The Psychological Benefits and Costs of Positive and Negative Intergroup Contact

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Abstract

Over 60 years of research has established that positive contact between members of opposing social groups is one of the most important factors in improving relations. Despite this large body of research on positive contact, the importance of negative contact has been largely overlooked. In particular, the processes that mediate the relationship between negative contact and intergroup antipathy remain largely understudied. Furthermore, contact scholars have primarily focused on the effects of contact on prejudice. Thus, it is still unclear whether positive contact and negative contact are predictors of intergroup outcomes beyond prejudice. Contact studies have also primarily been conducted in Western nations, leading to an uncertainty about the degree to which the effects of positive and negative contact are culturally specific or universal. In addition, while substantial evidence has indicated that positive contact with sexual minorities predicts reduced sexual prejudice among heterosexuals, little attention has been paid to the importance of gender of contact partners.

The current program of research aims to fill these four gaps in the contact literature. Studies 1-3 examine positive and negative contact as predictors of prejudice and intergroup outcomes beyond prejudice (i.e., negative metaperceptions), and the underlying psychological process that mediates the relationship between negative contact and intergroup attitudes. The studies also test the generalizability of positive and negative contact effects, drawing on data from White Americans (Study 1, \(N = 207\)), Hong Kong Chinese (Study 2, \(N = 145\)), and Buddhist Thais (Study 3, \(N = 161\)). Results were similar across all three nations. More specifically, when negative contact was not taken into account results indicated that positive contact reliably predicted lower levels of old-fashioned and modern prejudice toward, and negative metaperceptions about, Black Americans (Study 1), Mainland Chinese (Study 2), and Muslim Thais (Study 3). When negative contact was controlled for, however, positive contact became a less reliable predictor of intergroup outcomes. Furthermore, negative contact appeared to be a more consistent predictor of these intergroup outcomes than positive contact. Finally, intergroup anxiety acted as a mediator of both positive contact and negative contact effects.

Study 4 extends the previous studies by testing whether positive and negative contact with sexual minorities predict collective action for equal rights among heterosexual Australians (\(N = 294\)). This study also explores whether the relationships between both types of contact and collective action intentions vary depending on the gender of heterosexuals and the gender of sexual minorities. In this correlational study, I found that positive contact with gay men and positive contact with lesbian women both independently predicted
heterosexuals’ intentions to fight for equal marriage rights. However, for heterosexual men, positive contact with gay men predicted increased collective action intentions more strongly than positive contact with lesbian women. In contrast, for heterosexual women, positive contact with gay men and positive contact with lesbian women emerged as equally powerful predictors of collective action intentions. On the other hand, negative contact with gay men and negative contact with lesbian women were not significant predictors of collective action intentions for either heterosexual men or women. In addition, the inclusion of negative contact with gay men and negative contact with lesbian women in the analyses did not have any impact the positive contact-collective action relationship.

Overall, the current thesis advances our understanding of intergroup contact in several ways. Specifically, the present empirical studies provide evidence that (a) positive and negative contact are associated both with prejudice and intergroup outcomes beyond prejudice (i.e., negative metaperceptions and collective action for equal rights); (b) while negative contact is the more robust predictor of several negative intergroup outcomes (i.e., old-fashioned prejudice, modern prejudice, negative metaperceptions), positive contact is the more robust predictor of collective action; (c) intergroup anxiety serves as a core mediating factor that explains why negative contact is linked to increased intergroup negativity; (d) the effects of positive and negative contact on intergroup attitudes appear to be generalizable to non-Western populations; (e) the relationship between positive contact and collective action intentions appears to vary depending on the gender of heterosexuals and the gender of sexual minorities. Theoretical significance, practical implications, limitations and avenues for future research are discussed.
Declaration by Author

This thesis is composed of my original work, and contains no material previously published or written by another person except where due reference has been made in the text. I have clearly stated the contribution by others to jointly-authored works that I have included in my thesis.

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Pirathat Techakesari
Publications During Candidature

Journal Articles/Research Reports


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<th>Contributors</th>
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| Winnifred Louis | - Provided guidance on the theoretical framework (50%).  
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 CHAPTER 1

General Introduction
**General Introduction**

For the past 60 years, the benefits of positive intergroup contact have been well-documented. A large body of research has demonstrated that positive contact between members of different social groups fosters intergroup liking, intergroup trust, and willingness to form meaningful cross-group friendships (Christ et al., 2010; Page-Gould, Mendoza-Denton, & Tropp, 2008; Tam, Hewstone, Kenworthy, & Cairns, 2009; Turner, West, & Christie, 2013; Wagner, Tropp, Finchilescu, & Tredoux, 2008). In addition, positive contact reduces social distance and prejudice\(^1\) toward members of the opposing group (Barlow, Louis & Hewstone, 2009; Barlow, Louis, & Terry, 2010; Paolini, Hewstone, Cairns, 2007; Paolini, Hewstone, Cairns, & Voci, 2004; Tausch & Hewstone, 2010). Numerous reviews have further indicated that positive contact improves intergroup attitudes for target out-groups including racial minorities, sexual minorities, and individuals with a physical disability (Hewstone & Swart, 2011; Pettigrew & Tropp, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011). Due to its widespread benefits, many prominent scholars contend that positive contact is the key to achieve a harmonious and peaceful society (Dovidio, Glick, & Rudman, 2005; Hewstone et al., 2006).

Despite this vast literature, four key aspects of intergroup contact still remain underexplored. First, although positive contact has received substantive empirical attention, cross-group interactions that promote greater prejudice (i.e., negative contact) have not been given the same scrutiny (Hewstone & Swart, 2011; Pettigrew, 2008). To date, the mechanisms underpinning the detrimental effects of negative contact have rarely been investigated. Second, the bulk of contact studies have used prejudice as their sole dependent variable (Dixon, Durrheim, & Tredoux, 2005). In fact, empirical studies examining positive and negative contact as predictors of negative metaperceptions and collective action are still lacking. Third, the majority of contact research has narrowly focused on Western populations (Pettigrew & Tropp, 2006). Thus, definitive conclusions about the generalizability of contact effects cannot be drawn. Finally, while recent work has revealed that positive contact with sexual minorities predicts decreased sexual prejudice among heterosexuals, empirical work has largely overlooked the importance of considering the gender of contact partners. The objective of the present thesis is to address these aforementioned gaps in intergroup contact research.

In order to set the stage for the work featured in this thesis, Chapter 1 provides a comprehensive review of the intergroup contact literature. Specifically, in this introductory

\(^1\)In the present thesis, prejudice has been defined as any attitude, emotion or behavior towards members of a different social group that is formed based solely on their social category, such as race and religion (Brown, 1995).
chapter, I first discuss the most influential theoretical framework in the field of intergroup contact, the *contact hypothesis* (Allport, 1954). I then discuss its theoretical extensions and highlight gaps in the intergroup contact literature in more detail. Chapter 2 consists of three empirical studies that examine: (a) psychological processes that help explain why negative contact is associated with intergroup antipathy; (b) whether positive and negative contact predict negative metaperceptions in addition to prejudice, and; (c) if the effects of positive and negative contact on intergroup outcomes are generalizable across cultures. Chapter 3 includes an empirical study that tests whether positive and negative contact predict heterosexuals’ collective action for positive social change for non-heterosexual people. It also explores whether the gender of heterosexuals and the gender of sexual minorities matter. More specifically, it tests whether contact with gay men and lesbian women are equal predictors of collective action for equal rights among heterosexual men and women. Chapter 4 summarizes the overall findings in Chapters 2-3, discusses theoretical and practical implications, highlights the key limitations, and provides suggestions for future research.

**The Contact Hypothesis**

The contact hypothesis, developed by Gordon Allport (1954), is one of the most influential theories of prejudice reduction to be put forward in the 20th Century. According to this theoretical framework, contact with members of opposing racial groups can foster positive intergroup attitudes when optimal conditions are met. That is, contact that is characterised by equal status, common goals, intergroup co-operation, and the support of authorities is expected to lead to lower prejudice. This framework further posits that knowledge about the out-group is the key mediator of the relationship between contact and prejudice. Specifically, positive contact allows individuals to learn more about members of opposing social groups and to see how similar the out-group really is to them. This enhanced knowledge about the out-group, in turn, leads them to adopt positive intergroup attitudes.

In line with Allport’s (1954) assertion, early work found that contact under optimal conditions indeed reduces racism in various intergroup contexts. For example, prejudice reduction was observed among White American soldiers who had contact with Black soldiers during World War II, among White American seamen who had contact with their Black peers, and among White American policemen who had contact with their Black colleagues (see Dovidio, Gaertner, & Kawakami, 2003; Pettigrew, 1998, for reviews). In addition, research has consistently shown that knowledge about the out-group acts as a mediator of the relationship between contact and intergroup attitudes (e.g., Eller & Abrams, 2003; Goto & Chan, 2005; Harwood, Hewstone, Paolini, & Voci, 2005).
Recent Advances in Intergroup Contact Research

Since the initial formulation of the contact hypothesis (Allport, 1954), over 500 empirical studies have examined the relationship between contact and prejudice. This theoretical framework has now been extended in a number of ways. First, it has been shown that positive contact is associated with reduced prejudice even when Allport’s (1954) optimal conditions are not fulfilled. Specifically, Pettigrew and Tropp’s (2006) meta-analysis of 713 independent samples revealed that positive contact under optimal ($r = -.29$) and suboptimal ($r = -.20$) conditions are both significant predictors of prejudice reduction. This finding suggests that although the optimal conditions facilitate the effects of intergroup contact, they are not essential for prejudice reduction.

Second, research on mechanisms underpinning the beneficial effects of positive contact indicated that empathy and intergroup anxiety are more powerful mediators of the contact-prejudice relationship than is knowledge about the out-group (see Pettigrew & Tropp, 2008, for a meta-analysis). More specifically, positive contact encourages individuals to take the out-group’s perspective and empathize with their concerns (Aberson & Hagg, 2007; Aron & McLaughlin-Volpe, 2001; Harwood et al., 2005; Tam, Hewstone, Harwood, Voci, & Kenworthy, 2006; Voci & Hewstone, 2003). It also decreases the feelings of threat and uncertainty that individuals experience during intergroup exchanges (Amodio, 2009; Barlow et al., 2009; Binder et al., 2009; Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001; Blascovich, Mendes, Tomaka, Salomon, & Seery, 2003; Nail, Harton, & Decker, 2003; Turner, Hewstone, & Voci, 2007). The increased empathy and reduced intergroup anxiety then lead individuals to adopt more favourable attitudes toward members of the opposing group (Barlow et al., 2010; Barlow, Sibley, & Hornsey, 2012; Brown & Hewstone, 2005; Dovidio et al., 2004; Galinsky & Moskowitz, 2000; Paolini et al., 2004; Stephan, Diaz-Loving, & Duran, 2000; Stephan et al., 2002; Shih, Wang, Bucher, & Stotzer, 2009; Vescio, Sechrist, & Paolucci, 2003).

Third, in his original theorising, Allport (1954) placed a strong focus on conflict between opposing racial groups. This is not surprising considering that this theory was developed in the midst of racial segregation in the United States. Racism was extremely prevalent and considered to be one of the most pressing issues during that period (Deutsch & Collins, 1951; Kephart, 1957; see Pettigrew, 1998, for a review). Nevertheless, recent work has established that the premise of the contact hypothesis (Allport, 1954) holds for groups that face stigma on the basis of non-racial or non-ethnic factors, including sexual minorities, individuals with a physical disability, people who are overweight or obese, and people with a
mental illness (Alperin, Hornsey, Hayward, Diedrichs, & Barlow, 2014; Pettigrew et al., 2011; Pettigrew & Tropp, 2006; Smith, Axelton, & Saucier, 2009; Turner & West, 2012; West, Holmes, & Hewstone, 2011; West, Hewstone, & Lolliot).

Finally, several reviews have provided evidence that positive contact is a robust predictor of decreased prejudice (see Hewstone & Swart, 2011; Pettigrew, 2008; Pettigrew & Tropp, 2006; Pettigrew et al., 2011). In particular, positive contact reduces prejudice irrespective of age (e.g., in children under 13 years, adolescents aged 13-17 years, and adults over 17 years), study design (e.g., field studies, quasi-experiments, and experiments), the quality of the contact and prejudice measures (e.g., single items, multiple items with poor reliability, and multiple items with adequate reliability), context (e.g., recreational, educational, organisational, and laboratory experimental settings), and publication source (e.g., published and unpublished sources).

Overall, converging evidence displays strong support for positive contact as an effective antidote to prejudice. Nevertheless, four major aspects of the contact literature have still remained largely understudied: (1) the detrimental effects of negative contact, (2) the effect of contact on intergroup outcomes beyond prejudice, (3) the generalizability of contact effects, and (4) the roles of heterosexuals’ gender and sexual minorities’ gender in influencing the relationship between contact and intergroup outcomes. In the next sections, I provide a detailed discussion of these empirical gaps in intergroup contact research.

**Detriments of Negative Contact**

To date, scant attention has been paid to negative contact and its detrimental effects on intergroup attitudes. In fact, in their large-scale meta-analysis, Pettigrew and Tropp (2006) found that less than 5% of the 713 independent samples examined had investigated negative contact. The exclusion of negative contact is not surprising, however, considering that the contact hypothesis was originally developed based on the underlying assumption that most types of contact did not reduce prejudice. As such, Allport (1954) encouraged his successors to investigate the types of contact that result in prejudice reduction, leading the field to focus narrowly on positive contact.

In recent years, however, researchers have put forth two arguments for why negative contact deserves to become a more central focus of contact research (see Paolini et al., 2004; Paolini, Harwood, & Rubin, 2010; Pettigrew, 2008; Pettigrew & Tropp, 2006, Pettigrew et al., 2011). Firstly, the narrow focus on positive contact is arbitrary; people do not solely encounter positive cross-group interactions, but they are also exposed to negative cross-group interactions. In fact, research has consistently illustrated that negative contact is unavoidable
in multicultural societies, despite the fact that it occurs less frequently than positive contact (e.g., Barlow et al., 2012a; Graf, Paolini, & Rubin, 2014; Pettigrew & Tropp, 2012).

Secondly, negative contact is a robust predictor of negative intergroup attitudes. In their field study of 441 White Americans, Barlow and colleagues (2012a) found that positive contact with Black Americans was a robust predictor of prejudice when negative contact with Black Americans was not taken into consideration. However, when negative contact with Black Americans was included in the analyses, positive contact with Black Americans became a weaker predictor of prejudice. Negative contact with Black Americans, on the other hand, emerged as a more stable predictor of prejudice. The same pattern of results emerged among Austrian, German, Polish, Slovak, and Czech Republic citizens who had contact with foreigners (Graf et al., 2014), and among ‘normal-weight’ Americans who had contact with overweight or obese Americans (Alperin, Hayward, Hornsey, Diedrichs, & Barlow, 2014).

Overall, recent evidence has illustrated that negative contact exists, and is a more reliable predictor of prejudice than positive contact. Nevertheless, as this is a new area of study, little is still known about the psychological processes that might help to explain why negative contact is linked with intergroup antipathy. The present thesis, therefore, seeks to address this void in the intergroup contact literature by proposing intergroup anxiety as a potential mediator of the relationship between negative contact and prejudice (see Chapter 2 for more information).

Moving Beyond “The Restrictions of Prejudice Problematic”

In addition to elucidating how negative contact works to increase prejudice, the present thesis examines positive contact and negative contact as predictors of intergroup outcomes beyond prejudice. In their review of the literature, Dixon and colleagues (2005) highlighted that there are restrictions of taking a “prejudice problematic” approach. They argued that the vast majority of contact research uses scores on prejudice scales as sole indicators of the failure or success of positive contact. They also, however, asserted that intergroup attitudes do not begin and end with prejudice, and that indices of prejudice alone may not reflect individuals’ willingness to promote reconciliation or engage in collective action, or many other important intergroup attitudes and behaviors. In line with this assertion, critics of intergroup contact research have called for empirical studies examining the effects of positive and negative contact on intergroup outcomes beyond prejudice (Dixon, Levine, Reicher, & Durrheim, 2012; Dixon, Tropp, Durrheim, Tredoux, 2010; Hewstone & Swart, 2011; Wright & Baray, 2012; Wright & Lubensky, 2009).
In the present thesis, one of the main objectives is to respond to this call by investigating positive and negative contact as predictors of a wide range of intergroup outcomes. More specifically, I include two measures of intergroup outcomes that have seldom been examined in contact research (i.e., negative metaperceptions and collective action for equal rights) in addition to prejudice, and model them in relation to positive and negative contact (see Chapters 2 and 3 for more information). The findings of the proposed research should thus help contact researchers gain better insights into the full benefits of positive contact and detrimental effects of negative contact.

**Contact Research in Non-Western Nations**

In their review of generalizability issues in psychological research, Henrich, Heine, and Norenzayan (2010) found that the field of psychological science as a whole often falls prey to faulty Western-centric assumptions. More specifically, many researchers make broad claims about human behavior based on samples entirely drawn from Western populations. Ironically, this pattern persists despite the fact that several meta-analyses and large-scale comparative studies have shown that there are marked differences in psychological processes between Western and non-Western people in various domains, including positive self-views (Heine & Hanamura, 2007; Mezulis, Abramson, Hyde, & Hankin, 2004), moral reasoning (Baek, 2002; Haidt & Graham, 2007), personal choice (Iyengar & DeVoe, 2003; Savani, Markus, & Conner, 2008), and conformity (Bond & Smith, 1996; Kim & Markus, 1999).

To date, contact researchers have also been biased in favor of Western samples. In fact, Pettigrew and Tropp’s (2006) meta-analysis revealed that only 10% of the 713 independent samples were conducted in non-Western nations (with 5% in Africa, 3% in Israel, 1% in Latin America, and 1% in Asia). Yet, many scholars implicitly assume that the contact effects are universal in the absence of empirical confirmation (see Pettigrew et al., 2011). While it is possible that all aspects of intergroup contact are indeed universal, one can never be certain that this is the case without empirically testing contact effects beyond Western borders. Therefore, in the current thesis, my objective is to make a contribution to the literature by examining positive contact and negative contact as predictors of intergroup attitudes in both Western (i.e., the United States) and non-Western (i.e., Hong Kong and Thailand) countries (see Chapter 2 for more information).

**Do Sexual Minorities’ Gender and Heterosexuals’ Gender Matter?**

As a final contribution, I turn my attention to examining the roles of sexual majorities’ and sexual minorities’ gender. This contribution is in response to recent calls for empirical studies that take into consideration the importance of gender when examining
sexual orientation. More specifically, the growing literatures on intersectionalities have raised some concerns regarding the fact that researchers in many sub-disciplines of Social Psychology (including intergroup contact) have approached the studies of sexual orientation and gender in isolation, without considering how these constructs may interact (see Anderson & Holland, 2015, for a review). This pattern occurs even though recent empirical work has shown that the findings of a study can substantially change when the constructs are taken in consideration together in comparison to when they are examined in isolation (e.g., Kimmel & Llewellyn, 2012; Niedlich & Steffens, 2015; Steffens, Jonas, & Scali, 2015).²

From its original preoccupation with inter-racial contact, research has been extended in new directions in recent decades. For example, evidence from correlational research (e.g., Heinze & Horn, 2009; Vonofakou, Hewstone, & Voci, 2007), laboratory experiments (e.g., Sakalli & Ugurlu, 2003; Turner, Crisp, & Lambert, 2007), longitudinal studies (e.g., Anderssen, 2002; Herek & Capitanio, 1996; Liang & Alimo, 2005) and meta-analyses (e.g., Pettigrew & Tropp, 2006; Smith et al., 2009) indicates that positive contact with sexual minorities is associated with decreased sexual prejudice among heterosexual people. Recent empirical studies have further indicated that positive contact with sexual minorities has the ability to promote positive social changes (Fingerhut, Riggle, & Rostosky, 2011; Herek, 2011; Russell, 2011). In particular, positive contact with sexual minorities has been shown to predict heterosexuals’ willingness to engage in collective action in support of equal rights for sexual minorities.

Nonetheless, many contact researchers have neglected the gender of sexual minorities and the gender of heterosexuals, implicitly assuming that male and female heterosexuals view and respond to positive contact with gay men and lesbian women in a similar fashion (see Techakesari et al., 2015b, for a review). In fact, no empirical studies have examined the effect of positive contact on intergroup attitudes, taking both of these constructs into consideration simultaneously. As such, in order to overcome this issue, the current thesis

²For example, Steffens and colleagues (2015) asked 603 German adults to read one of the four descriptions of an individual who were looking to adopt a child. The individual was a (1) heterosexual male, (2) heterosexual female, (3) gay, or (4) lesbian applicant. All other descriptions were identical. Participants were then asked to rate the suitability of an adoption by the described applicant. Results suggested that heterosexual applicants were rated more favorably than homosexual applicants overall. There was, however, a significant two-way interaction between gender and sexuality. Specifically, the heterosexual female was rated as a more suitable adoptive parent than the other three applicants. The lesbian applicant received greater suitability ratings than the heterosexual male and gay applicants. These findings suggest that reservations against an adoption by sexual minorities might be overestimated if the focus is on sexual orientation exclusively, and that gender should be taken into consideration in conjunction with sexual orientation.
investigates whether the relationship between positive contact and collective action varies for heterosexual men and heterosexual women depending on whether they have interactions with gay men or lesbian women.

Traditionally, contact scholars have paid very little attention to the importance of the gender of sexual minorities. More specifically, many studies have subsumed the different genders of sexual minorities (e.g., lesbian women, gay men, bisexual men/women, and transgendered people) into a single group (e.g., “LGBT” or “homosexuals”; Poynter & Tubbs, 2008; Hodson, Harry, & Mitchell, 2009; Sakalli, 2002; Sakalli & Ugurlu, 2003). Some studies generalize about the effect of contact on attitudes toward the entire sexual minority population based on data drawn from only one or two sexual minority groups (e.g., heterosexual people who have contact with gay men or lesbian women only; Terrizzi, Shook, & Ventis, 2010).

In recent years, however, researchers have begun to recognize that heterosexual people may react to positive contact with gay men and positive contact with lesbian women in distinct ways. For instance, Baunach, Burgess and Muse (2009) investigated whether positive contact with gay men or lesbian women was more strongly associated with reductions in sexual prejudice among heterosexuals. In this field study of 885 heterosexual American university students, results indicated positive contact with gay men and positive contact with lesbian women were independently correlated with reduced sexual prejudice. However, this association was found to be stronger when the contact was with lesbian women in comparison to gay men. Similarly, Smith and colleagues’ (2009) meta-analysis of 83 independent studies on contact and sexual prejudice revealed that while positive contact is a significant predictor of reduced sexual prejudice \( r = -.26 \), sexual minorities’ gender moderated this effect. Again, the effect of positive contact on sexual prejudice was slightly stronger when the contact was with lesbian women \( r = -.30 \) than when the contact was with gay men \( r = -.27 \). Together these empirical studies highlight the importance of taking sexual minorities’ gender into account when investigating the effect of contact on intergroup attitudes.

Although some preliminary work considers gender of sexual minorities, explicit considerations of heterosexuals’ gender have been much less common in the contact literature (Hodson et al., 2009). Generally speaking, contact scholars tend to include heterosexuals’ gender as a covariate in their statistical analyses (see Hodson, 2011; Hodson et al., 2013, for reviews). Only two studies have gone beyond including heterosexuals’ gender as a covariate when investigating the relationship between contact and sexual prejudice. Collier, Bos and
Sandfort (2012) were the first group of researchers to investigate this issue in their sample of 456 heterosexual Dutch adolescents (aged 12-15). In line with previous research, they found that the more positive contact participants had with sexual minorities, the less sexual prejudice they expressed. This contact-prejudice relationship, however, was stronger among male adolescents than their female counterparts. These results were also replicated in a longitudinal study of 2815 heterosexual Belgian adults (aged 18-21) conducted by Hooghe and Meeusen (2012). In this study, the authors found that the amount of positive contact participants had with sexual minorities predicted sexual prejudice more strongly among heterosexual men, compared with heterosexual women. Overall, the results of these two studies illustrate that heterosexual men are more likely to benefit from positive contact than their female counterparts.

The research detailed above has indicated that it is imperative to consider both heterosexuals’ gender and sexual minorities’ gender when examining the relationship between contact and intergroup attitudes. However, as previously stated, research to date has not taken these two constructs into account concurrently when testing the contact-attitudes relationship. Thus, I seek to address this gap in the literature by investigating whether contact partners’ gender matters. In particular, I explore whether contact between heterosexuals and homosexuals of the same gender is more or less influential than contact between heterosexuals and homosexuals of opposite genders (see Chapter 3 for more information.

**Conclusion**

Decades of research have illustrated that positive contact is reliably associated with reductions in prejudice (Pettigrew & Tropp, 2006; Smith et al., 2009). However, in this thesis I identify four key aspects of intergroup contact that warrant greater empirical attention. Specifically, it is still unclear whether: (1) intergroup anxiety acts as a mediating process that explains why negative contact predicts increased intergroup antipathy; (2) positive contact and negative contact are associated with outcomes beyond prejudice (in this thesis, negative metaperceptions and collective action); (3) the effects of positive and negative contact are generalizable to non-Western populations, and; (4) positive contact with gay men and lesbian women differentially predict intergroup attitudes for heterosexual men and women. In Chapter 2, I present a series of studies, published in the *Journal of Cross-Cultural Psychology* (Techakesari et al., 2015a). These studies examine positive and negative contact as predictors of prejudice and negative metaperceptions, as well as the mediating influence of intergroup anxiety, in both Western (i.e., the United States) and non-Western (i.e., Hong Kong and Thailand) nations. In Chapter 3, I present an empirical study that investigates the
relationship between positive contact and collective action taking into consideration the
importance of negative contact, and tests whether positive contact with gay men and positive
contact with lesbian women differentially predict collective action for equal rights among
heterosexual men and heterosexual women.
CHAPTER 2
An Investigation of Positive and Negative Contact As Predictors of Intergroup Attitudes in the United States, Hong Kong and Thailand

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Abstract
Contact researchers have largely overlooked (a) the processes that mediate the relationship between negative contact and prejudice, (b) the effects of positive and negative contact on intergroup outcomes beyond prejudice, and (c) the importance of testing contact effects cross-culturally. In the present article, I addressed these gaps in the literature by drawing on data from White Americans ($N = 207$; Study 1), Hong Kong Chinese ($N = 145$; Study 2), and Buddhist Thais ($N = 161$; Study 3). Specifically, I examined positive and negative contact as predictors of old-fashioned and modern prejudice toward, and negative metaperceptions about, Black Americans, Mainland Chinese, and Muslim Thais, respectively. In addition, I also explored intergroup anxiety as a mediator of the associations between positive and negative contact, and all intergroup outcomes. Across three studies, positive contact was associated with lower levels of prejudice and negative metaperceptions, while negative contact was associated with greater prejudice and negative metaperceptions. Negative contact, however, was the more consistent predictor of intergroup attitudes. Intergroup anxiety emerged as a robust mediator of the associations between both types of contact and all intergroup outcomes. I thus presented the first positive and negative contact model that holds across both Western and non-Western contexts.

**Keywords:** Contact hypothesis, positive intergroup contact, negative intergroup contact, prejudice, metaperceptions
An Investigation of Positive and Negative Contact as Predictors of Intergroup Attitudes in the United States, Hong Kong and Thailand

For the past six decades, the role of positive intergroup contact in reducing prejudice has been widely documented (Allport, 1954; Brown & Hewstone, 2005; Dovidio et al., 2005; Hewstone et al., 2006; Pettigrew & Tropp, 2006). Despite the enthusiasm with which contact scholars have tested the association between positive contact and intergroup attitudes, the role of negative contact in promoting intergroup antipathy has been largely neglected (Hewstone & Swart, 2011; Pettigrew, 2008; Pettigrew et al., 2011). While recent work has demonstrated that negative contact is a robust predictor of prejudice (Aberson et al., in-press; Barlow et al., 2012a; Graf et al., 2014) exactly how negative contact works to increase prejudice remains largely overlooked. Furthermore, contact scholars have narrowly focused on prejudice as their sole dependent variable. While prejudice reduction is important, a constricted focus means that the effect of contact on other relevant intergroup outcomes may be overlooked. In addition, contact research in non-Western nations is extremely scarce (Pettigrew & Tropp, 2006), leading to uncertainty about the generalizability of contact effects. In the present article, I extend the intergroup contact literature by drawing on data from the United States, Hong Kong, and Thailand. In these contexts, I test intergroup anxiety as a mediator of the relationships between both types of contact and intergroup attitudes. I also introduce negative metaperceptions as a novel variable dependent on both positive contact and negative contact.

Mediating Role of Intergroup Anxiety

In the present research, I seek to contribute to the literature on intergroup contact by proposing intergroup anxiety as a potential mediator of the relationship between negative contact and intergroup attitudes. The proposed mediational path may seem intuitive. In particular, a substantial body of research has shown that positive contact promotes prejudice reduction through a reduction in intergroup anxiety (see Pettigrew & Tropp, 2008, for a meta-analysis). Specifically, positive contact reduces anxiety that individuals experience in intergroup contexts, leading them to adopt more favorable attitudes toward out-group members. Hence, it is conceivable to expect that conversely negative contact should confirm or enhance intergroup anxieties around contact and consequently increase prejudice (Barlow et al., 2012a; Paolini et al., 2010; Pettigrew, 2008).

To my knowledge, this mediational path has been examined only once in a study conducted by Stephan and colleagues (2002). In this study, White and Black undergraduate students were asked to recall the amount of negative interactions they had with members of the opposing racial group, and rate the extent to which they would feel anxious when
interacting with them as well as their attitudes toward them. Results indicated that negative contact predicted increased negative intergroup attitudes via increased intergroup anxiety, thereby providing some support for the proposed mediational path.

Nonetheless, Stephan et al.’s (2002) study has overlooked the importance of positive contact when testing this mediational path. As demonstrated by recent evidence (e.g., Alperin et al., 2015; Barlow et al., 2012a; Graf et al., 2014), positive contact and negative contact co-exist and both types of contact should be examined in conjunction with one another. In addition, this study also examined racial target groups. Thus, little is known about whether negative contact predicts increased prejudice through increased intergroup anxiety among other target groups. Therefore, the present series of studies are the first to test whether negative contact predicts increased prejudice through increased intergroup anxiety when positive contact is accounted for. Furthermore, they are the first to test whether this mediational path holds among non-racial groups, including regional (Study 2) and religious (Study 3) groups.

**Negative Metaperceptions as a Novel Dependent Variable**

Another main objective of the present studies is to explore the roles of positive contact and negative contact in modulating an outcome other than prejudice. As there is a clear lack of contact research examining the effects of contact on intergroup attitudes beyond prejudice, prominent scholars have called for empirical studies that could fill this void in the literature (Dixon et al., 2005, 2010; 2012; Hewstone & Swart, 2011; Wright & Baray, 2012; Wright & Lubensky, 2009). Thus, in response to this call, I include a novel measure of negative metaperceptions in the present studies and test whether positive and negative contact are predictors of this particular intergroup outcome.

Negative metaperceptions refer to individuals’ beliefs that their group is viewed negatively by out-group members (Vorauer, Main, & O’Connell, 1998). Common negative metaperceptions typically held by majority group members include believing that minority out-group members think that they are privileged or prejudiced (Vorauer, Hunter, Main, & Roy, 2000). Theoretically, this construct is important to consider as it predicts whether majority group members engage in behaviors that maintain their power and sense of position. Specifically, extensive literature on self-presentation has indicated that metaperceptions trigger efforts to modify actions and remarks to suit the desires of their interaction partner (Baumeister, 1982; Schlenker & Weingold, 1992). Thus, hostility can be bred by believing that their interaction partners hold negative evaluations of them (Plant & Butz, 2006; Vorauer, 2003).
In line with this literature, empirical research has consistently shown that when majority group members believe that out-group members hold negative preconceptions about them, they tend to reciprocate the negative appraisal and exhibit a wide range of discriminatory behaviors (e.g., Devine, Evett, & Vasquez-Suson 1996; Fein & Spencer, 1997; Kramer & Messick, 1998; Richeson & Shelton, 2003; Richeson & Trawalter, 2005; Richeson, Trawalter, & Shelton, 2005; Sigelman & Tuch, 1997; Vorauer, 2003; Vorauer et al., 1998, 2000; also see Vorauer, 2006, for a review). Such discriminatory behaviors may appear to be subtle (e.g., avoiding making eye contact with out-group members and dismissing their opinions and ideas) or apparent (e.g., committing hate crimes and engaging in violent acts against out-group members). Therefore, identifying factors that alter negative metaperceptions will have implications for efforts aimed at improving intergroup relations, enhancing intergroup harmony and promoting peace.

In the present research, I argue that both positive contact and negative contact should play critical roles in influencing metaperceptions. This argument stems from two independent lines of research. First, contact is a robust predictor of intergroup anxiety (see Pettigrew & Tropp, 2008; for a meta-analysis). Positive contact allows individuals to gain critical insights into out-group norms, values, and behavioral scripts, eliminating the novelty attached to intergroup exchange and reducing intergroup anxiety (Stephan & Stephan, 1985). In contrast, negative contact prompts individuals to focus on the differences between their own and the out-group’s perspectives and worldviews, and thus elevates intergroup anxiety (Paolini et al., 2010). Second, emerging evidence has revealed that negative metaperceptions vary as a function of intergroup anxiety (Finchilescu, 2005, 2010; Laher & Finchilescu, 2010; Plant, 2004). In particular, the more anxiety individuals experience in intergroup contexts, the more they hold beliefs that the out-group evaluates them negatively. Theoretically, this finding is not surprising, considering that the reduction of anxiety following positive intergroup interactions should motivate individuals to reject the idea that out-group members view them as a group in an undesirable manner. In contrast, the increased feelings of anxiety and uneasiness experienced during negative intergroup interactions should drive individuals to confirm a narrative about why the out-group as a whole perceives them negatively (also see Ames, 2004; Vorauer, 2006).

Given that contact is reliably associated with intergroup anxiety - and that intergroup anxiety is reliably associated with negative metaperceptions - I propose that contact will predict intergroup anxiety, which will, in turn, predict negative metaperceptions. Specifically, reduced anxiety resulting from positive contact should subsequently decrease one’s concerns
It is important to note that there have been a few empirical contact studies conducted in non-Western countries since the publication of Pettigrew and Tropp’s (2006) meta-analysis (e.g., Al-Ramiah & Hewstone, 2011; Al-Ramiah, Hewstone, Little, & Lang, 2014; Tausch, Hewstone, & Roy, 2008). None of these studies, however, have examined the detrimental impact of negative contact on prejudice and negative metaperceptions, or the mediating influence of intergroup anxiety. As such, the present research fills this void in the literature examining these aspects of intergroup contact in non-Western nations (i.e., Hong Kong and Thailand).

To my knowledge, there have been no contact studies conducted in Thailand, and only one in Hong Kong. The latter, conducted by King, Winter and Webster (2009), demonstrated that positive contact heterosexual Hong Kong Chinese had with transgendered people was associated with reduced transprejudice. This finding provided some support to the application of the contact hypothesis in Hong Kong (and perhaps Asia more generally). Nonetheless, this study did not test several aspects of my intergroup contact model. For instance, like much past contact research, it did not consider the roles of negative contact and intergroup anxiety, or the effects of contact on intergroup outcomes beyond prejudice (e.g., negative metaperceptions). As such, it is unclear whether (a) positive contact predicts reduced prejudice and negative metaperceptions via reduced intergroup anxiety, and (b) negative contact predicts increased prejudice and negative metaperceptions via increased intergroup anxiety.

In the present research, I examine positive contact and negative contact as predictors of White Americans’ prejudice toward and negative metaperceptions of Black Americans (Study 1), Hong Kong Chinese people’s prejudice toward and negative metaperceptions of Mainland Chinese (Study 2), and Buddhist Thais’ prejudice toward and negative
metaperceptions of Muslim Thais (Study 3). In line with the literature reviewed above, I do not expect any cultural differences \textit{a priori}. In all contexts, I hypothesize that positive contact will be associated with lower levels of prejudice and negative metaperceptions, whereas negative contact will be associated with higher levels of prejudice and negative metaperceptions. I also hypothesize that intergroup anxiety will mediate the relationships between both types of contact and all dependent outcomes.

\textbf{Study 1}

\textbf{Context}

Study 1 focuses on the intergroup dynamic of White and Black Americans, who make up approximately 78.1\% and 13.1\% of the United States population, respectively (United States Census Bureau, 2011). Black Americans presently face severe disadvantage in comparison to White Americans in terms of education, housing, and health (Harris, 2010). Past research has demonstrated that racism is a substantive causal factor (Brief, Dietz, Cohen, Pugh, & Vaslow, 2000; Dovidio & Gaertner, 2000; Schuman & Krysan, 1999), with most Black Americans reporting experiencing discrimination at the hands of White Americans (Gallup Organization, 2005). At the same time, White Americans are deeply concerned that Black Americans view them as prejudiced (Bergsieker, Shelton, & Richeson, 2010). Thus, contemporary White-Black relations are characterized by anxiety, prejudice and negative metaperceptions, and as such is an ideal context in which to first test the current contact model.

\textbf{Method}

\textbf{Participants and Measures}

A community sample of 207 White Americans (49\% female; $M_{\text{age}} = 25.00, SD = 8.04$) was recruited from an online scientific survey pool (www.socialsci.com). All participants were asked to complete all the measures below.

\textbf{Positive and negative contact.} These constructs were measured via single items as per Barlow and colleagues (2012a). The positive contact item was “How often do you have POSITIVE/GOOD interactions with Black American people?”, and the negative contact item was “How often do you have NEGATIVE/BAD interactions with Black American people?”. Participants rated all items on 5-point scales, ranging from 1 (\textit{never}) to 5 (\textit{always}). Higher scores indicated more frequent contact with Black Americans.

\textbf{Intergroup anxiety.} Intergroup anxiety was assessed via 7 items adapted from Stephan and Stephan (1985). Example items were “I feel apprehensive when I interact with or think about interacting with Black Americans” and “I feel anxious when I interact with or
think about interacting with Black Americans” (1, *strongly disagree* to 5, *strongly agree*). Higher scores indicated greater levels of intergroup anxiety.

**Old-fashioned prejudice.** Old-fashioned prejudice was measured using 5 items adapted from Walker (1994). Four items were positively worded, for example, “Black Americans and White Americans can never really be comfortable with each other, even if they are close friends”. One item was negatively worded and reverse scored: “I would not mind if a suitably qualified Black American was appointed as my boss”. All items were rated on a 5-point scale (1, *strongly disagree* to 5, *strongly agree*). Higher scores represented higher levels of old-fashioned prejudice.

**Modern prejudice.** Modern prejudice was assessed with a 5-item scale adapted from McConahay (1986). The scale consisted of two positively worded items (e.g., “Black Americans are getting too demanding in their push for rights”) and three negatively worded items that were reverse scored (e.g., “Black Americans are similar to other Americans like yourself in the values they teach their children”). These items were rated on a 5-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores represented higher levels of modern prejudice.

**Negative metaperceptions.** Six items adapted from Vorauer and colleagues (1998) were used to assess the extent to which participants perceived that White Americans are viewed negatively by Black Americans. Example items included: “I think that Black Americans think that White Americans discriminate against other racial groups”, and “I think that Black Americans think that White Americans are privileged” (1, *strongly disagree* to 5, *strongly agree*). Higher scores represented higher levels of negative metaperceptions.

**Results**

**Preliminary Analyses**

Scale reliabilities, means, standard deviations and intercorrelations can be found in Table 1. In line with past research (Aberson, in-press; Barlow et al., 2012a; Graf et al., 2014), a paired-sample t-test indicated that participants reported experiencing positive contact with Black Americans more frequently than negative contact, *t*(206) = 23.52, *p* < .001.

**Data Analysis Overview**

In order to avoid any preventable sample confounds, age and gender were included as covariates in all analyses. Hierarchical regressions were first conducted to determine whether positive contact directly predicted the dependent variables (i.e., old-fashioned prejudice, modern prejudice, and negative metaperceptions) without controlling for negative contact. Covariates of age and gender were entered at Step 1, followed by the independent variable of
positive contact at Step 2. I then tested whether the associations between positive contact and the dependent variables were mediated by intergroup anxiety using bootstrapping procedures outlined by Hayes (2009). A total of 5000 bootstrap samples were created to estimate bias-corrected standard errors and 95% percentile confidence intervals for these indirect effects. The indirect effects were significant at $p < .05$ if zero was not included in their 95% confidence interval.

Further hierarchical regressions were performed to test whether negative contact predicted the dependent variables, and to determine whether the inclusion of negative contact in the analyses has any impact on the effects of positive contact on intergroup outcomes. Age and gender were entered at Step 1, followed by the independent variables of positive contact and negative contact at Step 2. I then tested whether or not the associations between positive and negative contact and the dependent variables were mediated by intergroup anxiety using Hayes and Preacher’s (2014) SPSS MEDIATE macro, as it allowed me to simultaneously examine the indirect effects of positive and negative contact on each of the three dependent variables via intergroup anxiety. Again, a total of 5000 bootstrap samples were created to estimate bias-corrected standard errors and 95% percentile confidence intervals for these indirect effects. The indirect effects were significant at $p < .05$ if zero was not included in their 95% confidence interval.

**Primary Analyses**

Without the inclusion of negative contact in the analyses, positive contact was reliably associated with lower levels of old-fashioned prejudice, $\beta = -.28$, $t(203) = -4.14$, $p < .001$, modern prejudice, $\beta = -.29$, $t(203) = -4.36$, $p < .001$, and negative metaperceptions, $\beta = -.17$, $t(203) = -2.50$, $p = .013$. The associations between positive contact and old-fashioned prejudice ($B = -.13$, $BSE = .05$, 95%CI = -.24, -0.05), positive contact and modern prejudice ($B = -.14$, $BSE = .05$, 95%CI = -.25, -0.06), and positive contact and negative metaperceptions ($B = -.09$, $BSE = .04$, 95%CI = -.18, -0.04), were all mediated by reduced intergroup anxiety.

After negative contact was included in the analyses, positive contact still predicted lower levels of old-fashioned, $\beta = -.20$, $t(202) = -4.14$, $p = .005$ and modern prejudice, $\beta = -.21$, $t(202) = -3.25$, $p = .003$, but it did not predict negative metaperceptions, $\beta = -.12$, $t(202) = -1.60$, $p = .112$. Negative contact, by contrast, predicted higher levels of old-fashioned prejudice, $\beta = .23$, $t(202) = 3.27$, $p < .001$, modern prejudice, $\beta = .23$, $t(202) = 3.25$, $p < .001$, and negative metaperceptions, $\beta = .16$, $t(202) = 2.20$, $p = .029$. The associations between positive contact and old-fashioned prejudice ($B = -.08$, $BSE = .04$, 95%CI = -.18, -0.02), and
Table 1.

Descriptive information and correlations among focal variables (Study 1)

<table>
<thead>
<tr>
<th>Focal Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<tbody>
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<td>1. Age</td>
<td>25.00</td>
<td>8.04</td>
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<tr>
<td>2. Gender (1 = Male, 2 = Female)</td>
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<td>0.50</td>
<td>.06</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>3. Positive Contact</td>
<td>3.93</td>
<td>0.64</td>
<td>.05</td>
<td>.03</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Negative Contact</td>
<td>2.20</td>
<td>0.64</td>
<td>-.15*</td>
<td>.01</td>
<td>-.35***</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Intergroup Anxiety</td>
<td>1.45</td>
<td>0.63</td>
<td>-.07</td>
<td>-.10</td>
<td>-.30***</td>
<td>.35***</td>
<td>(.92)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Old-Fashioned Prejudice</td>
<td>1.27</td>
<td>0.46</td>
<td>.04</td>
<td>-.12</td>
<td>-.28***</td>
<td>.29***</td>
<td>.62***</td>
<td>(.74)</td>
<td></td>
</tr>
<tr>
<td>7. Modern Prejudice</td>
<td>2.58</td>
<td>0.67</td>
<td>-.06</td>
<td>-.18**</td>
<td>-.29***</td>
<td>.30***</td>
<td>.51***</td>
<td>.47***</td>
<td>(.66)</td>
</tr>
<tr>
<td>8. Negative Metaperceptions</td>
<td>2.99</td>
<td>0.58</td>
<td>.07</td>
<td>.11</td>
<td>-.17*</td>
<td>.19**</td>
<td>.35***</td>
<td>.29***</td>
<td>.33***</td>
</tr>
</tbody>
</table>

Note: Internal reliabilities appear in parentheses.

* p < .05; ** p < .01; *** p < .001.
positive contact and modern prejudice ($B = -.09, B_{SE} = .04, 95\%CI = -.18, -.03$), were mediated by reduced intergroup anxiety. Although there was no direct association between positive contact and negative metaperceptions, positive contact predicted lower levels of negative metaperceptions indirectly through reduced intergroup anxiety ($B = -.06, B_{SE} = .03, 95\%CI = -.13, -.02$). The associations between negative contact and old-fashioned prejudice ($B = .12, B_{SE} = .04, 95\%CI = .05, .22$), negative contact and modern prejudice ($B = .12, B_{SE} = .04, 95\%CI = .05, .23$), and negative contact and negative metaperceptions ($B = .08, B_{SE} = .03, 95\%CI = .03, .17$) were all significantly mediated by increased intergroup anxiety.

**Discussion**

In Study 1, I aimed to test the current contact model in the United States, proposing positive contact and negative contact as predictors of old-fashioned prejudice, modern prejudice, and negative metaperceptions as well as intergroup anxiety as the key mediator of positive and negative contact effects. In line with prior research (Pettigrew & Tropp, 2006, 2008), the present results revealed that positive contact White Americans had with Black Americans predicted improved intergroup attitudes through reduced intergroup anxiety when negative contact was not accounted for in the analyses. The inclusion of negative contact, however, had a substantial impact on the relationships between positive contact and intergroup outcomes. Specifically, my data indicated that while the amount of positive contact participants had with Black Americans was associated with lower levels of old-fashioned and modern prejudice, it was not a direct predictor of negative metaperceptions. In contrast, negative contact appeared to be a more stable predictor of intergroup attitudes. The more negative contact participants reported, the higher levels of old-fashioned prejudice, modern prejudice, and negative metaperceptions they expressed. Therefore, these results lent support for the ideas that negative contact is a more reliable predictor of intergroup attitudes than positive contact (Aberson, in-press, Barlow et al., 2012a; Graf et al., 2014; Pettigrew, 2008). Additionally, in line with my theorizing and previous research (Pettigrew & Tropp, 2008; Stephan et al., 2002), intergroup anxiety mediated all relationships, with positive contact predicting improved intergroup attitudes through reduced intergroup anxiety and negative contact predicting increased intergroup negativity through increased intergroup anxiety.

**Study 2**

**Context**

In line with the goals outlined in the introduction, I wished to test whether my proposed pattern of effects extended beyond Western borders. Thus, in Study 2, I turned the attention to the conflict between Hong Kong and Mainland Chinese residing in Hong Kong.
Hong Kong is an island that was initially governed by China but was occupied by the British in 1841 after they claimed victories over China in the First Opium War. Hong Kong remained a colony of the UK until its sovereignty was returned to Mainland China in 1997. Ever since then, Hong Kong has been formally governed by Mainland China under the policy of “one country, two systems”, where Hong Kong retains a high degree of political autonomy.

Since the reunification in 1997, tensions between Hong Kong and Mainland Chinese have emerged. In recent years, Hong Kong has seen an influx of investors and immigrants (approximately 45,000 per year) from Mainland China as a result of easier access to the country (Community Legal Information Centre, 2009). This has resulted in an increased daily cost of living as well as overall property prices, with Hong Kong Chinese struggling to adapt to the change (Time World, 2012). Consequently, prejudice toward Mainlanders is prevalent among Hong Kong Chinese (British Broadcasting Corporation, 2012; Cheuk-Lam, 2013). Negative metaperceptions are also widespread, as Mainlanders tend to believe that Hong Kong Chinese are privileged and prejudiced, while Hong Kong Chinese are aware of and concerned about these beliefs (Cheuk-Lam, 2013).

**Method**

**Participants and Measures**

A web link to an online survey was posted on two major online discussion forums in Hong Kong (www.discuss.com.hk and www.uwants.com). A total of 145 Hong Kong Chinese completed the survey (41% female; \(M_{age} = 25.92, SD = 8.74\)). The measures used in Study 2 were identical to those used in Study 1. However, the target out-group was changed from “Black Americans” to “Mainlanders in Hong Kong”, and the target in-group was changed from “White Americans” to “Hong Kong people”. In addition, the questionnaire was translated into Traditional Chinese language by two research assistants who were blind to the aims and hypotheses of this study.

**Results**

**Preliminary Analyses**

A small percentage of participants (<5%) did not complete all the dependent measures. Thus, listwise deletion was employed to deal with missing data. Scale reliabilities, means, standard deviations, and intercorrelations can be seen in Table 2. Consistent with prior work in this area (Aberson, in-press, Barlow et al., 2012a; Graf et al., 2014), a paired-sample t-test indicated that participants reported having positive contact with Mainlanders in Hong Kong more frequently than negative contact, \(t(144) = 5.12, p < .001\).

**Data Analysis Overview**
Table 2.

*Descriptive information and correlations among focal variables (Study 2)*

<table>
<thead>
<tr>
<th>Focal Variables</th>
<th>M</th>
<th>SD</th>
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<td>2. Gender (1 = Male, 2 = Female)</td>
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</tr>
<tr>
<td>3. Positive Contact</td>
<td>3.28</td>
<td>0.90</td>
<td>.12</td>
<td>-.19*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Negative Contact</td>
<td>2.69</td>
<td>0.73</td>
<td>.07</td>
<td>.03</td>
<td>-.44***</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5. Intergroup Anxiety</td>
<td>2.34</td>
<td>0.79</td>
<td>-.09</td>
<td>-.04</td>
<td>-.40***</td>
<td>.51***</td>
<td>(.94)</td>
<td></td>
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<tr>
<td>6. Old-Fashioned Prejudice</td>
<td>2.59</td>
<td>0.71</td>
<td>-.08</td>
<td>-.02</td>
<td>-.39***</td>
<td>.44***</td>
<td>.58***</td>
<td>(.79)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Modern Prejudice</td>
<td>3.68</td>
<td>0.61</td>
<td>-.14</td>
<td>-.02</td>
<td>-.21**</td>
<td>.34***</td>
<td>.36***</td>
<td>.60***</td>
<td>(.70)</td>
<td></td>
</tr>
<tr>
<td>8. Negative Metaperceptions</td>
<td>2.95</td>
<td>0.56</td>
<td>-.09</td>
<td>-.18*</td>
<td>-.19*</td>
<td>.28***</td>
<td>.52***</td>
<td>.37***</td>
<td>.20*</td>
<td>(.69)</td>
</tr>
</tbody>
</table>

*Note: Internal reliabilities appear in parentheses.  
*p < .05; **p < .01; ***p < .001.*
An identical set of primary analyses employed in Study 1 was performed to test my hypotheses.

**Primary Analyses**

When negative contact was not included in the analyses, positive contact was reliably associated with lower levels of old-fashioned prejudice, $\beta = -.41$, $t(141) = -5.12$, $p < .001$, modern prejudice, $\beta = -.21$, $t(141) = -42.51$, $p = .013$, and negative metaperceptions, $\beta = -.23$, $t(140) = -2.73$, $p = .007$. The associations between positive contact and old-fashioned prejudice ($B = -.16, B_{SE} = .04, 95\%CI = -.26, -.09$), positive contact and modern prejudice ($B = -.09, B_{SE} = .04, 95\%CI = -.17, -.03$), and positive contact and negative metaperceptions ($B = -.13, B_{SE} = .03, 95\%CI = -.20, -.08$) were all mediated by reduced intergroup anxiety.

After negative contact was included in the analyses, positive contact still predicted lower levels of old-fashioned prejudice, $\beta = -.25$, $t(140) = 4.08$, $p = .004$. However, positive contact was not a significant predictor of modern prejudice, $\beta = -.05$, $t(140) = -0.05$, $p = .550$ or negative metaperceptions, $\beta = -.12$, $t(139) = -1.26$, $p = .210$. In contrast, negative contact emerged as a predictor of increased old-fashioned prejudice, $\beta = .34$, $t(140) = 4.08$, $p < .001$, modern prejudice, $\beta = .33$, $t(140) = 3.77$, $p < .001$, and negative metaperceptions, $\beta = .24$, $t(139) = 2.64$, $p = .009$. As in Study 1, the associations between positive contact and old-fashioned prejudice ($B = -.07, B_{SE} = .03, 95\%CI = -.15, -.02$), positive contact and modern prejudice ($B = -.03, B_{SE} = .02, 95\%CI = -.09, -.01$), and positive contact and negative metaperceptions ($B = -.07, B_{SE} = .03, 95\%CI = -.13, -.02$) were all mediated by reduced intergroup anxiety. The associations between negative contact and old-fashioned prejudice ($B = .18, B_{SE} = .05, 95\%CI = .09, .28$), negative contact and modern prejudice ($B = .08, B_{SE} = .04, 95\%CI = .01, .17$), and negative contact and negative metaperceptions ($B = .16, B_{SE} = .04, 95\%CI = .09, .25$) were all mediated by increased intergroup anxiety.

**Discussion**

Study 2 replicated the main findings of Study 1 in a very different intergroup setting. Positive contact Hong Kong Chinese had with Mainland Chinese was a reliable predictor of reduced old-fashioned prejudice, modern prejudice and negative metaperceptions via reduced intergroup anxiety when negative contact was not taken into consideration. However, the inclusion of negative contact substantially influenced the relationship between positive contact and intergroup attitudes. Although positive contact was still directly associated with lower levels of old-fashioned prejudice, it was no longer a direct predictor of modern prejudice toward or negative metaperceptions of Mainland Chinese. Negative contact, on the other hand, appeared to be a more consistent predictor of intergroup attitudes than positive
contact. In addition, intergroup anxiety explained the associations of both positive and negative contact with all dependent variables. While positive contact predicted less negative intergroup attitudes via reduced intergroup anxiety, negative contact predicted more intergroup negativity via increased intergroup anxiety. As this pattern of results mirrored that of Study 1, Study 2 provides the first evidence that the effects of negative contact on prejudice might be similar across cultures.

**Study 3**

Like the United States, Hong Kong is a nation that has been substantively affected by the British, and thus may not be an appropriate cultural comparison. During British colonialism (1841–1997), Western influences were exerted on several aspects of Hong Kong Chinese culture, including lifestyle, food, and legal systems. If the patterns detected are indeed universal and help explain prejudice and negative metaperceptions across cultures, then they should replicate in nations that have comparatively little Western influence. Thus, in Study 3, I turn the attention to the conflict between Buddhists and Muslims in Thailand, a non-Western nation that has seen relatively little Western influence.

Thailand is one of four Asian countries alongside Nepal, Bhutan, and Turkey that have never been occupied, ruled, or governed by any European colonizing powers. The Thai population consists of approximately 94% Buddhists and 5% Muslims (Central Intelligence Agency, 2015). Muslim Thais have suffered many decades of social and economic marginalization. For instance, the four Southern provinces in which Muslim Thais primarily live are among the least developed provinces in Thailand in terms of education, poverty incidence and unemployment rates (Chongkittavorn, 2004; Croissant, 2007). Many Buddhist Thais today refer to Muslim Thais as “khaek,” a term with derogatory overtones that Muslim Thais resent (Horstmann, 2011). Muslim Thais, in contrast, tend to hold beliefs that Buddhist Thais are privileged and prejudiced, and Buddhist Thais are often concerned about these negative beliefs (Croissant, 2007; Horstmann, 2004).

**Method**

**Participants and Measures**

A total of 161 Buddhist Thais (74% female; $M_{age} = 26.54$, $SD = 7.59$) were recruited via a major online discussion forum in Thailand (www.pantip.com). All measures used in Study 3 were matched to those used in Studies 1 and 2. However, in this study, all items were adjusted to the appropriate content and context. The target in-group and out-group were changed to “Buddhist Thais” and “Muslim Thais”, respectively. In addition, the word “religious” was used instead of “racial” or “cultural” in all negative metaperception items.
The questionnaire was translated into Thai by two research assistants who were blind to the aims and hypotheses of this study.

Results

Preliminary Analyses

A small percentage of participants (<5%) did not complete all the dependent variable measures used. Listwise deletion was employed to deal with missing data. In line with prior research (Aberson, in-press; Barlow et al., 2012a; Graf et al., 2014), participants reported having positive contact with Muslim Thais more frequently than negative contact, $t(160) = 10.56, p < .001$. Scale reliabilities, means, standard deviations, and intercorrelations can be seen in Table 3.

Data Analysis Overview

An identical set of primary analyses employed in Studies 1 and 2 was performed to test my hypotheses.

Primary Analyses

When negative contact was not considered, positive contact was associated with lower levels of old-fashioned prejudice, $\beta = -.38, t(157) = -5.19, p < .001$, modern prejudice, $\beta = -.27, t(157) = -3.46, p < .001$, and negative metaperceptions, $\beta = -.27, t(145) = -3.39, p < .001$. The associations between positive contact and old-fashioned prejudice ($B = -.13, B_{SE} = .03, 95\%CI = -.20, -.07$), positive contact and modern prejudice ($B = -.07, B_{SE} = .02, 95\%CI = -.12, -.04$), and positive contact and negative metaperceptions ($B = -.12, B_{SE} = .03, 95\%CI = -.18, -.06$) were mediated by reduced intergroup anxiety.

After including negative contact in the analyses, positive contact remained a predictor of less old-fashioned prejudice, $\beta = -.38, t(156) = -5.41, p < .001$, modern prejudice, $\beta = -.26, t(156) = -3.50, p < .001$, and negative metaperceptions, $\beta = -.28, t(144) = -3.92, p < .001$. Negative contact also predicted greater old-fashioned prejudice, $\beta = .29, t(156) = 4.15, p < .001$, modern prejudice, $\beta = .20, t(156) = 2.69, p = .008$, and negative metaperceptions, $\beta = .37, t(144) = 5.06, p < .001$. All effects were mediated by intergroup anxiety. Specifically, the associations between positive contact and old-fashioned prejudice ($B = -.12, B_{SE} = .03, 95\%CI = -.19, -.07$), positive contact and modern prejudice ($B = -.06, B_{SE} = .02, 95\%CI = -.11, -.03$), and positive contact and negative metaperceptions ($B = -.10, B_{SE} = .03, 95\%CI = -.17, -.06$) were all mediated by reduced intergroup anxiety, while the associations between negative contact and old-fashioned prejudice ($B = .15, B_{SE} = .04, 95\%CI = .07, .23$), negative contact and modern prejudice ($B = .08, B_{SE} = .03, 95\%CI = .04, .14$), and negative contact and
Table 3.

Descriptive information and correlations among focal variables (Study 3)

<table>
<thead>
<tr>
<th>Focal Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>26.54</td>
<td>7.28</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Gender (1 = Male, 2 = Female)</td>
<td>1.75</td>
<td>0.44</td>
<td>.12</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3. Positive Contact</td>
<td>3.28</td>
<td>1.10</td>
<td>.09</td>
<td>.06</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Negative Contact</td>
<td>2.06</td>
<td>0.99</td>
<td>.04</td>
<td>.03</td>
<td>.00</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Intergroup Anxiety</td>
<td>1.83</td>
<td>0.70</td>
<td>-.04</td>
<td>-.08</td>
<td>-.32***</td>
<td>.34***</td>
<td>(.91)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Old-Fashioned Prejudice</td>
<td>2.30</td>
<td>0.67</td>
<td>-.06</td>
<td>.06</td>
<td>-.38***</td>
<td>.29***</td>
<td>.71***</td>
<td>(.76)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Modern Prejudice</td>
<td>3.24</td>
<td>0.66</td>
<td>-.07</td>
<td>.04</td>
<td>-.27***</td>
<td>.20**</td>
<td>.41***</td>
<td>.53***</td>
<td>(.70)</td>
<td></td>
</tr>
<tr>
<td>8. Negative Metaperceptions</td>
<td>2.48</td>
<td>0.74</td>
<td>-.20*</td>
<td>-.04</td>
<td>-.28***</td>
<td>.36***</td>
<td>.56***</td>
<td>.53***</td>
<td>.50***</td>
<td>(.87)</td>
</tr>
</tbody>
</table>

Note: Internal reliabilities appear in parentheses.

*p < .05; **p < .01; ***p < .001
negative metaperceptions ($B = .12$, $B_{SE} = .04$, $95\% CI = .05, .22$), were mediated by increased intergroup anxiety.

**Discussion**

Study 3 revealed similar patterns of results to Studies 1 and 2. Positive contact Buddhist Thais had with Muslim Thais was reliably associated with improved intergroup attitudes when negative contact was not taken into account. Interestingly, when negative contact was considered, positive contact still directly predicted less old-fashioned prejudice, modern prejudice, and negative metaperceptions. Consistent with Studies 1 and 2, however, negative contact was a direct predictor of increased intergroup negativity. In addition, I found support for my argument, illustrating that intergroup anxiety is an important mediator of the relationships between both types of contact and intergroup outcomes.

**General Discussion**

The present article investigated three important aspects of intergroup contact. In response to recent calls to explain how negative contact increases intergroup antipathy (Barlow et al., 2012a; Pettigrew, 2008), I examined negative contact in addition to positive contact as predictors of intergroup attitudes and intergroup anxiety as their core mediator. In response to Dixon et al.’s (2005) appeal for examining intergroup outcomes beyond prejudice, I introduced negative metaperceptions as a novel variable dependent on positive contact and negative contact. Finally, given the almost non-existent contact research in Hong Kong and Thailand (Pettigrew & Tropp, 2006), I tested the current model in these nations in order to determine if my proposed positive and negative contact effects were generalizable to non-Western populations.

The current findings allowed me to draw several conclusions that advance our understanding of intergroup contact. First, negative contact was a reliable predictor of prejudice and an intergroup outcome beyond prejudice (i.e., negative metaperceptions). In this thesis, I argued that negative metaperceptions should be inherently tied to intergroup contact. Specifically, what we think the out-group thinks about our own group should be shaped by the interactions that we have with them (Vorauer, 2003, 2006; Plant & Butz, 2006). In line with my argument, negative contact was directly associated with more negative metaperceptions in addition to old-fashioned and modern prejudice toward Black Americans (Study 1), Mainland Chinese (Study 2), and Muslim Thais (Study 3). Second, intergroup anxiety helped explain why negative contact increases intergroup negativity among a wide variety of target groups (including racial, regional and religious groups) and even when positive contact has been taken into consideration. In particular, all three studies revealed that negative contact had
indirect effects on increased prejudice and negative metaperceptions through increased anxiety about interacting with out-group members. These results thus provided the evidence that intergroup anxiety is a critical mediator of the negative contact-intergroup attitudes relationship.

Third, positive contact appeared to be a less stable predictor of prejudice and negative metaperceptions when negative contact was taken into consideration. In line with prior research in this area (e.g., Pettigrew & Tropp, 2006), I found that positive contact was directly associated with old-fashioned prejudice, modern prejudice and negative metaperceptions in all three studies when negative contact was not controlled for. However, when negative contact was controlled for, positive contact no longer predicted negative metaperceptions of Black Americans in Study 1, and modern prejudice toward and negative metaperceptions of Mainland Chinese in Study 2. Hence, the present findings lent support for recent studies (Barlow et al., 2012a; Graf et al., 2014; Pettigrew, 2008), which have found that positive contact is not a reliable predictor of prejudice when negative contact is accounted for. These findings further highlighted the importance of considering negative contact when examining the benefits of positive contact.

Fourth, intergroup anxiety emerged as a robust mediator of the positive contact-intergroup attitudes relationship. Throughout all studies, positive contact predicted outcome variables via decreased intergroup anxiety. The current results were interesting, considering that indirect effects of positive contact on some of the dependent outcomes were apparent in the absence of direct effects. These results suggested that there might be multiple factors that mediate the relationship between positive contact and intergroup attitudes. Some of these unmeasured mediators could act as suppressors, obscuring the direct effects of positive contact on intergroup outcomes. In other words, although positive contact predicts less negative intergroup attitudes through a reduction of intergroup anxiety, this relationship might be suppressed by unmeasured mediating factors that increase negative intergroup attitudes. Thus, the direct effects of positive contact on some intergroup outcomes would appear to be zero without taking the suppressing variables into consideration (see Rucker, Preacher, Tormala, & Petty, 2011 for a discussion). As potential suppressers have not yet been discovered, additional research is needed to specify suppressing variables that might temper the direct effects of positive contact.

Finally, data collected from White Americans (majorities in a Western nation), Hong Kong Chinese (majorities in a non-Western nation previously colonized by the British), and Buddhist Thais (majorities in a non-Western nation that has never been colonized) revealed
extremely similar patterns of results. Specifically, positive contact predicts less intergroup negativity indirectly via reduced intergroup anxiety and negative contact predicted more intergroup negativity both directly and indirectly via increased intergroup anxiety in all three samples. Therefore, I was the first to establish that these aspects of contact are generalizable to the Hong Kong Chinese and Thai populations. My results also extend on Pettigrew and Tropp’s (2006) study, which found that the effects of contact are similar across multiple target groups. Here, I demonstrated that contact effects might be more robust than originally anticipated. Even when I varied two critical components (i.e., culture and target group) simultaneously, the pattern of results emerged in each study was remarkably similar.

This raises the question as to why contact worked so similarly across nations. Perhaps an answer can be found in the fact that, in each case, I surveyed comparatively privileged majority group members. Majorities, irrespective of culture, face similar challenges that they must contend with in intergroup settings (Devine & Vasquez, 1998; Tropp & Pettigrew, 2005). These challenges concern power and status maintenance, coexisting with anxieties about being perceived as prejudiced and being rejected by members of minority groups (Barlow et al., 2009; Hyers & Swim, 1998; Plant, 2004; Stephan & Stephan, 1985; Vorauer et al., 1998). Given such pressures, it is perhaps not surprising that I found evidence for parallels in the impact of contact on intergroup attitudes cross-culturally. Future studies, however, should examine whether minority groups are more sensitive to cultural particulars and respond differently to contact with majority group members in different intergroup settings.

It is also important to note here that while most patterns of findings appeared to be similar, I did find one notable difference in my datasets. Specifically, when accounting for negative contact, positive contact failed to directly predict negative metaperceptions in Study 1 (the United States), and negative metaperceptions and modern prejudice in Study 2 (Hong Kong), but reliably predicted all outcome variables in Study 3 (Thailand). It is possible that there could be cultural factors in the West (and nations influenced by the West) that disproportionately bias people to attend to negative (rather than positive) information when making intergroup judgments. As I was unable to determine these cultural factors based on the current data, I encourage contact scholars to conduct further studies aimed at identifying such factors.

Limitations and Future Research Directions

Common method bias. I recognize that self-report measures might give rise to concerns about common method variance. Therefore, I performed a Harman’s one-factor test,
a statistical technique widely used by researchers to address this issue (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; To, Fisher, Ashkanasy, & Rowe, 2012). Exploratory factor analyses of all variables generated eight factors, with the first accounting for only 27% of the variance in Study 1, only 28% in Study 2, and only 29% in Study 3. As a single factor did not emerge, and the general factor did not account for the majority of the covariance among the variables, it is unlikely that common method bias was a major issue in my studies. Nevertheless, I encourage future studies to utilize more rigorous designs (e.g., experimental, longitudinal, multilevel) and more objective measurements (e.g., behavioral, archival, physiological) to avoid this issue entirely.

**Causality.** Data presented here are cross-sectional. Hence, definitive conclusions that contact alters prejudice and negative metaperceptions via intergroup anxiety cannot be drawn, as some reciprocal causation is also plausible. For instance, it is possible that individuals’ perceptions that the out-group view them in a negative light could lead them to feel anxious when interacting with out-group members, subsequently making previous negative intergroup interactions salient. In other words, negative metaperceptions could increase the salience of one’s negative intergroup contact via increased intergroup anxiety. It is also possible that negative intergroup interactions could lead individuals to feel that the out-group holds negative perceptions of them, thereby leading them to feel anxious in intergroup contexts. In other words, negative contact should elevate intergroup anxiety via increased negative metaperceptions. Given the current research design, these alternative causal pathways cannot be ruled out. Therefore, I urge future studies to employ experimental or longitudinal designs in order to determine whether negative contact *causes* increased intergroup anxiety, which in turn, *causes* increased prejudice and negative metaperceptions.

**Contact measures.** Some researchers may be concerned about the use of single items measuring positive and negative contact, as they could be prone to measurement error. However, Barlow and colleagues (2012a) revealed that the current items are predictively valid. As suggested by Cronbach (1961), if predictive validity is satisfactory, single-item measures must be considered to be reliable and researchers must not be discouraged from using them (also see Bergkvist & Rossiter, 2007; Rossiter, 2002). As such, the current measures were unlikely to pose a serious problem in my studies.

It should be noted, however, that the current measure tapped into contact *quantity* (i.e., the frequency of contact), but not contact *quality* (i.e., the emotive strength of contact). Thus, little is known about whether (a) negative contact quality is a more robust predictor of intergroup attitudes than positive contact quality across cultures, and (b) intergroup anxiety
mediates both the effects of positive and negative contact quality. As such, an examination of positive and negative contact quality as predictors of intergroup attitudes represents a promising avenue for future research.

**Dependent measures.** Some researchers might be concerned about the equivalence of my intergroup anxiety, old-fashioned prejudice, modern prejudice, and negative metaperceptions measures across the three distinct contexts. There are, however, four reasons why it is unlikely that the present results were affected by the statistical artifacts of the measures used. First, all items were checked by research assistants to ensure that they had high face validity. Second, the internal consistencies of the scales were adequate for all three studies, demonstrating that these scales were reliable. Third, means and standard deviations of all scales appeared to be very similar across studies. Finally, a multi-group confirmatory factor analysis provided evidence for invariance across different samples. Specifically, the configural invariant test resulted an acceptable fit for my measures - intergroup anxiety, \( \chi^2 (42) = 70.84, \) RMSEA = .04, CFI = .95; old-fashioned prejudice, \( \chi^2 (15) = 21.57, \) RMSEA = .04, CFI = .95; modern prejudice, \( \chi^2 (15) = 23.69, \) RMSEA = .04, CFI = .95; negative metaperceptions, \( \chi^2 (27) = 51.94, \) RMSEA = .05, CFI = .94. These findings implied that there were the same number of pattern of fixed parameters and pattern of free parameters (i.e., the same model structure) in each sample group. In addition, the metric invariance test revealed an acceptable fit - intergroup anxiety, \( \Delta \chi^2 (10) = 16.87, p > .05; \) old-fashioned prejudice, \( \Delta \chi^2 (7) = 9.42, p > .05; \) modern prejudice, \( \Delta \chi^2 (7) = 10.94, p > .05; \) negative metaperceptions, \( \Delta \chi^2 (7) = 12.78, p > .05. \) These results highlighted that the magnitude of factor loadings was similar across all three samples, thereby suggesting that the groups calibrated the current measures in the same way and that the values on the current scales represented the same meaning across groups.

**Heterogeneity of target groups.** I recognize that it is imperative to minimize the number of possible confounds, especially with regard to moderators of the contact effects (i.e., status group and contact prevalence). Past research indicated contact effects are stronger (a) among majorities compared to minorities (Tropp & Pettigrew, 2005) and (b) in neighborhoods where contact is less prevalent in comparison to more contact prevalent neighborhoods (Barlow et al., 2013). As such, in my studies, I chose to examine the largest and most salient conflict in each nation (i.e., White vs. Black Americans, Hong Kong vs. Mainland Chinese, and Buddhist vs. Muslim Thais). In doing so, I held constant these two established moderators. Specifically, participants consisted of only members of majority groups, preventing the possibility of a group status confound. In addition, the amounts of both
types of contact appeared to be similar across nations (see Tables 1-3), thereby eliminating the possibility of a contact prevalence confound.

Nonetheless, it is important to note that the current contexts did not allow me to hold target group constant. More specifically, target groups (i.e., racial in Study 1, regional in Study 2, and religious in Study 3) varied systematically with culture (i.e., Western culture in Study 1, non-Western culture but under the influence of Western culture for many decades in Study 2, and non-Western culture with little influence of Western culture in Study 3) in this research. However, the target group confound should not pose a serious issue in the present studies. As Pettigrew and Tropp’s (2006) meta-analysis found that contact effects are stable across multiple different targets (perhaps among majority groups in general, as discussed above), any reported differences between studies would likely be due to the culture of the respondents rather than the heterogeneity of target groups.

Nonetheless, given the design of my studies, I am unable to conclude definitively whether any observed differences in this research were due to heterogeneity of the target groups, culture, or an interaction between the two. Thus, future research should replicate my findings cross-culturally while holding target in-group and out-group constant. For example, contact scholars may wish to investigate positive contact and negative contact as predictors of prejudice and negative metaperceptions among heterosexual and gay men in the United States, Hong Kong, and Thailand. Any differences emerged between these studies can now be attributed to culture, as the target group (i.e., heterosexual vs. gay men) identical across studies.

**Power.** Some researchers might also wish to see a formal comparison of the strengths of the paths from positive contact versus negative contact to the dependent variables. As previously mentioned, prior studies has indicated that negative contact emerged as the stronger predictor of prejudice than positive contact (e.g., Barlow et al., 2012; Graf et al., 2014). However, these detected opposing effects were very small. Unfortunately, in the present studies, I simply did not have sufficient power to detect these small effects (see Appendix A for more information). Thus, I urged scholars to conduct cross-cultural contact studies using larger samples in order to compare the strengths of the effects of positive contact versus negative contact on intergroup outcomes.

**Conclusion**

Across three studies, I demonstrated that positive contact and negative contact might have independent effects on both prejudice and negative metaperceptions. While positive contact predicted less negative intergroup attitudes, negative contact predicted more
intergroup negativity. Negative contact, however, was the more stable predictor of intergroup attitudes than positive contact, despite occurring much less frequently. In addition, I took a step towards explaining why negative contact works to increase negative intergroup attitudes. Results indicated that intergroup anxiety emerged as a critical mediator of both positive and negative contact effects. Finally, I presented the first test of identical models of positive and negative contact on intergroup attitudes. Largely, the current results displayed some support for the universality of contact effects, illustrating that positive and negative contact’s patterns of prediction were largely stable irrespective of cultural context.

Overall, data from Chapter 2 revealed that positive contact and negative contact predict both prejudice and negative metaperceptions even though negative contact emerged as the more consistent predictor. However, little is still known about positive and negative contact as predictors of positively valenced outcomes such as collective action. Hence, in Chapter 3, I aim to investigate if positive and negative contact with sexual minorities are associated with heterosexuals’ intentions to engage in collective action for equal marriage rights. As it is still unclear whether contact with gay men and lesbian women differentially predict collective action for equal marriage rights among heterosexual men and women (Techakesari et al., 2015b), the additional aim of Chapter 3 is to test whether the gender of contact partners matters.
CHAPTER 3
Intergroup Contact and Collective Action:
The Importance of Gender of Contact Partners

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Abstract

In recent years, research has shown that positive contact with sexual minorities can enhance heterosexuals’ motivations to engage in collective action for equal rights. In spite of this, scant attention has been paid to negative contact, and if it matters whether heterosexual men and women are reporting on contact with gay men or lesbian women. Thus, the present study examined positive and negative contact with gay men and lesbian women as predictors of collective action for equal marriage rights among heterosexual Australian men \((N = 96)\) and women \((N = 196)\). Results revealed that positive contact with gay men and lesbian women independently predicted increased collective action intentions among both heterosexual men and women, even after controlling for negative contact. However, for heterosexual men, positive contact with gay men predicted enhanced collective action intentions more strongly than positive contact with lesbian women. In contrast, for heterosexual women, positive contact with gay men and lesbian women were equally powerful predictors of collective action intentions. These findings, therefore, highlight the importance of considering both the gender of heterosexual and sexual minority contact partners when examining the role of positive contact in promoting collective action for equal rights.

Keywords: Positive intergroup contact, negative intergroup contact, collective action, marriage equality, gay and lesbian rights
Intergroup Contact and Collective Action:  
The Importance of Gender of Contact Partners

Prior research has demonstrated that positive contact between members of different social groups is one of the key factors in improving intergroup relations (Allport, 1954; Dovidio et al., 2005; Pettigrew et al., 2011; Hewstone et al., 2006; Hewstone & Swart, 2011). In particular, recent meta-analytic studies have revealed that positive contact with sexual minorities is reliably associated with reductions in sexual prejudice among heterosexuals (e.g., Pettigrew & Tropp, 2006; Smith et al., 2009). In addition to decreasing prejudice, emerging evidence has indicated that positive contact with sexual minorities can enhance heterosexuals’ collective action for equal rights (Duhigg, Rostosky, Gray, & Wimsatt, 2010; Fingerhut, 2011; Russell, 2011).

Nonetheless, research examining the relationship between positive intergroup contact and collective action has, thus far, ignored the influence of negative intergroup contact (Pettigrew, 2008). As such, little is known about the effect of positive contact on collective action among heterosexuals when negative contact is taken into account. The present study, therefore, aims to take negative contact into consideration when examining the relationship between positive contact with sexual minorities and heterosexuals’ intentions to engage in collective action for equal marriage rights.

In addition, the role of contact partners’ gender in influencing the positive contact-collective action relationship have received very little empirical attention (see Techakesari et al., 2015b). Thus, we currently have very limited understanding of the ways heterosexual men and women may differentially view and react to positive contact with gay men and lesbian women. In the present research, I extend on the intergroup contact literature by drawing on data from both genders of sexual majorities (i.e., heterosexual men and heterosexual women), in order to test whether they respond to positive contact with different genders of sexual minorities (i.e., gay men and lesbian women) in unique ways.

Beyond Prejudice: The Relationship Between Positive Contact And Collective Action

As discussed in Chapter 1, the majority of contact studies have used individuals’ scores on prejudice scales as their sole dependent variable (see Dixon et al., 2005, for a review). The authors argued that this practice might limit our understanding of intergroup contact, as positive contact could have collective ramifications that extend beyond shifts in prejudicial attitudes. For example, positive contact could motivate members of advantaged groups to take action on behalf of the disadvantaged in order to achieve positive social change. As such, Dixon and colleagues encouraged contact researchers to adopt a more
expansive conception of change, and called for empirical studies examining positive contact as predictors of intergroup outcomes beyond prejudice (also see Dixon et al., 2012; Dixon et al., 2010; Hewstone & Swart, 2011; Wright & Baray, 2012; Wright & Lubensky, 2009).

In response to this call, the present research investigates if positive contact is linked to collective action in addition to prejudice. Collective action refers to any action taken by a group of individuals whose common goal is to promote societal changes (Wright & Taylor, 1998). Such changes include eliminating systemic injustice and discriminatory laws, and improving the status of the disadvantaged. Individuals can participate in various types of collective action for social change, ranging from very mild to moderate (e.g., signing petitions or writing letters to political candidates) to extreme (e.g., engaging in violent strikes or damaging public properties; Becker, Wright, Lubensky, & Zhou, 2013; Sturmer & Simon, 2004; van Zomeren, Postmes, & Spears, 2008). In this study, I argue that this construct is important to consider, as it is an essential factor that increases conflict resolution and intergroup harmony in the long-term. In fact, a large body of research has shown that collective action can promote a wide range of positive social changes, including decreasing discriminatory practices, lowering legitimacy perceptions concerning intergroup inequalities and increasing support for egalitarianism among majority group members, and improving the status of minority group members in society (Hornsey et al., 2006; Hogg & Abrams, 1988; Iyer, Schmader, & Lickel, 2007; Klandermans, 1997; Louis, 2009; Tajfel & Turner, 1979; van Zomeren & Iyer, 2009; Wright, 2010).

Since the publication of Dixon and colleagues’ (2005) review article, researchers have begun to examine the positive contact-collective action relationship. Emerging evidence has indicated that positive contact with disadvantaged group members predicts increased advantaged group members’ intentions to challenge structural inequality on behalf of minorities. In fact, Dixon, Durrheim and Tredoux (2007) illustrated that, among White South Africans, positive contact with Black South Africans predicted increased support for policies designed to eliminate racial prejudice. The beneficial effects of positive contact on collective action may also extend beyond interethnic conflicts. More specifically, recent studies have

4So far, the vast majority of contact studies have focused the perspectives of disadvantaged group members. These studies revealed that positive contact can diminish disadvantaged-group members’ motivations to challenge structural inequality. For instance, Dixon and colleagues (2007) demonstrated that positive contact with South African Whites decreases South African Blacks’ desire to engage in collective action on behalf of their group. This pattern of results has also been found in various settings across multiple disadvantaged groups, including Black and Hispanic Americans who had positive contact with White Americans (Glasford & Calcagno, 2012; Tropp, Hawi, Van Laar, & Levin, 2012), Arabic Israelis who had positive contact with Jewish Israelis (Saguy, Tausch, Dovidio, & Pratto, 2009), and Maori New Zealanders who had positive contact with White New Zealanders (Sengupta & Sibley, 2013). However, as the present thesis focuses on the perspectives of advantaged group members, this line of research is not discussed any further.
revealed that positive contact with lesbian, gay and bisexual people is associated with enhanced collective action for equal marriage rights among heterosexual Americans (Duhigg et al., 2010; Fingerhut, 2011; Russell, 2011; also see Fingerhut, Riggle, & Rostosky, 2011; Herek, 2011, for reviews).

On the Importance of Negative Contact

Despite the promising evidence suggesting that positive contact with sexual minorities can facilitate heterosexuals’ collective action for equal rights, the importance of negative contact has been overlooked. Prior research has outlined two key reasons for why negative contact must be taken into account when examining the benefits of positive contact (also see Chapter 1 for more information). First, in diverse societies, it is likely that heterosexuals encounter both positive and negative contact with sexual minorities. So far, research has shown that negative contact between members of different racial/ethnic groups exists and is unavoidable in multicultural nations, even though it occurs less frequently than positive contact (Barlow et al., 2012a; Graf, Paolini, & Rubin, 2014; Pettigrew & Tropp, 2012).

Second, recent evidence has indicated that positive contact appears to be a less robust predictor of intergroup attitudes when negative contact is taken into consideration. For instance, Barlow and colleagues (2012a) revealed that positive contact with Black Americans predicted all measures of prejudice included in this study among White Americans when negative contact with Black Americans was not controlled for. However, when negative contact was controlled for, positive contact no longer predicted all measures of prejudice. The same pattern of results was also observed among Austrian, German, Polish, Slovak, and Czech Republic citizens who had contact with foreigners (Graf et al., 2014), and Hong Kong Chinese who had contact with Mainland Chinese (Techakesari et al, 2015a). As such, it is possible that positive contact with sexual minorities could be a less reliable predictor of collective action for equal rights among heterosexuals, when negative contact with sexual minorities was accounted for.

To my knowledge, no empirical studies have taken negative contact into account when examining the positive contact-collective action relationship. Thus, it is unclear whether (a) positive contact with sexual minorities occurs more frequently than negative contact with sexual minorities among heterosexuals, and (b) the beneficial effect of positive contact on collective action hold controlling for negative contact. Accordingly, the goal of the present study is to investigate the roles of positive and negative contact with sexual minorities in predicting collective action for equal marriage rights among heterosexual Australians. In line with the literature reviewed in this section, I hypothesize that positive
contact with sexual minorities will occur more frequently than negative contact among both heterosexual men and heterosexual women. Furthermore, I predict that positive contact with gay men and positive contact with lesbian women will be associated with increased collective action. However, positive contact should be a less consistent predictor of collective action after controlling for negative contact.

**Does Gender Matter?**

In the present paper, I argue that gender is another factor that is under-examined in the study of contact between sexual majorities and minorities. In recent years, scholars have begun to focus their attention toward the potentially distinct ways heterosexual men and women view and respond to positive contact with gay men and lesbian women (see Techakesari et al., 2015b, for a review). As discussed in Chapter 1, emerging evidence has indicated that the effect of positive contact on sexual prejudice varies depending on the gender of sexual minorities (Baunach et al., 2009; Smith et al., 2009). Specifically, positive contact with lesbian women predicts reduced prejudice more strongly than does positive contact with gay men. In addition, the gender of heterosexuals has been shown to affect the positive contact-sexual prejudice relationship, such that positive contact with sexual minorities appears to be a more robust predictor of sexual prejudice among heterosexual men in comparison with heterosexual women (Collier et al., 2012; Hooghe & Meeusen, 2012). In sum, recent work has discovered that both sexual minorities’ gender and heterosexuals’ gender are critical factors that can alter the effect of positive contact on intergroup attitudes.

Nonetheless, research to date has not taken into account both the gender of sexual minorities and the gender of heterosexuals simultaneously. As such, in the current study, I test whether contact partners’ gender plays a role in determining the strength of the positive contact-collective action relationship. In particular, I draw on two distinct lines of research to make specific, testable hypotheses: (a) individual differences in contact effects, and (b) gender differences in attitudes toward gay men and lesbian women.

**Individual differences in contact effects.** Early contact theorists stipulated that certain personalities could interfere with the benefits of positive contact (Allport, 1945, Amir, 1969). These researchers were particularly pessimistic about the efficacy of contact as a prejudice-reduction tool among highly prejudiced people. In fact, they contended that strong pre-existing prejudicial attitudes would override positive contact and nullify its beneficial effects. Instead, they asserted that in order for contact to produce positive attitude change, individuals must be somewhat open-minded and willing to engage in face-to-face intergroup interactions.
It is only recently that such propositions have been empirically tested. Evidence from correlational and experimental studies has, thus far, debunked these propositions, revealing that positive contact produces optimal outcomes among ideologically intolerant individuals (Dhont & Van Hiel, 2009, 2011; Hodson, 2008; Hodson, Harry, & Mitchell, 2009; see Hodson et al., 2011, 2013, for reviews). For instance, Hodson (2008) surveyed 35 White inmates in an all-male prison in the United Kingdom and found that positive contact with Black inmates was associated with reduced prejudice toward Black people. However, this relationship was substantially stronger among those high in social dominance orientation. Similarly, Hodson and colleagues (2009) found that positive contact with sexual minorities was associated with decreased sexual prejudice among heterosexual British college students. Again, this beneficial effect of positive contact was more pronounced among those high in right-wing authoritarianism. In addition, West and Hewstone (2012) demonstrated that positive contact with gay men predicted reduced anti-gay attitudes more strongly among heterosexual Jamaicans (who were found to be on average more sexually prejudiced) in comparison to heterosexual British (who were found to be on average less sexually prejudiced).

Overall, these findings illustrate that positive contact is most effective in improving intergroup outcomes among highly prejudiced majorities – that is, those who need the prejudice-reduction intervention the most. In the present thesis, I extend this general pattern of results in order to make specific predictions regarding how heterosexual men and heterosexual women react to positive contact with gay men and lesbian women, on the basis of their pre-existing prejudice toward each minority group.

Gender differences in attitudes toward gay men and lesbian women. According to the gender-role conformity literature, heterosexual people face considerable societal pressure to adhere to gender-role norms. Specifically, heterosexual men are expected to embody “hegemonic masculinity” - the idea that a “real” man should be dominant, assertive, independent, tough, and able to hide his emotions (Connell & Messerschmidt, 2005; Hegarty, Pratto, & Lemieux, 2004). Due to these societal expectations, heterosexual men are deeply concerned about not appearing effeminate or ‘gay’, and avoid expressing feminine traits or engaging in feminine activities (Bosson, Prewitt-Freilino, & Taylor, 2005; Herek, 2007; Roese et al., 1992). Furthermore, many heterosexual men feel the need to reinforce their masculinity by publicly derogating gay men who symbolise the violation of male-role norms (Herek, 1988, 2007; Kimmel, 1997; Talley & Bettencourt, 2008). Heterosexual men, however, do not respond to lesbian women in the same way. In fact, some have the tendency
to view lesbian women in sexual and erotic terms (DeLamater, 1987; Garnet & Kimmel, 2013; Louderback & Whitley, 1997; Sprecher & McKinney, 1993). The positive value assigned to this eroticism has been shown to counteract the stigma associated with lesbianism (Louderback & Whitley, 1997). As such, it is not surprising heterosexual men exhibit more negative attitudes toward gay men than lesbian women.

On the other hand, heterosexual women are confronted with societal expectations to endorse traits associated with femininity, such as caring, compassion, warmth, sensitivity and empathy (Prentice & Carranza, 2002; Worrell, 2001). Thus, they tend to be anxious about being seen as non-feminine, and resent lesbian women who represent female-role nonconformists (Herek & Gonzalez-Rivera, 2006; Kite & Whitley, 1998; LaMar & Kite, 1998). Unlike their heterosexual male counterparts, however, heterosexual women tend to evaluate gay men and lesbian women more similarly than heterosexual men do (see Kite & Whitley, 1996, for a meta-analysis). Specifically, while they display more negativity toward lesbian women than gay men, this difference is much less noticeable than the difference between heterosexual men’ attitudes toward gay men and lesbian women. This finding is mainly assumed to be due to the fact that heterosexual men are more sensitive to gender-role violations than heterosexual women (Bosson et al., 2005; Bosson, Taylor, Prewitt-Freilino, 2006; Louderback & Whitley, 1997). For instance, heterosexual men perceive sexually prejudiced slurs such as ‘faggot’ and ‘sissy’ to be more contemptuous and insulting than heterosexual women consider the equivalent, such as ‘dyke’ (Burn, 2000; Preston & Stanley, 1987). In sum, heterosexual men are more likely to endorse traditional gender-role beliefs than heterosexual women, thereby leading heterosexual men to exhibit lower levels of acceptance toward male-role deviants (i.e., gay men) than heterosexual women display toward female-role deviants (i.e., lesbian women).

**Hypotheses.** Based on the literature reviewed above, heterosexual men and women differ in their pre-existing negative attitudes toward gay men and lesbian women. Hence, it is conceivable to expect that heterosexual men and women should respond to positive contact with each group in distinct ways. Drawing on the individual differences in contact effects literature, positive contact yields stronger beneficial effects on intergroup outcomes among those high in pre-existing prejudice (Dhont & Van Hiel, 2009, 2011; Hodson, 2008, 2011; Hodson et al., 2009, 2013). Given that heterosexual men tend to express greater levels of hostility toward gay men than they do toward lesbian women, I contend that, for them, positive contact with gay men will be more impactful in motivating engagement in collective action for equal rights than positive contact with lesbian women. Conversely, as heterosexual
women exhibit higher levels of antipathy toward lesbian women than they do toward gay men, I predict that, for them, positive contact with lesbian women will be more influential in enhancing collective action than positive contact with gay men.

The Present Study

In summary, the present article investigates positive and negative contact with gay men and lesbian women as predictors of collective action for equal marriage rights among heterosexual Australian men and women. In this article, I hypothesize that positive contact with gay men and positive contact with lesbian women will be more prevalent than negative contact gay men and negative contact with lesbian women. Furthermore, I predict that positive contact will be associated with higher levels of intentions to engage in collective action for equal marriage rights. However, positive contact will be a less stable predictor of collective action intentions when negative contact is taken into account. Finally, I expect that for heterosexual men, positive contact with gay men will predict collective action intentions more strongly than positive contact with lesbian women. On the other hand, for heterosexual women, positive contact with lesbian women will predict collective action intentions more strongly than positive contact with gay men.

STUDY 4

Context

The present research was part of a larger study conducted in Tasmania, Australia in 2013. At the time of data collection, same-sex couples were denied the legal rights to marry in Australia (Parliament of Australia, 2014). In fact, this data collection process occurred approximately 6 months after the Tasmanian Senate voted down the Tasmanian Marriage Amendment Bill 2012. The defeated Bill had been introduced by Members of the Australian Parliament in the hopes of legalizing same-sex marriage in the state of Tasmania (Commonwealth of Australia, 2014a).

Method

Participants and Measures

\footnote{It is important to note here that prior to filling out the questionnaire, participants were randomly allocated to one of six experimental conditions. More specifically, they were presented with one of the six advertisements: (1) “allowing same-sex couples to marry is about a fair go for everyone”, (2) “marriage is about bringing families together”, (3) “Tasmania will benefit from taking the lead on same-sex marriage”, (4) “marriage is about long-term love and commitment”, (5) “Australia has been left behind”, and (6) a control condition – “the Fuller Building”. However, it is unlikely that the experimental manipulation had a substantial impact on the current findings, as this manipulation was not successful. Furthermore, the experimental manipulation was not significantly correlated with any of the measured variables, \( ps > .05 \). In addition, the pattern of results did not change significantly before and after controlling for the experimental manipulation.}
A community sample of self-identified heterosexual men ($N = 96; M_{age} = 53.92$ years; $SD = 14.60$) and heterosexual women ($N = 196; M_{age} = 48.26$ years; $SD = 12.87$) was recruited via the Online Research Unit, an established online data collection company in Australia. All participants were Australian citizens residing in Tasmania, Australia. In the present study, all participants completed an online survey assessing the measures listed below.

**Demographics.** In addition to participants’ age, gender and race, their political affiliation and household income were measured. Political affiliation was assessed via the following question: “Please indicate your political views” ($1 = \text{extremely left-wing}$ to $7 = \text{extremely right-wing}$). Household income was assessed via the following question: “Which of the following best describes your income?” ($1 = \text{less than $10,000}$ to $16 = \text{more than $150,000}$).\(^6\)

**Positive contact.** Positive contact with gay men and lesbian women were assessed via single items adapted from Barlow et al. (2012a). The items were “On average, how frequently do you have POSITIVE contact/interactions with gay men?” and “On average, how frequently do you have POSITIVE contact/interactions with lesbian women?” Participants rated all items on 7-point scales, ranging from 1 (never) to 7 (extremely frequently). Higher scores indicated more frequent positive contact with gay men and lesbian women.

**Negative contact.** Negative contact with gay men and lesbian women were assessed via single items adapted from Barlow et al. (2012a). The items were “On average, how frequently do you have NEGATIVE contact/interactions with gay men?” and “On average, how frequently do you have NEGATIVE contact/interactions with lesbian women?” Participants rated all items on 7-point scales, ranging from 1 (never) to 7 (extremely frequently). Higher scores represented more frequent negative contact with gay men and lesbian women.

**Collective action intentions.** This construct was assessed using a 5-item scale. Example items were “It is likely that I would tell politicians about my support for same-sex marriage” and “It is likely that I would vote for a political party that supports same-sex marriage in the next state election”. Participants rated all items on 9-point scales, ranging from 1 (not at all likely) to 9 (extremely likely). The scores were averaged with higher scores indicating greater willingness to engage in collective action for equal marriage rights. The scale was reliable for both heterosexual male ($\alpha = .81$) and female ($\alpha = .89$) participants.

\(^6\)The results did not significantly differ before and after controlling for demographic variables.
Results

Preliminary Analyses
A small percentage of participants (<5%) did not complete all the dependent variable measures. Thus, listwise deletion was employed to deal with missing data. Descriptive information of all variables for heterosexual male and female participants can be found in Table 4 and intercorrelations between focal variables can be seen in Table 5. Preliminary checks for zero-order correlations revealed that for heterosexual men, there was a significant correlation between political affiliation and collective action intentions. Specifically, the more right-wing male participants reported being, the less willing they were to engage in collective action for equal marriage rights. There was also a significant correlation between household income and collective action intentions. In particular, the more household income male participants had, the more collective action intentions they expressed. For heterosexual women, a significant relationship between age and collective action intentions emerged, such that the intended frequency of collective action declined with age. To control for these significant relationships, political affiliation, household income, and age were included as covariates in the primary analyses.

The correlations further indicated that positive contact with gay men and positive contact with lesbian women are only moderately correlated for both heterosexual men ($r = .41, p < .001$) and women ($r = .35, p < .001$). These findings supported the treatment of these variables as two distinct constructs (as opposed to considering contact with gay men and lesbian women jointly, as most previous research has done).

The zero-order correlations further revealed that positive contact with gay men was moderately correlated with negative contact with gay men for heterosexual men ($r = .27, p = .009$), and these variables were not significantly correlated for heterosexual women ($r = .12, p = .097$). In addition, positive contact with lesbian women was moderately positively correlated with negative contact with lesbian women for both heterosexual men ($r = .33, p = .001$) and heterosexual women ($r = .34, p = .001$). These results lend support for the notion that positive contact and negative contact are not simply two sides of the same coin (see Aberson, in-press; Aberson & Gaffney, 2009).

Paired-Sample T-Tests

Analytic approach. To test whether positive contact occurred more frequently than negative contact, a series of paired sample t-tests were conducted.

Heterosexual men. Male participants reported having more positive contact with gay

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7 As displayed in Table 5, participant race was not significantly correlated with the dependent variable of collective action intentions. I therefore did not include this construct as a control variable and will not discuss it further.
Table 4.

*Descriptive Statistics (Study 4)*

<table>
<thead>
<tr>
<th>Focal Variables</th>
<th>Heterosexual Men ($N = 96$)</th>
<th>Heterosexual Women ($N = 196$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Age</td>
<td>53.92</td>
<td>14.60</td>
</tr>
<tr>
<td>Race (-1 = White, 1 = non-White)</td>
<td>-.94</td>
<td>0.35</td>
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<tr>
<td>Political Affiliation</td>
<td>3.94</td>
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<tr>
<td>Household Income</td>
<td>7.52</td>
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<td>Negative Contact with Gay Men</td>
<td>1.52</td>
<td>0.79</td>
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<tr>
<td>Negative Contact with Lesbian Women</td>
<td>1.65</td>
<td>1.17</td>
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<td>Positive Contact with Gay Men</td>
<td>3.73</td>
<td>2.26</td>
</tr>
<tr>
<td>Positive Contact with Lesbian Women</td>
<td>3.02</td>
<td>2.26</td>
</tr>
<tr>
<td>Collective Action Intentions</td>
<td>3.97</td>
<td>1.73</td>
</tr>
</tbody>
</table>
Table 5.

*Correlations among focal variables for heterosexual women (above diagonal) and men (below diagonal).*

<table>
<thead>
<tr>
<th>Focal Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
<td>-</td>
<td>.02</td>
<td>.11</td>
<td>-.26***</td>
<td>-.10</td>
<td>-.05</td>
<td>-.23**</td>
<td>-.21**</td>
<td>-.18*</td>
</tr>
<tr>
<td>2. Race (-1 = White, 1 = non-White)</td>
<td>-.06</td>
<td>-</td>
<td>.05</td>
<td>-.11</td>
<td>-.06</td>
<td>-.04</td>
<td>-.04</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>3. Political Affiliation</td>
<td>.16</td>
<td>.01</td>
<td>-</td>
<td>.01</td>
<td>-.06</td>
<td>-.08</td>
<td>-.13</td>
<td>-.08</td>
<td>-.13</td>
</tr>
<tr>
<td>4. Household Income</td>
<td>-.27**</td>
<td>-.11</td>
<td>-.03</td>
<td>-</td>
<td>.01</td>
<td>.10</td>
<td>.15*</td>
<td>.07</td>
<td>-.02</td>
</tr>
<tr>
<td>5. Negative Contact with Gay Men</td>
<td>.23*</td>
<td>-.12</td>
<td>.10</td>
<td>.01</td>
<td>-</td>
<td>.29***</td>
<td>.12</td>
<td>.10</td>
<td>.02</td>
</tr>
<tr>
<td>6. Negative Contact with Lesbian Women</td>
<td>.04</td>
<td>-.10</td>
<td>-.06</td>
<td>.01</td>
<td>.43***</td>
<td>-</td>
<td>.16*</td>
<td>.34***</td>
<td>.08</td>
</tr>
<tr>
<td>7. Positive Contact with Gay Men</td>
<td>-.03</td>
<td>-.09</td>
<td>-.14</td>
<td>.28**</td>
<td>.27**</td>
<td>.10</td>
<td>-</td>
<td>.35***</td>
<td>.31***</td>
</tr>
<tr>
<td>8. Positive Contact with Lesbian Women</td>
<td>.04</td>
<td>-.16</td>
<td>-.08</td>
<td>.25*</td>
<td>.19</td>
<td>.33**</td>
<td>.41***</td>
<td>-</td>
<td>.32***</td>
</tr>
<tr>
<td>9. Collective Action Intentions</td>
<td>-.06</td>
<td>-.17</td>
<td>-.25*</td>
<td>.21*</td>
<td>.04</td>
<td>.08</td>
<td>.53***</td>
<td>.40***</td>
<td>-</td>
</tr>
</tbody>
</table>

*Note:* The correlations above the diagonal represent heterosexual women, and the correlations below the diagonal represent heterosexual men.

*p < .05; **p < .01; ***p < .001.
men than negative contact with gay men, \( t(95) = 9.90, p < .001 \), and negative contact with lesbian women, \( t(95) = 8.37, p < .001 \). In addition, they reported having more positive contact with lesbian women than negative contact with gay men, \( t(95) = 6.55, p < .001 \), and negative contact with lesbian women, \( t(95) = 6.20, p < .001 \).

**Heterosexual women.** Female participants reported having more positive contact with gay men than negative contact with gay men, \( t(195) = 15.05, p < .001 \), and negative contact with lesbian women, \( t(195) = 13.92, p < .001 \). In addition, they reported having more positive contact with lesbian women than negative contact with gay men, \( t(195) = 11.74, p < .001 \), and negative contact with lesbian women, \( t(195) = 11.79, p < .001 \).

Overall, my data suggested that both heterosexual male and female participants reported experiencing positive contact more frequently than negative contact. In line with prior intergroup contact research (Barlow et al., 2012a; Graf et al., 2014; Techakesari et al., 2015a), these findings demonstrated that negative contact exists and that it appears to occur considerably less frequently than positive contact.

**Hierarchical Multiple Regression Analyses**

**Analytic approach.** To test whether (a) positive contact predicts increased collective action among heterosexual men and women and (b) controlling for negative contact has any impact on this relationship, I conducted hierarchical multiple regression analyses. For each set of analyses, demographic variables (i.e., age, political affiliation, and household income) were entered as controls at Step 1, followed by positive contact with gay men and positive contact with lesbian women at Step 2, finally followed by negative contact with gay men and negative contact with lesbian women at Step 3.

**Heterosexual men.** At Step 1, the model accounted for significant variance in collective action intentions, \( F(3, 91) = 3.50, R^2_{adj} = .07, p = .019 \). As displayed in Table 6, more conservative political affiliation (\( \beta = -.25, p = .015 \)) and household income (\( \beta = .21, p = .043 \)) were significant predictors of collective action intentions, whereas age was not (\( \beta = .04, p = .701 \)). At Step 2, positive contact with gay men and positive contact with lesbian women explained a significant portion of variance in collective action intentions, \( F(5, 89) = 10.48, R^2_{ch} = .27, p < .001 \). As hypothesized, positive contact with gay men (\( \beta = .42, p < .001 \)) and positive contact with lesbian women (\( \beta = .23, p = .015 \)) were both significant predictors of collective action intentions when negative contact with these two minority groups were not included in the analysis. Specifically, the more positive contact with gay men heterosexual men reported, the more likely they were to engage in collective action for equal marriage.
Table 6.

*Predicting collective action intentions as a function of the control variables and contact with gay men and lesbian women (heterosexual men)*

<table>
<thead>
<tr>
<th>Collective Action Intentions</th>
<th>Step 1 (β)</th>
<th>Step 2 (β)</th>
<th>Step 3 (β)</th>
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<tbody>
<tr>
<td>Age</td>
<td>.04</td>
<td>-.02</td>
<td>.00</td>
</tr>
<tr>
<td>Political Affiliation</td>
<td>-.25*</td>
<td>-.17</td>
<td>-.15</td>
</tr>
<tr>
<td>Household Income</td>
<td>.21*</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td>Positive Contact with Gay Men</td>
<td>-----</td>
<td>.42***</td>
<td>.44***</td>
</tr>
<tr>
<td>Positive Contact with Lesbian Women</td>
<td>-----</td>
<td>.23*</td>
<td>.24*</td>
</tr>
<tr>
<td>Negative Contact with Gay Men</td>
<td>-----</td>
<td>-----</td>
<td>-.10</td>
</tr>
<tr>
<td>Negative Contact with Lesbian Women</td>
<td>-----</td>
<td>-----</td>
<td>-.01</td>
</tr>
<tr>
<td>(R^{2}_{ch})</td>
<td>.10*</td>
<td>.27***</td>
<td>.01</td>
</tr>
<tr>
<td>(R^{2}_{adj})</td>
<td>.07*</td>
<td>.34***</td>
<td>.33***</td>
</tr>
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</table>

*Note: *p* < .05; **p* < .01; ***p* < .001.*
rights. Similarly, the more positive contact with lesbian women heterosexual men reported, the more likely they were to engage in collective action.

At Step 3, negative contact with gay men and negative contact with lesbian women did not contribute significantly to the variance accounted for in collective action intentions, $F(7, 87) = 7.61, R^2_{ch} = .01, p = .526$. Contrary to my prediction, the inclusion of negative contact with gay men and negative contact with lesbian women did not influence the positive contact-collective action relationships. In fact, the coefficients for positive contact in Step 3 were similar or higher for gay men ($\beta = .44, p < .001$) and lesbian women ($\beta = .24, p = .016$).

**Heterosexual women.** At Step 1, the model accounted for significant variance in the dependent variable of collective action intentions, $F(3, 189) = 3.03, R^2_{adj} = .03, p = .031$. As can be seen in Table 7, age significantly predicted decreased collective action intentions ($\beta = -.18, p = .016$), but political affiliation ($\beta = -.11, p = .139$) and household income ($\beta = -.07, p = .342$) did not. At Step 2, positive contact with gay men and lesbian women contributed significantly to the variance accounted for in collective action intentions, $F(5, 187) = 7.59, R^2_{ch} = .12, p < .001$. As expected, positive contact with gay men ($\beta = .21, p = .005$) and positive contact with lesbian women ($\beta = .24, p = .001$) were significant predictors of collective action intentions, when negative contact with these minority groups were not controlled for. Specifically, the more positive contact with gay men heterosexual women reported, the greater intentions to participate in collective action they expressed. Similarly, the more positive contact with lesbian women heterosexual women reported, the greater their collective action intentions.

At Step 3, negative contact with gay men and lesbian women did not contribute significantly to the variance accounted for in collective action intentions, $F(7, 185) = 5.45, R^2_{ch} < .01, p = .780$. Again, the inclusion of negative contact with gay men and lesbian women did not affect the associations between positive contact with gay men ($\beta = .21, p = .004$) and lesbian women ($\beta = .25, p = .001$), and collective action intentions.

**Difference Between Two Related Betas Analyses**

**Analytic approach.** In order to determine if there was a difference in the strength of positive contact with gay men and positive contact with lesbian women as predictors of collective action intentions, I ran a series of tests of difference between two related $\beta$s. In line with the recommendations outlined by Kleinbaum, Kupper, and Muller (2008), I used the following equation: $t = (b_1 - b_2)/SE_{(b_1 - b_2)}$.

**Heterosexual men.** The analyses revealed that for heterosexual men, the coefficients significantly differed from one another, $t(87) = 1.99, p = .049$. More specifically, positive
Table 7 (Heterosexual Women).

Predicting collective action intentions as a function of the control variables, positive contact with gay men and positive contact with lesbian women

<table>
<thead>
<tr>
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<th>Collective Action Intentions</th>
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<tr>
<td></td>
<td>Step 1 (β)</td>
</tr>
<tr>
<td>Age</td>
<td>-.18*</td>
</tr>
<tr>
<td>Political Affiliation</td>
<td>-.11</td>
</tr>
<tr>
<td>Household Income</td>
<td>-.07</td>
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<tr>
<td>Positive Contact with Gay Men</td>
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<tr>
<td>Positive Contact with Lesbian Women</td>
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<tr>
<td>Negative Contact with Gay Men</td>
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<tr>
<td>Negative Contact with Lesbian Women</td>
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</tr>
<tr>
<td>$R^2_{ch}$</td>
<td>.05*</td>
</tr>
<tr>
<td>$R^2_{adj}$</td>
<td>.03*</td>
</tr>
</tbody>
</table>

Note: *p < .05; **p < .01; ***p < .001.
contact with gay men predicted increased collective action intentions more strongly than positive contact with lesbian women.

**Heterosexual women.** For heterosexual women, the coefficients did not significantly differ from one another, \( t(185) = -0.29, p = .772 \). Even though positive contact with lesbian women appeared to predict increased collective action intentions more strongly than positive contact with gay men, this difference was not statistically reliable.

**Discussion**

Decades of research have demonstrated that positive contact with gay men and lesbian women reduces heterosexuals’ prejudice toward sexual minorities (see Pettigrew & Tropp, 2006; Smith et al., 2009, for meta-analyses). Recent evidence has further suggested that, in addition to decreasing their prejudice, positive contact has the power to motivate heterosexuals to engage in collective action for equal rights on behalf of sexual minorities (Duhigg et al., 2010; Fingerhut, 2011; Fingerhut et al., 2011; Herek, 2011; Russell, 2011). However, research to date has overlooked the importance of considering negative contact when examining the relationship between positive contact and collective action. Therefore, the present research extended this literature by taking negative contact into account when investigating positive contact with gay men and lesbian women as predictors of heterosexual participants’ intentions to engage in collective action for equal marriage rights.

**Positive Contact, Negative Contact and Collective Action**

The current findings theoretically contribute to the contact literature in several ways. First, I provided the first empirical evidence that positive contact with gay men and lesbian women occurs more frequently than negative contact with these minority groups among heterosexuals. Although recent work found that positive contact is more prevalent and common than negative contact in multicultural societies (Barlow et al., 2012a; Graf et al., 2014; Techakesari et al., 2015a), this research has primarily focused on racial, religious, and regional groups. As such, in the present study, I extended the existing research by illustrating that both heterosexual men and women reported having more than twice the amount of positive interactions with gay men and lesbian women, compared with the amount of negative interactions with these minority group members.\(^8\)

Second, the present study replicated the previous finding that positive contact can enhance heterosexuals’ intentions to engage in collective action for equal marriage rights when negative contact is not accounted for (Duhigg et al., 2010; Fingerhut, 2011; Russell, 2011). I add to this emerging body of research by establishing that positive contact with gay

\(^8\) I acknowledge that the ratio of positive to negative contact may vary depending on the social context. Hence, I look forward to future research examining moderators, such as societal and institutional bigotry.
men and positive contact with lesbian women are independent predictors. Specifically, over and above positive contact with gay men, positive contact with lesbian women predicts increased collective action intentions, and vice versa. These findings, and the modest inter-correlations between positive contact with gay men and positive contact with lesbian women, confirm the utility of differentiating contact by gender among sexual minorities. These novel results also support recent arguments that encouraging positive contact with gay men and lesbian women could be a useful strategy in promoting collective action for positive social change among heterosexuals (also see Fingerhut et al., 2011; Herek, 2011, for reviews).

Finally, the present research is the first, to my knowledge, to establish that negative contact does not appear to influence the relationship between positive contact and collective action among heterosexuals. In recent years, prominent contact scholars have proposed that negative contact has the ability to disrupt the benefits of positive contact (Paolini et al., 2004, 2010; Pettigrew, 2008; Pettigrew et al., 2011). While this proposition has received some empirical support (Aberson, in-press; Barlow et al., 2012a; Graf et al., 2014; Pettigrew & Tropp, 2012), contact studies have typically focused on negative intergroup outcomes (i.e., prejudice). As such, the current study was the first to examine if negative contact might also influence the relationship between positive contact and positive intergroup outcomes (i.e., collective action for equal marriage rights) among heterosexuals.

Interestingly, in this study, I found that controlling for negative contact with gay men and lesbian women did not have an impact on the beneficial effects of positive contact on heterosexual men’s and heterosexual women’s collective action intentions. In fact, these results suggest that positive and negative contact may not affect positive and negative intergroup outcomes in the same way (see Hayward, Tropp, Hornsey & Barlow, 2015; Paolini, McIntyre, & Hewstone, 2014, for detailed discussions). In particular, negative contact might promote intergroup negativity more powerfully than positive contact acts to reduce it, nullifying positive contact’s effects on negative intergroup outcomes. On the other hand, positive contact might predict increased intergroup positivity more strongly than negative contact predicts its reduction, thereby yielding very little impact on positive intergroup outcomes. Nonetheless, these findings echo Dixon and colleagues’ (2005) sentiment that it is imperative to move beyond “the restrictions of prejudice problematic” by highlighting that scholars must begin to examine the roles of positive contact and negative contact in modulating outcomes beyond prejudice.

The Role of Contact Partners’ Gender
The additional goal of the present article was to examine the importance of contact partners’ gender. Thus far, no empirical studies have taken into consideration the roles of both heterosexuals’s gender and sexual minorities’ gender simultaneously when examining positive contact as a predictor of collective action for equal marriage rights (see Techakesari et al., 2015b). In the present thesis, given that positive contact yields stronger effects on intergroup outcomes among highly prejudiced individuals (Dhont & Van Hiel, 2009, 2011; Hodson, 2008, 2011; Hodson et al., 2009, 2013) and heterosexual men tend to hold more prejudicial attitudes toward gay men than lesbian women (Herek, 1988, 2000; Kerns & Fine, 1994; Ratcliff, Lassiter, Markman, & Snyder, 2006), I proposed that positive contact with gay men might predict heterosexual men’s collective action intentions more strongly than positive contact with lesbian women. In line with this proposition, I found that, among heterosexual men, positive contact with gay men emerged as a stronger predictor of collective action for equal marriage rights than did positive contact with lesbian women.

Considering that heterosexual women exhibit more prejudice toward lesbian women than gay men (Herek & Gonzalez-Rivera, 2006; Kite & Whitley, 1998; LaMar & Kite, 1998), I further hypothesized that positive contact with lesbian women would be more impactful in predicting their collective action intentions than positive contact with gay men. In the present study, I failed to find support for this argument. In fact, positive contact with lesbian women predicted increased heterosexual women’s collective action only slightly more powerfully than positive contact with gay men, but both factors were of roughly equal influence. These findings were perhaps in line with Kite and Whitley’s (1996) meta-analysis, which suggested that even though heterosexual women evaluate lesbian women more negatively than gay men, this difference is very small. As heterosexual women’s levels of prejudice toward lesbian women and gay men appear to be very similar, it is not surprising that positive contact with gay men and lesbian women would similarly predict their collective action intentions.

Overall, my novel results suggest that heterosexual men and women may view and respond to positive contact with gay men and lesbian women in unique ways. These findings, therefore, highlight the importance of considering contact partners’ gender when investigating the benefits of positive contact. It is acknowledged here that my current contact model rests on the assumption that the difference in the strength of the positive contact-collective action relationship between heterosexual men and heterosexual women occurred due to differing levels of negative attitudes toward gender-role violations. However, in the present study, I did not directly test this underlying assumption. As such, I encourage future
research to investigate whether positive contact with gay men predicts increased collective action more strongly than positive contact with lesbian women among heterosexual men because it is more effective in reducing their negative attitudes toward gender-role violations. In contrast, contact researchers would benefit from examining whether positive contact with gay men and positive contact with lesbian women are powerful predictors of heterosexual women’s collective action because it is more effective in decreasing their negative attitudes toward gender-role violations.

Limitations and Future Research Directions

Causality. In line with previous research (Cakal et al., 2011; Dixon et al., 2007; Fingerhut et al., 2011; Herek, 2011), I have presented the causal path from positive contact to collective action. However, I recognize that data presented here are cross-sectional. As such, definitive conclusions about the direction of causality cannot be drawn, as some reciprocal causation is entirely possible (see Louis, Stork-Brett, & Barlow, 2013). It may well be the case that heterosexuals who fight for gay and lesbian rights may be willing to seek out contact and develop friendships with gay men and lesbian women. To my knowledge, no empirical studies have examined the relationship between positive contact and collective action using an experimental design. Thus, I encourage future studies to utilize this design in order to test whether positive contact causes increased collective action or collective action causes increased positive contact. As in many social psychological phenomena, I suspect that bi-directionality may be at play.

Long-term benefits of positive contact. In addition to the issue of causality, the self-report, cross-sectional data prevent me from determining whether positive contact with gay men and lesbian women have a long-lasting impact on heterosexuals’ desires to participate in collective action for equal marriage rights. Thus, longitudinal studies should be conducted to examine if positive contact heightens heterosexuals’ efforts to promote social equality both in the short-term and in the long-term.

Context. In the present study, it is imperative to acknowledge that I only examined the sexual majorities vs. sexual minorities context, in which gender is presumably salient. Therefore, the current findings might not be generalizable to other intergroup contexts in which gender is relatively less salient. For instance, it is possible that the effect of positive contact with Black men and the effect of positive contact with Black women on White men’s and White women’s support for equal opportunity policies might turn out to be comparable. In order to determine if the patterns of results are similar or different across contexts, I
encourage future studies to examine the current research question in a wide variety of intergroup settings.

**Mediating processes.** As previously stated, research examining the effect of positive contact on outcomes beyond prejudice is extremely scarce (Dixon et al., 2005, 2012; Wright & Baray, 2012; Wright & Lubensky, 2009). Moreover, research to date has paid little attention to the mechanisms underpinning the relationship between positive contact and collective action among members of advantaged groups. In this study, I also acknowledge that potential mediators were not examined. Future research is therefore needed to elucidate exactly why positive contact predicts heterosexuals’ increased willingness to engage in collective action on behalf of sexual minorities.

As highlighted earlier in the thesis, intergroup anxiety and empathy have been shown to be the key mediators of the contact-prejudice relationship (see Pettigrew & Tropp, 2008, for a review). Thus, it would be worth testing whether these psychological mechanisms also underpin the relationship between positive contact and collective action. Future studies may also benefit from testing whether alternative mediating processes (e.g., anger) would be more potent in this case. Emerging evidence has revealed that some members of an advantaged group experience anger and this negative emotion is a strong predictor of support for policies aimed at reducing social inequality (e.g., Iyer et al., 2007; Leach, Iyer, & Pederson, 2006, 2007; Lodewijkz, Kersten, & van Zomeren, 2008; Thomas & McGarty, 2009; also see Thomas, McGarty, & Mavor, 2009 for a review). Based on these recent findings, it is possible that positive contact with gay men and lesbian women may heighten the levels of anger associated with systemic injustice that sexual minorities face among heterosexuals. The greater perceptions of group-based injustice might, in turn, increase their motivations to fight for gay and lesbian rights.

**Conclusion**

In the past six decades, over 500 empirical contact studies have been conducted (Pettigrew, 2008; Pettigrew & Tropp, 2006; Hewstone & Swart, 2011). Much of this work, however, has focused on prejudice as the sole intergroup outcome variable (Dixon et al., 2005, 2012; Wright & Baray, 2012; Wright & Lubensky, 2009). In the present paper, I demonstrate that the benefits of positive contact are much more extensive than prejudice reduction. Here, I show that positive contact with gay men and lesbian women heightened heterosexuals’ collective efforts toward equality over and above the presence of negative contact. As such, positive contact with gay men and lesbian women may represent important tools for promoting peace and social justice in the long-term.
In addition, the present findings advance our understanding of intergroup contact by examining whether the relationship between positive contact and collective action may vary depending on the gender of contact partners. My data suggests that positive contact with gay men and positive contact with lesbian women can predict heterosexual men’s and heterosexual women’s collective action for equal rights in unique ways. While positive contact with both gay men and lesbian women predicts increased support for equality for both heterosexual men and women, it appears that positive contact with gay men may be more influential in predicting heterosexual men’s collective action than positive contact with lesbian women. On the other hand, positive contact with gay men and positive contact with lesbian women might be equally impactful in predicting heterosexual women’s enhanced social change-oriented motivations. Therefore, these novel results highlight the importance of considering the gender of contact partners when examining the positive contact-collective action relationship. With these findings, I hope to provide greater insight into how positive contact with gay men and lesbian women may yield differential effects on collective action among heterosexual men and women.
CHAPTER 4
General Discussion
CHAPTER 4: GENERAL DISCUSSION

General Discussion

In the final chapter of the current thesis, I first summarize the key findings of the empirical studies presented in Chapters 2 and 3, and outline the theoretical contributions this thesis makes to the intergroup contact literature. This is followed by a discussion of practical implications. Finally, I end this chapter by acknowledging some limitations of this work, highlighting important unanswered questions, and providing fruitful suggestions for future research.

Summary of Findings and Theoretical Significance

Intergroup Anxiety

In the past 60 years, over 500 empirical studies examining the role of positive contact in improving intergroup attitudes have been conducted (Pettigrew & Tropp, 2006). In spite of this vast literature on positive contact, negative contact has received comparatively little empirical attention (Paolini et al., 2004, 2010; Pettigrew, 2008). So far, research in this area has shown that negative contact is unavoidable in multicultural societies and promotes intergroup antipathy (Barlow et al., 2012a; Graf et al., 2014). Given that this is a new research area, little is known about the mechanisms underpinning the detrimental effects of negative contact. As such, the present thesis makes its first contribution by examining psychological processes that explain how negative contact works to increase prejudice.

In this thesis, I discovered that intergroup anxiety mediates the relationship between negative contact and increased prejudice. More specifically, my study of 207 White Americans (Study 1) revealed that negative contact with Black Americans was associated with increased anxiety when interacting (or thinking about interacting) with these out-group members. This increased anxiety, in turn, was associated with increased old-fashioned prejudice and modern prejudice toward this particular minority out-group. This pattern of results also emerged in my subsequent empirical studies of 145 Hong Kong Chinese who experienced negative contact with Mainland Chinese (Study 2) and 161 Buddhist Thais who experienced negative contact with Muslim Thais (Study 3).

In sum, the current studies provided one of the first pieces of evidence supporting the notion that negative contact predicts increased prejudice via increased intergroup anxiety. However, further questions still need to be answered. For example, my data showed that intergroup anxiety did not fully mediate the relationship between negative contact and modern prejudice in Study 2. This suggests that additional mediators exist and remain to be discovered. Identifying these mediators is, therefore, a necessary next step in developing a greater understanding of why negative contact promotes intergroup hostility. I suspect that
other intergroup emotions (e.g., empathy, fear, and anger) would play critical roles in explaining this relationship (see the limitation and avenues for future research section for more information).

**Negative Metaperceptions**

Critics have recently asserted that contact scholars have focused too narrowly on prejudice reduction and have not paid adequate attention to other important intergroup outcomes (Dixon et al., 2005, 2012; Wright & Lubensky, 2009; Wright & Baray, 2012). Consequently, it is still unclear whether positive contact has the power to predict reduced negative metaperceptions (i.e., the beliefs that individuals are viewed negatively by the out-group). Thus, in addition to determining how negative contact is linked with increased prejudice, the present thesis makes a contribution to the literature by examining positive contact and negative contact as predictors of negative metaperceptions.

Consistent with the vast literature on positive contact (Pettigrew & Tropp, 2006), data from Studies 1-3 suggested that positive contact with Black Americans (Study 1), Mainland Chinese (Study 2) and Muslim Thais (Study 3) was reliably associated with decreased prejudice toward out-group members among White Americans (Study 1), Mainland Chinese (Study 2), and Buddhist Thais (Study 3), when negative contact was not taken into account. However, in line with recent work in this area (Alperin et al., 2014; Barlow et al., 2012a; Graf et al., 2014), when negative contact was controlled for, positive contact became a substantially less stable predictor of reduced prejudice. Instead, negative contact emerged as the more stable predictor of increased prejudice.

Interestingly, the present research revealed that the effects of contact on prejudice and negative metaperceptions appeared to be remarkably similar. Specifically, positive contact that White Americans had with Black Americans (Study 1), Hong Kong Chinese had with Mainland Chinese (Study 2) and Buddhist Thais had with Muslim Thais (Study 3) reliably predicted reduced negative metaperceptions of these minority group members when negative contact was not considered. When negative contact was included in the analyses, positive contact became a less reliable predictor of reduced negative metaperceptions. Negative contact, by contrast, appeared to be the more robust and consistent predictor of increased negative metaperceptions.

In sum, Studies 1-3 demonstrate, for the first time, that positive and negative contact can predict both prejudice and outcomes beyond prejudice (i.e., negative metaperceptions) in a similar fashion. However, the present studies were heavily reliant on the use of self-report, cross-sectional data. This means that causality cannot be inferred. Definitive conclusions

...
CHAPTER 4: GENERAL DISCUSSION

about the long-term impact of contact on negative metaperceptions also cannot be drawn. Thus, experimental and longitudinal data are required in order to remedy these issues (as elaborated in the limitation and avenues for future research section).

Contact Research in Non-Western Nations

To date, contact researchers have neglected the importance of conducting contact research in non-Western nations (see Pettigrew & Tropp, 2006, for a meta-analysis). In fact, several aspects of intergroup contact have not been examined in non-Western countries, including the role of positive and negative contact in modulating negative metaperceptions, and the role of intergroup anxiety in explaining how negative contact works to increase intergroup negativity. As such, the current thesis makes its third theoretical contribution to the literature by investigating if these aspects of intergroup contact are generalizable to non-Western nations. In this respect, Studies 1-3 drew on data from White Americans in the United States (i.e., a Western nation), Hong Kong Chinese in Hong Kong (i.e., a non-Western nation previously colonized by the British), and Buddhist Thais in Thailand (i.e., a non-Western nation that has never been colonized). In particular, I examined positive and negative contact with Black Americans (Study 1), Mainland Chinese (Study 2) and Muslim Thais (Study 3) as predictors of intergroup prejudice and negative metaperceptions.

My data illustrated that the pattern of results appeared to be very similar across cultural contexts. Specifically, results showed that positive contact predicted reduced prejudice and negative metaperceptions, whereas negative contact predicted increased intergroup negativity. Furthermore, intergroup anxiety acted as a core mediator of both relationships between positive contact and intergroup outcomes and negative contact and intergroup outcomes. Results of Studies 1-3 suggest that many aspects of intergroup contact are generalizable to the Hong Kong Chinese and Thai populations.

In sum, the current findings are consistent with the longstanding assumption that contact effects might indeed be universal. However, I acknowledge that Studies 1-3 explored three different intergroup conflicts in three different nations. Consequently, I was not able to explore the effect sizes of positive and negative contact across cultures holding target constant. Future research is therefore needed to test whether the effect sizes are similar across cultures. Using the same type of intergroup conflict (e.g., heterosexual vs. sexual minorities, or normal-weight vs. obese) would be one way to address this issue.

It is also important to note here that the current samples consisted of only majority group members in each nation. Thus, it remains unclear whether minority group members differ in the ways they view and react to positive and negative cross-group interactions. To
overcome this limitation, future studies should recruit minority in addition to majority participants in both Western and non-Western nations (see the limitation and avenues for future research section for more information).

**Collective Action**

Another contribution the present thesis makes is in relation to the role of positive and negative contact in facilitating (or disabling) advantaged group members’ collective efforts to challenge structural inequality. In recent years, emerging evidence has illustrated that positive contact with sexual minorities enhances heterosexuals’ willingness to engage in collective action for equal marriage rights (Duhigg et al., 2010; Fingerhut, 2011; Russell, 2011). Yet, these empirical studies did not include measures of negative contact. Therefore, Study 4 provided the first empirical examination of positive contact with gay men and positive contact with lesbian women as predictors of intentions to partake in collective action for equal marriage rights among heterosexual Australians, while taking negative contact into consideration. In particular, this study investigated whether controlling for negative contact nullifies the beneficial impact of positive contact on collective action intentions.

In line with previous research (Duhigg et al., 2010; Fingerhut, 2011; Russell, 2011), Study 4 showed that both positive contact with gay men and positive contact with lesbian women independently predicted enhanced intentions to participate in collective action for equal marriage rights among heterosexual Australians. Contrary to expectations, however, negative contact with gay men and lesbian women did not predict collective action intentions. Furthermore, positive contact with these sexual minorities remained significant predictors of collective action intentions even after negative contact was accounted for.

In sum, Study 4 illustrates that negative contact did not predict intentions to engage in collective action for equal rights or influence the relationship between positive contact and collective action intentions. The current findings are interesting, considering that prior research (and Studies 1-3) have found that negative contact is the more stable and consistent predictor of prejudice than positive contact (Aberson, 2015; Alperin et al., 2014; Barlow et al., 2012a; Graf et al., 2014). Future research, therefore, is needed in order to reconcile these contradictory findings. The outcomes of this line of work would help contact scholars elucidate exactly why positive contact is the more robust predictor of collective action intentions, but negative contact is the more robust predictor of prejudice and negative metaperceptions. I speculate that this contradiction may be explained by valence of the dependent outcomes (see the limitation and avenues for future research section for theorizing about this).
Gender of Heterosexuals and Gender of Sexual Minorities

To date, gender of heterosexuals and gender of sexual minorities are the two constructs that have remained largely understudied. In fact, research to date has not taken both factors into consideration simultaneously when examining the effect of positive contact with sexual minorities’ collective action intentions (see Techakesari et al., 2014, for review). As such, my final objective was to make a contribution by examining the potentially distinct ways heterosexual men and heterosexual women view and respond to positive contact with gay men and lesbian women.

More specifically, in Study 4, I first compared positive contact with gay men and positive contact with lesbian women as predictors of intentions to engage in collective action for equal marriage rights among heterosexual Australian men. I then compared positive contact with gay men and positive contact with lesbian women as predictors of heterosexual Australian women’s collective action intentions. Results indicated that, for heterosexual men, positive contact with gay men predicted increased collective action intentions more strongly than positive contact with lesbian women. On the other hand, for heterosexual women, positive contact with gay men and positive contact with lesbian women emerged as equally powerful predictors of increased collective action intentions. These findings illustrate that although heterosexual men appear to respond to positive contact with gay men and positive contact with lesbian women differently, heterosexual women react to positive interactions with these minority groups in a remarkably similar way.

One possible explanation for the findings in Study 4 may be found in literatures on individual differences in contact effects and gender-role conformity. More specifically, recent work has shown that positive contact reduces prejudice most effectively among highly prejudiced individuals (e.g., Hodson, 2008; Hodson et al., 2009). As substantial evidence indicates that heterosexual men tend to hold more prejudicial attitudes toward gay men than lesbian women (e.g., Herek, 1988, 2000; Kerns & Fine, 1994; Ratcliff et al., 2006), it is not surprising that positive contact with gay men predicts increased heterosexual Australian men’s intentions to engage in collective action for equal marriage rights more strongly than positive contact with lesbian women. In contrast, as the levels of prejudice heterosexual women hold toward gay men and lesbian are very similar (see Kite & Whitley, 1996, for a meta-analysis), it is conceivable that positive contact with gay men and positive contact with lesbian women predict increased heterosexual Australian women’s collective action intentions equally strongly.
In sum, these novel results suggest that heterosexuals’ gender and sexual minorities’
gender play critical roles in determining the strength of the positive contact-collective action
relationship. These findings further highlight the importance of considering heterosexuals’
gender and sexual minorities’ gender when examining the benefits of positive contact in a
sexual majority-minority context. In spite of this exciting advance, examining whether these
novel results can be generalizable to other intergroup contexts would make a valuable
contribution to the literature (as elaborated in the limitation and avenues for future research
section below). Additionally, I did not directly examine the proposition that differing levels
of pre-existing prejudice explains why heterosexual men and heterosexual women respond to
positive contact with gay men and positive contact with lesbian women differently. As such, I
encourage future studies to empirically test the validity of this proposition.

‘Real-World’ Implications

The contributions of the empirical studies included in this thesis are not merely
theoretical. In fact, the current findings also have several practical implications. More
specifically, Studies 1-3 demonstrated that both positive contact and negative contact are
critical factors that predict the extent to which individuals believe that out-group members
view them in a negative light or evaluate them negatively. A large body of research indicates
that when individuals hold such negative metaperceptions, they tend to distance themselves
from the out-group and avoid future interactions with its members (Devine et al., 1996; Fein
& Spencer, 1997; Kramer & Messick, 1998; Sigelman & Tuch, 1997; Vorauer, 2003;
Vorauer et al., 1998, 2000). Furthermore, these negative metaperceptions can sometimes
motivate individuals to commit violent acts against members of the opposing group (see
Vorauer, 2006, for a review). As such, identifying positive and negative contact as key
predictors of negative metaperceptions would aid policy makers in making informed
decisions regarding how to promote friendly cross-group interactions and eliminate
intergroup violence in multicultural societies.

The findings of Studies 1-3 also have potential practical applications with regards to
efforts aimed at improving intergroup relations in Hong Kong and Thailand. As discussed in
Chapter 2, prejudice toward Mainland Chinese is now more prevalent than ever before
(British Broadcasting Corporation, 2012; Cheuk-Lam, 2013). Furthermore, Hong Kong
Chinese have also become increasingly violent toward Mainlanders residing in Hong Kong,
as evidenced by the use of armor-clad uniforms and the possession of weapons in recent
protests (South China Morning Post, 2015). Similarly, Buddhist Thais’ prejudice toward
Muslim Thais has intensified following a run of terrorist attacks since the year 2000, known
as The South Thailand Insurgency (Askew, 2010; McCargo, 2008). More than 5000 lives have been lost and 9000 injuries have occurred (CNN, 2013). A series of recent events outside of Thailand have also contributed to the extremely high levels of discrimination against Muslim Thais, including the Buddhas of Bamiyan Bombing (when the largest free standing Buddha statues in the world were destroyed by Muslims in Afghanistan) and the September 11 attacks (Chongkittavorn, 2004).

In Chapter 2, I discovered that several aspects of intergroup contact are not culturally specific. Thus, these novel findings may help the relevant authorities design contact interventions that could be used to promote societal peace in Hong Kong and end the ongoing intergroup violence in Thailand. For instance, as positive contact appears to be a key factor promoting prejudice reduction in both Western and non-Western cultural contexts, positive contact interventions that have been shown to be successful in reducing prejudice in the United States (e.g., encouraging individuals to engage in team sports or activities that require interactions with members of different social groups) might also be effective in reducing prejudice in Hong Kong and Thailand.

Even though contact researchers have primarily placed their emphasis on positive contact between members of different social groups (Pettigrew, 2008; Pettigrew & Tropp, 2006), Studies 1-3 demonstrate that focusing solely on encouraging positive contact may not be sufficient when designing a prejudice-reduction intervention. In particular, my data revealed that negative contact and intergroup anxiety are even more consistent predictors of intergroup hostility than positive contact. As such, investigating ways to interrupt negative cross-group interactions and decrease one’s anxiety during intergroup exchanges should be a top priority for policy makers. Not only would this strategy prevent the existing intergroup conflict(s) from escalating, it would also allow the benefits of positive contact to bear fruit.

The research in Chapter 3 also has an applied message for the existing systemic injustice in Australia. At present, sexual minorities in Australia still suffer from various discriminatory laws. For example, the current Marriage Act states that “marriage means the union of a man and woman”, thereby denying lesbian, gay, bisexual, and transgendered (LGBT) Australians the rights to marry (Parliament of Australia, 2014). In addition, the laws in many Australian states and territories also ban LGBT individuals and couples from adopting children, or having them through surrogacy (Commonwealth of Australia, 2014b, 2014c). Prior research indicated that one of the most effective ways to overturn such systems of oppression is to encourage advantaged group members to engage in collective action (e.g., Hogg & Abrams, 1988; Klandermans, 1997; Tajfel & Turner, 1979; van Zomeren & Iyer,
2009). Majority group collective action has been shown to result in a wide range of positive social changes, including raising awareness of the existing injustice among both advantaged and disadvantaged group members, reducing advantaged group members’ discriminatory practices, and improving the status of the disadvantaged in the society (Fingerhut et al., 2011; Herek, 2011; Iyer et al., 2007; Louis, 2009; Sturmer & Simon, 2004). Based on these findings, it is imperative to examine ways to increase heterosexual Australians’ intentions to engage in collective action.

The results reported in Study 4 revealed that positive contact with gay men and positive contact with lesbian women are critical predictors of heterosexual Australians’ collective action intentions. Specifically, my data showed that positive contact with these sexual minorities are reliably associated with heterosexuals’ enhanced motivations to take action and fight for equal marriage rights. Therefore, activists and gay rights organizations may wish to consider promoting positive contact between heterosexual and LGBT Australians in various community settings (e.g., in the workplace, schools, and recreational/social clubs), in order to improve heterosexual Australians’ participation in collective action for equal marriage rights in Australia. Increased collective action and heterosexual cooperation with LGBT initiatives should, in turn, contribute to the end of discriminatory laws and enhance social justice in Australia.

In this thesis, I argue that it is important to consider the finding that positive contact with gay men is a stronger predictor of collective action intentions than positive contact with lesbian women among heterosexual men. A large body of research indicates that heterosexual men appear to be the group that holds the highest levels of prejudicial attitudes toward sexual minorities and the lowest support for policies aimed at increasing LGBT rights (see Kite & Whitley, 1996, 1998, for reviews). Therefore, it is of utmost importance to identify factors that can improve heterosexual attitudes toward sexual minorities and foster their support for LGBT rights. In Study 4, my data suggested that for heterosexual men, positive contact with gay men would likely produce the most beneficial outcomes. Hence, when designing an intervention aimed at increasing heterosexuals’ collective action intentions in Australia, the main priority should be to maximize positive and friendly interactions between heterosexual and gay male Australians, for example through shared social activities.

**Limitations and Avenues for Future Research**

The current research program advances our understanding of intergroup contact both at theoretical and practical levels. The present thesis, however, is not without limitations.
Therefore, I conclude this final chapter by discussing the key methodological and conceptual limitations and providing some directions for future research.

**Methodological Limitations**

**Causality.** Perhaps the single most important limitation of the present research is in regards to the reliance on self-report, cross-sectional data to test my hypotheses. Although the current methodology is very popular among contact researchers and over 70% of contact studies employ this particular methodology (Pettigrew, 2008), it does not allow me to infer causality with any certainty. As the reverse causal pathway is entirely possible, it is still uncertain whether positive contact causes reduced prejudice and negative metaperceptions and increased collective action intentions, and whether negative contact causes increased intergroup negativity. As such, future research may benefit from testing the effects of positive and negative contact on intergroup attitudes using an experimental design.

**The effects of contact over time.** The current methodology also prevented me from examining the long-term benefits and detriments of contact. In fact, at present, it remains unclear whether positive and negative contact alter prejudice, negative metaperceptions and collective action intentions over time. As such, I encourage future studies to adopt more rigorous (e.g., longitudinal or daily-diary) designs in order to address this issue.

**Quantity vs. quality.** It is important to note that in all four studies, the current positive contact and negative contact measures assessed contact quantity (i.e., the frequencies of positive and negative contact), but could not assess contact quality (i.e., the emotive strengths of positive and negative contact). Thus, little is known about whether positive contact quality and negative contact quality affect prejudice, negative metaperceptions, and collective action intentions over time. To address this limitation, future studies should consider including measures of positive and negative contact quality in addition to measures of positive and negative contact quantity. In this respect, future scholars would be able to draw definitive conclusions about the predictive power of contact quality. In addition, as some researchers argue that contact quality should produce stronger effects on intergroup outcomes than contact quantity (e.g., Dixon et al., 2010; Stephan et al., 2000; Voci & Hewstone, 2003), the inclusion of these measures would enable scholars to directly test the validity of this argument.

**Effect size.** In Studies 1-3, I aimed to test whether positive and negative contact yield the same effects on intergroup attitudes across three distinct cultural contexts. However, as previously discussed, I did not examine the same type of conflict across settings. In fact, I explored the racial conflict between White and Black Americans in the United States, the
regional conflict between Hong Kong Chinese and Mainland Chinese in Hong Kong, and the religious conflict between Buddhists and Muslims in Thailand. Using this methodology prevented me from directly comparing the size of positive contact and negative contact effects for the same targets across cultures. To overcome this limitation, I urge future studies to explore the same conflict type in both Western and non-Western countries (e.g., examining the relationship with heterosexuals and sexual minorities in both Western and non-Western countries).

**Conceptual Limitations**

**Mediating mechanisms.** In the present research, I examined only one mediator of the relationship between negative contact and intergroup attitudes (i.e., intergroup anxiety). However, I acknowledge that there are likely to be several psychological factors that mediate the effects of negative contact on intergroup outcomes. For example, Pettigrew and Tropp’s (2008) meta-analysis demonstrated that empathy and knowledge about the out-group are also significant mediators of the positive contact-intergroup attitudes relationship. As such, it is plausible that negative contact might increase intergroup negativity through the same processes (but in the reversed direction). In addition, several researchers have suggested that intergroup anger, intergroup fear, symbolic threat, realistic threat and disgust could all uniquely explain why negative contact is associated with increased intergroup hostility (Barlow et al., 2012a; Hewstone & Swart, 2011; Pettigrew et al., 2011; Stephan et al., 2002; Techakesari et al., 2015b). Therefore, I encourage future research to investigate the mediating influence of these psychological factors empirically in order to help contact scholars gain greater insight into how negative contact promotes intergroup antipathy.

Further to this, only one study has examined a mediating process that could help explain why positive contact is linked with increased collective action for equal rights among advantaged group members. Cakal and colleagues (2011) found that positive contact with Black South Africans predicted increased White South Africans’ support for policies aimed at promoting racial justice through increased group efficacy (i.e., the extent to which Whites as a group can improve the conditions of Blacks in South Africa). Nevertheless, it is important to note that group efficacy only partially mediated this relationship, suggesting that there must be additional mediating factors at play. Thus, future research would benefit from identifying these mediators. This would allow us to gain a better insight into how positive contact enhances collective action intentions.

Empathy should be one of the key factors that mediates the positive contact-collective action relationship. This argument stems from two independent lines of research. First,
positive contact allows individuals to learn more about the out-group and see how similar out-group members are to in-group members, leading them to take the out-group’s perspective and empathize with their concerns (Aberson & Hagg, 2007; Aron & McLaughlin-Volpe, 2001; Pettigrew & Tropp, 2008). Second, taking out-group perspectives motivates individuals to engage in collective action for equal rights on behalf of the out-group (Batson, Chang, Orr, & Rowland, 2002; Mallett, Huntsinger, Sinclair, & Swim, 2008; Shih et al., 2009). Given that positive contact is reliably associated with empathy and that empathy is reliably associated with collective action, it is likely that positive contact should enhance collective action for equal rights via increased empathy.

Moreover, perceptions of injustice, identification and might also help to explain the positive contact-collective action relationship, as these factors been consistently shown to predict collective action intentions (Duhiggs et al., 2010; Iyer et al., 2007, Leach et al., 2006, 2007; Rostosky, Black, Riggle, & Rosenkrantz, 2015; Russell, 2011; Thomas & McGarty, 2009; Thomas et al., 2009). More specifically, positive contact might expose heterosexuals to the systemic injustice suffered by their minority counterparts, thereby leading to them to fight for equal rights on minorities’ behalf. In addition, positive contact might increase majorities’ superordinate identification (e.g., identification with being “Australian”) and reduce their identification with the privileged majority group (e.g., identification with being heterosexual). These shifts in identification could, in turn, promote collective action for LGBT rights.

Positive contact could also heighten heterosexuals’ anger associated with the past and present inequality faced by sexual minorities. This increased anger could, in turn, propel them to “fix” the situation by challenging the status quo. To my knowledge, none of these potential mediators have been empirically investigated. Therefore, future studies should consider examining these potential mediating factors.

Positive-negative contact asymmetry. In 2001, Baumeister and colleagues proposed the “bad is stronger than good” phenomenon, positing that individuals tend to remember negative information more clearly and weight it more heavily than positive information (also see Barlow et al., 2012a). As such, negative intergroup interactions should have a stronger impact on one’s attitudes toward the out-group than positive intergroup interactions. In other words, negative contact should predict increased prejudice more strongly and consistently than positive contact should predict its reduction. Recent studies have demonstrated some support for this proposition, indicating that there is an asymmetry in the effects of positive and negative contact on prejudice (Alperin et al., 2014; Barlow et al., 2012a; Graf et al., 2014).
Although Studies 1-3 also revealed some support for previous findings, Study 4 indicated that this phenomenon might be more complex than contact scholars anticipated. Specifically, my data showed that positive contact with gay men and lesbian women predicted increased collective action intentions among heterosexuals more strongly than negative contact with gay men and lesbian women predicted reduced collective action intentions. Based on these novel findings, contact scholars should avoid making assumptions that negative contact is the more powerful predictor of intergroup outcomes than positive contact. In fact, I urge contact scholars to pay close attention to valence of intergroup outcomes.

Here, I speculate that “bad” may not always be stronger than “good”, and that “good” may prevail in some instances. More specifically, negative contact experiences might influence the negative attitudes, feelings and behavior toward members of the opposing social group more strongly than positive contact experiences. However, positive contact experiences might motivate individuals to act more virtuously and “do the right thing” more effectively than negative contact experiences. In other words, one possible explanation for the contradictory findings is that the effects of positive and negative contact may vary depending on valence of intergroup outcomes (also see Aberson, in-press, Hayward et al., 2015; Paolini et al., 2014). Specifically, even though positive contact might be influential in enhancing positively valenced outcomes, it might not affect negatively valenced outcomes to the same extent. In contrast, negative contact might be very impactful in promoting intergroup negativity, but it might yield little to no impact on positively valenced outcomes.

It is imperative to note that the aforementioned explanation is, at present, a mere speculation. To my knowledge, no published studies have yet to test this valence-matching idea. Therefore, I urge contact scholars to conduct more empirical studies examining the role of valence of intergroup outcomes in explaining the asymmetry in positive and negative contact. I suggest that it would be ideal to compare the effects of positive and negative contact on a wide range of positive (e.g., collective action, liking, intentions to form cross-group friendships) and negative intergroup outcomes (e.g., prejudice, avoidance, negative metaperceptions) in the same study. If the results reveal that positive contact appears to be the more robust and consistent predictor of all positive intergroup outcomes but negative contact appears to be the more robust and consistent predictor of negative intergroup outcomes, it can be definitively conclude that valence of outcome variables helps to explain the contradiction in the existing contact research.
The importance of contact partners’ gender. In the present thesis, I discovered that the relationship between positive contact and collective action intentions differed depending on heterosexuals’ gender and sexual minorities’ gender. Specifically, for heterosexual men, positive contact with gay men predicted collective action intentions more powerfully than positive contact with lesbian women. On the other hand, for heterosexual women, positive contact with gay men and positive contact with lesbian women predicted collective action intentions equally strongly. However, it remains uncertain whether the present results are restricted to the sexual majorities vs. minorities context. As such, future research is warranted to examine whether these findings are generalizable to other intergroup settings in which gender and sexuality are presumably less salient. For example, it is worthwhile examining whether White men view and react to positive contact with Black men and positive contact with Black women in distinct ways, or whether non-Muslim men’s contact with Muslim men has a different impact than contact with Muslim women.

Minority perspectives. The present research placed the emphasis on the perspectives of the majority group. In fact, the empirical studies included in this thesis consisted of only advantaged group participants. Hence, there are several questions that remain unanswered. For instance, Tropp and Pettigrew (2005) found in their meta-analysis that positive contact yields stronger effects on prejudice among majority groups in comparison to minority groups. Does this pattern of results hold across cultures? In addition, does negative contact have a different meaning and result in unique consequences for majorities and minorities? These questions represent new and exciting avenues for future research.
Concluding Remarks

The present thesis contributes to the intergroup contact literature in four significant ways. Specifically, the empirical studies included in this thesis are the first to demonstrate that (a) intergroup anxiety acts a mediator of the relationship between negative contact and intergroup prejudice, (b) positive and negative contact predict both prejudice and intergroup outcomes beyond prejudice (negative metaperceptions and collective action for equal rights), (c) positive and negative contact’s patterns of predictions are largely similar across Western and non-Western contexts, and (d) the positive contact-collective action relationship varied depending on the gender of contact partners. The aforementioned advances in contact research allow us to develop a greater understanding of how positive and negative contact are associated with, and potentially shape, intergroup attitudes. These advances also have several real-world implications in relation to the efforts aimed at improving intergroup relations, and open up many new avenues for future research.
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Appendix A

I ran a series of tests of difference between two related $\beta$s (the equation: $t = \frac{(b_1 - b_2)}{SE_{(b_1-b_2)}}$) to determine if negative contact was a stronger predictor of prejudice and negative metaperceptions than positive contact across all three studies (see Table 1 below).

Results indicated that as expected (given the sample sizes) the positive and negative contact slopes were not statistically different from one another in the majority of the cases. The notable exception was that the slope of negative contact predicting modern prejudice in Hong Kong was significantly larger than the slope of positive contact predicting the same dependent variable. These findings illustrated that statistically speaking negative contact was not a stronger predictor of prejudice and negative metaperceptions than positive contact (except for the one instance mentioned above), even though it was a more consistent predictor of these dependent variables than positive contact.

<table>
<thead>
<tr>
<th>Outcome Variables</th>
<th>Positive Contact</th>
<th>Negative Contact</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old-fashioned Prejudice</td>
<td>$\beta = -.28$</td>
<td>$\beta = .29$</td>
<td>$t(206) = -0.40, p = .690$</td>
</tr>
<tr>
<td>Modern Prejudice</td>
<td>$\beta = -.29$</td>
<td>$\beta = .30$</td>
<td>$t(206) = -0.20, p = .842$</td>
</tr>
<tr>
<td>Negative Metaperceptions</td>
<td>$\beta = -.17$</td>
<td>$\beta = .19$</td>
<td>$t(206) = -0.53, p = .597$</td>
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<tr>
<td>Study 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old-fashioned Prejudice</td>
<td>$\beta = -.39$</td>
<td>$\beta = .44$</td>
<td>$t(144) = -0.69, p = .491$</td>
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<tr>
<td>Modern Prejudice</td>
<td>$\beta = -.21$</td>
<td>$\beta = .34$</td>
<td>$t(144) = -3.36, p &lt; .001$</td>
</tr>
<tr>
<td>Negative Metaperceptions</td>
<td>$\beta = -.19$</td>
<td>$\beta = .28$</td>
<td>$t(144) = -1.65, p = .101$</td>
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<td>Study 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old-fashioned Prejudice</td>
<td>$\beta = -.38$</td>
<td>$\beta = .29$</td>
<td>$t(160) = 1.58, p = .116$</td>
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<tr>
<td>Modern Prejudice</td>
<td>$\beta = -.27$</td>
<td>$\beta = .20$</td>
<td>$t(160) = 0.38, p = .704$</td>
</tr>
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<td>Negative Metaperceptions</td>
<td>$\beta = -.28$</td>
<td>$\beta = .36$</td>
<td>$t(160) = -1.40, p = .163$</td>
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