In a meta-analysis on contact effects as a function of majority versus minority group status, Tropp and Pettigrew (2005) found that the prejudice-reducing effect of contact was weaker for members of minority than majority groups. This difference might be explained

by the fact that minority group members typically worry about disliked, or discriminated against, by higher-status group members (Crocker, Major, & Steele, 1998; Plant, 2004), and their group's devalued status in society is often highly salient to them (Jones et al., 1984), in contrast to majority group members (Pinel, 1999). Binder et al., (2009) also found smaller effect sizes for the effect of contact on social distance and emotions for minority than majority group members. Collectively, minority groups are more suspicious against majorities and less likely to experience contact (Pinel, 2002).

It has been highlighted that the minority group members tend to experience more anxiety at the thought of intergroup contact than majority group members (Plant & Devine, 2003), resulting to evaluate the out-group less favourably (Pinel, 2002). This brings refusal of minority groups to assimilate as the majority group expects them to (Zick, Wagner, Van Dick, & Petzel, 2001). This is supported by studies in multi-ethnicity context which suggest that while members of host nations prefer assimilation, members of immigrant groups favour pluralism (Pfafferott & Brown, 2006; Verkuyten & Yildiz, 2006; Zagefka & Brown, 2002), which explains the notion of the different views of contact between the majority and minority groups.

Recent study by Stathi and Crisp (2008; Experiment 1) has tested whether minorities would be more resistant to the benefits of imagined contact than majorities using a sample of two ethnic groups in Mexico: Mestizos (the majority group ethnic) and Indigenous people (the minority group ethnic). The findings revealed that majority groups benefited more of the imagined positive contact by enhanced in projection of positivity; while there was no significant effect of imagined contact on the minorities. These findings supported the findings of previous studies of contact that majorities favour contact more than the minorities.

Despite the fact that some literatures have shown the responses in contact and prejudice are different between majority and minority status groups (for example, Bobo, 1999; Monteith & Spicer, 2000; for review see Tropp & Pettigrew, 2005b), unfortunately, there is still little information on intergroup helping, whether it is similar between the two status groups in relation to imagined contact. In addition, there are studies that focused heavily on majority groups' attitude towards minority groups, and extensively explored intergroup contacts from the perspectives of majority groups (Binder et al., 2009; Cameron, Rutland, Brown, & Douch, 2006; Tropp & Pettigrew, 2005). Meanwhile, there might be a distinction in the contact effects depending on the context used. Thus, questions arise: Does imagined contact still work in its best platform in a segregated and compounded settings (i.e., school) where interaction is prevalent but obstructed by prejudice? Or whether these settings will only intensified the prejudice and discrimination? Additionally, as previous studies have highlighted on the less preferable contact effects on minorities (that typically referred to indigenous people and immigrants) than majorities, does it resulting the same in Malaysia where the main issue to be tackled is in the interracial context that is more profound. Overall, this present study is in the hope of providing some understandings in which imagined contact might influence attitudes and behavioural changes in majority-minority contact, especially in a segregated school setting where the ethnic groups still retain their religions and cultures.

7.3 Imagined Contact Intervention in School Settings

A significant number of programs have been developed to promote inclusive multicultural learning environments, particularly in reducing school bullying and violence (Banks, 2005; Perkins & Mebert, 2005; Stephan & Vogt, 2004; Twemlow, Fonagy, & Sacco, 2005; Whitted & Dupper, 2005). However, many interventions are not evidence-based, and there are often notable barriers to implementation (Erickson et al., 2004; Stephan, 1999).

Furthermore, research on harassment, bullying, and prejudice in schools is often dichotomised into preventive and disciplinary interventions. Causal factors are rarely addressed in studies that examine behavioural and consequence-based interventions, and conversely, research that focuses on preventive conflict resolution or on multicultural education lacks important empirical validation (Bigler & Liben, 1992; Shapiro, Burgoon, Welker, & Clough, 2002; Stephan, 1999).

Recently, a number of research studying imagined contact as a functional intervention in combating prejudice has received particular attention. Previous study by Cameron et al., (2006, 2007) revealed that both extended contact and imagined contact are effective strategies to reduce biases in children by increasing perceived similarity between the self and the out-group. In a similar vein, Vezzali, Capozza, Giovannini, and Stathi (2012) have tested imagined contact among Italian 5th-graders. Participants were asked to imagine as having a pleasant contact with an unknown immigrant child once a week, for 3 consecutive weeks. For every session, different setting and immigrant child was used to enhance the generalisability. Results showed that participants who applied imagined contact revealed more positive behavioural intentions and implicit attitudes towards immigrants compared to participants in the control condition.

Meanwhile, Stathi et al., (2014) examined imagined contact as a prejudice reduction program among children (age ranged from 7 years to 9 years and 11 months) by measuring willingness for contact.Participants were given the intervention once a week, for 3 consecutive weeks by carefully constructing the tools used for the imagination process. Participants were provided with large drawn picture of an outdoor setting and also given a picture of themselves and an Asian child (out-group). Some information about the Asian child was also provided to encourage imagination. Children used the photographs and the pictures to create a story that featured themselves and the Asian child. Different outdoor

settings and Asian child were presented in every session to enhance the generalisability of the intergroup interactions. The study then revealed that imagined contact successfully encouraged White children to engage contact with the Asian children, mediated by increased perceived similarity and greater attitudes towards the in-group and out-group.

Relevant to the present study of the effect of imagined contact on intergroup helping, Vezzali et al., (2015) examined the effects of imagined contact with two different age (1) elementary school and (2) adults, by integrating common in-group identity model. Results from both studies revealed that imagining an intergroup interaction as members of the same group has increased helping intentions due to the effects of strengthened imagined contact. The evidence provided in this section suggests that imagined contact compared to direct contact, require less time, imposes fewer logistical problems involving space, resources and the potentially disruptive role of intergroup anxiety (Crisp & Turner, 2012). Adding to this, while direct contact has been said to be more effective, however, anti-bias interventions provided all this while by the school especially in the Malaysian context hardly unchanged the prejudice level, and may be difficult to implement because of the practical constraints. I believe that targeting prejudice in school is especially relevant, given that schools are increasingly multicultural, and children spend most of their wakeful time in this setting.

7.4 Study 7

7.4.1 Aims and Hypotheses

Ethnic segregation has become an emerging feature in Malaysia's education system even though the institutional role of education should have been a unifying force for the country's multi-ethnic society. The underlying problem is that, Malaysia is the only country in ASEAN that has alternative streams (alternative provision) as part of the national education system (mainstream education). Alternative streams (Chinese and Indian

schools) are allowed to coexist alongside mainstream education (national school that majority resided by the Malays) provided by the government, starting from the elementary school to secondary school. These alternative streams, which employ their own mother language (Mandarin for Chinese and Tamil for Indians) are less emphasising in the use of Malay language which is the main medium of instruction and the national language of Malaysia. Due to this, it causes a language barrier which added to the cultural differences, and consequently increases the contact gaps.

As there are only Malay-medium national school for the secondary school levels, the transition from multilingual primary schools to monolingual secondary schools leads to multiracial students being put under one roof, and ethnic differences in terms of cultural and ethnicity backgrounds would further leads to polarisation. During this period of acculturation, most students especially the minorities from the alternative streams may experience negative psychological symptoms (e.g., social isolation, anxiety) because of numerous challenges such as language barriers, lack of social networks, discrimination experiences and cultural and ethnic differences, which consequently could stimulate prejudice.

There was a study conducted by Md. Yusof (2006) on the patterns of social interaction between different ethnic groups in Malaysian secondary schools. The findings revealed that the Chinese and Indians (minorities) students reported that they were sometimes being threatened by their Malays (majorities) friends; while there was no threat reported by the minorities toward the majorities. Alarmingly, fighting and misunderstanding were highly reported between ethnic groups. This study also revealed that ethnic groups preferred to collaborate in their school works with their same ethnic groups and same trends when it comes to helping, which preferences to seek help goes towards the same ethnic groups. Even though students from different ethnic groups come

across each other at least 5 days a week during the schooling periods, however, it does not guarantee for positive interactions happening between them. Moreover, Malaysian Government has set up several programmes (e.g., National Training Programme), where a large sum of money has been invested, in the hope to inculcate and nurture national unity and national identity in Malaysian multiracial and multi-ethnic society. However, without a detailed plan, some of these programmes do not reach to their objectives.

Thus, while students tend to have same-race friends (Quillian & Campbell, 2003; Kao & Joyner, 2006), however, there is still a hope to build a close-other race contact (DuBois & Hirsch, 1990; Dutton et al., 1998; de Souza Briggs, 2007) especially in multicultural school settings. In the present study, the aim was to implement imagined contact by replicating the same imagined contact approach used in previous studies - imagined prosocial contact from the third-person perspective in the Malaysian school-settings. It is expected that this specific imagined contact approach (because of promoting positive contact and intergroup helping) is not only inculcate positive interactions between both majorities and minorities, but also encourages prosocial behaviours among themselves (in-group). Moreover, adding the imagery perspective that was to the self (third-person perspective), participants may have a strong visual of themselves helping their out-group counterpart, thus would increase the tendency to perform such action.

7.4.2 Method

7.4.2.1 Participants and Design

Two-hundred and fifty-eight students (111 male and 148 female) of Kangkar Pulai National Secondary School, Malaysia participated in this experiment as a part of the Civic Education and Citizenship subject. The experiment was designed to measure interracial imagined contact from both majority and minority perspectives; therefore, both groups were examined. In this study, the Malay represents the majority group (N = 149) and the

Chinese/Indian represents the minority group (N = 109). The age range of the participants was between 13 to15 years (*M* = 13.59, *SD* = .51). Participants were randomly distributed to a 2 (imagined contact x control) conditions x 2 (majority x minority) groups. Additionally, an A priori statistical power analysis (G*Power 3.1.9.2) was performed. With an effect size of Cohen's f = .38, the required minimum sample size needed is approximately N = 76. Thus, the proposed sample size will be more than adequate for the hypotheses of this study and should also allow for expected attrition and additional analyses of controlling for possible mediating analysis.

Following the interventions, participants were then required to answer or respond to the questionnaire (measurements) in order to identify their intergroup anxiety level, perceived similarity, prosocial behaviour tendencies (altruistic and egoistic prosocial intentions) and intention to help their out-group counterparts. All participants were informed that the questionnaire was anonymous, and the data would be used only for research, and that questions were to be answered in the order of their appearance.

7.4.2.2 Procedure

The students from the participating classes were randomly assigned either to the imagined contact condition to control condition. The study used three different classes that were located in different buildings and different levels. The intervention was carried out at one time to avoid groups who have already undergone the intervention to have any contact with those who have not yet undergoing the intervention. Before handing the tasks, participants were given a short briefing regarding the perspective taking. Considering the fact that the students were unfamiliar with the perspective taking concept, and to ensure participants imagining the particular attribution (i.e., third-person perspective), a sketch of the concept has been added following the perspective taking instruction by using stick figures representing themselves and the out-group to prevent any referral to gender and

racial groups. As the participants age ranged between 13 to 15 years old that can be classified as adolescent (WHO, World Health Organisation), I belief that they should have no issues implementing the perceptual focus in the imagery process considering their cognitive abilities. In adolescent stage, the cognitive ability remarkably develops, from being concrete thinkers, who think they have direct contact with or knowledge about, to abstract thinkers, who can imagine things not seen or experienced (Sanders, 2013). Adolescents also develop more advanced reasoning skills, including the ability to explore a full range of possibilities inherent in a situation, think hypothetically (contrary-fact situations), and use a logical thought process. With this being said, thus by using a detailed imagined contact instruction make the imagery process easier to the participants in this context.

Moreover, participants in the imagined contact condition were instructed to imagine as having a positive contact while suddenly came to a scenario where they need to help their out-group counterpart. In this study, since the aim was to examine the effects of imagined contact interchangeably between the majorities and the minorities, therefore, the Malay students who represented the majorities imagined as having interactions with either Chinese/Indians; while the Chinese/Indians students who represented the minorities imagined as having interactions with a Malay. To avoid any bias and attraction during the imaginary process, I directly referred the imagined counterparts as Malay or Chinese/Indian without including "friends" (e.g., Chinese friend) which had been used in previous studies in the schooling context. Furthermore, by avoiding referring to out-group as friends, the impact can be generalised to other out-group students regardless of their friendship status. The imagined contact manipulation was as follows: "We would like you to spend a time imagining yourself at school during a sports day, engaged in a conversation with an Indian or Chinese student that you have just met. The conversation goes on in a relaxed, positive and pleasant manner. After that, both of you did a warm up by running

around the field and suddenly the conversation partner falls and got injured. You quickly lean forward and give a hand."

Meanwhile, in the control condition both participants from the majority and minority groups were instructed to imagine an outdoor scene as used in previous studies. Both manipulations and control conditions were imagined from the third-person perspective considering that by including the third-person perspective would reveal a stronger impact than without referring to any perceptual focus. A series of scales measuring attitudes and prosocial behaviours towards the out-group followed.

7.4.2.3 Dependent Variables

Intergroup anxiety. The same intergroup anxiety scale as in the previous studies was used measuring anxiety toward an out-group.

Perceived similarity. The same perceived similarity scale as in the previous studies was used.

Intergroup trust. Three items measured whether the participants trust their out-group friends. The items were: "I don't trust a Chinese/Malay/Indian as a friend", "I don't trust them to keep my promise" and "I don't trust to leave my belongings to a Chinese/Malay/Indian". A seven-point scale was used (1, not at all, 7, very much).

Prosocial behaviours tendencies. The same altruistic and egoistic prosocial behaviour tendencies scale as in the previous studies was used.

Helping behaviour. As participants were among school children, instead of using scale that involves money as previous studies does, in this study I used an item that measures participant's willingness to help their out-group friend related to school work. The item was: "To which extents do you willing to help an out-group friend in their homework" using a 7-point scale (1, not at all, 7 very much).

7.4.3 Results

Means and standard deviations of all dependent variables, as a function of imagined contact condition are shown in Table 14, Figure 19, and Figure 20.

Table 14 Means of intergroup anxiety, perceived similarity, intergroup trust, and prosocial behaviours on imagined contact (Study 7)

Effects	Majority		Minority	
	Control (n = 72)	Imagined contact (n = 77)	Control (n = 53)	Imagined contact (n = 56)
	M (SD)	M (SD)	M (SD)	M (SD)
Intergroup anxiety	3.45 (.42)	2.27 (.34)	3.32 (.40)	2.20 (.36)
Perceived similarity	3.11 (1.08)	5.06 (.88)	3.98 (.89)	5.93 (.81)
Intergroup trust	2.57 (.58)	4.44 (.67)	3.02 (.64)	5.17 (.73)
Prosocial Behaviours				
Altruistic	2.15 (.35)	4.07 (.37)	1.95 (.38)	3.70 (.36)
Egoistic	3.30 (.59)	2.17 (.34)	3.26 (.36)	2.26 (.30)
Helping intention	2.63 (.81)	4.71 (.70)	2.74 (.89)	5.21 (.93)

Figure 19 Comparison of imagery conditions for all DVs - Majority group (Study 7)

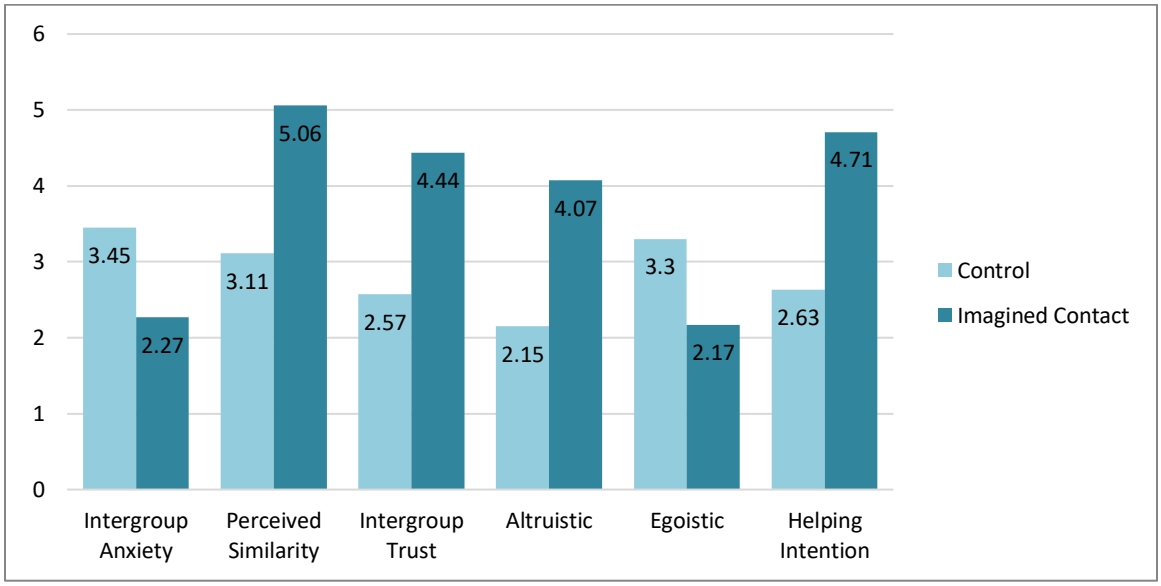
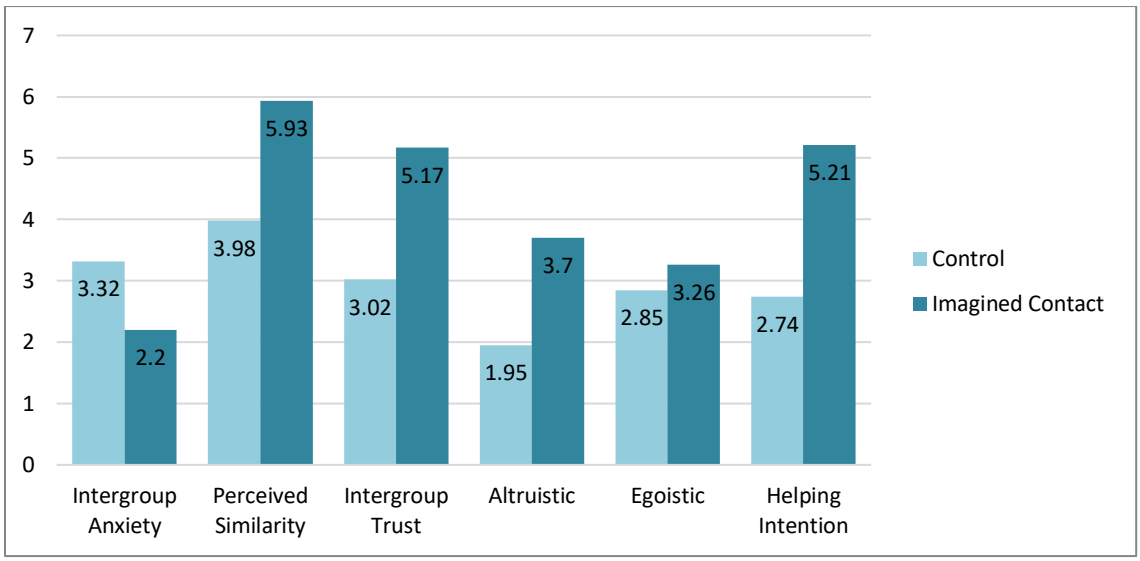


Figure 20 Comparison of imagery conditions for all DVs - Minority group (Study 7)



7.4.3.1 Intergroup Anxiety

The results of ANOVA analysis on a 2 (intervention conditions: imagined contact vs. control) x 2 (groups: majority x minority) revealed both main significant effects of intervention conditions, $F(3, 254) = 583.22$, $p < .001$, $\eta_p^2 = .70$ and group $F(3, 254) = 4.36$, $p < .001$, $\eta_p^2 = .02$. The results suggest that participants in the imagined contact conditions expressed lower in intergroup anxiety (M = 2.24, SD = .35) than participants in the control conditions (M = 3.39, SD = .41). Interestingly, the main effect on group suggested that the majority group expressed higher levels of intergroup anxiety (M = 2.84, SD = .70) than the minority group (M = 2.74, SD = .68). Meanwhile, there was no significant effect of Intervention condition x Group interaction, $F(3, 254) = .26$, $p = .65$, $\eta_p^2 = .00$.

7.4.3.2 Perceived Similarity

Results of ANOVA analysis on a 2 (intervention condition: imagined contact vs. control) x 2 (groups: majority x minority) revealed both main effect of intervention condition, $F(3, 254) = 279.47$, $p < .001$, $\eta_p^2 = .52$ and group $F(3, 254) = 55.35$, $p < .001$, $\eta_p^2 = .18$, indicating that participants in the imagined contact conditions felt more similar

towards the out-group (M = 5.42, SD = .95) than participants in the control conditions (M = 3.48, SD = 1.09). Interestingly, the main effect on group indicating that the majority group perceived less similar with the minority group (M = 4.11, SD = 1.39) than the minority group towards the majority group (M = 4.98, SD = 1.29). There was no significant Intervention condition x Group interaction found, $F(3, 254) = .00$, $p = .96$, $\eta_p^2 = .00$.

7.4.3.3 Intergroup Trust

Results of ANOVA analysis on a 2 (intervention condition: imagined contact vs. control) x 2 (group: majority x minority) revealed both main effect of intervention condition, $F(3, 254) = 596.12$, $p < .001$, $\eta_p^2 = .70$ and group $F(3, 254) = 50.62$, $p < .001$, $\eta_p^2 = .17$, indicating that participants in the imagined contact expressed more trust toward the out-group (M = 4.75, SD = .78) than participants in the control conditions (M = 2.76, SD = .65); while main effect on group suggesting that the majority group expressed lower trust towards the minority group (M = 3.53, SD = 1.13) than minority to majority group (M = 4.12, SD = 1.28). There was no significant Intervention condition x Group interaction found, $F(3, 254) = 2.83$, $p = .09$, $\eta_p^2 = .01$.

7.4.3.4 Prosocial Behaviour Tendencies

MANOVA analysis of using two prosocial behaviour tendencies scores as dependent variables in a 2 (intervention condition: IC vs. control) x 2 (group: majority vs. minority) revealed significant effects of intervention condition, V = .88, $F(2, 253) = 901.29$, $p < .001$, $\eta_p^2 = .88$ and group, V = .14, $F(2, 253) = 19.96$, $p < .001$, $\eta_p^2 = .14$ on the combined dependent variables. Univariate tests revealed that there were significant across intervention condition on altruistic intention, $F(1, 254) = 1608.60$, $p < .001$, $\eta_p^2 = .86$, and egoistic intention, $F(1, 254) = 396.54$, $p < .05$, $\eta_p^2 = .61$. These results suggested that participants in the imagined contact condition expressed higher altruistic intention (M = 3.89, SD = .42) and expressed

lower egoistic intention (M = 2.21, SD = .33) than participants in the control condition (M = 2.06, SD = .37; M = 3.28, SD = .51, respectively). Meanwhile, univariate tests of group revealed that there was only a significant effect on altruistic intention, $F(1, 254) = 39.90$, $p < .001$, $\eta_p^2 = .14$, and non-significant on egoistic intention, $F(1, 254) = .26$, $p = .16$, $\eta_p^2 = .00$. These results suggested that the majority group expressed higher altruistic intention (M = 3.14, SD = 1.03) than the minority group (M = 2.82, SD = .93). While there was no significant difference found in egoistic intention, suggesting that both majority and minority groups revealed a similar trend in both experimental and control conditions. However, the majority group revealed slightly less egoistic intention (M = 2.17, SD = .34) than the minority group (M = 2.26, SD = .30). Meanwhile, no significant Intervention condition x Group interaction was found, V = .02, $F(2, 253) = 2.12$, $p = .12$, $\eta_p^2 = .02$.

7.4.3.5 Helping Intention

Results of ANOVA analysis on 2 (intervention condition: imagined contact vs. control) x 2 (group: majority x minority) revealed both main effect of intervention condition, $F(3, 254) = 489.22$, $p < .001$, $\eta_p^2 = .66$ and group $F(3, 254) = 8.75$, $p < .001$, $\eta_p^2 = .03$, which indicate that participants in the imagined contact conditions tend to help more towards the out-groups (M = 4.75, SD = .78) than participants in the control conditions (M = 2.76, SD = .65), although main effect on group suggests that the majority group expressed lower intention to help towards the minority group (M = 3.53, SD = 1.13) than minority to majority group (M = 4.12, SD = 1.28). Meanwhile, no significant Intervention condition x Group interaction was found, $F(3, 254) = 3.55$, $p = .06$, $\eta_p^2 = .01$.

7.4.4 Mediational Analysis

The result reported above showed that imagined contact manipulations over control groups improved prosocial behaviours and attitudes. However, there was no significant difference reported between the majority and minority group on their attitudes and behavioural changes upon manipulations. Therefore, in the analyses that follow, I tested a mediational model of the relations between imagined contact x control groups on prosocial behaviours and attitudes, whether intergroup anxiety, perceived similarity and intergroup trust would mediate the relation. The results are shown in Figure 21, Figure 22, and Figure 23.

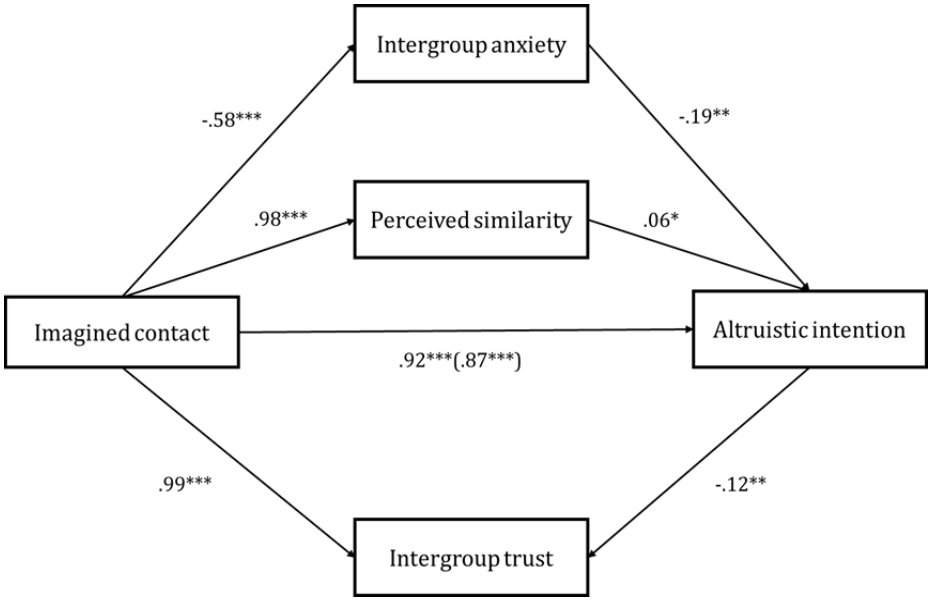


Figure 21 Mediational model of the relationship between imagined contact and altruistic intention through intergroup anxiety, perceived similarity, and intergroup trust (Study 7)

Figure 21 is referred. The total effect of imagined contact (vs control) on altruistic intention was significant, B = .92, SE = .02, p < .001; the effect of imagined contact when the mediators were controlled was also significant, B = .87, SE = .05, p < .001. Meanwhile, bootstrap analysis revealed that the total indirect effect through the mediators was .05, SE = .05, 95% CI = [-.04, .14].

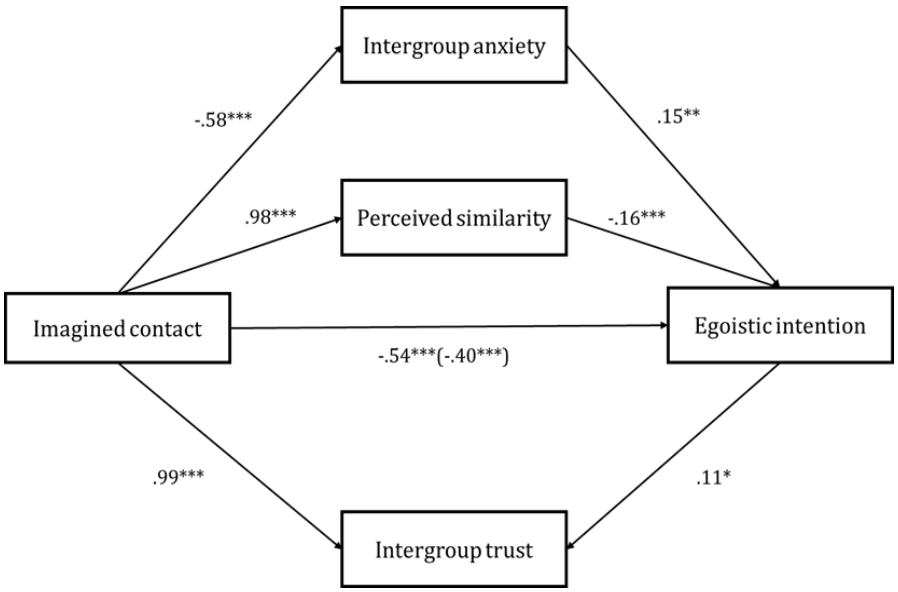


Figure 22 Mediational model of the relationship between imagined contact and egoistic intention through intergroup anxiety, perceived similarity, and intergroup trust (Study 7)

Figure 22 is referred. The total effect of imagined contact (vs control) on egoistic intention was significant, B = -.54, SE = .03, p < .001; the effect of imagined contact when the mediators were controlled also was also significant, B = -.40, SE = .05, p < .001. Meanwhile, bootstrap analysis revealed that the total indirect effect through the mediators was -.14, SE = .05, 95% CI = [-.23, -.05].

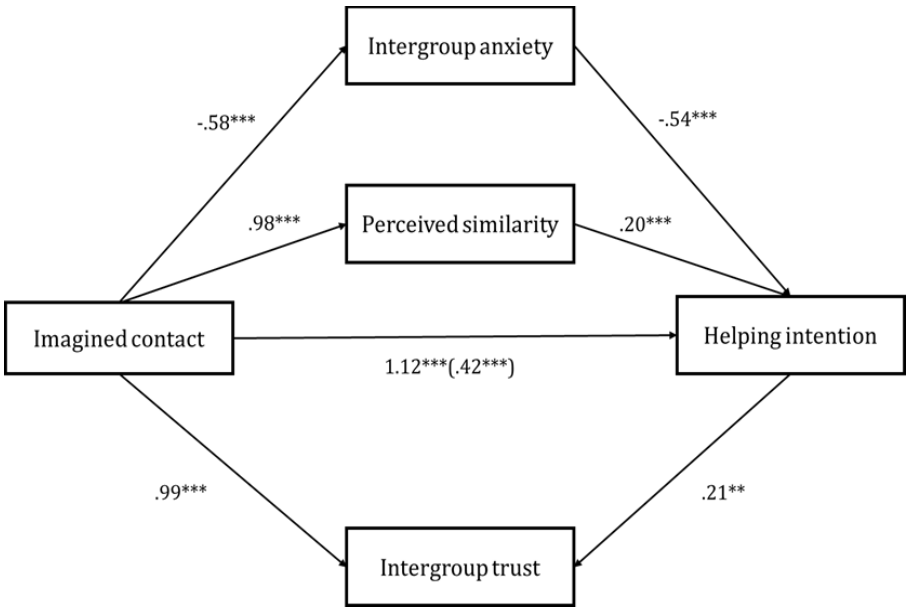


Figure 23 Mediational model of the relationship between imagined contact and egoistic intention through intergroup anxiety, perceived similarity, and intergroup trust (Study 7)

Finally, Figure 23 is referred. The total effect of imagined contact (vs control) on helping intention was significant, B = 1.13, SE = .05, p < .001; the effect of imagined contact when the mediators were controlled was also significant, B = .42, SE = .09, p < .001. Meanwhile, bootstrap analysis revealed that the total indirect effect through the mediators was .71, SE = .09, 95% CI = [.52, .89].

Overall, the mediational results indicated that participants in the imagined contact condition felt less anxiety when having a contact with out-group; perceived more similarity between the self and the out-group; and increased intergroup trust which mediated the relationship between imagined contact (vs control) and prosocial behaviours. Participants expressed more altruistic than egoistic intentions and increased intention to help the out-group member.

7.4.5 Discussion

The results of this study again support for the role of inducing behavioural script and the third-person effect in the imagery process in encouraging prosocial behaviours. The present study aimed to examine the imagined contact effects has on attitude changes and intergroup behaviour for members of majority and minority status groups. These findings generally support the proposed hypothesis that imagined contact not only benefited the majorities, but even stronger effects on the minorities. Thus, these findings are not in line with the previous contact research claiming that the minorities were less influenced by prejudice-reduction contact strategies than the majorities (see a meta-analysis; Tropp & Pettigrew, 2005). However, this is not something to be surprised with as it may result from the everyday interactions the minorities experience with the majorities during the schooling hours that could mould positive attitudes. Adding to this, inducing a positive helping contact in the imagined contact may reduce the awareness of the minorities as being a victim of discrimination and also by considering the measurements used for rating attitudes may also enhance the effects.

Generally, these results provided two main strength of the imagined contact instructions used. Firstly, imagined contact benefits to both majorities and minorities groups, and secondly, it generalised to school settings particularly amongst the adolescents. If the imagined contact approach used in this study successfully reduced intergroup anxiety, further increased similarity and trust towards the out-group, subsequently, these trends of attitudes changes could lead to more positive prosocial behaviours, apparently, by inducing intergroup helping scenario and attribute the action to the self. However, throughout all studies conducted (Study 1 to Study 7) one crucial part of the puzzle is still missing. The data showed how imagined prosocial contact from the third-person perspective could heighten positive prosocial behaviour tendencies by improving attitudes towards the out-

groups, but how this imagery constructs moves beyond intergroup intention to intergroup helping in a real-life scenario is yet to be explored. To argue that it is by priming targeted behaviour and imagery perspective that facilitates imagined contact and enhances its effectiveness, I need to test its potency in a real-life helping scenario. In a real-life, group membership is often salient. Fostering mutual helping may turn out to be problematic in most of today's affected communities, given their increasingly multi-ethnic nature. Indeed, prejudice and intergroup bias may constitute serious obstacles to the willingness to help out-group members. Yet, while a substantial body of literature has examined the intergroup processes affecting helping in bystander groups (see e.g., Zagefka, Noor, Brown, Hopthrow, & de Moura, 2012), only recently has social psychological research explored these processes within ethnic groups and in a real-life scenario.

7.5 Imagined Contact and Actual Behaviour

Albeit remarkable evidence shows the benefits of contact intervention on attitudes and behaviour towards out-groups (Pettigrew & Tropp, 2006; Miles & Crisp, 2014), nevertheless most of the studies were based upon self-report. In a real-life situation people often fail to translate their intentions as reported in the questionnaire into action, and accordingly behavioural intentions do not always correlate highly with actual behaviour ("intention-behaviour gap"; Sheeran, 2002). This can be explained by the self-reported subjective measures of past behaviour which may be biased by social desirability concerns (Ganster, Hennessey, & Luthans, 1983) and motivations to appear unprejudiced (Plant & Devine, 1998). Taken together, behavioural intention does not determine one's to act towards the subsequent behaviour. For this reason, the next study further examines the effects of imagined contact on actual helping in an interracial context.

A few imagined contact studies have now moved beyond self-reports in intergroup behaviour. Starting with Turner and West (2012), who examined the impact of imagined

contact on nonverbal behaviour by measuring the seating distance with an obese individual (Study 1) or a Muslim person (Study 2). Participants were informed that they will have a discussion with the imagined target following imagined contact and were instructed to place two chairs in preparation for this discussion. The distance between two chairs constituted the dependent variable. In both studies, participants who had engaged in an imagined contact manipulation subsequently placed the chairs significantly closer to them than those in the control condition. However, this study is still not comprehensive in terms of the targeted group used, as it may have affected even more if a stigmatised group was selected (e.g., schizophrenia, HIV). While an improvement to that, West et al. (2015) supported these findings within the context of face-to-face interaction with a confederate that acted as a person with schizophrenia as the target group. Participants were randomly allocated either in the imagined contact manipulation or control condition, and further instructed to have a two-minute conversation with a person with schizophrenia (the confederate). The findings revealed that imagined contact reduced stress and perceived quality of the interaction even more, as rated by the confederate.

More recently, and in line to the current study, Meleady and Seger (2016) have also examined the effect of imagined contact on prosocial behaviour by using a more direct, behavioural measure of cooperation – Prisoner's Dilemma game (Rapoport & Chammah, 1965). Adopting this behavioural economic measure provided a more deliberative behavioural measure than the subtle, nonverbal behaviours used in prior research (Birtel & Crisp, 2012b; Turner & West, 2011; West et al., 2015). This decision-makers game needs participants to choose whether to cooperate or compete with another party by using a payoffs indicator. Participants were first allocated to either imagined contact with an out-group member or in the control condition that needs contact with an unspecified stranger. Participants were believed they were playing a prisoner's dilemma game against an

individual identified as belonging to an out-group. In three studies Meleady and Seger (2016) demonstrated that imagined contact helps overcome intergroup competition and produces cooperative behaviour towards out-group members; and this effect was mediated by out-group trust. However, this study used a confederate and still did not represent the real target group.

From the research reviewed above, it can be concluded that imagined contact has the ability to expand its effect beyond intention. For the next study, I further extend this line of research by examining real helping behaviour in an interracial context. The present chapter is the first attempt to examine how imagined contact can influence these volitional behaviours within ethnic groups in a real-life situation by using more deliberative behavioural measures, volunteering and a real situation event, to measure intergroup helping behaviour.

7.6 Study 8

7.6.1 Aims and Hypotheses

As was observed from Study 7, imagined contact has influenced attitudes and prosocial acts between the racial groups. This supports the notion that the imagined contact effect is not just in a multiracial setting but also in a "rival" group context between different racial groups with respect to population size (majority more than minority), culturally and religiously different, and where more learning and jobs opportunities sided to the majority. However, this study is limited due to its effects on behavioural intention; thus, I believe that further efforts should be made to better operationalize the effect from helping intention to an actual helping.

It is normally accepted that laboratory experiment does not deal with actual helping behaviour. Expressions of intention to intervene (in experimental dependent measures) may be useful for demonstrating theoretical principles, but they should not be treated as

veridical acts. This is especially true in the domain of helping research where it is clear that words are not always matched by deeds; and intended helping does not always result in actual helping (Scaffidi Abbate, Isgrò, Wicklund, & Boca, 2006). One of the major strength of imagined contact is that it placed participants in situations where they believed they were witnessing "real life" interactions. Therefore, it is important to demonstrate that by inducing intergroup helping interactions and visualising themselves involved in such interactions in the imagined scenario, can shape actual helping behaviour in a real-life scenario.

With the valuable findings from Study 7, I further interested to examine whether imagined contact effect could be generalised to a real helping action by using a real-life scenario replicating closely the experimental design by Darley and Batson (1973) "good Samaritan" study, which manipulated the cost of helping a victim in distress. As previous studies have revealed the ability of imagined contact to encourage real action, I expected that imagined contact as opposed to control group, exhibit more helping behaviour by reducing intergroup anxiety and promote positive attitudes towards the out-group members by adopting the present imagined contact approach. In the group status context, I expected that the results would be in line as in Study 7 where minority would feel less anxiety, increased out-group trust and perceived more similarity towards the majority than the majority towards the minority, considering the similar school context throughout Malaysia. This expectation also was based on the status group that the majority uphold in order to protect the cultural and religion distinctiveness of their in-group. I also expected there would be no differences between the majority and minority in their prosocial behaviour and actual helping behaviour. In sum, as it is also supported by the meta-analysis of imagined contact (Meleady & Crisp, 2014) that the effect of imagined contact on intentions is similar to the effect on actual behaviour, it is predicted that the effect of

imagined contact approach used would not just encourage positive prosocial behaviours but also would be transferred in a real helping situation.

7.6.2 Method

7.6.2.1 Participants and Design

Ninety-nine (33 male and 66 female) of Kangkar Pulai National Secondary School, Malaysia participated in this experiment. Replicating closely study 7, this study was designed to measure interracial imagined contact from both majority and minority perspectives. Therefore, in this study the Malays represents the majority group and Chinese/Indian represents the minority group. Majority group represented by 51 (51.5%) students, and 48 (48.5%) students represented the minority group. Ages range of the participations was between 16 and 17 (M_{age} = 16.37, SD = .49). Participant were randomly allocated to a 2 (imagined contact x control) conditions x 2(majority x minority) groups.

In this study, I had changed the helping intention measurement used in Study 7 to volunteering activities that comprises the most widely researched behavioural manifestation of prosocial orientations. Subsequent to the imagined contact, participants were given the same explicit measure used in Study 7 with further assessing participants' real helping behaviour in real helping situations. For the real helping scenario measure, participants were to be tested individually. Following the intervention and answering the self-report measures, participants were asked individually to the next experimental site (projection room) where there was another experimenter awaiting them for another experimental task involving video watching. On the way to the other experimental site, participants came across an out-group confederate who was walking along the corridor and accidentally dropped a pile of books she/he was carrying. Experimenter recorded whether each participant would give help to the confederate, or simply walked away. Thus, this time, spontaneous helping behaviour was used as the dependent variable.

7.6.2.2 Procedure

Participants were recruited in the classroom (3 classrooms involved). The experimental manipulation procedure was the same as in Study 7. Participants were explained about the third-person perspective concept and followed up by the experimental manipulation procedure. Participants in the imagined contact were asked to imagine a daily scenario contact as follow: "We would like you to spend time imagining that you are collaborating with other students from different races in a green-school programme that needs you to do cleaning activities (e.g., picking up rubbish, painting, cleaning school's drain). While you are cleaning the school compound, you engaged in a conversation with a Chinese or Indian/Malay student next to you that doing the same activity. The conversation goes on in a relaxed, positive and pleasant manner. Suddenly, your conversation partner accidently got its feet stuck in an open drain. You quickly give a hand and help your conversation partner out of the drain and lead to the school's health room to see if there are any injuries".

7.6.2.3 The Actual Helping Incident

After participants had completed the questionnaires, they were told that, as part of the study, there will be another task to be completed which they would be asked to watch a short video about unity in Malaysia - ethnicity, cultures and traditions. They were also being told that the classroom has no facilities to show the video and that a projection room had been booked (the location of the projection room was familiar to the participants in the study). As this projection room was in another building adjacent to their classroom and they going to be tested individually, the experimenter informed participants that they would accompany them to the new room one at a time. The experimenter and participants walked down the two flights of stairs and out onto the school corridor that will lead them to the projection room. Having walked a short distance across the corridor and around the corner

of the building where they would be met by a second experimenter who would show them the video. Participants were then left to walk alone. Hidden observers ensured that all other people were kept out of the area and the sight of the participants. In order to control this, experiment was conducted before and after the recess period to control the number of other students walks in the school compound. As the participants approached the corner of the building, an out-group confederate appeared, and intentionally dropped down a pile of student exercise books. The out-group confederate did not make an eye contact with or ask participants for help. The key dependent measure was whether the participants, having noticed the accident, would offer help. The confederate was instructed to be non-directive in response to any first contact from the participants. If the participants asked the confederate if help is needed, the confederate replied, "I am in a hurry and late for the next class." Any further solicitation from the participants was met with tentative reassurance that the participant is fine.

As the incident unfolded, the participants were observed and rated by three observers in each location, all hidden at different vantage points around the incident site. The observers were aware in advance of the confederate race and gender to which participant was to be exposed. When the participants departed the scene of the incident (having intervened or not), they continued on to the projection room where they were met by another member of the research team. The researchers asked the participants if they noticed anything on the journey to the projection room and, if so, what it was and how serious it appeared to be. Finally, participants were fully debriefed and a token was given upon participation.

7.6.2.4 Dependent Variables

Intergroup anxiety. The same intergroup anxiety scale as in the previous studies was used measuring anxiety toward an out-group.

Perceived similarity. The same perceived similarity scale as in the previous studies was used.

Intergroup trust. Three items measured whether the participants trust their out-group friends. The items were: "I don't trust a Chinese/Malay/Indian as a friend", "I don't trust them to keep my promise" and "I don't trust to leave my belongings to a Chinese/Malay/Indian". A seven-point scale was used (1, not at all, 7, very much).

Prosocial behaviours tendencies. The same altruistic and egoistic prosocial behaviour tendencies scale as in the previous studies was used.

Volunteering. Experimenter handed each participant an envelope with a printed school's volunteer association name under the school logo. Inside the envelope was a letter announcing two volunteer activities (i.e., volunteering to fundraising donation either for the school green-environment programme or for an out-group old-folk's house), with a request for participants to volunteer for at least one of them. Participants were explained that they are under no obligation to respond to it. Participants placed the envelope, whether the materials inside were completed or not, in the collection box on the way out of the classroom, before heading to another experimental site (i.e., projection room).

Actual helping. Although the original Darley and Batson (1973) scale was treated as interval data, for the purposes of this analysis, the scores on the scale were transformed into frequency data. Three classes of behaviour were important: whether participants had noticed the event, whether they had noticed the event but failed to offer any help, and whether they had noticed the event and then offered help. Participants who were judged not to have noticed the event (a score of 1 on the original scale) were excluded from

subsequent analysis. Remaining participants were coded into one of two categories: Those who noticed the event but did not offer any help (a score of 2 on the original scale) and those who stopped and asked the victim if they required help or stayed to help the victim themselves (scores of 3, 4, and 5 on the original scale). Category assignments were determined by an analysis of the ratings of the six independent observers (three for each occasion).

7.6.3 Results

Means and standard deviations of all dependent variables, as a function of imagined contact condition are shown in Table 15, Figure 24, and Figure 25. Meanwhile, Table 16 depicts the frequencies of volunteer as a function of imagined contact, and Table 18 shows frequencies of participants who provided help during the experiment.

Table 15 Means of intergroup anxiety, perceived similarity, intergroup trust, and prosocial behaviours on imagined contact (Study 8)

Effects	Majority		Minority	
	Control (n = 26)	Imagined contact (n = 26)	Control (n = 25)	Imagined contact (n = 22)
	M (SD)	M (SD)	M (SD)	M (SD)
Intergroup anxiety	3.53 (.38)	2.57 (.39)	3.30 (.32)	2.55 (.31)
Intergroup trust	2.53 (.54)	5.11 (.66)	2.42 (.54)	5.10 (.58)
Perceived similarity	3.19 (.69)	4.88 (.78)	3.15 (.78)	5.09 (1.02)
Prosocial behaviours				
Altruistic	2.52 (.34)	3.99 (.47)	2.73 (.30)	3.99 (.43)
Egoistic	3.57 (.42)	2.25 (.42)	3.64 (.32)	2.30 (.53)

Figure 24 Comparison of imagery conditions for all DVs - Majority group (Study 8)

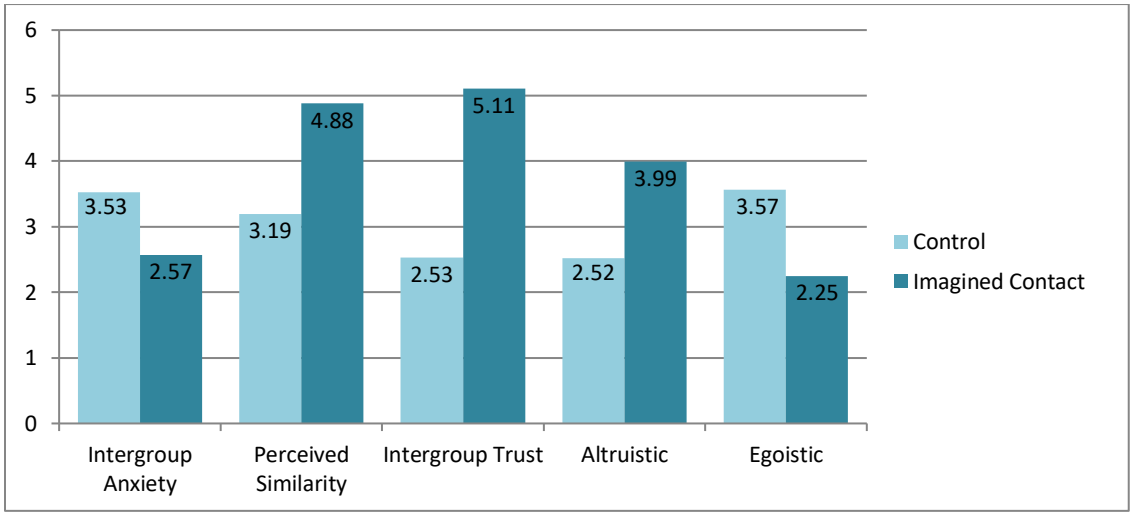
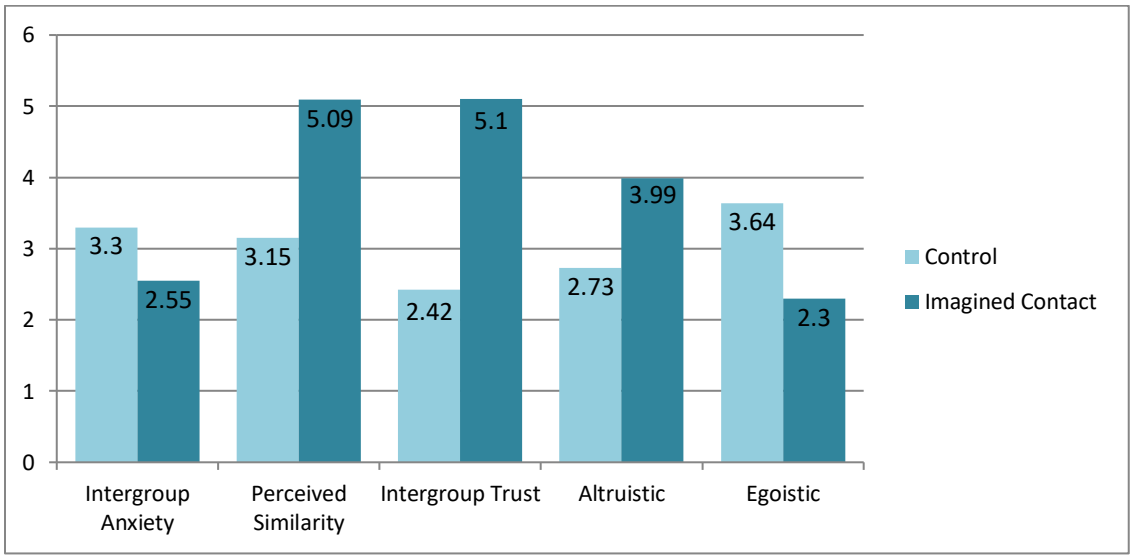


Figure 25 Comparison of imagery conditions for all DVs - Minority group (Study 8)



7.6.3.1 Intergroup Anxiety

The result of ANOVA analysis of a 2 (intervention condition: imagined contact vs. control) x 2 (group: majority x minority) revealed that there was a main effect of intervention condition, $F(3, 95) = 143.40$, $p < .001$, $\eta_p^2 = .60$, suggesting that under imagined helping, participants expressed lower in intergroup anxiety (M = 2.56, SD = .35) than participants in the control group (M = 3.41, SD = .36). Meanwhile, neither a significant main

effect of group $F(3, 95) = 3.01$, $p = .09$, $\eta_p^2 = .03$ nor interaction effect was revealed, $F(3, 95) = 2.20$, $p = .14$, $\eta_p^2 = .02$.

7.6.3.2 Perceived Similarity

The result of ANOVA analysis of a 2 (intervention condition: imagined contact vs. control) x 2 (group: majority x minority) revealed that there was a main effect of intervention condition, $F(3, 95) = 120.33$, $p < .001$, $\eta_p^2 = .56$, suggesting that under imagined helping, participants perceived more similarity (M = 4.98, SD = .90) than participants in the control group (M = 3.17, SD = .73). Meanwhile, neither a significant main effect of group $F(3, 95) = .27$, $p = .60$, $\eta_p^2 = .00$ nor interaction effect, $F(3, 95) = .57$, $p = .45$, $\eta_p^2 = .00$ was revealed.

7.6.3.3 Intergroup Trust

The result of ANOVA analysis of a 2 (intervention condition: imagined contact vs. control) x 2 (group: majority x minority) revealed that there was a main effect of intervention condition, $F(3, 95) = 499.30$, $p < .001$, $\eta_p^2 = .84$, suggesting that under imagined helping, participants revealed higher trust toward the out-group (M = 5.11, SD = .62) than participants in the control group (M = 2.48, SD = .54). Meanwhile, neither a significant main effect of group $F(3, 95) = .29$, $p = .59$, $\eta_p^2 = .00$ nor interaction effect, $F(3, 95) = .20$, $p = .66$, $\eta_p^2 = .00$ was revealed.

7.6.3.4 Prosocial Behaviour Tendencies

The results of MANOVA analysis of a 2 (intervention condition: IC vs. control) x 2 (group: majority vs. minority) only revealed a significant effect of intervention condition, $\Lambda = .20$, $F(2, 94) = 191.41$, $p < .001$, $\eta_p^2 = .80$. Meanwhile, univariate tests revealed that there were significant across intervention condition on altruistic intention, $F(1, 95) = 303.06$, $p < .001$, $\eta_p^2 = .76$, and egoistic intention, $F(1, 95) = 245.09$, $p < .05$, $\eta_p^2 = .72$. These findings

suggest that the participants in the imagined contact condition expressed higher altruistic intention (M = 3.99, SD = .43) and expressed lower egoistic intention (M = 2.27, SD = .47) than participants in the control conditions (M = 2.63, SD = .33; M = 3.61, SD = .37, respectively). However, neither a significant main effect of group $\Lambda = .96$, $F(2, 94) = 1.80$, $p = .17$, $\eta_p^2 = .04$ nor interaction effect $\Lambda = .98$, $F(2, 94) = 1.13$, $p = .33$, $\eta_p^2 = .02$ was revealed.

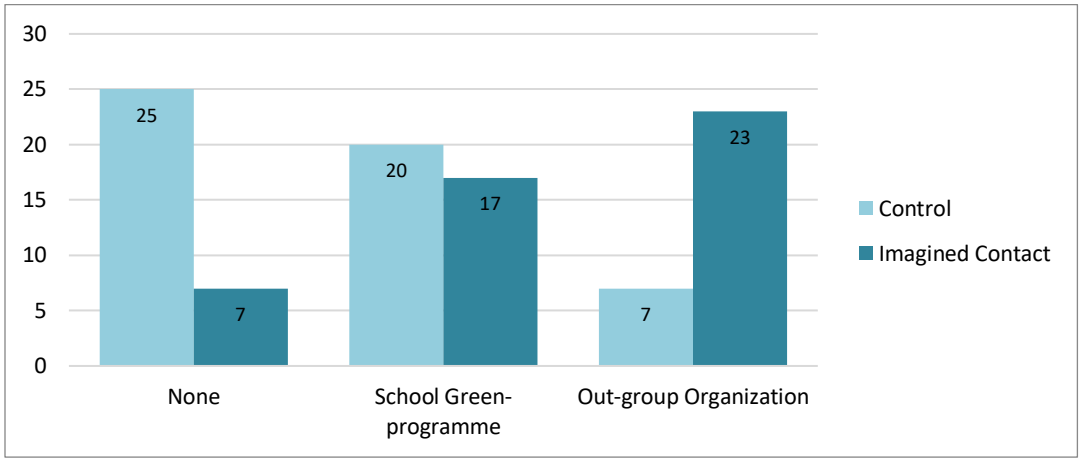
7.6.3.5 Volunteering

I examined the frequency of participant's willingness to volunteer related to out-group organisation (i.e., Chinese or Indian/Malay old-folk house) and volunteer without referencing to any out-group organisation (i.e., School green-programme) (no help/help). The result of chi square analysis within conditions was significant, χ^2 (2, N = 99) = 18.70, $p < .001$, indicating that participants in the imagined contact and control condition show a different pattern of results with regard to their willingness to volunteer in either volunteering activities.

Table 16 Frequencies of volunteering on imagined contact (Study 8)

Effects	Volunteering			Total
	None	School green-programme	Out-group organisation	
Control group	25 (48.0%)	20 (38.5%)	7(1.5%)	52 (100.0%
Imagined contact	7 (14.9%)	17 (36.2%)	23 (48.9%)	47 (100.0%)
Totals	32 (32.3%)	37 (37.4%)	30 (30.3%)	99 (100.0%)
Majority	20 (39.2%)	16 (31.4%)	15 (29.4%)	51 (100.0%)
Minority	12 (25.0%)	21 (43.8%)	15 (31.2%)	48 (100.0%)
Totals	32 (32.3%)	37 (37.4%)	30 (30.3%)	99 (100.0%)

Figure 26 Comparison of imagery conditions for volunteering (Study 8)



Specifically, data from Table 16 and Figure 26 shows that participants in the imagined contact were more willing to volunteer with an out-group organisation (48.9%) compared to the participants in the control group (1.5%). This effect indicates that participants in the imagined contact condition have more tendencies to provide help to the out-group upon imagined contact. There was also a significant difference reported in manipulations between group, χ^2 (2, N = 99)= 24.81, p < .001. This suggests that there was a significant difference between the groups on volunteering; that is, the minority groups willingly to involve in volunteering even more (75.0%) than the majority groups.

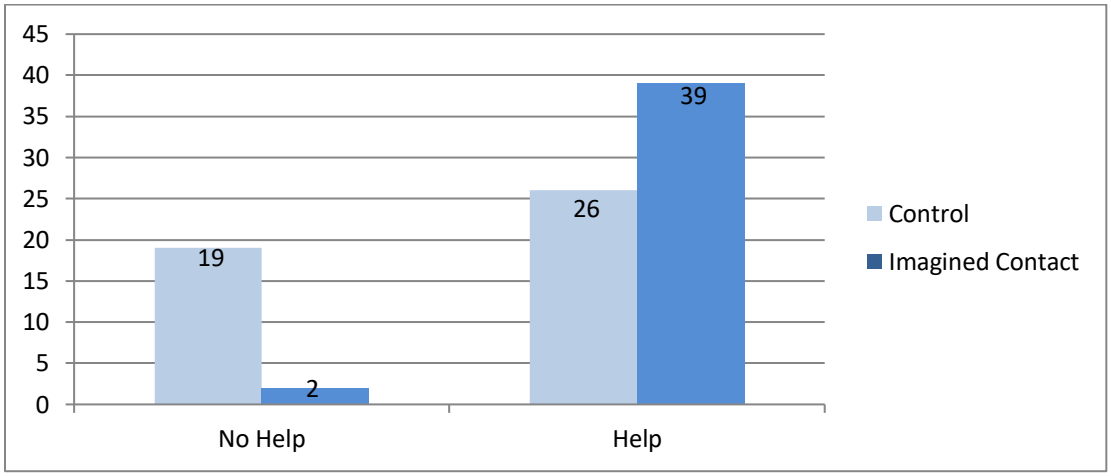
7.6.3.6 Actual Helping

I examined the frequency of whether participants will provide help to an out-group confederate (no help/help). Eleven participants were excluded from the analysis as six participants missed the actual experimental pathway, while another seven participants were distracted by the approach of another person (teacher/students) during the experiment. The chi square within conditions was significant, χ^2 (2, N = 86) = 24.81, p < .001 indicating that participants in imagined contact and control condition show a different pattern of results with regard to providing help to the out-group confederate.

Table 17 Frequencies of actual intergroup helping on imagined contact (Study 8)

Help given	Control	Imagined contact	Majority	Minority
No help	19 (42.2%)	2 (4.9%)	13 (30.2%)	8 (18.6%)
Help	26 (57.8%)	39 (95.1%)	30 (69.8%)	35 (81.4%)
Total	45 (100.0%)	41 (100.0%)	43 (100.0%)	43 (100.0%)

Figure 27 Comparison of imagery conditions for actual helping (Study 8)



Specifically, results from Table 17 and Figure 27 showed that participants in the imagined contact conditions reported to help the out-group (95.1%) compared to the participants in the control conditions (57.8%). There were no differences reported for group versus helping offered, χ^2 (2, N = 86) = 2.59, p = .27. This suggests that there was no difference between the groups on help offered; that is, participants of the majority and minority groups showed no significant difference in their preference of helping the out-group confederate.

7.6.4 Meditational analysis

The result reported above showed that imagined contact manipulations over control groups improved prosocial behaviours and attitudes. However, there was no significant difference reported between the majority and minority group on their attitudes and behavioural changes upon manipulations. Therefore, in the analyses that follow, I tested a mediational model of the relations between imagined contact x control groups on prosocial behaviours and attitudes, whether intergroup anxiety, perceived similarity and intergroup trust would mediate the relation. The results are shown in Figure 28, Figure 29, and Figure 30.

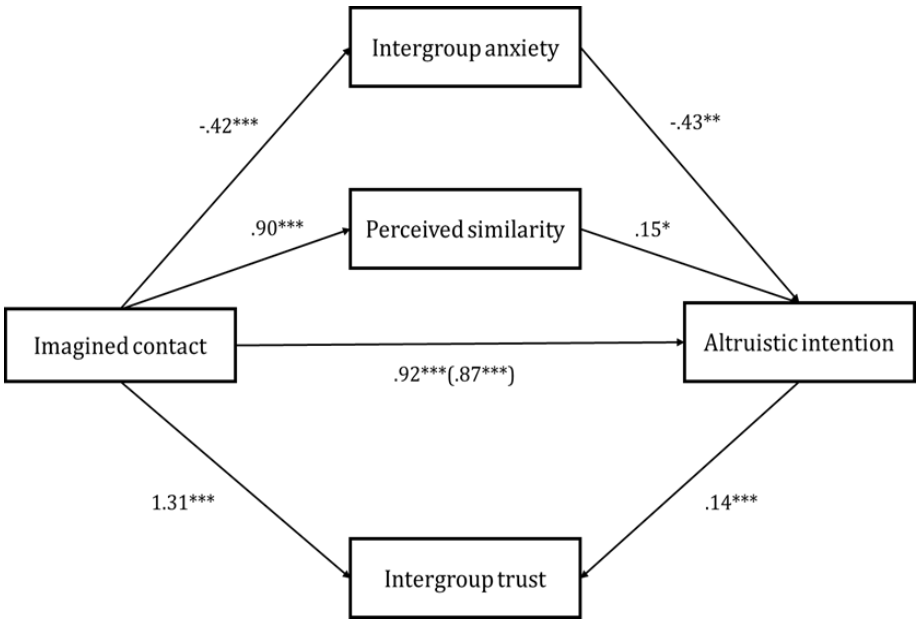


Figure 28 Mediational model of the relationship between imagined contact and altruistic intention through intergroup anxiety, perceived similarity, and intergroup trust (Study 8)

Figure 28 is referred. The total effect of imagined contact (vs control) on altruistic intention was significant, B = .68, SE = .04, p < .001; and the effect of imagined contact when the mediators were controlled was also significant, B = .17, SE = .07, p < .05. Meanwhile, bootstrap analysis revealed that the total indirect effect through the mediators was .51, SE = .07, 95% CI = [.37, .67].

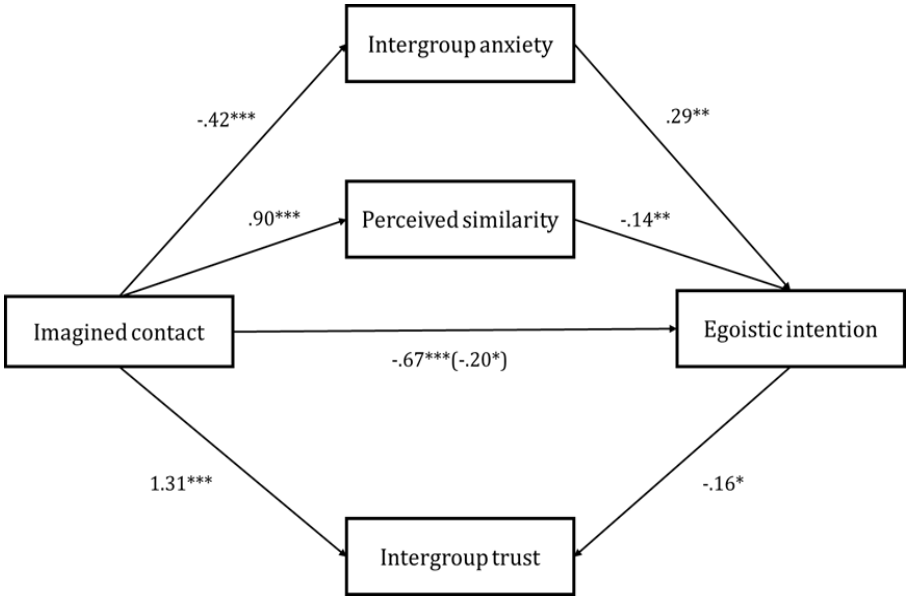


Figure 29 Mediational model of the relationship between imagined contact and egoistic intention through intergroup anxiety, perceived similarity, and intergroup trust (Study 8)

Figure 29 is referred. The total effect of imagined contact (vs control) on egoistic intention was significant, B = -.67, SE = .04, p < .001; and the effect of imagined contact when the mediators were controlled was also significant, B = -.20, SE = .09, p < .05. Meanwhile, bootstrap analysis revealed that the total indirect effect through the mediators was -.46, SE = .09, 95% CI = [-.6, -.31].

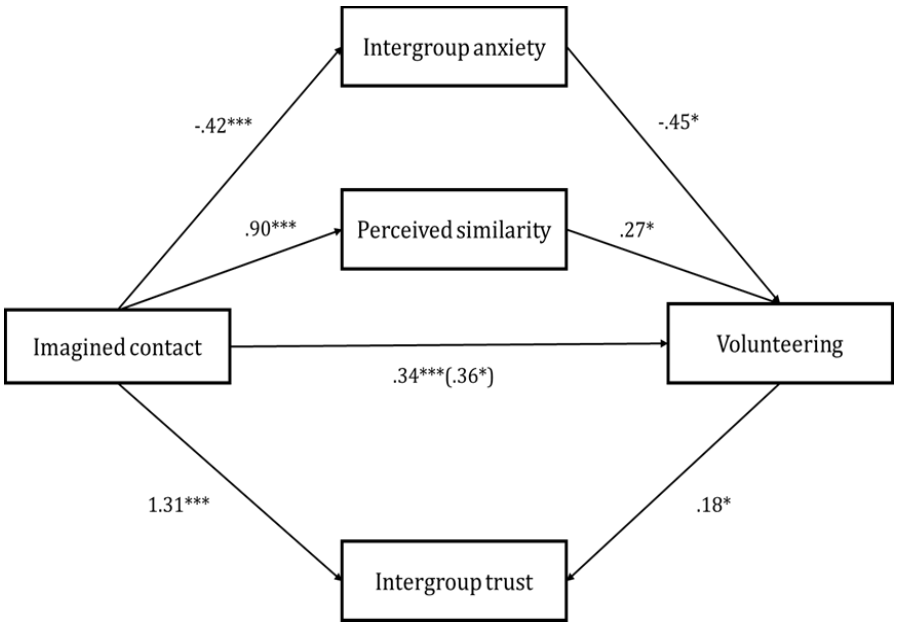


Figure 30 Mediational model of the relationship between imagined contact and volunteering through intergroup anxiety, perceived similarity, and intergroup trust (Study 8)

Finally, Figure 30 is referred. The total effect of imagined contact (vs control) on volunteering was significant, B = .34, SE = .07, p < .001; and the effect of imagined contact when the mediators were controlled was also significant, B = .36, SE = .16, p < .05 Meanwhile bootstrap analysis revealed that the total indirect effect through the mediators was .71, SE = .16, 95% CI = [.39, 1.02].

To conclude, in Study 8, I sought to replicate Study 7, testing imagined contact on majority-minority status group contexts and adding its effect in a real world experimental setting as opposed to self-report measures. Findings generally replicated results in Study 7. Participants in the imagined contact conditions revealed more tendencies to act altruistically and expressed more interest in volunteering for an out-group organisation. This relations was then mediates by reduced in intergroup anxiety, increased similarity and intergroup trust compared to the control condition. However, while in Study 7 there were differences in attitude changes that favours to the minorities and where behavioural

changes more to the majorities, in this Study 8, there were no differences reported in the outcomes between the groups. Somehow, interestingly this study showed that imagined contact interventions was workable beyond intentions as it has proven to encourage participants to help out-group in a real experimental setting.

7.7 General Discussion

It has clearly demonstrated from previous research on contact that majorities were more favouring intergroup contact compared to the minorities (Tropp and Pettigrew, 2005). It has been said that, the majority and minority groups differ in their experiences during intergroup interactions (Bobo, 1999; Monteith & Spicer, 2000). While members of minority groups tend to identify more strongly with their in-group (Leonardelli & Brewer, 2001), however, the conditions for optimal contact (e.g., cooperation, equal status, support by the social norm) may be interpreted differently by the minorities relative to the majority groups. Adding to that, minorities are more uncertain about the conditions that facilitate contact are effectively applied (Riordan, 1978).

Concern about the distinction effects of intergroup contact interventions on majorities and minorities, the present studies were conducted in the Malaysian schooling context, a particularly prominent example of a cultural, historical, and political biased that merely different from the majority and minority groups context in the West. Results from the previous studies conducted in earlier Chapters have showed that imagined prosocial contact from the-third person perspective has succeeded in promoting attitude change and encourage prosocial behaviours. Therefore, for Study 7 and Study 8, by using the same imagined contact approaches, I expected the same results in conjunction to the present studies that involves both majority and minority groups. Overall, findings from Study 7 and Study 8 showed that participants in the imagined contact conditions revealed more altruistic intention over egoistic intention and increased tendency to help the out-group

even more by promoting positive attitudes than the control conditions. Thus, these results supported studies tested in previous chapters.

Specifically, in Study 7, there were significant differences revealed between groups in relation to attitudes. Minorities showed less anxiety and perceived more similarity and trust towards the majorities after the manipulation. Although these results were contrary to the literature which broadly demonstrate that contact benefits majorities than minorities (Pettigrew & Tropp, 2005), however it was somehow expected in the current context. Delve deeper, the schooling context where the study was conducted might explained to the results. For intergroup anxiety, while previous research assessed anxiety with one out-group member, I used a different measure that asked participants to imagine as being the only one among a group of out-group members. This situation is likely to intense participants from the majority groups by considering the schooling context they were in have fewer minorities that could make the contact with a large number of minorities heightens the anxiety compared to minorities where they interact with a large number of majorities during the schooling periods. As for perceived similarity, the religious and cultural barriers and feeling of superiority the Malays had to other races might explain the lessening of similarity towards the minorities. Moreover, for intergroup trust, considering that trust is difficult to engender (e.g., Rothbart & Park, 1986; Worchel, Cooper, & Goethals, 1991) especially in the context where from the early ages the Malay children have been bribed to be prejudiced towards other races (particularly minorities) as afraid of the loss of their privileges, thus, makes the out-group trust less profound. Nevertheless, these results do not affect the imagined contact effects as by comparing the mean, participants in the imagined contact rated the attitudes within the preference means. Additionally, there were no differences reported on intervention x group interactions, which indicates that there was

no significant difference in effect of imagined contact between majority and minority groups.

In Study 8, I used the same study design as being used in Study 7, and created a real-life scenario to measure participants actual helping behaviour supporting to the self-measures. The findings of this study showed that imagined contact successfully encouraged prosocial behaviours for both majority and minority groups; it has also provided evidence that the participants also had a higher tendency to help out-group in a real-life helping scenario compared to the participants in the control condition. However, no differences in attitudes and behavioural changes were reported between groups as in Study 7. There were also no differences reported on interventions x groups interactions which indicated a positive effect that both majorities and minorities benefits from the mental imagery process. This might be explained in terms of the differences in the participants' age that reflect their cognitive ability. The age range of participants in Study 8 was below late adolescence (from 15 to 17). Accordingly, during this age, individual analyses some issues more extensively; thinking to include more philosophical and futuristic concerns; thinking of long term effect and uses systematic thinking that may influence on how they perceived the imagined contact manipulations. On the other hand, participants in Study 7 were below the early age of adolescence that normally uses formal logical operations. Thus, this might explain the current results.

Importantly, these results have provided strong evidence that by combining imagery perspective and behavioural script on imagined contact instructions has shown a powerful effect on intergroup helping. Indeed, creating and elaborating carefully the imagined contact scripts may expand the imagined contact effects not just intentionally but in a real-life scenario.

7.8 Theoretical and Applied Significance

In addition to holding theoretical implications within the realm of attribution theory on imagined contact with this time on majority-minority interactions, imagined contact may have successfully counter the "false consensus effect" (FCE) (see Taylor, Wright, & Ruggiero, 1992) that the groups might have towards the out-groups. In a multiracial setting, there is a thought that any intergroup action underlies by cognitive bias that tends to lead to the perception of a consensus that does not exist, a 'false consensus'. According to Dixon et al., (2010), this effect is important in understanding how contact shapes minority perceptions of in-group discrimination by creating a situation that distort perceptions of group discrimination by personally experiencing a positive intergroup contact. In this study, imagining a positive helping contact from the third-person perspective has indirectly induced a helping and friendly environment that overwhelmingly positive and heightened by self-focus (as the results of imagining the scenario from the third-person perspective). This may reduce awareness of the targeted group of being personally discriminated, which in turn, decrease the perceptions of discriminations at the group level.

In addition to the theoretical implications, these findings have a practical relevance. The intervention was not only successfully reduced anxiety towards out-group members, but supported studies in imagined contact in heightening similarity and encourage trust between different group members across the age range of participants (13 – 16 years old). As studies in imagined contact conducted in school has pervasively highlighted its effectiveness on children age ranged between 7 – 11 years old (Stathi et al., 2014; Vezzali et al., 2012), however, the effects on adolescent still inadequate. Addressing the ability of adolescent to reason abstractly and think in hypothetical terms, this contributes to escalate the effectiveness of imagined contact by considering the use of imagery perspective.

The confirmation that imagined contact works well in school contexts in these present studies has also important practical implications for extending the application and impact of imagined contact. As discussed by Crisp and Turner (2012, 2013), most programs created to reduce prejudice in educational settings, such as the multicultural curricula approach (Appl, 1996) and the antiracist approach (Dei, 1996), are not developed from evidence-based theory (Aboud & Levy, 2000). While educational psychologists advocate active thought over more passive approaches (Randi & Corno, 2000), existing programs often rely on outdated assumptions that children are passive recipients of information. Imagined contact presents an active, evidence-based approach which may offer the means of effectively implementing contact theory in an educational setting.

Moreover, in the present context, Malaysia is perceived as having an exam-oriented education system and for that reason it is more book-oriented and spoon fed that makes the students less in critical thinking. Whereby, even there are syllabus on intergroup contact and group unity, however, it is only available in the textbook without involving any activities to reinforce such action. Therefore, the benefits of imagined contact that actively involves students to mentally stimulate the interaction invites more interactive teaching methods distort from the mundane book-oriented. On top of that, the imagined contact instructions used has succeed to provide evidence from behavioural intentions to real action, thus, extend the benefits that imagined contact could bring in a real-life scenario. As for that, imagined contact is highly recommended to be implemented in schools and apply teaching techniques that will encourage contact imagery in order to bring groups close together and encourage intergroup helping.

7.9 Limitations and Future Directions

Although the present studies demonstrate interesting results, however, there are some limitations that could be addressed in future work. The first stems from the design for the imagery perspective, that is, imagined from the third-perspective approach this chapter referred to. Such methods, by asking participants to picture the imagery task from the third-person perspective by only providing a sketch on how it works, may only practical for adolescent with higher cognitive level, but may not generalise to primary school students with lower cognitive level. However, there are other ways in which this approach can be expressed, and it would be interesting to examine its effect and perhaps compare their efficacy. One example for that is through role play. Role play needs individuals to get into character and act out a role or real-life context that involves active social activity. Through role play it helps people to act out and make sense of real-life situations, sparks creativity and imagination, helps to learn different cultures, and on top of that, creates awareness of themselves and others. Another limitation is that the present studies examined in school setting which the decision to help the out-group may influenced by identifying with the same school they are in that can be explained by common in-group identity model (e.g., a common school identity), which has shown that contact between different social groups might happen when sharing a common identity (i.e same school) because it increases perception of 'us' rather than 'we' and 'them' (Gaertner et al., 2008). Therefore, to generalise the real-life scenario effects, it is important to also test the imagined contact instruction used in these studies in a public area in order to reduce the bias effect.

Although the current research suggests that imagined contact could be an effective prejudice-reduction tool, it is essential that the technique is developed and tested as a long-term intervention embedded in school settings (see Aboud & Fenwick, 1999; Aboud & Levy, 2000; Houlette, Gaertner, Johnson, Banker, Riek & Dovidio, 2004). To date, there is still no

such imagined contact intervention tested in the current context; the focus is more on programmes developed in direct contact. Therefore, careful evaluation is necessary in order to ensure that the proposed technique is both practical and effective.

7.10 Conclusion

To conclude, this research irradiates the importance of inducing a behavioural script of the subsequent behaviour (i.e., helping script) and imagery perspective to promote intergroup helping: Imagined prosocial contact from the third-person perspective. By so doing, imagination task used taps directly on the preference outcomes while focusing on the self that actively performing the intended action makes one's to immerse in the imagination process and increase the likelihood to perform such action. The current findings demonstrate that imagined prosocial contact from the third-person perspective made by both majority and minority groups served to encourage altruistic and increase helping intention and volunteering by reduced anxiety and increased similarity and trust, and this effect extended to a real-life out-group helping. As such, this research furthers the understanding of majority-minority in a sociohistorical context, and differs on its own, contributing a novel dimension to the literature on group status effects in intergroup contact.

CHAPTER 8: GENERAL DISCUSSION

This chapter summarises the findings from the eight studies presented in Chapters 4, 5 6, and 7. The hypothesis that inducing a behavioural script and third-person perspective maximises the effects of imagined contact on attitudes and behaviours was fully supported. The limitations of these findings and the broader theoretical and practical implications are also considered in this chapter. The proposed role of help focus and third-person effect in helping to explain the effects of imagined contact is discussed, and suggested routes for further research are identified.

8.1 Theoretical Background

This thesis examined the role of imagining prosocial contact from a third-person perspective in enhancing the effects of imagined contact on prosocial attitudes and behaviours. The theoretical framework of the thesis derives principally from Contact Hypothesis (Allport, 1954). According to the Contact Hypothesis, when contact takes place, under certain conditions, it can reduce discrimination and bias. Relying on the notion that positive contact weakens the perceived boundaries between two different groups, however, this intervention holds a common limitation within the context of intergroup relations. The limitation mainly lies in the implementation of the direct contact. Considering that it is difficult to create the actual setting especially in a segregated environment where there are language barriers and cultural differences, this will only result in intergroup anxiety and discomfort (Crisp & Turner, 2009; Dixon, Durrheim, & Tredoux, 2007). An alternative to this is by adopting an indirect form of contact, that is, imagined contact.

Resting on the similar idea as the direct contact in the form of encouraging positive interactions, imagined contact differed by mentally stimulating the interaction through imagining the contact (Crisp & Turner, 2009; 2013). Several studies have supported works

on imagined contact on prejudice reduction; however, according to the imagined contact meta-analysis (see Miles & Crisp, 2014), this approach is still open for improvements. Although imagined positive contact is powerful enough to benefit intergroup relations, recent research has found that it is more efficient when facilitating elements were added (e.g., Husnu & Crisp, 2010; Hodson, Dobe, Choma, 2015; Stathi, Crisp, & Hogg, 2011). Thus, the present research aimed to support existence elements (positive interactions) (Crisp & Turner, 2009; Turner, Crisp, & Lambert, 2007) by including behavioural outcomes and perspective taking.

Specifically, previous research has demonstrated that by inducing specific actions concerning specific goals has a strong implication on the goal pursuit (Fishbach & Dhar, 2005). Meanwhile, Crisp and Husnu (2011) argued that people actions are perceived as more reflective of one's character when imagined from the third-person perspective. Thoroughly, recent works suggested that picturing oneself engaging in a desirable behaviour from a third-person perspective affected one's self-perceptions and their likelihood of following through the action (Libby et al., 2007; Crisp & Husnu, 2011). In explaining this, when people imagine themselves as having a positive interaction, they may create a sense of intergroup acceptance. Furthermore, followed by a positive helping interaction with an out-group, this might stimulates sympathy and motivation (Miller & McFarland, 1987) and further increase tendency to act towards the subsequent behaviour. Adding to this impact, by picturing this scenario from the third-person perspective, that is the view of an observer, will make the behavioural attention being focussed towards the self, and subsequently will increase self-awareness of one’s action (Wicklund, 1975). This self-awareness will further act as a catalyst that motivates the individual to act towards the viewed behaviour.

To test this imagined contact approach, considering that imagined contact has successfully improved intergroup attitudes, on the other hand, there is still lack of studies on the behavioural domain. Therefore, while imagined contact is more effective when the task is promotion-focused (which relatively involves positive actions) than prevention-focused (West & Greenland, 2016), thus, the present research examined the effects of imagined contact on intergroup helping, a behaviour that generally represents as a positive action. Overall, by incorporating a behavioural script (helping script) and attributional theory (perspective taking) into the imagined contact literature, I tested if these approaches would maximally enhance the imagined contact effects on prosocial behaviours.

8.2 Summary of findings

This thesis encompassed four empirical chapters which aimed to examine the role of imagined contact in promoting intergroup positive attitudes and behaviours. Specifically, this thesis has established that imagined prosocial contact from the third person perspective has the most robust effect in encouraging prosocial behaviours through promoting positive intergroup attitudes and behaviours.

8.2.1 Chapter 4: Studies 1 and 2

In Chapter 4, I examined a range of imagined contact manipulations by integrating a behavioural script and visual perspective to determine under which imagined contact provides the most robust effects on prosocial behaviours. By predicting that imagined prosocial contact from the *third-person perspective* maximises the imagined contact effects, two studies were carried out in different social settings and target groups. Study 1 examined the imagined contact effects on the White British towards the Arab Muslims in the UK, while in Study 2 was on the Malays towards the Chinese/Indians in Malaysia. The findings were consistent with the contact literatures - imagined contact was associated with

reduced prejudice and encouraged prosocial behaviours. Importantly, however, this effect was heightened when the imagined contact was helping focused, and when picturing the scenario from the third-person perspective than from the first-person perspective.

In line with Attribution Theory, picturing oneself engaging in a desirable behaviour from the third-person perspective affected their self-perceptions and their likelihood of following through the behaviour. In relation to the present studies, this suggests that as imagined positive contact itself weakens the boundaries between two different groups, added the impact to this, seeing oneself as the person that engages in that behaviour thus increase self-awareness and likelihood to perform the subsequent behaviour. Therefore, in line with the literature (Libby et al., 2007; Crisp & Husnu, 2011), the results confirmed that imagined prosocial contact from the third-person perspective leads to improve prosocial behaviours even more by reducing intergroup anxiety.

8.2.2 Chapter 5: Studies 3 and 4

Next, to strengthen the support of help focus and third-person have on imagined contact, I further tested whether this effect could be generalised to any contact groups. Moreover, to quantify how much more of benefit imagined intergroup contact is compared to the non-contact conditions, in Study 3 and Study 4 I included a range of control conditions to establish preliminary support for the efficacy of imagined contact compared to the non-contact conditions.

Specifically, Study 3 was conducted in the UK amongst White British students on their attitudes and behaviours towards a stranger or a specified out-group by adopting imagined helping contact from the third-person perspective. The findings showed that compared to the non-contact conditions (even when rating the in-group), imagined contact manipulations successfully encouraged more altruistic intention above egoistic intention, and more money was willingly to be donated towards a charitable organisation; and this

was mediated by reduced in intergroup anxiety compared to the non-contact conditions. With the similar imagined contact approach used as in Study 3, Study 4 aimed at a better understanding how this imagined contact approach works on prosocial behaviours. In the study, I further added perceived similarity as another potential mediator and added a broader range of group contexts (i.e., in-group, out-group-friends, stranger and out-group). The results showed that compared to the non-contact conditions, imagined helping contact from the third-person perspective encouraged more prosocial behaviours; and this was mediated by reduced intergroup anxiety and increased similarity towards the target groups. Thus, these studies have successfully supported that the imagined contact approach successfully promoted positive attitudes and behaviours towards any contact groups.

8.2.3 Chapter 6: Studies 5 and 6

In Chapter 6, I further examined whether the effects of help-focus and third-person approaches on imagined contact could be generalised on the secondary transfer effects (STEs). By examining if the effects of imagined contact expand towards the secondary group, i.e. a subject not directed to the target group, and by using a range of contact groups similar to Study 4, results from Study 5 and Study 6 showed that imagined contact successfully generalised its effects by improving prosocial behaviours towards the particular out-group. This relation was mediated by reduced in intergroup anxiety and increased similarity towards the out-group (Study 5); and was also supported by increased in intergroup trust in study 6.

Although imagined contact has shown to improve intergroup behaviour (Study 5 and Study 6), however, following imagined the in-group, results showed a slightly higher in intergroup anxiety and lowered perceived similarity and intergroup trust towards the out-group. Moreover, this was supported by somewhat lower on altruistic intention and willingness to donate. Nevertheless, this was not something to be surprised about, and it

was relatively in line with the Social Identity theory (Tajfel & Turner, 1979). According to this theory, imagined an in-group potentially makes participants' identifying themselves to their in-group counterparts (e.g., Spears et al., 1997). Consequently, this further creates a sense of connectedness to the in-group members (e.g., Doosje et al., 1995), and increase awareness of how the out-groups treated them (e.g., Tropp & Wright, 1999), which may explain the present results. Nonetheless, the findings were still supportive compared to the non-contact conditions.

8.2.4 Chapter 7: Studies 7 and 8

As a fruitful intergroup relation involved participation and involvement from two or more groups to be realised mainly in the form of nurturing intergroup helping, therefore, Chapter 7 further aimed at generalising the imagined helping contact from the third-person perspective condition towards both majority and minority groups in a school setting. By testing the same variables as in Study 6, the results of Study 7 revealed that both majority and minority groups showed tendencies to help in altruistic intention than egoistic intention, and further increased willingness to help the out-group with their homework compared to the control condition. Moreover, considering that intention-behaviour is not an indicator for action to be realised, in Study 8, an actual helping scenario was constructed to assess participants' out-group helping. The results were similar to Study 7 where both majority and minority groups were observed to help an out-group more compared to the control condition in a real-life helping scenario.

Overall, these four chapters indicated that the imagined contact approach used - imagined prosocial contact from the third-person perspective – has enhanced the imagined contact effects on intergroup helping, as well as predictors in explaining the effect - intergroup anxiety, perceived similarity, and intergroup trust. Adding these findings

together constitutes an initial step towards creating a comprehensive intergroup helping intervention in improving intergroup relations.

8.3 Theoretical Implications

8.3.1 Integration of Interaction and Positivity as the Fundamental Elements for Imagined Contact

Previous research in contact has proposed that increased levels of contact do not always reduce bias. Intergroup contact may have unwanted effects as an increase in threat or prejudice especially between competing groups (Van Oudenhoven et al., 2002; Stephan et al., 2000; Mullen et al., 1992). Therefore, this indicates that the quantity of contact alone is not sufficient enough to reduce prejudice, and make to the sense of why prejudice and discrimination still happen in such multicultural context. Accordingly, one basic premise of this thesis is that a vital facilitator of the imagined contact is the interaction has to be perceived as positive. Only then we can be optimistic that intergroup behaviour will increase as a result of interacting positively with the out-groups. These crucial elements were also supported by Crisp & Turner (2009) for imagined contact to benefits intergroup relations. In determining whether imagined contact could provide the strongest impact, positive contact was also manipulated in the first two studies (Study 1 and 2) – without adding any facilitating elements into it. In this case, the positive character of contact was manipulated by asking participants to imagine a positive and relaxed interaction with the out-group. Findings showed that imagined positive contact served as the essential and required elements as it promoted prosocial behaviours and reduced intergroup anxiety. However, in the same experiment, the imagined contact effects were heightened when a behavioural script and visual perspective were added.

The importance of positive interaction during the imagination was also highlighted in Study 3 and Study 4 (Chapter 5). In the non-contact conditions, even when participants

evaluated the same in-group upon imagery, more anxiety and less prosocial behaviours were reported. These results indicated that inducing positive interaction in the imagined task was crucial to eliminate any negative thoughts and perceptions towards the contact person even if they were from the same group.

8.3.2 The Role of Third-person in Facilitating Imagined Contact Effects

An ample amount of research has established the idea that under certain circumstances, changing cognitive perceptions are highly effective in improving intergroup relations (e.g., Crisp et al., 2011; Hewstone, 1996). In line with this idea, this thesis demonstrated that when imagining the helping scenario from the third-person point of view, this weakened the psychological boundary between the in-group and out-group and made the formation of out-group helping possible due to one's behaviour was put into the spotlight. In other words, the findings were consistent with Crisp and Husnu (2011) which argues that imagined contact from the third-person perspective reduced bias as the actions were perceived as more reflective as one's character, thus increased self-awareness and self-conscious of one's behaviour.

Delving deeper, beyond a quirky facet of self-perception, the focus effect (third-person effect) has substantial implications for daily life and psychological well-being. The idea that one's visual perspective can be altered by shifting the perspective focus was supported by a number of influential theorists. For example, according to Piaget (1926), self-centric responding is diminished when people shift attention from the external world and focus instead on the self from an observer point of view. This is a switch in the viewpoint that reflects the capacity to construe the self from either a first- (i.e., actor) or third-person (i.e., observer) perspective (Libby & Eibach, 2011). Echoing this position, self-awareness theory (Duval & Wicklund, 1972) claims that individuals become less egocentric when they mentally turn their attention toward the self as an object in the environment.

Termed as a looking glass self by Cooley (1902), this shift in experiential awareness (i.e., first- to third-person) is believed to contextualise behaviour and diminish egocentrism. From the present research, the ability to imagine oneself from contrasting perspectives may have significant implications for predictions of improving intergroup relations through promoting prosocial behaviours (e.g., participants see themselves providing help towards an out-group). Specifically, this behaviour should be more noticeable when one's self is viewed from a third-person than from a first-person perspective (Duval & Wicklund, 1972; Piaget, 1926), a prediction that I explored in this thesis. Therefore, in the present research, this explained why third-person perspective strengthened the imagined contact effects as it influenced the attention on the self that focused on one's helping actions towards the encountered group.

Principally, by drawing upon contact and attribution theory has provided significant support for the role of third-person perspective on imagined contact in reducing prejudice and promote intergroup helping. From the present research, this effect has been tested across a range of participants and target groups, settings and methodologies. The results of these studies have been supportive (e.g., Libby et al., 2007; Crisp & Husnu, 2011; Vallacher & Wegner, 1985). Given that the importance of third-person effect on maximising the imagined contact effects, surprisingly, there was still very little research has been conducted. Therefore, a comprehensive investigation of the third-person effect in the mental imagery process was the primary focus of this thesis.

8.3.3 Intergroup Helping in the Context of Intergroup Relations

Previous works have put a distinction between theories in prosocial behaviour and group process. This state of occurrence has been particularly true for social psychological research on intergroup helping. Mainly, most studies in this domain have established in the form of interpersonal contexts. For example, in explaining the reason of one's intention to

help or avoid helping others have revolved around the role of individual dispositions (e.g., Davis, 1983a), emotions (e.g., Batson, Duncan, Ackerman, Buckley, & Birch, 1981), and decision-making processes (e.g., Piliavin, Piliavin, & Rodin, 1975). In fact, only recently researchers started to systematically investigate the helping processes at the group level (e.g., salient in-group/out-group distinctions and the nature of the intergroup relations) (Dovidio, Piliavin, Gaertner, Schroeder, & Clark, 1991; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Moreover, these previous research have traditionally focused on behaviours that were classified as negative and antisocial (e.g., intergroup conflict, intergroup discrimination, and aggression), but the role of group processes in forms of prosocial behaviour is relatively small or neglected (see Hogg & Abrams, 2001).

Additionally, within the intergroup research, helping has often been studied in the context of intergroup discrimination, with helping behaviour merely serves as an outcome variable to demonstrate the negative effects of in-group or out-group categorisations on social behaviour (i.e., discrimination against out-group members in helping). The current research, therefore, was novel in a way that it introduced imagined contact as a beneficial tool that helped in encouraging intergroup helping without the needs of one's to change their group identity (so that the effect can generalise to the whole group). Furthermore, the present research used the experimental design that covered previous studies that mainly focused on the cross-sectional design. Moreover, considering that helping behaviour is a form of promotion-focused behaviour that relatively positive, therefore, applying imagined contact, by highlighting on this behavioural domain, may intensify the imagined contact effects (see West & Greenland, 2016) with the ultimate aim of improving intergroup relations.

Finally, imagined contact suggested that a quick, easy, imagery-based task could produce many benefits of direct contact – an established prejudice-reducing intervention.

However, one of the limitations addressed to imagined contact is that it works well as a laboratory-based technique and on relatively mild prejudice (Crisp & Turner, 2009; Crisp & Turner, 2013; Stathi et al., 2011). Thus, the current study (Study 8) aimed to repudiate this limitation by investigating it as a real-world, applied intervention. Additionally, the study was among the initial studies in examining the effectiveness of imagined contact in a real-life helping scenario and involved real in-group - out-group interaction. Notably, the research was conducted in an interracial context and segregated by the government policy. Therefore, by targeting both majority and minority groups, it was necessary to support the application of imagined contact as a potential solution in these circumstances. Moreover, the study was the first to demonstrate the effectiveness of imagined contact in a school setting where intraracial contact is at preference.

8.3.4 The Role of Affective Variables in Explaining the Imagined Contact Effects

Another novel implication of this thesis is in the better understanding of the judgments and predictors of how imagined contact works on intergroup helping. For instance, the present research has examined and provided evidence on a wide range of affective mediators (i.e., intergroup anxiety, perceived similarity, and intergroup trust) in explaining its effects on intergroup helping. These attitudinal changes further supported previous studies that investigated ways in which intergroup helping could be encouraged (e.g., Park & Schaller, 2005; Cosmides & Tooby, 1992; Stürmer et al., 2006), and relate closely on the expectation about other's intentions and behaviour (Brown & Hewstone, 2005; Aron, Aron, Elaine, Tudor, & Nelson, 1991; Turner & Crisp, 2010). Specifically, through the imagined contact approach used in the present research (help focus and third-person perspective), the perceivers may experience an increased sense of social connectedness and acceptance to the encountered group. This effect may result ones to feel

more similar to, trust, and less anxiety towards the particular group. Moreover, the present research used an in-depth assessment of one's apprehension when dealing with a specific group. The imagined contact approach used in the current research has provided substantial evidence that it lessened anxiety in such situation which failed to be proven in previous studies (see Kuchebrandt et al., 2013). Furthermore, as long as group membership of a person remains salient (Brown & Hewstone 2005), perceivers will generalise these affective feelings from the person to the entire out-group. Thus, the present research therefore expanded and added to the imagined contact literature in supporting the underlying mechanism and its effects on the domain of behaviour.

8.4 Limitations and Future Directions

8.4.1 Methodological Limitations

To further establish the usefulness of imagined contact, research needs to examine how long the effects persist. In most studies, attitudes or behaviour are typically assessed immediately after the imagined contact task, as the same case for this thesis. Providing that imagined contact is less direct than face-to-face contact, it might expect that it also has temporary effects on intergroup attitudes and behaviour. Temporary contact, which may often be superficial (for example, attendance at a half-day ‘diversity workshop' in the workplace), will not be as effective at changing attitudes compared to a long-term contact with the potential for cross-group friendships. A related question arises on whether repeated imagined contact experiences can boost its effects. It can be argued that a long-term imagined contact exposure could produce more significant or stable change in attitudes. This may facilitate an internalised process whereby people become less resistant to change and more agreeable to internalising egalitarian norms. Alternately, the repetition would create stronger and more available behavioural scripts, therefore enhance intentions to a corresponding extent. Another limitation of the current research was on the durability

of the imagined contact effects. To date, only a few studies have reported a delay between the imagined contact intervention and measures of intergroup bias (e.g., Husnu & Crisp, 2010b; Vezzali, Capozza, Giovannini, et al., 2012; Vezzali, Capozza, Stathi, et al., 2012). It is therefore essential that future studies of longitudinal nature should be conducted to assess permanency of the imagined contact effects.

Furthermore, another limitation may rise concerning the different scenario used for the imagined contact manipulation. Assuming that by constructing a different scenario based on the particular group context, it may provide a perceptual fluency and familiarity during the imagery process. This availability further expected to influence one's decision to help (Anderson, 1983; Anderson & Godfrey, 1987) or creating priming effects. However, the present research did not test the effect directly. Therefore, investigating the moderator effects of different behavioural scripts in a different context is crucial to understand the effectiveness of imagined contact on its own.

Moreover, theoretically, the current research has established that imagined helping contact from the third-person perspective maximised the imagined contact effects toward a range of affective mediators and behaviours. While it is easy to guide people to imagine as having an interaction and performing an action following a behavioural script, but in contrary when one is directed to imagine *seeing* himself/herself as performing such behaviour (third-person). A question arises on the applicability of 'imagination' as one might not have the ability to imagine even a simple scenario. Although the imagined contact approach works on the presently targeted groups (from university students to school adolescents), however, it might not work in people with lower cognitive ability, people outside the academic context and amongst children. Despite this constraint, it does not mean that it restricted the effectiveness of imagined contact. Supporting to this, Ioannou, Hewstone and Al Ramiah (2015) suggested that each intergroup situation is different, and

each intergroup conflict has its own defining characteristics. For this reason, imagined contact scenario could be adjusted accordingly, and this might involve different types of elaboration (e.g., Hodson, Dube, & Choma, 2015).

A further consideration is to the secondary transfer effects (STEs) demonstrated in Study 5 and Study 6. The design used to examine the STEs was slightly different from previous studies. The present studies directly examined the imagined contact effects towards only one out-group that was not involved initially in the imagery process. Even though the findings showed that the imagined contact approach used generalised its effects towards the particular out-group, however, it could be more effective if future studies could follow the same design as how STEs supposed to be conducted. By replicating the same design, it may support the effect size and replicability of the imagined contact effects on the STEs. Furthermore, the current research also was carried out in the interracial context. Hence, to expand the generalisability of imagined contact, future studies might consider other stigmatised group such as the homeless, people with HIV, or schizophrenics. However, the present research also demonstrated that the imagined contact approach used has successfully improved attitudes and behaviours towards the out-group even when the encountered group was among the in-group. This effect serves as an initial indicator that regardless of the encountered groups, the imagined contact approach has successfully benefited not only on intergroup relations but also to create a better person who have high conscience.

Next, the present research only tested a parallel mediation analysis, with all three mediators and dependent variables specified at the same point in the model. However, this series of studies are among initial studies of imagined contact to prosocial behaviours. Therefore, due to time restriction and of which mediators effects IC directly to prosocial behaviour is crucial to explore. For further exploration, it is plausible to test sequential

mediation models where one mediator predicts another, or where one set of dependent variables (e.g., altruistic and egoistic intentions) predicts another (e.g., helping). This analysis could expand the imagined contact impact on a broader perspective.

Finally, although there could be arguments that induce behavioural script might carry demand characteristics and priming effects (i.e, the fact that the scenarios made the general concept of "helping" salient rather than the imagined contact itself), however, by which imagined contact instruction works most should be addressed in providing researcher with the most effective imagined contact instruction. Nonetheless, in the present research, the first two studies have provided evidence that imagined contact itself promote prosocial behaviour and this effects heightened when additional elements been added (e.g., third-person perspective and help focus). Thus, with the main aim of the first two studies (i.e., Study 1 and Study 2) to examine in which imagined contact task effect most has been answered. Therefore, from these studies onwards the aim was to expand the imagined contact task–with the added elements - towards a range of attitudes and behavioural intentions. However, this could be improved by comparing with appropriate control conditions that does not include in the present research.

8.4.2 Measures

A further consideration is with the respect to the findings from Study 8. The results showed that not only imagined contact improved attitudes and intention to help the out-group member, it was also successfully demonstrated in a real-life helping scenario and on bidirectional helping context (between both majority and minority groups). Although this can be one of the strongest highlights of the imagined contact approach used in the present research, however, one could argue about the helping scene used. The scene was constructed considering the feasibility and practicality of the locality (school corridor). Specifically, participants witnessed an out-group confederate that accidentally dropped a

pile of books, and the study examined whether the participants would give help or avoid the out-group confederate. This scenario, however, may appear as undemanding and non-emergency. Therefore, of refusing to help the out-group confederate did not mean that the participants were prejudiced. It is important to note that the decision to help is depend on one's perception towards the importance of help needed (Bickman & Kamzan, 1973), and whether the incident is controllable or uncontrollable (Dooley, 1995). Future studies, therefore, could examine imagined contact in an actual emergency situation that demands more effort and cost. Furthermore, the intergroup helping variable mostly measures on the willingness to donate (Study 1- Study 6). While this measure still secures the groups' status hierarchies (Nadler, 2002), by testing other intergroup helping measures that tap on the group status quo (offering work to the out-group or sharing limited resources) might expand the benefits of imagined contact and intergroup relations as a whole. These types of intergroup helping may strongly affect individual decision to legitimise social inequality. Importantly, this further provides evidence that imagined contact could unfurl its benefits in a real-world helping situation (e.g., helping people in wars and conflicts; provide donation to a foreign charity). Nevertheless, this does not reduce the novelty of the current research as it is also important to nurture intergroup helping from the early stage so that it could benefit for the future.

8.4.3 Underlying mechanism

Throughout the present research, imagined contact has successfully improved intergroup helping through a series of affective mediators (i.e., intergroup anxiety, perceived similarity, and out-group trust). However, more research are needed to examine other mediators to understand how imagined contact works in improving intergroup helping, for instance, perspective taking and empathy (e.g., Maner, Luce et al., 2002; Batson, Chang, et al., 2002; Pettigrew & Tropp, 2008). Accordingly, Pavey, Greitemeyer and Sparks

(2012) suggest that empathy and perspective taking increases people's intrinsic motivation to be helpful (see also Batson, 2011). Even though in the present research it can be assumed that imagined contact might indirectly induce empathy through helping interaction, however, it was not empirically demonstrated. Overall, while imagined contact has revealed that empathy (Kuchenbrandt, et al., 2013) and perspective taking (Husnu & Crisp, 2015) are important mediators to improve intergroup attitudes, nevertheless, further studies are needed to answer the current inquiry on the domain of helping behaviour.

8.5 Applied Implications

8.5.1 Implications for the Populations Tested

The studies described in this thesis used diverse samples and target groups in order to test the effectiveness and the generalisation effects of the imagined contact approach used. Focusing on the interethnic and interracial contact, the relations that were examined included: White British towards Arab Muslims in the UK and between Malays and Chinese/Indians in Malaysia. Taking into consideration the increasingly large number of Muslim population in the UK and Wales that nearly doubles over a decade (Sherwood, 2015), and as there was a clear recognition of the rise of anti-Muslim discrimination and hatred specifically in the UK, I highlighted the importance of implementing imagined contact as a preparation tool to reduce discriminatory behaviour by initially providing help towards the out-group, in this context, the Arab Muslims. By applying the right imagined contact approach that taps into the intended behavioural outcomes and focus the imagery on the self, I am optimistic that this can improve not only one's attitudes, but also their behaviour towards the Muslims.

Furthermore, I argue that, implementing imagined contact in an interethnic context is also important particularly in the Malaysian context where society is divided by socio-political context and cultural difference (e.g., race, national origin, religion, class). Even

though when the contact was positive and regular, this does not guarantee for prejudice and discrimination not to happen. Moreover, in the Malaysian context where each ethnic holds strongly in their culture and traditions, the preservation of group salience during contact is crucial. Applying the core idea of this thesis, that is by maintaining the used of specific out-group and help focus in the imagined contact task, may serve as a facilitating factor for a future tension-free interactions. While helping is perceived by majority as a good behaviour, it could ameliorate positive emotions and feelings towards others. According to Kok, Coffey, Cohn, et al., (2013), by helping it could build a lasting bond with other groups and creates a feeling of community. Moreover, imagining the scenario from the third-person perspective might increase one's self-esteem and put a spotlight on their behaviour that makes them reflect their own behaviour in a positive way. This in return might foster ones to interact and behave prosocially with other groups when there is opportunity to do so.

Adding to the practical implications in the Malaysian context, many programmes, such as talks, collaborations, dialogues, and even workshops have been organised with the purpose to unite the different multi-ethnic groups. These programmes mainly intend to bring out-group members together. Although these frameworks are aimed at improving intergroup relations, they are not empirically demonstrated to be beneficial and do not consider various psychological phenomena or needs which come into play when dealing with certain intergroup issues. It is therefore difficult to ensure that these techniques are indeed having a positive effect or whether it is only intensified the prejudice. Therefore, it is important to disseminate and apply the present findings as a basis for an applicable intervention in order to promote positive interethnic relations.

Furthermore, imagined contact has not been examined in the Malaysian context. In Malaysia, intervention on intergroup relations was usually built and constructed in the form of bringing different racial together, assuming that by doing so it is sufficient enough to

break the group boundaries. For example, one of the efforts from the Malaysian government to encourage intergroup contact is by introducing a three-month nation-building intervention for adolescents (under the Malaysian National Service Programme). This programme was designed to maintain one's identification with own ethnic subgroups (i.e., dual identity). A study revealed that the National Service Programme participants demonstrated higher levels of national identification compared to the control group (Al Ramiah & Hewstone, 2012). This effect may be due to the prevailing salience of the superordinate category of being Malaysian (given that the National Service camp was run by the Malaysian government), while higher ethnic identification may have grown from the salience of ethnic categories. Even though these findings revealed that the program succeeded to persuade participants that they should commemorate their differences, however, it is only for a short-term effect, and only represents changes in the cognitive level, but did not disclose through any action. Additionally, this kind of program involves high expenses and time consuming. Taking into account findings of the present research, I believed that imagined contact could shade a new and different perspective in alleviating interracial conflict with a more interesting, low expense, practical, yet effective.

8.5.2 Imagined Contact as an Intervention for Promoting Intergroup Relations

The idea of imagined contact is that by mentally stimulating a positive contact with an out-group member improves attitudes and behaviours towards the targeted group (Crisp & Turner, 2009). Imagined contact approach as used in this research may provide substantial evidence for a novel bias-reduction technique and fosters intergroup behaviour strategy. Results from the eight studies indicated that imagined contact successfully triggered the positive responses that associated with improved intergroup attitudes and encouraged intergroup behaviour. Importantly, from the present research, by imagining an

out-group contact appears to promote the favourable evaluation of the out-group as a whole, implying a generalisation of the effects of contact.

The fact that imagined contact can evoke positive intergroup attitudes, regardless of actual contact experience it may have significant practical implications. Imagined contact has found to be effective in contexts that caused bias, hatred and discrimination. However, in some way, although in a social setting where contact is possible, it does not mean that contact will promote intergroup relations. Oppositely, it may bring to interethnic dispute due to severe conflict and segregation. Therefore, the knowledge that imagined contact can create similar beneficial responses to actual contact should be taken into consideration by policymakers and educators. For example, the academic sectors (e.g., school, colleague, university) could develop and apply teaching techniques that include imagined contact. This could be start by building a module that consists of a set of imagined contact tasks to be implemented in classes every week. As repetition could strengthen the imagined contact effects, thus, by exposing student weekly with imagined contact may instil positive attitudes and behaviours even more towards their counterparts (e.g., . Furthermore, from previous research on imagined contact (e.g., Husnu & Crisp, 2010), it has been suggested that an elaborated version of imagined contact may enhance its effects. Thus, by creating the imagery instructions that taps towards the preferable outcomes and suits the social context may strengthen the imagery effects. Furthermore, while intergroup contact interventions require more effort and expenses to bring people together, in contrary, imagined contact serves as a technique that represents a flexibility, inexpensive, and practical interventions that can be used and implemented with less distraction and less risk.

Additionally, actual, face-to-face contact with out-group members can elicit negative affective reactions such as intergroup anxiety, reduce intergroup trust and perceived others as different from the self. Imagined contact, specifically by implementing the present

imagined contact approach (imagined prosocial contact from the third-person perspective), could reduce intergroup bias by weakening intergroup boundaries through positive interaction and emotionally attached towards the out-group in which allowing the self to help the out-group. This could be enhanced by reflecting themselves performing such actions as a result from self-conscious and awareness of the scenario. In fact, this technique could be applied personally without a need of properly structured strategies and techniques.

8.5.3 The Importance of Intergroup Helping

The present studies emphasised the effect of imagined contact specifically on intergroup helping behaviour and uniting people together through serving others. Intergroup helping behaviour is globally known as a positive behaviour. The reason for intergroup helping being used as the outcomes was from the intriguing nature of intergroup helping itself that stems by discrimination. Furthermore, intergroup helping is another way to enhance positive intergroup interactions due to encouraging positive behaviour across group boundaries. However, previous studies in intergroup helping focused on individual decision to help others in general, and not in the form of group process or to improve intergroup relations. Moreover, knowledge regarding intervention to promote intergroup helping is insufficient, both concerning its' effect on discrimination, and how to foster intergroup helping. Thus, disseminating and using this research is important not only to understand intergroup helping at theoretical level but also on the practical level as well. The research described in this thesis holds potential in informing decision makers and equipping them with valuable knowledge aimed at promoting intergroup helping through imagined contact as an alternative to direct contact intervention. Understanding the way imagined contact changes attitudes and behaviour is crucial to those who wish to induce

such attitudes, as well as ways in which intergroup helping can be induced using simple and literal text is of the utmost importance.

Moreover, due to unfair inequality, and other forms of social injustice, low status groups suffer in their societies. Therefore, a potential application of this work is to encourage members of high-status or advantaged groups to engage in more prosocial behaviour to help members of low-status or disadvantaged groups. However, such help might actually serve to maintain the existing status hierarchy by reinforcing the distinctions between high and low status groups. As according to the Intergroup Help as Status Relations model (Nadler, 2002; Nadler & Halabi, 2006), which suggests that because receiving help is associated with lower status and giving help with higher status, helping relations can create, maintain, or challenge intergroup social hierarchies. Nonetheless, by encouraging helping towards the disadvantaged groups through imagined contact, this could change the negative perceptions the advantaged groups had towards the disadvantaged groups. By cater to the needs of the low-status groups could make the high-status groups dominance no longer an expression of the naked desire to maintain power and privilege. Instead, such advantage has an element of moral responsibility.

8.6 Conclusion

This thesis applied social cognition theories to research on the Imagined Contact Hypothesis. In particular, by inducing help focus and third-person perspective in the imagined contact task (i.e., imagined prosocial contact from the third-person perspective) has demonstrated strong effect throughout eight studies at improving intergroup helping. Moreover, a range of affective attitudes (i.e., intergroup anxiety, perceived similarity, and intergroup trust) was also examined in explaining how imagined contact worked in promoting intergroup helping. Overall, imagined contact was maintained as a prejudice-reduction intervention where the social distance between the in-group and out-group is

weakened as it brings the positive self to the highlight by encouraging positive behaviour, and this also extrapolated to different out-group.

These findings suggested the power of imagination in helping people follow through their goals. As George Bernard Shaw (1921, p. 9) stated:

"Imagination is the beginning of creation. You imagine what you desire, you will what you imagine and at last you create what you will."

As specified by Shaw, we are what we imagined ourselves to be. This indicates that people are capable of changing and driving themselves towards a specific goal through imagery. In this thesis, I established that by providing an explicit imagery task through inducing positive interaction and creating a behavioural context that taps in to the intended action, we can successfully direct people towards the subsequent behaviour and improve attitudes and behaviours by changing their perspective towards the out-group. The findings reported in this thesis, therefore, might contribute to a range of more comprehensive options that use imagined contact for the betterment of the society at large.

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Appendix A: Manipulations

Study 1 (Chapter 4)

Imagined Positive Contact Condition: "I would like you to spend a time imagining yourself on a train engaged in a conversation with an Arab Muslim who is sitting next to you. The conversation goes on in a relaxed, positive and pleasant manner".

Imagined Positive Helping Contact Condition: "I would like you to spend a time imagining yourself on a train engaged in a conversation with an Arab Muslim who is sitting next to you. The conversation goes on in a relaxed, positive and pleasant manner. Suddenly the train makes an emergency brake and your conversation partner's belongings fall down and roll forward. You stand up and help to pick up the person's belongings".

Imagined Positive Helping Contact Condition (Visual Perspective): "I would like you to spend a time imagining yourself on a train engaged in a conversation with an Arab Muslim who is sitting next to you. The conversation goes on in a relaxed, positive and pleasant manner. Suddenly the train makes an emergency brake and your conversation partner's belongings fall down and roll forward. You stand up and help to pick up the person's belongings".

"I would like you to picture the scenario from a *first-person perspective (third-person)* visual perspective. With the *first-person (third-person)* perspective you see the event from your own visual perspective (*the visual perspective of an observer*). That is, you look out at the scene through your own eyes (*you see yourself in the scene from an external viewpoint*)."

"As you are picturing it right now, do you see (yourself in) the scene from the visual perspective you (an observer) would have if the event were actually taken place?"

Study 2 (Chapter 4)

Imagined Positive Contact Condition: "I would like you to spend time imagining yourself on a crowded commuter tram engaged in a conversation with a Malaysian Chinese/Indian who is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner".

Imagined Positive Helping Contact Condition: "I would like you to spend time imagining yourself on a crowded commuter tram engaged in a conversation with a Malaysian Chinese/Indian who is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner. When the commuter arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand".

Imagined Positive Helping Contact Condition (Visual Perspective): "I would like you to spend time imagining yourself on a crowded commuter tram engaged in a conversation with a Malaysian Chinese/Indian who is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner. The conversation goes on in a relaxed, positive and pleasant manner. When the commuter arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand".

"I would like you to picture the scenario from a *first-person perspective (third-person)* visual perspective. With the *first-person (third-person)* perspective you see the event from your own visual perspective (*the visual perspective of an observer*). That is, you look out at the scene through your own eyes (*you see yourself in the scene from an external viewpoint*)."

"As you are picturing it right now, do you see (yourself in) the scene from the visual perspective you (an observer) would have if the event were actually taken place?"

Study 3 (Chapter 5)

Imagined Contact Condition (Third-person perspective): "We would like you to spend a time imagining yourself on a bus engaged in a conversation with an [designated group] that is sitting next to you. The conversation goes on in a relaxed, positive and pleasant manner. Suddenly the bus makes an emergency brake and your conversation partner's belongings fall and roll forward. You stand up and help to pick up the person's belongings".

The third-person perspective instruction is same as in previous studies.

Non-contact Condition: "We would like you to spend a time imagining an outdoor scene. Try to imagine aspects of the scene about you (e.g., is it a beach, a forest, are there trees, hills, what's on the horizon)".

Non-contact Condition (Third-person perspective): "We would like you to spend a time imagining an outdoor scene. Try to imagine aspects of the scene about you (e.g., is it a beach, a forest, are there trees, hills, what's on the horizon)".

The third-person perspective instruction is same as in previous studies.

Study 4 (Chapter 5)

Imagined Contact Condition (Third-person): "I would like you to spend a time imagining yourself on a crowded commuter (tram) engaged in a conversation with a [designated group] that is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner. When the commuter arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand".

The third-person perspective instruction is same as in previous studies.

Non-contact Conditions: Same as in previous studies

Study 5 (Chapter 6)

Imagined Contact Condition (Third-person): "I would like you to spend a time imagining yourself on a crowded commuter (tram) engaged in a conversation with a [designated group] that is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner. When the commuter arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand".

The third-person perspective instruction is same as in previous studies.

Non-contact Conditions: Same as in previous studies

Study 6 (Chapter 6)

Imagined Contact Condition (Third-person): "I would like you to spend a time imagining yourself on a crowded commuter (tram) engaged in a conversation with a [designated group] that is standing next to you. The conversation goes on in a relaxed, positive and pleasant manner. When the commuter arrives at an interchange, people rush out and your conversation partner falls. You quickly lean forward to give a hand".

The third-person perspective instruction is same as previous studies.

Non-contact Conditions: Same as previous studies

Study 7 (Chapter 7)

Imagined Positive Helping Contact Condition (Third-person Perspective): "We would like you to spend a time imagining yourself at school during a sports day engaged in a conversation with a [minority/majority] student that you have just met. The conversation goes on in a relaxed, positive and pleasant manner. After that, both of you did a warm up by running around the field and suddenly the conversation partner falls and got injured. You quickly lean forward and give a hand."

The third-person perspective instruction is same as in previous studies.

Non-contact Condition (Third-person perspective): "We would like you to spend a time imagining an outdoor scene. Try to imagine aspects of the scene about you (e.g., is it a beach, a forest, are there trees, hills, what's on the horizon)".

The third-person perspective instruction is same as in previous studies.

Study 8 (Chapter 8)

Imagined Positive Helping Contact Condition (Third-person Perspective): "We would like you to spend time imagining that you are collaborating with other students from different races in a green-school programme that needs you to do cleaning activities (e.g., picking up rubbish, painting, cleaning school's drain). While you are cleaning the school compound, you engaged in a conversation with a [minority/majority] student next to you that doing the same activity. The conversation goes on in a relaxed, positive and pleasant manner. Suddenly, your conversation partner accidently got its feet stuck in an open drain. You quickly give a hand and help your conversation partner out of the drain and lead to the school's health room to see if there are any injuries".

The third-person perspective instruction is same as in previous studies.

Non-contact Condition (Third-person perspective): “We would like you to spend a time imagining an outdoor scene. Try to imagine aspects of the scene about you (e.g., is it a beach, a forest, are there trees, hills, what’s on the horizon)”.

The third-person perspective instruction is same as in previous studies.

Appendix B: Measures

Study 1:

Intergroup Anxiety:

1. I would feel nervous if I had to sit alone in a room with a crowd of [designated group} and start a conversation with them.
2. I just don't know what to expect from a [designated group].
3. Although I do not consider myself having any negative stigma, I do not know how to present myself around [designated group].
4. My lack of knowledge about/ information about [designated group] prevent me from feeling completely comfortable around them.
5. I can interact with a [designated group] without experiencing much anxiety.
6. If I were at an event, I would have no problem starting a conversation with a [designated group].
7. It makes me uncomfortable to bring up the topic of religion/culture around [designated group].
8. I experience little anxiety when I talk to a [designated group].
9. The physical appearance of [designated group] differs and makes interactions among them awkward.
10. I would experience some anxiety if I were the only people in a room full of [designated group].
11. I worry about coming across as a hypocrite when I talk with a [designated group].

Prosocial Behaviour Tendencies:

Below are number of statements that may or may not describe you. Please indicate how much each statement describes you:

1. I often do favours for people without being asked.
2. I often help people to get what I want.
3. I often lend things to people without being asked.
4. I often share things with people to get what I want.

5. I often help people without being asked.
6. I often lend things to people to get what I want.
7. I often compliment people without being asked.
8. I often do favours for people to get what I want.
9. I often share things with people without being asked.
10. I often compliment people to get what I want.

Intergroup Helping:

"We have been asked by another research team to include in this study a question about your willingness to make charity donations. Specifically, we would like to ask whether you would be willing to donate some money to a humanitarian appeal for Gaza in Palestine. We are not asking for a donation at this point, we are just currently trying to gauge how much funding this might generate. To this end, could you give us an indication of how much that you would be willing to contribute (in £) in response to an email campaign?". The donation ranged between £0 - £50 indicating the amount of money participants willing to donate.

Study 2:

Intergroup Anxiety: Same as previous – self-reported measures

Prosocial Behaviour Tendencies: Same as previous – self-reported measures

Intergroup Helping:

"We have been asked by another research team to include in this study a question about your willingness to make charity donations. Specifically, we would like to ask whether you would be willing to donate some money to a Chinese/Indian Orphanages and Old Folk Home. We are not asking for a donation at this point, we are just currently trying to gauge how much funding this might generate. To this end, could you give us an indication of how

much that you would be willing to contribute (in MYR) in response to an email campaign?". The donation ranged between RM0 – RM100 indicating the amount of money participants willing to donate.

Study 3:

Intergroup Anxiety: Same as previous – self-reported measures

Prosocial Behaviour Tendencies: Same as previous – self-reported measures

Intergroup Helping:

"This study offers a price draw of £10/person for 3 lucky participants. Let's say if you win the draw, what proportion of this sum that you would like to donate for a *child cancer aid organisation*?".

Control Variables: Same as above, however, evaluate the same in-group member.

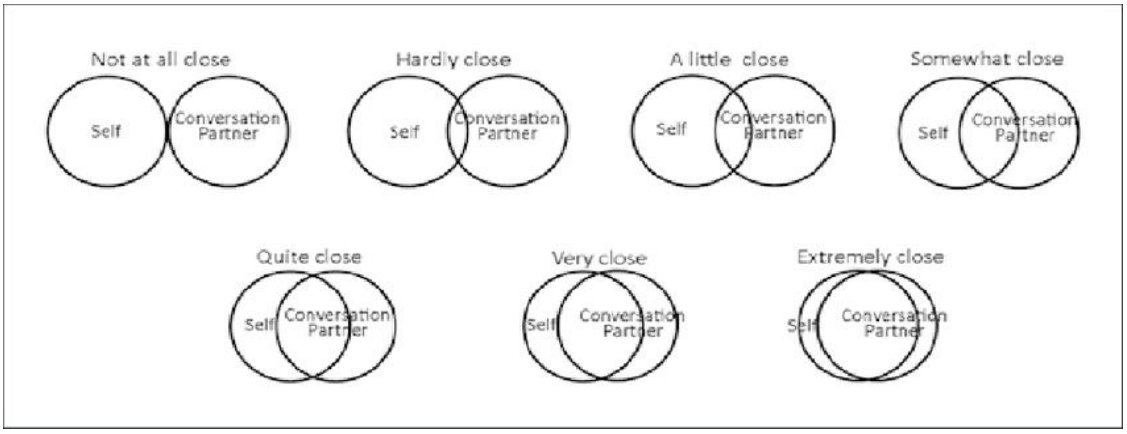
Study 4:

Intergroup Anxiety: Same as previous – self-reported measures

Prosocial Behaviour Tendencies: Same as above, however, evaluate the same in-group member.

Perceived Similarity:

Please circle the picture below which best describes your relationship to [designated group]:



Intergroup Helping:

"This study offers a price draw of RM10/person for 5 lucky participants. Let's say if you win the draw, what proportion of this sum that you would like to donate for a child cancer aid organisation?".

Control Variables: Same as above, however, evaluate the same in-group member

Study 5:

Intergroup Anxiety: Same as previous – self-reported measures

Prosocial Behaviour Tendencies: Same as previous – self-reported measures

Perceived Similarity: Same as previous – self-reported measures

Intergroup Helping: Same as Study 4

Control Variables: Same as above, and evaluate the out-group member.

Study 6:

Intergroup Anxiety: Same as previous – self-reported measures

Prosocial Behaviour Tendencies: Same as previous – self-reported measures

Perceived Similarity: Same as previous – self-reported measures

Intergroup Trust:

1. Do you think most people from the other community would try to take advantage of you if they got the chance, or would they try to be fair?

2. Would you say that most of the time people from the other community try to be helpful, or that they are mostly just looking out for themselves?

3. Would you say that most people from the other community can be trusted, or that you can't be too careful?

Intergroup Helping:

"This study offers a price draw of RM10/person for 10 lucky participants. Let's say if you win the draw, what proportion of this sum that you would like to donate for a child cancer aid organisation?".

Control Variables: Same as above, and evaluate the out-group member.

Study 7:

Intergroup Anxiety: Same as previous – self-reported measures

Prosocial Behaviour Tendencies: Same as previous – self-reported measures

Perceived Similarity: Same as previous – self-reported measures

Intergroup Trust:

Please indicate how far you trust your out-group friends by rating the follows:

1. I don't trust a [designated out-group friend] as a friend.
2. I don't trust them to keep my promise.
3. I don't trust to leave my belongings to a [designated out-group friend].

Intergroup Helping:

1. To what extent do you willing to help an out-group friend in their homework.

Control Variables: Same as above

Study 8:

Intergroup Anxiety: Same as previous – self-reported measures

Prosocial Behaviour Tendencies: Same as previous – self-reported measures

Perceived Similarity: Same as previous – self-reported measures

Intergroup Trust:

Please indicate how far you trust your out-group friends by rating the follows:

1. I don't trust a [designated out-group friend] as a friend.
2. I don't trust them to keep my promise.
3. I don't trust to leave my belongings to a [designated out-group friend].

Volunteering:

Please choose any volunteer activities that you would like to involve:

1. Volunteering to fundraising donation either for the school-green environment programme.
2. Volunteering to fundraising donation either for an out-group old-folk's house.

Actual Helping:

The degree of intervention offered by the participants toward the accident victim will be assessed by four independent observers (two observers in each experimental location) hidden from the view of the participants and who will be required to score the behavior of the participants on a 5-point scale. The scale is adapted from the one developed by Darley and Batson (1973) for their Good Samaritan experiment:

1. The participant failed to notice that the victim was in need of help at all
2. Perceived the victim to be in need of help (i.e., glanced in the victim's direction) but did not offer any form of help at all.
3. Stopped and asked the victim if they were in need of help
4. Stopped and asked the victim if they were in need of help and then directly helped the victim themselves
5. After stopping to provide assistance, participant did not leave victim and escorted them out of the experimental context.

The only item to be excluded from Darley and Batson's (1973) original scale was the item referring to failing to intervene directly but helping indirectly by asking someone else to help. This item was excluded, as the experiment was designed to ensure that the participants encountered the victim in the absence of any other potential bystander.

Control Variables: Same as above