

**Effects of Real and Imagined Contact under Conditions  
of Socially Acceptable Prejudice**

**Keon West**

**Balliol College**



**Thesis submitted for the degree of Doctor of Philosophy**

**Department of Experimental Psychology**

**University of Oxford**

**March, 2010**

## ACKNOWLEDGEMENTS

I would like to thank my supervisor, Miles Hewstone, for his support and advice over the last three years. I am also grateful to Emily Holmes, without whose guidance and assistance much of my research would not have been possible. I also gratefully acknowledge the Rhodes Trust for funding my university and college fees, as well as for offering me a second family and a safe community with whom I felt free to grow and explore.

Thanks are also due to my colleagues: Ananthi Al-Rahmia, Elissa Myers, Gwenda Simons, Mo Ghanbari, Melanie Sharp, Sion Williams, and Simon Lutterbie for help with a host of design, analysis, and write-up issues, as well as for making the department a fun and interesting place to work. Special thanks go to Susanne Bruckmüller of the University of Erlangen who has read almost every study in this thesis. Her input has influenced my writing a great deal.

I thank the Caribbean Rhodes Scholars, the Black and White Members of the Black Association of Rhodes Scholars, my friends from the Oxford Community Church, Balliol College, and the Oxford University Salsa team. I don't have the words to describe the joy you have all brought me over the years, or the gratitude I have for the well-needed distractions from papers and statistical analyses.

My thanks also go to the families whose love and understanding has held me through the darkest of times, and whose encouragement often gave me the motivation to press on. In particular I have to thank the Schaffners, the Littells and the Vlasisavljevs who have shown remarkable love and acceptance despite differences of race, country, religion and even language. Gratitude must also be expressed to my family who loved me these years as best they could from a distance, and in particular my loving, patient, older sister who is also my oldest friend.

# CONTENTS

<b>ACKNOWLEDGEMENTS</b> .....	<b>II</b>
<b>LIST OF TABLES</b> .....	<b>IX</b>
<b>LIST OF FIGURES</b> .....	<b>X</b>
<b>ABSTRACT</b> .....	<b>XII</b>
<b>DETAILED ABSTRACT</b> .....	<b>XIII</b>
<b>CHAPTER 1: INTRODUCTION: THE CONTACT HYPOTHESIS</b> .....	<b>1</b>
<b>INCREASING DIVERSITY, PERSISTENT PREJUDICE</b> .....	<b>1</b>
<i>Hate Crimes and Hate Incidents</i> .....	<b>2</b>
<i>Other Forms of Prejudice</i> .....	<b>3</b>
<b>CONTACT AS A PREJUDICE-REDUCING MECHANISM</b> .....	<b>4</b>
<i>Defining Contact</i> .....	<b>5</b>
<i>Necessary / Optimal Conditions</i> .....	<b>6</b>
<b>EVIDENCE FOR THE EFFECTIVENESS OF CONTACT</b> .....	<b>7</b>
<i>Variety of Outgroups</i> .....	<b>8</b>
<i>Variety of Contexts</i> .....	<b>9</b>
<i>Variety of Research Methodologies and Outcome Measures</i> .....	<b>9</b>
<i>Meta-Analytic Evidence</i> .....	<b>12</b>
<b>MODERATORS OF THE EFFECT OF CONTACT ON PREJUDICE</b> .....	<b>16</b>
<i>Decategorization</i> .....	<b>17</b>
<i>Recategorization</i> .....	<b>19</b>
<i>The Intergroup Contact Model</i> .....	<b>20</b>

<i>Integrative Models</i> .....	22
<i>A two-dimensional model</i> .....	23
MEDIATORS OF THE EFFECT OF CONTACT ON PREJUDICE.....	24
<i>Empathy and Perspective-Taking</i> .....	25
<i>Threat</i> .....	26
<i>Intergroup anxiety</i> .....	27
<i>Group-specific mediators</i> .....	29
MODERATED MEDIATION AND MEDIATED MODERATION.....	30
DERIVATIONS OF CONTACT.....	32
<i>Internet Contact</i> .....	33
<i>Vicarious contact</i> .....	34
<i>Imagined contact</i> .....	35
OTHER PREJUDICE-REDUCING INTERVENTIONS.....	37
CRITIQUES OF CONTACT.....	38
<i>Restrictive “Necessary” Conditions</i> .....	38
<i>Unrealistically Optimistic Research Conditions</i> .....	39
<i>Questionable Generalization Beyond the Scenario</i> .....	40
<i>Questionable Causal Direction</i> .....	41
<i>Lack of Interest in Participants’ Perspective on Contact</i> .....	42
<i>Focus on Majority Members as Participants</i> .....	43
<i>Focus on Attitudes as Dependent Measures</i> .....	44
<i>Reliance on Self-Reports</i> .....	45
<i>Focus on Socially Unacceptable Prejudice</i> .....	46

OUTSTANDING RESEARCH QUESTIONS.....	51
<i>Social Acceptability</i> .....	51
<i>Actual Contact</i> .....	52
<i>Imagined contact</i> .....	54
<b>CHAPTER 2: THE RELATIVE SOCIAL ACCEPTABILITY OF PREJUDICES WITHIN A SOCIETY AND BETWEEN SOCIETIES.....</b>	<b>56</b>
SOCIAL ACCEPTABILITY OF PREJUDICE WITHIN A SOCIETY .....	56
PREJUDICE AGAINST PERSONS SUFFERING FROM SCHIZOPHRENIA.....	58
PREJUDICE AGAINST BLACK PERSONS.....	61
MOTIVATION TO CONTROL PREJUDICE: A MEASURE OF SOCIAL NORMS .....	63
STUDY 1 .....	65
<i>Method</i> .....	66
<i>Results and Discussion</i> .....	70
STUDY 2 .....	74
<i>Sexual Prejudice Between Societies</i> .....	74
<i>Anti-Homosexual Prejudice in Jamaica</i> .....	76
<i>Anti-Homosexual Prejudice in The U.S. and U.K.</i> .....	79
<i>Hypotheses</i> .....	79
<i>Method</i> .....	81
<i>Results and Discussion</i> .....	92
<i>General Discussion</i> .....	102
<b>CHAPTER 3: CONTACT AND PREJUDICE AGAINST PEOPLE WITH SCHIZOPHRENIA.....</b>	<b>107</b>

THE STIGMA OF MENTAL ILLNESS.....	107
<i>The Stigma of Schizophrenia</i> .....	110
<i>Contact and Prejudice Against the Mentally Ill</i> .....	111
CURRENT RESEARCH .....	116
<i>Hypotheses</i> .....	117
<i>Method</i> .....	119
<i>Results</i> .....	123
<i>Discussion</i> .....	131
<b>CHAPTER 4: CAN CONTACT REDUCE JAMAICAN SEXUAL PREJUDICE?.....</b>	<b>135</b>
SEXUAL PREJUDICE.....	136
<i>Sexual Prejudice in Jamaica</i> .....	138
<i>Sexual Prejudice in the U.K.</i> .....	140
<i>Contact and Sexual Prejudice</i> .....	142
CURRENT RESEARCH .....	146
<i>Method</i> .....	147
<i>Results</i> .....	148
DISCUSSION.....	161
<i>Sexual Prejudice in Jamaica</i> .....	162
<i>The Contact Hypothesis</i> .....	162
<i>Limitations of this Work</i> .....	164
<b>CHAPTER 5: WHEN IT REALLY COUNTS: CAN IMAGINED CONTACT REDUCE PREJUDICE AGAINST PEOPLE WITH SCHIZOPHRENIA?.....</b>	<b>166</b>
EXTENDED INTERGROUP CONTACT .....	166

IMAGINED INTERGROUP CONTACT .....	168
CONTACT AND ATTITUDES TOWARD PEOPLE WITH SCHIZOPHRENIA .....	171
EXPERIMENT 1 .....	174
<i>Method</i> .....	174
<i>Results and Discussion</i> .....	177
EXPERIMENT 2 .....	180
<i>Method</i> .....	183
<i>Results and Discussion</i> .....	187
EXPERIMENT 3 .....	194
<i>Method</i> .....	196
<i>Results and Discussion</i> .....	197
EXPERIMENT 4 .....	205
<i>Method</i> .....	207
<i>Results and Discussion</i> .....	207
GENERAL DISCUSSION .....	211
<i>Study Characteristics</i> .....	212
<i>Nature of the Outgroup or Nature of the Stigma?</i> .....	214
<b>CHAPTER 6: SUMMARY AND CONCLUSIONS.....</b>	<b>218</b>
KEY FINDINGS AND IMPLICATIONS OF THE RESEARCH. ....	218
CONTRIBUTIONS OF THIS THESIS.....	220
<i>Investigating Socially Acceptable Prejudice</i> .....	220
<i>Effects of Actual Contact under Conditions of Socially Acceptable Prejudice.</i> .....	222
<i>Effects of Imagined Contact under Conditions of Socially Acceptable Prejudice.</i>	223

POTENTIAL LIMITATIONS OF THIS RESEARCH AND FUTURE RESEARCH.....	225
<i>Understanding the Role of Social Acceptability.....</i>	225
<i>Sample Sizes and Samples of Convenience .....</i>	227
<i>Corelational Data.....</i>	229
<i>Additional Predictors and Mediators.....</i>	230
<i>Attitude Strength and Endurance .....</i>	231
CONCLUSION.....	232
<b>REFERENCES.....</b>	<b>233</b>
<b>APPENDICES .....</b>	<b>270</b>
APPENDIX 1: MOTIVATION TO CONTROL PREJUDICE SCALES FOR STUDY 1 .....	270
APPENDIX 2: MOTIVATION TO CONTROL PREJUDICE SCALES FOR STUDY 2 .....	273
APPENDIX 3.....	276
<i>Vignettes used in Experiment 2 .....</i>	276
APPENDIX 4.....	280
<i>Imagined contact instructions for Experiment 3 .....</i>	280
APPENDIX 5.....	282
<i>Instructions Given to All Participants in Experiment 5 .....</i>	282
<i>Imagined Contact Instructions in Experiment 5.....</i>	282
<i>Control Instructions in Experiment 5 .....</i>	284

## LIST OF TABLES

Table 2.1. Means and standard deviations of motivation to control prejudice scores as a function of target group and motivation type (Study 1). .....	71
Table 2.2 Tests of invariance: $\Delta\chi^2$ and $\Delta df$ values for restrained and unrestrained CFA models of scales (Study 2). .....	85
Table 2.3 Means and standard deviations of motivation to control prejudice scores as a function of country and motivation type (Study 2). .....	93
Table 3.1 Means and standard deviations of outcome variables by according to prior contact. ....	124
Table 3.2. Correlations between variables in Study 3. ....	126
Table 4.1 Means and standard deviations of all variables in Study 4. ....	149
Table 5.1. Means and standard deviations of dependent variables as a function of imagined contact condition (Experiment 1). ....	178
Table 5.2. Means and standard deviations of all dependent variables as a function of information type and imagined contact (Experiment 2). ....	188
Table 5.3. Means and standard deviations of all dependent variables as a function of imagined contact condition (Experiment 3). ....	198
Table 5.4. Means and standard deviations of all dependent variables as a function of imagined contact condition (Experiment 4). ....	208

## LIST OF FIGURES

Figure 2.1, Internal and External Motivation to Control Prejudice Against People with Schizophrenia and Black People in the U.K.....	73
Figure 2.2 Internal and External Motivation to Control Anti-homosexual prejudice in Jamaica, Britain and the U.S.....	98
Figure 2.3. Internal and External Motivation to Control Unspecified prejudice in Jamaica, Britain and the U.S. ....	101
Figure 3.1. Relationship between contact with and social rejection of people with schizophrenia, mediated by intergroup anxiety, social attitudes and fear. ....	129
Figure 4.1. Intergroup Anxiety Toward Gay Men by Country and Contact. ....	152
Figure 4.2. Attitudes Toward Gay Men by Country and Contact. ....	154
Figure 4.3. Mediational model of the role of intergroup anxiety in explaining the effects of contact on attitudes (Data from both Jamaica and Britain). ....	159
Figure 5.1. Mediational model of the role of intergroup anxiety in explaining the effects of positive information on attitudes (Experiment 2).....	191
Figure 5.2. Mediational model of the role of intergroup anxiety in explaining the effects of quality of imagined contact on attitudes (Experiment 2). ....	193
Figure 5.3. Mediational model of the role of intergroup anxiety in explaining the effects of imagined contact on attitudes (Experiment 3).....	200

Figure 5.4. Mediation model of the role of intergroup anxiety in explaining the effects of quality of imagined contact on attitudes across three experiments (Data from Experiments 1 - 3). .....204

Figure 5.5. Mediation model of the role of intergroup anxiety in explaining the effects of imagined contact on attitudes (Experiment 5).....210

Effects of Real and Imagined Contact under Conditions of Socially Acceptable Prejudice.

Keon West  
Balliol College

D.Phil in Experimental Psychology  
Submitted Hilary Term, 2010

### ABSTRACT

The objective of this thesis was to examine the effectiveness of contact and imagined contact (a derivative of direct contact) in reducing intergroup prejudice when the prejudice in question is deemed socially acceptable. Studies focused on two populations that are targets of socially acceptable, prejudice – people suffering from schizophrenia in the U.K., and homosexual men in Jamaica. These target groups were selected because they are similar in that they are both targets of socially acceptable prejudice, but also because of their differences in that the stereotypes associated with them are quite dissimilar. The first part of the thesis empirically tested the assumption that the aforementioned populations are targets of socially acceptable prejudice. Two cross-sectional studies, one of which was also cross-cultural, measured motivation to control prejudice against these target groups, and compared it to motivation to control prejudice against targets of socially unacceptable prejudice. I found that motivation to control prejudice against people with schizophrenia in the U.K. was lower than motivation to control prejudice against Black people in the U.K. Also, motivation to control prejudice against homosexual men was higher in the U.K. and the U.S.A. than in Jamaica, and differences in motivation to control unspecified prejudice were significantly smaller. The second part examined the association between actual contact and prejudice for both populations. Two cross-sectional studies, one of which was also cross-cultural, found that contact was associated with less prejudice. This effect was mediated by intergroup anxiety in all cases, and also by fear in the case of people with schizophrenia. Furthermore, I found that contact was more strongly negatively associated with anti-homosexual prejudice in Jamaica, where the prejudice is socially acceptable, than it was in Britain, where the prejudice is not socially acceptable. The third part tested the effect of imagined contact, a form of extended contact, on prejudice against people with schizophrenia. Four experimental studies demonstrated that imagined contact can be an effective means of reducing prejudice against this group. However imagined contact must be conducted in very specific ways, otherwise it has the potential to increase prejudice against people with schizophrenia.

## DETAILED ABSTRACT

The research presented throughout this thesis represents an investigation into the effectiveness of contact (see Allport, 1954), and imagined contact (see Turner, Crisp and Lambert, 2007a; Crisp, Stathi, Turner, & Husnu, 2008), as prejudice-reducing mechanisms under conditions of socially acceptable prejudice (see Crandall, Eshleman & O'Brien, 2002). I focus on two target groups in particular – people suffering from schizophrenia in the U.K. and homosexual men in Jamaica. In the first part of this thesis I develop an understanding of intergroup contact, its strengths, limitations, and critiques. I then briefly outline conceptualizations of prejudice, particularly in relation to justifications for prejudice and social acceptability of prejudice. The first empirical section tests the claims that prejudice against the two afore-mentioned target groups is socially acceptable.

In the second section I investigate the association between real contact and attitudes toward members of both target groups, as well as mediators of this relationship. The role of intergroup anxiety (see Stephan & Stephan, 1985), a common mediator of the effect of contact on attitudes is investigated with both target groups throughout the thesis. The role of fear, a mediator specific to the stigma of severe mental illness and schizophrenia in particular (Corrigan, Green, Lundin, Kubiak, & Penn, 2001) is also investigated for this target group. Finally, in the third section, I experimentally investigate the effectiveness of imagined contact, a relatively new derivative of contact,

as an intervention to reduce prejudice against people suffering from schizophrenia in the U.K.

Chapter 1 introduces the main concepts to be explored throughout the thesis, defining important terms and setting the stage for the empirical chapters that follow. I discuss the contact hypothesis, the success of contact as a prejudice-reducing mechanism, moderators and mediators of the effect of contact on attitudes, new interventions derived from the contact hypothesis, and challenges to the contact hypothesis. In particular, I discuss imagined contact (see Turner et al., 2007), a new form of extended contact that may reduce the need for actual contact in order to reduce prejudice. I then outline outstanding research questions regarding contact under conditions of socially acceptable prejudice. Chapter 1 ends with a brief outline of the research questions I will attempt to answer in the subsequent chapters.

Chapter 2 investigates the claim that the two target groups I selected – people with schizophrenia in the U.K. and homosexual men in Jamaica, are indeed targets of socially acceptable prejudice. Although several authors have claimed that people with mental illness in general, and people with schizophrenia in particular, are targets of socially acceptable prejudice (e.g., Hinshaw & Ciccetti, 2000; Stier & Hinshaw, 2007) there has never been a direct empirical test of this claim. In Study 1 ( $N = 164$ ), using motivation to control prejudice as a measure of social acceptability (see Crandall et al., 2002) I find support for the hypothesis that prejudice against people with schizophrenia is

relatively socially acceptable compared to another group against whom prejudice is directed – Black people in the U.K.

Similarly, though many authors have claimed that anti-homosexual prejudice is socially acceptable in Jamaica (Chin, 1997) no empirical study has ever tested this claim. In Study 2 ( $N = 382$ ), again using motivation to control prejudice as an indicator of social acceptability, I compare Jamaicans' motivation to control anti-homosexual prejudice with that of Britons and Americans. I find support for the hypothesis that prejudice against homosexual men is more socially acceptable in Jamaica than in either the U.K. or the U.S., and that this difference cannot be attributed solely to differences between the countries in motivation to control prejudice in general.

In Chapter 3, two correlational studies investigate the relationship between actual contact and prejudice against both selected target groups - people with schizophrenia in the U.K. and homosexual men in Jamaica. Though contact is associated with less prejudice against the mentally ill as a superordinate group (Pettigrew & Tropp, 2006), research on specific mental illnesses has been languished and the effect of contact on attitudes toward people with schizophrenia has yielded conflicting results. In particular, the mediators of the relationship between contact and prejudice against people with schizophrenia have not been adequately explored. In Study 3 ( $N = 122$ ) I investigated the relationship between contact and prejudice against people suffering from schizophrenia, paying particular attention to the specificity of the predictor and outcome variables, as well as specific mediating variables. I thus produced a model of the effect of contact on

prejudice against persons with schizophrenia, including in this model mediators that had never before been integrated into a single model.

Study 4 investigates the relationship between actual contact and attitudes toward homosexual men. Though the negative relationship between contact and prejudice against people of different sexualities has been well documented in countries like the U.K. and the U.S. (see Pettigrew & Tropp, 2006), the possible role of contact in improving attitudes toward homosexual men in Jamaica has never been empirically explored. This is particularly relevant considering that anti-homosexual prejudice is relatively socially acceptable in Jamaica. In Study 4 ( $N = 315$ ) I compared Jamaican prejudice against homosexual men to British prejudice against homosexual men. I then investigated and compared the association between actual contact and anti-homosexual prejudice in both countries, as well as the role of intergroup anxiety in mediating this relationship. I found that, in both countries, contact was associated with less anti-homosexual prejudice. Moreover, contact was more strongly associated with less prejudice in Jamaica than in the U.K.

In Chapter 4, four experimental studies investigated the effect on imagined contact on prejudice against people with schizophrenia. Recently Turner et al. (2007a) found that actual contact may not be necessary to improve intergroup attitudes. Across 3 experimental studies, they found that imagining contact improved attitudes toward homosexual men and the elderly. However, there are many reasons, including social

acceptability of prejudice, for which imagined contact may not have the same effect on prejudice against persons with schizophrenia.

In Study 5 ( $N = 87$ ) imagining contact with a person with schizophrenia had no effect on attitudes toward people with schizophrenia, and increased intergroup anxiety against people with schizophrenia. In Study 6 ( $N = 99$ ) participants were allocated to one of four cells created by crossing either positive or neutral information and imagined contact or a control task. Again, imagined contact increased intergroup anxiety and had no effect on attitudes despite giving participants positive information about people with schizophrenia before the imagined contact task. In Study 7 ( $N = 38$ ) a modified, explicitly positive imagined contact task lead to less intergroup anxiety and more positive attitudes toward people with schizophrenia. However, it was unclear whether or not these effects were attributable to the imagined contact task or inadvertently delivered positive information.

In Study 8 ( $N = 47$ ), by using another modified, explicitly positive imagined contact task, and by giving all participants in both the imagined contact and control condition positive information about people with schizophrenia, I found that imagined contact did reduce intergroup anxiety and improve outgroup attitudes and I successfully ruled out the possibility that the effect was due to inadvertently supplied positive information. As expected, the relationship between imagined contact and attitudes was mediated by decrease in intergroup anxiety.

In Chapter 5 I summarize the main findings and implications of all eight studies. My findings indicate that people with schizophrenia are targets of prejudice that is relatively socially acceptable in Britain and that homosexual men are targets of relatively socially acceptable prejudice in Jamaica. However, this does not seem to reduce the negative relationship between contact and prejudice. In both cases, contact was associated with less prejudice against the outgroup. Moreover, contact was *more strongly* negatively associated with prejudice in Jamaica, where the prejudice is socially acceptable, than in the U.K., where the prejudice is not socially acceptable.

The data in Studies 1, 2, 3 and 4, though correlational and cross-sectional, supports the robust and reliable nature of actual contact as a prejudice-reducing mechanism. In Studies 3 and 4, even in two situations that could reasonably be expected to pose a challenge to the effectiveness of contact, contact was nonetheless effective and, in one of the cases, *more* effective.

In Studies 5 and 6, I found that neutral imagined contact as done by Turner and colleagues (2007) was counter-effective against one target of socially acceptable prejudice (i.e., people suffering from schizophrenia in Britain). However, a more positive version of the imagined contact task decreased intergroup anxiety and improved attitudes. In this way, imagined contact can be considered similar to actual contact – both appear to have particular conditions under which they work better than others. However, the control and malleability afforded in the imagined contact scenario is a distinct advantage

of imagined contact over actual contact. As such, I was able to manipulate the imagined contact task until it was effective as a prejudice-reducing mechanism.

Overall, the data support both actual contact and imagined contact as effective strategies for reducing prejudice against an outgroup, even if the prejudice against that outgroup is socially acceptable. However, it must be remembered that, in both cases, negative, rather than positive consequences, are a possibility. Quality of contact, whether real or imagined, moderates the effectiveness of contact as a prejudice-reducing mechanism.

## CHAPTER 1: INTRODUCTION: THE CONTACT HYPOTHESIS

### Increasing Diversity, Persistent Prejudice

As noted in the previous section, Western society is becoming increasingly more diverse (Devine, Evett & Vasques-Suson, 1996; Vertovec, 2007). In some cases, as well as increasing diversity there are also some signs of improving intergroup relations. Racial attitudes have become more positive over the last 50 years (see Hochschild & Herk, 1990) with noteworthy consequences; for example, the United States of America recently elected its first Black president – Barack Obama (Bosman, Broder, Healy, Sussman, Urbina & Zeleny, 2008). Attitudes toward people of other sexualities have also become more positive over the years (Lance, 1987) also with noteworthy consequences; Iceland recently elected the modern world's first openly homosexual head of state – Johanna Sigurdardottir (Burns, 2009). And although some more subtle expressions of prejudice remain ubiquitous (see Greenwald, McGhee & Schwartz, 1998), over time the overt expression of various forms of prejudice - not only racism, and homophobia, but also sexism (Blair, Ma & Lenton, 2001; Swim & Cohen, 1997) - has declined.

However, increased diversity is not always accompanied by improved intergroup relations. In some places in Britain, for example, despite the increased diversity in many communities, some groups live in parallel with little or no actual interaction (Vertovec, 2007). Increased diversity can also bring new patterns of racism: for example, among British residents directed toward newcomers, among longstanding ethnic minority groups directed against newcomers, and among newcomers directed against longstanding minority groups (Vertovec).

*Hate Crimes and Hate Incidents*

Despite the reduction in overt expressions of prejudice, it would be false to claim that this type of explicit prejudice has disappeared entirely, or that it no longer has serious consequences for the lives of those touched by it. Many people's lives are irrevocably altered, or even lost, following an encounter with prejudice. On June 7, 1998, in Texas, U.S.A., 49-year old James Byrd was beaten behind a convenience store, chained by his ankles to a pickup truck, stripped naked and dragged for three miles. He was alive for most of the dragging, and died only when his head and right arm were severed from his body by a culvert in the road. He was attacked by three White men from his home town – Shawn Allen Berry, Lawrence Russell Brewer and John King - because he was Black (Glascock, 2004).

On October 6, 1998, in Wyoming, U.S.A, 22-year old Matthew Shepard was attacked, tortured, burned and left tied to a fence to die. He was found in a coma the following day, but died on October 12 from severe head injuries. He was attacked by two men from his home town – Russell Henderson and Aaron McKinney - because he was gay (Willis, 2004). In Alabama, on February 19, 1999, Billy Jack Gaither was kidnapped, beaten to death with a small axe, and set on fire on a pile of burning tires by Steven Mullins because he was gay (Willis, 2004).

In June, 2004, 59-year old Brian Williamson, noted public speaker, activist for gay rights in Jamaica and founder of the group Jamaicans' forum for Lesbians, All-sexuals and Gays (J-FLAG), was brutally murdered. Multiple chop-wounds had been

inflicted on his body. A crowd reportedly rejoiced over his mutilated corpse (Pidgett, 2006). Members of both J-FLAG and OutRage, Britain's leading gay rights group, claimed that the murder was motivated by sexual prejudice, one of many murders and gay-bashing incidents to occur across the island. (OUTRAGE!, 2004).

The list goes on; these are far from isolated incidents. These are examples of hate crimes (see Green, McFalls & Smith, 2001), normally defined as “criminal acts based on the offender's bias toward individuals, families, groups or organizations because of their real or perceived racial, ethnic, religious, or sexual orientation or disability status” (Willis, 2004, p. 117). The United States Department of Justice reported 1,486 hate crime incidents in the year 2000 based on sexual orientation alone. These acts include assaults, intimidation, and murder.

#### *Other Forms of Prejudice*

Hate crimes, such as those examples given above, are some of the most graphic examples of prejudice. But beyond hate crimes, there are still non-criminal hate incidents, which can involve name-calling, verbal harassment, teasing, and bullying without physical violence (Herek, 1998). Beyond hate incidents, much other evidence strongly indicates that group membership is an important predictor of quality of life. Indeed, the decline of traditional expressions of prejudice is often accompanied by a rise in expressions of prejudice with fewer social consequences, such as aversive prejudice, symbolic prejudice, and implicit prejudice (Dovidio, Brigham, Johnson & Gaertner, 1996; Greenwald et al., 1998).

All kinds of groups are affected. Decades after desegregation the American social landscape remains divided (Wittenbrink, Judd & Park, 1997). Despite legislation and policies aimed at undoing this social polarization (e.g., affirmative action), Blacks continue to suffer discrimination in almost every conceivable area of life (Rudman, Ashmore & Gary, 2001). There is still Black overrepresentation at the lower rungs of society's ladder (Taylor, 2000; Sidanius, Levin & Prato, 1998). Tatum (1999) notes that, "Every social indicator, from salary to life expectancy, reveals the advantages of being White" (p. 8). Similarly, in every area of life, and especially in areas of occupation and academia, men are unfairly privileged relative to women (McIntosh, 1998).

Overweight people are often viewed as lazy, incompetent, and lacking in self-discipline (Phul & Bronwell, 2003). People who suffer from mental illnesses are less likely to be employed, even when equally qualified for the position. They are also avoided by others in their social circles and workplaces, more likely to be used as scapegoats, and less likely to be listened to by mental health workers (Schulze & Angermeyer, 2003). One longitudinal study of a total birth cohort in New Zealand found that participants who met the criteria for a mental illness were ten times more likely to be sexually attacked than participants who did not meet the criteria for a mental illness (Silver, Arseneault, Langley, Caspi & Moffitt, 2005).

#### Contact as a Prejudice-Reducing Mechanism

Prejudice, discrimination and negative interactions between members of different outgroups remain, without question, serious problems in contemporary society.

Workable, viable prejudice-reducing mechanisms are as necessary as they have ever been. Several factors negatively predict prejudice such as greater group size, lower group status, less right-wing authoritarianism, (less or absence of) religious ideology and more education (Crandall, 2000; Herek, 1988; Hewstone, Rubin & Willis, 2002). However, contact, or social interaction with members of an outgroup, stands out as a particularly important prejudice-reducing mechanism. Contact is now one of the most widely-used interventions for the reduction of prejudice and the improvement of intergroup relations (Oskamp & Jones, 2000) and many approaches to bias reduction focus on ways to improve the quantity or quality of intergroup contact (Hewstone, et al., 2002).

### *Defining Contact*

Prior to the contact hypothesis, it was hypothesized that contact between races under conditions of equality would breed suspicion and hostility (Baker, 1934). In contrast, Williams (1947) hypothesized that intergroup contact would reduce prejudice between groups, provided the groups share similar status, interests, and tasks, and provided the situation fosters personal, intimate intergroup contact. However, it is Gordon Allport (1954) who is generally credited with coining the contact hypothesis, which states that wherever there are two opposing groups, contact, or social interaction between members of the different groups, under certain conditions, leads to more favourable attitudes toward and less prejudice against members of the other group.

Contact, rigorously defined, means actual face-to-face interaction with a person identified as belonging to a different group from the self (Pettigrew & Tropp, 2006).

Sharing space with, or living close to, members of other groups is a necessary but not sufficient condition for social contact (Festinger & Kelly, 1951). These conditions may provide *opportunities* for contact, but contact cannot be assumed based on proximity alone. Indeed, if proximity increases without any form of positive contact, this may increase the perception of threat, which may in turn *increase* prejudice against other groups (Sherif & Sherif, 1953).

This is an important theoretical point; opportunity for contact and actual contact have been confounded in previous research. Hood and Morris (2000) claim to test the contact hypothesis by investigating the relationship between non-Hispanic White American's views on immigration law, and their contact with Hispanics and Asians. However, in this study, contact itself is never actually measured, and the authors rely on measures of population distributions as a proxy for contact. Consequently, despite the fact that Hood and Morris found a positive relationship between population diversity and attitudes toward immigrants, this cannot truly be considered a test of the contact hypothesis.

#### *Necessary / Optimal Conditions*

Allport (1954) also stated four conditions under which contact should occur for it to be effective; there should be equal status among the groups who meet or at least the individual representatives of the groups, the contact situation should require cooperation or common goals rather than competition, cooperation between the groups should be encouraged, and the contact situation should be legitimized through institutional support.

Allport proposed these four conditions as a necessary package for positive contact effects that must all occur together, rather than as a listing of variables that must be considered individually. These conditions were originally described as necessary for contact to be effective, and in the absence of these four conditions it was theorized that contact would be either ineffective, or counter-effective.

However, much recent research has revealed that these conditions are *not* necessary for contact to lead to improved attitudes and intergroup relations (see Pettigrew & Tropp, 2006). For example, Van Dyk's (1990) study sharply violated Allport's conditions. He found that White South African housewives who had close contact with their African domestic workers had more favourable attitudes towards Africans in general. As the study was conducted during South Africa's apartheid regime, it is very unlikely that the contact between the White housewives and the Black workers was of equal status, cooperative, or encouraged through institutional support.

#### Evidence for the effectiveness of contact

In the five decades since the contact hypothesis was originally coined, a large number of studies have rigorously examined the effectiveness of contact in improving intergroup relations. The result is a staggering amount of evidence in support of the contact hypothesis, which I consider in its different forms below.

*Variety of Outgroups*

The contact hypothesis was initially directed at reducing racial prejudice. This predicted negative relationship between contact and racial prejudice has been well established empirically (e.g., Aberson, Shoemaker & Tomolillo, 2004; Plant & Devine, 2003). However, since its conception the contact hypothesis has been expanded to include a wide variety of targets including groups defined ethnically (e.g., Paolini, Hewstone, Cairns & Voci, 2004), nationally (e.g., Voci & Hewstone, 2003), religiously (Islam & Hewstone, 1993), by sexuality (Herek, 1998), by physical disability (Weisel, 1988), by mental disability (Hastings & Graham, 1995) or by mental illness (Corrigan et al., 2002). The contact hypothesis has even been expanded to include groups that do not have clear boundaries between them, such as the old and the young (Harwood, Hewstone, Paolini & Voci, 2005; Pettigrew & Tropp, 2006).

It is also worth noting that the previous statement refers only to large, superordinate groups, and contact has specifically been shown to reduce prejudice against specific sub-groups of these superordinate groups. For example, within the superordinate group of people of different races, contact has been shown to improve attitudes toward Blacks (Plant & Devine, 2003), Arabs (Amir, Bizman, Ben-Ari & Rivner, 1980), Hispanics (Aberson et al., 2004), Asians and others (Hamberger & Hewstone, 1997). Within the relatively large superordinate groups of people of different sexualities, contact research has been similarly varied and has been shown to improve attitudes toward lesbians and gay men (Herek & Capitanio, 1996), and transgendered persons (King,

Winter & Webster, 2009). This wide variety indicates that the effectiveness of contact is not limited to one group or one type of prejudice, but rather that contact is a useful tool for reducing most, if not all, types of prejudice.

*Variety of Contexts.*

Contact has also been shown to work in many different societies, improving relations between different groups in Britain (e.g., Vonofakou, Hewstone & Voci, 2006), the U.S. (e.g., Plant & Devine, 2003), Bangladesh (e.g., Islam & Hewstone, 1993), South Africa (e.g., Van Dyk, 1990), Northern Ireland (e.g., Paolini et al., 2004), Hong Kong (e.g., Chung, Chen & Lui, 2001), South America (e.g., Herek & Gonzalez-Rivera, 2006) and other countries. This wide variety indicates that the effectiveness of contact is not limited to one culture or one type of culture, but rather that contact is a useful tool for reducing prejudice in many different places.

*Variety of Research Methodologies and Outcome Measures*

Finally, support for the contact hypothesis has been found using a variety of different research methods such as archival research (Fine, 1979), field studies (Deutsch & Collins, 1951), cross-sectional (e.g., Vonofakou et al., 2006) and longitudinal (e.g., Eller & Abrams, 2003), surveys (e.g., Angermeyer & Matschinger, 1997; Paolini et al., 2007), quasi-experimental studies (e.g., Wallach, 2004), and genuinely experimental studies (e.g., Cook, 1978; Corrigan, et al., 2001; 2002).

Each of these designs has its own set of advantages and disadvantages for studying the effect of contact on prejudice. Laboratory experiments, for example, provide true evidence of a causal pathway between contact and attitudes, as well as the ability to control elements of the contact situations. Cross-sectional surveys of prior or current contact provide insight into the effect of contact in real life situations. Longitudinal studies reveal the effect of contact over time.

Studies investigating the effect of contact have also used a variety of outcome measures. The contact hypothesis states that contact will lead to reduced prejudice and improved intergroup relations (Allport, 1954), and this can be measured in many ways. Much of the contact literature has used attitudes toward the outgroup as the outcome variable (e.g., Angermeyer & Matschinger, 1996; Corrigan et al., 2001; see Brown & Hewstone, 2005, for a review). However, it is important to remember that improving attitudes is not the final desired result of contact, and that improved attitudes are simply a way to accomplish improved intergroup relations (see Devine, et al., 1996 for a critique of the over-usage of attitudes). In different situations, different variables may be more useful for improving intergroup relations.

First, it is noteworthy that attitudes toward the outgroup can be measured in multiple ways, through subjective self-reports, behavioural measures such as avoidance of the outgroup or physiological measures such as sweating and increased heart rate (Mendes, Blascovich, Lickel, & Hunter, 2002). Most of the contact research has employed subjective self-report measures of attitudes and prejudice, but some studies

have not. For example, Mendes, Blascovich, Hunter, Lickel, and Jost (2007) found that White participants who had previously experienced more contact with Black people showed weaker physiological threat reactions (e.g., sweating) during interracial interactions. In another example Tam, Hewstone, Harwood, Voci and Kenworthy (2006) showed that contact directly predicts implicit attitudes measured via the implicit associations test (see Greenwald et al., 1998).

Second, the choice of appropriate outcome measures has varied according to social context; Northern Ireland, for example, has been the site of a long-standing, corrosive, historically recent conflict between Catholics and Protestants, including decades of violence (Hewstone, Cairns, Voci, Hamberger & Niens, 2006). Consequently, improving attitudes toward the outgroup is unlikely to be either the easiest or most effective path to improving intergroup relations. Research has instead focused on the relationship between contact, forgiveness, and trust (e.g., Hewstone & Cairns 2001; Hewstone, Cairns, Voci, McLernon, Niens & Noor, 2004; Tam et al., 2008; Tausch, Hewstone, Kenworthy, Cairns & Christ, 2007).

The choice of outcome measures can also vary according to outgroup; it is widely agreed throughout the available research that negative reactions to the mentally ill can be conceptualized along the basic dimensions of fear and social rejection (Brockington, Hall, Levings & Murphy, 1993; Taylor & Dear, 1981). The fear of mentally ill persons comes from the beliefs that they are dangerous and unpredictable (Link, Phelan, Bresnahan, Stueve & Pescosolido, 1999). The resulting behavioural pattern is the social rejection of

the mentally ill including avoidance, segregation or separation of the mentally ill from the self and the community (Corrigan et. al., 2002; Trute & Lowen, 1978). Thus, for outgroups like the mentally ill, attitudes may be a less useful outcome measure than social distance or segregation.

The ultimate goal, however, is to find a relationship between contact and behaviour toward the outgroup. For many practical reasons this is difficult to demonstrate, but it has occasionally been done. Some studies use self-reported measures of social distance as a proxy measure of behaviours toward the outgroup (e.g., Angermeyer & Matschinger, 1997). Other studies use reports of intended behaviour toward the outgroup, such as avoidance (Corrigan et al., 2001). Other studies use actual behaviours: Corrigan et al. (2002) showed that participants who had experienced contact with a mentally ill person were more likely to donate money to a mental health aid fund than those who had not. The negative relationship between contact and a wide variety of cognitive, affective, and behavioural measures argues for its robust reliable nature.

#### *Meta-Analytic Evidence.*

The most comprehensive evidence in support of the contact hypothesis is a meta-analysis of all available contact studies that found a robust, reliable effect of contact on prejudice (Pettigrew & Tropp, 2006). Below I highlight some important points about the methodology of the meta-analysis and summarize some important findings and implications for the effectiveness of contact as a prejudice-reducing mechanism. I also discuss some of the limitations of the research.

*Methodology*

The purpose of the study was to conduct a comprehensive review of all available contact literature. Prior to this meta-analysis there had been several partial reviews of the contact literature, but no complete reviews. These partial reviews included, on average, fewer than 60 studies and often focused on specific groups or situations such as contact between racial groups (e.g., Patchen, 1999) or contact in schools (e.g., Carithers, 1970).

Previous reviews also had some other important limitations, such as a lack of systematic rules to determine which studies were included in the meta-analysis. This resulted in very different definitions of contact and sometimes in the confounding of other indices, such as opportunity for contact, with actual contact (e.g., Hood & Morris, 2000). Perhaps as a result of these varying methodologies and samples, these prior reviews found inconsistent effects of contact on prejudice; many reviews found support for the effect of contact on prejudice (e.g., Cook, 1984; Patchen, 1999; Pettigrew, 1971) while some reported mixed (e.g., Amir, 1976) or insufficient evidence supporting the effects of contact (Ford, 1986).

Pettigrew and Tropp (2006) took specific precautions to ensure that their literature review was as complete and unbiased as possible. They kept to rigorous inclusion criteria, defining contact as face-to-face interaction between members of clearly defined, discrete groups, and only using studies in which contact was used as an independent variable with prejudice as the dependent variable. Their review included all published journal articles and unpublished conference presentations, found using multiple databases, search

engines, and reference lists from other reviews. These methods resulted in 515 studies in total, involving 250,089 individuals from 38 countries. Finally, they used very conservative statistical tests of the relationship between contact and prejudice.

This meta-analysis was able to answer many long-standing questions that have long plagued the contact literature. Does contact work? Are Allport's necessary conditions really necessary? Does contact lead to less prejudice, or is it the reverse, or are reciprocal paths found? Do the positive effects of contact generalize beyond the contact situation? I address these questions below.

*Is contact related to less prejudice?*

Yes. Across all studies, outgroups, regions, and methodologies, Pettigrew and Tropp found a reliable negative effect of contact on prejudice. A small proportion of studies reported no effects, or even that contact was associated with more prejudice, but overall the relationship between contact and prejudice was negative. This was also true when the effects of contact were considered separately by target type (they included race, ethnicity, religion, age, sexual orientation, physical disability, mental illness and mental disability), geographic location (United States, Europe, Israel, Canada, Australia and New Zealand, Africa, Asia and Latina America) and type of study (surveys, quasi-experiments and experiments).

*Are Allport's necessary conditions really necessary?*

No. Pettigrew and Tropp found that contact had a reliable effect on prejudice even when Allport's (1954) conditions were not met. As could be expected, in studies conducted under optimal conditions contact generally had a larger effect on prejudice ( $r = -0.278$ ) than in those studies conducted under non-optimal conditions ( $r = -0.204$ ). But in both optimal and non-optimal studies contact had negative effects on prejudice. This indicates that Allport's original conditions are optimal, or at least facilitating, but not necessary.

*Does contact lead to less prejudice, or is it the reverse, or are reciprocal paths found?*

Pettigrew and Tropp investigated the directional causality of the relationship between contact and attitudes in three ways. (1) Statistically: studies have shown that the path from contact to attitudes is typically stronger than the one from attitudes to contact (e.g., Powers & Ellison, 1995; Van Dick et al., 2004). (2) Methodologically: Longitudinal studies that show that contact reduces prejudice over time (e.g., Eller & Abrams, 2003). (3) Contact has been shown to work in multiple genuinely experimental designs (e.g., Corrigan et al., 2002). It is also noteworthy that contact was more strongly negatively associated with prejudice in genuine experiments ( $r = -0.336$ ) than in quasi-experiments ( $r = -0.237$ ) or surveys ( $r = -0.204$ ). This indicates that the effects of contact are not due to selection biases.

*Do the positive effects of contact generalize beyond the contact situation?*

The purpose of contact is not only to improve attitudes toward the outgroup member in the contact scenario, but toward the outgroup as a whole, thereby improving intergroup relations. The grand majority of the studies used in Pettigrew and Tropp's meta-analysis (1,164 tests) examined the relationship between contact and prejudice against the outgroup as a whole. They found a negative relationship between contact and prejudice against the outgroup ( $r = -0.213$ ), indicating that positive attitudes engendered during the contact scenario generalized well to the outgroup as a whole.

#### Moderators of the Effect of Contact on Prejudice

Given the overwhelming success of contact as a prejudice-reducing mechanism, much literature has begun to examine the moderators and mediators of the effect of contact on prejudice. Indeed, some argue that the greatest addition to the contact hypothesis since Allport's original conceptualization has been the addition of moderators and mediators of the effectiveness of contact as a prejudice-reducing mechanism (Hewstone, 2009).

Baron and Kenny (1986) define a moderator as a variable that affects the direction or strength of the relation between an independent variable (or predictor variable) and a dependent variable (or criterion variable). Moderators can be qualitative (e.g., race, sex, nationality) or quantitative (e.g., level of motivation). Two moderators that have claimed primary importance in the literature have been quality and salience (Brown & Hewstone, 2005). Quality of contact is important because it affects the effectiveness of contact; as a

general rule good contact should improve attitudes, while bad contact might make attitudes worse. Salience is important because it affects the extent to which the positive attitudes engendered in the contact situation generalize to other members of the group; only if people identify their interaction partner with the rest of the target group will they allow positive (or negative) feelings developed in the contact situation to generalize beyond the contact situation itself.

The debate concerning the ways of applying these two moderators of the effectiveness of contact has led to three main models of how contact should be conducted. An important note, however, is that this is *not* a debate about the effectiveness of contact. A wealth of research demonstrates that contact works, works well, and works in many contexts (see previous section). This debate is about how to make contact work *best*.

### *Decategorization*

Decategorization means quite literally the removal of categories, no longer using them as information about the interaction partner (Brewer, 1999). This is accomplished by two processes - differentiation and personalization. Differentiation means perceiving the outgroup member as a distinct individual, rather than simply another member of the outgroup. Personalization means perceiving the outgroup member in terms of this person's unique relationship to the self. In this way, decategorization reduces intergroup bias through a reduction in ingroup favouritism (as opposed to outgroup derogation), as original categories lose their usefulness and interaction partners are seen as individuals,

rather than as members of different groups (Brewer & Miller, 1984). In terms of the two important moderators of the effectiveness of contact, decategorization has the potential to increase quality of contact through decreasing salience, thus rendering contact more interpersonal and less intergroup.

The decategorization model has received its share of empirical support: there is evidence that contact based on personal interaction is particularly effective: (Hamberger & Hewstone, 1997; Pettigrew, 1998; Pettigrew & Tropp, 2004; Pettigrew & Tropp, 2006; Phinney, Ferguson, & Tate, 1997; Vonofakou et. al., 2006). Furthermore, there is evidence that positive attitudes engendered in the contact scenario can generalize to other members of the outgroup (e.g., Bettencourt, Brewer, Croak & Miller, 1992). However, this support is mixed, as studies that might support the decategorization model often show the benefits of contact between friends (i.e., very interpersonal contact) but do not clearly demonstrate that category salience was reduced to a minimum (e.g., Hamberger & Hewstone, 1997).

The decategorization model also has some limitations. First, complete decategorization would in fact be counterproductive: if category salience were reduced to such an extent that categories were no longer used at all, it would no longer be possible for the positive attitudes engendered in the contact situation to generalize. In this way, the decategorization model is self-restricting. Second, while decategorization may work fairly easily for “invisible” outgroups, such as people of other sexualities (Vonofakou et al., 2006), it is less clear how it would work for highly visible groups, such as people of

other races or ethnicities (see Amir, 1969). Lastly, while decategorization may be attainable for a short period of time and in the context of a psychological study, a person's social identity is usually very important to them, and it is unlikely that people will willingly give up their social categories in the real world (Brown, 2000).

### *Recategorization*

Recategorization aims to reduce prejudice by shifting focus from subordinate categories (e.g., African-American and European-American) to a superordinate category (e.g., American) (Gaertner, Dovidio, Anastasio, Bachman & Rust, 1993). For this reason, the recategorization model is also known as the common-ingroup-identity model. Instead of doing away with categories, this model suggests re-drawing boundary lines to include everyone in *superordinate* categories. Like the decategorization model, this model aims to increase the quality of contact by decreasing the salience or importance of the subordinate categories. Intergroup bias is reduced, not through the dismantling of the ingroup, but rather through the inclusion of the outgroup into a larger ingroup.

A large body of evidence supports the recategorization model (see Gaertner & Dovidio, 2000, for a review). For example, Ward, Rust, Nier, Gaertner & Carpenter (1995, as cited in Gaertner, Dovidio & Bachman, 1996) found that White participants were more compliant with Black confederates they perceived to be from the same university as themselves, than Black confederates they perceived to be from a different university. In this example, race provided the subordinate category, while university affiliation provided the superordinate category.

A major advantage that the recategorization model holds over the decategorization model is that subordinate categories, which may be of some value to the person, need not be abandoned, but rather only absorbed into the larger category. However, a potential drawback of recategorization is the development of concentric loyalties (Allport, 1954). A person may hold positive attitudes toward all members of a superordinate ingroup but may nonetheless continue to hold *more* favourable attitudes toward members of his or her particular subordinate group. It is also unclear if or how recategorization would apply outside of the recategorized contact situation. Furthermore, in situations in which a smaller group has been dominated by a larger group, often with negative interactions and consequences, members of the smaller group may not wish to assimilate into a large group, and may in fact consider the loss of their subordinate identity a threat (Brewer, 2000). To get around some of these drawbacks, models that are very similar, but subtly altered, such as the dual-identity model and the cross-categorization model (see Hewstone et al., 2002) have been developed.

#### *The Intergroup Contact Model*

The two previous models aim to improve the quality of intergroup contact by reducing the salience of intergroup boundaries. By contrast, the intergroup contact model (see Brown & Hewstone, 2005; Hewstone & Brown 1986) suggests that the salience of intergroup categories should be kept high in order to maximize the generalization of positive attitudes developed in the intergroup contact situation. So long as the optimal

conditions outlined by Allport (1954) apply in the contact situation, quality of contact should remain high even if the contact is very *intergroup* and not very *interpersonal*.

A wide range of empirical evidence supports the proposition that category salience is necessary for the generalization of positive attitudes. For example, Wilder (1984) found that positive attitudes developed toward an outgroup member during a contact situation only generalized to other outgroup members if the interaction partner was seen as typical of his group. Similarly, Van Oudenhoven, Groenewoud, and Hewstone (1996) instructed Dutch students to engage in a pleasant interaction with a Turkish student (who was really a confederate) and then to indicate their attitudes toward Turks in general. In some conditions, the confederate's Turkish identity was made salient, while in others it was not. Van Oudenhoven et al. found that the Turkish confederate was rated equally favourably in all conditions, but these positive attitudes only generalized to Turks as a group if the confederate's Turkish identity was made salient.

Aside from the generalization of positive attitudes beyond the contact situation, another advantage of the intergroup contact model is that it does not require that interaction partners abandon any of their, perhaps cherished, social identities. Consequently, people might be more willing to experience contact in this way (Brown & Hewstone, 2005). This model is also more realistic for some very visible outgroups, such as people of other races (Amir, 1969) for whom reduced category salience is less easily achieved. However, it is worth noting that contact of a very intergroup nature may not be the best option for groups experiencing more serious conflict, such as in Northern Ireland

(Hewstone et al., 2006). In some cases, it may be best to begin with contact of a more personal nature, a strategy discussed in more detail in the next section.

### *Integrative Models*

The three models of contact mentioned in the previous sections (decategorization, recategorization and intergroup contact) all have their respective merits and drawbacks. However, a major drawback in much of the literature is the implicit assumption that these models are mutually exclusive (see Brown & Hewstone, 2005). It is possible to use more than one method sequentially, or even simultaneously.

For example, Van Oudenhoven et al. (1996) used two conditions in which the identity of the outgroup member was made salient. In the first condition, the identity was made salient at the beginning of the interaction, in the second, the identity was made salient in the middle of the interaction. In *both* conditions the positive attitudes developed in the contact situation generalized to the outgroup as a whole, but in the second condition the interaction partners were first able to experience contact of an interpersonal nature before experiencing contact of an intergroup nature. Thus, varying the timing of the group salience may be beneficial, as it allows the interaction partners to experience the benefits of both interpersonal and intergroup interaction.

The dual identity model is an integrative model for reducing bias between groups that have a common superordinate identity that seeks to maximize the positive effects of both the recategorization model (or common-ingroup-identity model) and the intergroup contact model. In this model, both the shared superordinate identity and the more specific

subordinate identities remain salient, unlike in the common-ingroup-identity model in which only the superordinate category remains salient. A number of studies support the dual identity model. Gaertner, Rust, Dovidio, Bachman and Anastasio (1994) found less bias in a mixed setting when participants identified themselves both according to their ethnic subgroups and according to a superordinate category. Hornsey and Hogg (2000) specifically compared a dual identity approach to a recategorization approach and found that a dual identity led to more positive attitudes toward the outgroup than did a superordinate identity alone.

*A two-dimensional model*

Finally, Brown and Hewstone (2005) argue that the unidimensional interpretation of contact as either interpersonal or intergroup may itself be flawed, and perhaps should be abandoned in favour of a two-dimensional perspective in which contact can simultaneously be both intergroup and interpersonal. In this conceptualization, the best contact is that which is both of high quality and of high salience. Only then will contact lead to more pleasant attitudes, and will this improvement in attitudes generalize to the rest of the outgroup.

This two-dimensional perspective has also received empirical support. For example, in three studies of attitudes toward immigrants in Italy, Paolini et al. (2007) demonstrate the usefulness of cross-group friendship for reducing intergroup prejudice, an interaction style that is simultaneously both interpersonal and intergroup. Similarly, in two studies Voci and Hewstone (2003) investigated the effect of contact that was

simultaneously interpersonal and intergroup. In both studies, more interpersonal contact predicted favourable attitudes. However, the salience, or intergroup nature, of the contact moderated the generalization of these favourable attitudes to the outgroup as a whole. In both cases, more intergroup contact led to greater generalization. Ensari and Miller (2002) also found that the effect of contact was most favourable when contact involved both disclosure (i.e., when contact was interpersonal) as well as typicality or salience (i.e., when contact was intergroup).

#### Mediators of the Effect of Contact on Prejudice

The addition of mediating variables is another of the major additions to the contact literature since Allport's hypothesis was originally coined. According to Baron and Kenny (1986), a mediator variable is one that explains the relationship between an independent (or predictor) variable and a dependent (or criterion) variable. While moderators explain when, and to what extent one variable will predict another, mediators explain how or why one variable predicts another. For example, if it is found that more education is associated with less racial prejudice (e.g., Maykovich, 1975), the negative relation between education and prejudice can be explained through increased contact with racial outgroups or increased knowledge of the outgroups. Initially, much of the research on mediators of the effect of contact on prejudice focused on cognitive mediators such as knowledge. However, in recent decades the focus has shifted to affective mediators, which have increasingly proven to be very important (Brown & Hewstone, 2005).

*Empathy and Perspective-Taking.*

Empathy can be defined as an emotional response oriented toward another person, or people, related to their perceived welfare (Batson, Polycarpou, Harmon-Jones, & Imhoff, 1997). It is closely related to perspective taking, which means considering how another person is affected by his or her plight. Empathy and perspective taking can have multiple positive effects on attitudes toward outgroups including an increased perception of overlap between the self and the outgroup members.

Several studies have shown that greater empathy toward an outgroup member leads to more favourable attitudes toward the group as a whole (see Galinsky & Moskowitz, 2000). In three experiments, Batson et al. (1997) improved attitudes toward people with AIDS (Experiment 1), homeless people (Experiment 2), and convicted murderers (Experiment 3) by inducing empathy toward an individual exemplar of that group. Empathy resulted in less prejudice against the outgroup whether or not the participants were led to believe that the exemplar was responsible for his or her plight. Similarly, Harwood et al., (2005) found contact with the elderly (grandparents) to be associated with greater perspective taking, which in turn was associated with more favourable implicit and explicit attitudes toward them.

In a large-scale correlational study in Northern Ireland (N = 939) Voci, Hewstone, Cairns, and McLernon (2001) found that perspective taking mediated the relationship between contact and three outcome measures – prejudice, trust and forgiveness. In this study empathy was only weakly correlated with the other mediator of the relationship

between contact and attitudes (intergroup anxiety, discussed in the next section) indicating that it made a unique contribution to the relationship between contact and prejudice.

*Threat.*

Interpretations of threat and of its role in intergroup relations vary widely (Hewstone et al., 2002) but it can generally be perceived in terms of a group's power, identity, resources, or existence. Stephan and Stephan (2000) distinguish between realistic threats and symbolic threat (they also include intergroup anxiety and negative stereotypes as forms of threat). They define realistic threats as threats to the very existence of the ingroup (e.g., through war) or to the political or economic power of the ingroup (e.g., through civil action) or to the wellbeing of the ingroup (e.g., through endangering their health). They make it clear that "perceived" realistic threat remains important for groups, even if this threat is not objectively "real" (p. 25).

Stephan and Stephan (2000) define symbolic threats as those that involve perceived differences in morals, values, beliefs and/or attitudes. These threaten the worldview or way of life of the ingroup, and also depend upon the belief in the moral rightness of the ingroup's position. A good example of symbolic threat would be the belief that immigrants threaten the cultural integrity of Britain, changing it into something distinctly less British (see Short & Carrington, 1996). Recent research has investigated the role of threat in improving intergroup attitudes. For example, Tausch, Hewstone, Kenworthy, Cairns and Christ (2007) found that, between Catholics and Protestants in

Northern Ireland, perceptions of symbolic threat mediated the relationship between contact and attitudes.

*Intergroup anxiety.*

Intergroup anxiety (Stephan & Stephan, 1985) is a negative form of arousal that arises as a consequence of negative expectations of rejection or discrimination during cross-group interactions, or fears that the interaction partner, or the respondents themselves, may behave in an incompetent or offensive manner. Intergroup anxiety is likely to arise when there has been minimal previous contact, but when individuals have had a successful interaction with an outgroup member their level of intergroup anxiety is likely to be reduced, as they come to realize that they have nothing to fear from the outgroup. Antecedents of intergroup anxiety include minimal previous contact, negative stereotypes, history of intergroup conflict, large status differentials, a high ratio of outgroup to ingroup members. Intergroup anxiety is currently regarded as one of the key mediators of the relationship between contact and prejudice (see Pettigrew & Tropp, 2008 for a meta-analysis confirming the importance of intergroup anxiety).

Intergroup anxiety is detrimental for intergroup relations in a number of ways (see Wilder & Simon, 2001). The arousal caused by anxiety may serve as a distraction during intergroup interactions, reducing the amount of situation-relevant information that can be processed by the interaction partners and increasing reliance upon previously stored stereotype-congruent knowledge to fill in the gaps (Wilder & Shapiro, 1989). Feelings of anxiety may be used as information, interpreted as a negative feeling toward the outgroup

(Stephan & Stephan, 1985; Wilder, 1993). Anxiety may also lead to avoidance of the outgroup as a mechanism for reducing anxiety (Stephan & Stephan, 2000). Whatever the origins or effects of intergroup anxiety may be in any particular scenario, it is clear that a reduction in intergroup anxiety would have positive effects on intergroup relations.

A wealth of research has demonstrated the role of intergroup anxiety as a mediator in a variety of contexts and using a variety of methodologies. Mendes et al., (2002) found higher physiological anxiety responses among participants with limited prior contact with the out-group than among participants with extensive contact with the outgroup. Richeson, Baird, Gordon, Heatherton, Wyland, et al., (2003) reported that Whites who interacted with a Black individual showed short-term resource depletion similar to that hypothesised by Wilder and Shapiro (1989) due to temporary negative effects on executive function.

Using survey measures of intergroup anxiety Islam and Hewstone (1993) showed that intergroup anxiety mediated the relationship between contact and prejudice between Muslims and Hindus in Bangladesh. In two studies conducted in Northern Ireland, Paolini, et al. (2004) demonstrated the central role of intergroup anxiety in mediating the relationship between contact and prejudice between Catholics and Protestants. In two studies of prejudice against immigrants in Italy, Voci and Hewstone, (2003) found that intergroup anxiety mediated the relationship between contact, outgroup attitude and subtle prejudice (Study 1) as well as the relationship between contact and attitude toward immigrant co-workers (Study 2).

*Group-specific mediators.*

Thus far, I have considered mediators of the effect of contact on prejudice *in general*. However, it is widely acknowledged that different groups are subject to different stereotypes (Crisp et al., 2000; Tatum, 1999) and may engender prejudice of varying types and varying levels of severity (see Bishop, 1991; Crandall et al., 2002; Feldman & Crandall, 2007). Consequently, some researchers have shifted their interest from general evaluations of outgroups to *specific* emotions felt toward particular outgroups, which may in turn better predict behaviour toward them (see Mackie & Smith, 2002; Smith 1993).

The mediators mentioned above (empathy, perspective taking, threat and intergroup anxiety) work well for most intergroup scenarios. However, some mediators are very specific to certain outgroups, dependent on the stereotypes associated with the outgroup or the social context of the prevailing prejudices. For example, in Northern Ireland an area affected by decades of sometimes violent interaction between Catholics and Protestants, trust has been shown to be an important mediator of the effects of contact on attitudes (see Hewstone et al., 2004).

Another example is that of the mentally ill. Unlike most other outgroups, the mentally ill are seen as dangerous and unpredictable (Link & Cullen, 1986). Because of the pervasive perception of the mentally ill as dangerous the perceived threat associated with interaction with the mentally ill is very physical, very violent, and very immediate. This is even more extreme in the case of people with schizophrenia – the subset of the mentally ill widely perceived as the most dangerous and who suffer the worst

stigmatization (Read, 2007; Roman & Floyd, 1981; Schulze & Angermeyer, 2003). According to Crisp et al. (2000) Britons perceive people with schizophrenia as dangerous, unpredictable, difficult to talk to and unlikely to recover. This has also been found in other social contexts (e.g., Angermeyer & Matschinger, 1997; 2003; Arkar & Eker, 1991); depressed people, in contrast, are not considered dangerous and evoke pity.

In the case of the mentally ill, and of people with schizophrenia in particular, while other mediators such as intergroup anxiety continue to be useful, it may perhaps be more useful to use more relevant measures, such as the perception of dangerousness, or fear (see Corrigan et al., 2001; 2002) to mediate the relationship between contact and prejudice.

#### Moderated Mediation and Mediated Moderation

At present there is a large amount of literature on the processes of moderation and mediation, and the definitions, usefulness and strategic analyses of the two processes are well understood (Baron & Kenny, 1986; Judd & Kenny, 1981; Kraemer, Wilson, Fairburn & Agras, 2002). Recently, however, research has begun seriously investigating instances in which both processes are operating at the same time – in other words, instances of moderated mediation and mediated moderation (see Muller, Judd & Yzerbyt, 2005).

Moderation concerns factors that influence the extent of the effect of one variable on another, and mediation concerns the intermediary factors implicated in the relationship between the independent and dependent variables. Mediated moderation concerns the

intermediate processes responsible for producing a moderated effect. For example, if a group of hypothetical participants were presented with either very positive or very negative information about members of a particular outgroup, one could reasonably expect that those presented with positive information would want to encounter members of this outgroup, while those presented with negative information would want to avoid them. The desire to encounter / avoid members of the outgroup would be moderated by the positive / negative nature of the information they received. If it was further found that the *moderating* effect of information on desire to encounter / avoid was *mediated* by shifting expectations of the encounter with the outgroup, this would be an example of mediated moderation.

By contrast, moderated mediation concerns instances in which the occurrence of the mediating process between the independent and dependent variable depends on the value of a moderator variable (Muller et al., 2005). For example, it is a well established fact that intergroup anxiety often mediates the effect of contact on attitudes (see Brown & Hewstone, 2005; Pettigrew & Tropp, 2008, for reviews). However, there are conceivable instances in which the balance of power is skewed in the direction of one group, to the extent that members of this group need not be concerned with what members of the other group think. In these instances, it is possible that intergroup anxiety would not play a mediating role in the effect of contact on attitudes. If the mediating effect of intergroup anxiety occurred dependent upon the power balance of the situation, this would be an example of moderated mediation.

Contact literature has started to investigate instances of mediated moderation and moderated mediation. Eller, Abrams, Viki, Tendayi and Peerbux (2007) investigated Black and White Britons' attitudes toward the police. Eller et al. found that White Britons had more positive attitudes toward the police than did Black Britons, and that this effect was mediated by the quality and quantity of contact with policemen. Furthermore, the mediating effect of quality of contact only occurred if the participant strongly self-identified as a member of his or her race. In other words, the mediating effect of contact was moderated by strength of racial identification, an example of moderated mediation.

In a similar example of moderated mediation Harwood, et al. (2005) found that the effect of contact with the elderly on young persons' attitudes toward the elderly was mediated by perspective-taking and anxiety. These mediating effects only occurred in conditions of high salience. Thus salience moderated the mediating effects of perspective-taking and anxiety.

#### Derivations of Contact

Despite the wealth of evidence demonstrating benefits of intergroup contact, as a prejudice-reducing intervention, direct, face-to-face contact is limited in that *opportunity for contact* is not always available (e.g., Phinney et al., 1997). One solution to this dilemma is to utilize intergroup contact in an indirect manner. One of the most significant recent advances in contact research is the finding that perceivers need not have actually experienced contact with the outgroup themselves to develop more positive intergroup attitudes. Below I discuss internet contact, vicarious contact and imagined contact – three

ways of improving attitudes toward an outgroup without having to experience any actual physical contact oneself.

### *Internet Contact*

For the purpose of their meta-analysis of the effects of contact on prejudice Pettigrew and Tropp (2006) explicitly define contact as “actual face to face interaction between members of clearly defined groups” (p. 754). According to this definition, for true contact to take place, there must be a certain proximity between members of different groups. However, this view is challenged by Amichai-Hamberger and McKenna (2006), who suggest the possible benefits of contact via the Internet.

The Internet is quite possibly the most potentially useful means of facilitating contact between individuals of different groups, providing opportunities and safe spaces for contact between individuals who otherwise would be either unable or unwilling to meet. In particular, Amichai-Hamburger and McKenna (2006) focus on the difficult practical issues surrounding facilitating contact between members of rival groups, and the anxiety that may be felt (intergroup anxiety) during actual face-to-face interaction, as specific problems that the Internet can address.

Amichai-Hamburger and McKenna (2006) argue that the Internet encourages some of Allport’s (1954) optimal conditions under which contact should take place. The Internet encourages equality between interaction partners by stripping away many of the usual markers of social status – “on the Internet no one knows that I am wearing a diamond necklace or have teeth missing” (p. 829). They also argue that the Internet can

facilitate cooperation toward common goals through the organization of “virtual teams” (p. 831) that work together on projects via the Internet and which may be spread out all over the world. Finally, they argue that Internet communication lessens anxiety through the absence of visual scrutiny and the ability to edit one’s comments before sending them.

As yet, no research has been done on the effects of contact via the Internet, so many of the advantages of Internet contact remain speculative. Nonetheless, for the reasons described above, as well as others, such as malleability of the contact situation, the Internet is a promising ground for contact interventions and will surely receive more attention in the future.

#### *Vicarious contact*

Another way to circumvent the necessity of actual face-to-face contact is to utilize vicarious contact. Vicarious contact occurs when an ingroup member knows that another ingroup member is friends with (or otherwise acquainted with) an outgroup member (Wright, Aron, McLaughlin-Volpe, and Ropp, 1997). Wright et al. tested the extended contact hypothesis using a White American undergraduate sample; they found that White students who reported knowing that one of their White friends (fellow ingroup member) had a non-White friend (outgroup member), reported lower levels of prejudice against the relevant ethnic group. These results were found despite controlling for the contact that the participants themselves had with members of these other ethnic groups. Subsequent research has yielded supporting evidence from a range of settings, assessing prejudice

against various ethnic outgroups (e.g., Liebkind & McAlister, 1999; Paolini et al., 2004; see Turner, Hewstone, Voci, Paolini, & Christ, 2008a, for a review).

Vicarious experiences of cross-group friendship have specific benefits: (1) seeing, or learning about, a positive interaction between an ingroup and an outgroup member can change perceived ingroup norms of behaviour toward the outgroup, (2) knowledge of a positive ingroup-outgroup interaction can change perceived outgroup norms of behaviour toward the ingroup and (3) knowledge of ingroup-outgroup interactions can lead to greater inclusion of the outgroup in the self (see Aron & Aron, 1996 for a review). Recent research has found support for all three mechanisms. For example, in two studies, Turner, Hewstone, Voci and Vonofakou (2008) found that perception of ingroup norms, perception of outgroup norms, and inclusion of the other in the self mediated the relationship between extended contact and outgroup attitude.

#### *Imagined contact*

However, extended contact still requires at least one ingroup member to experience actual intergroup contact. Turner et al. (2007a) went one step further than vicarious contact, by investigating imagined contact as a means of reducing prejudice. The idea behind imagined intergroup contact is that simply imagining a social interaction with a member of an outgroup has some of the benefits normally associated with actual contact. Turner et al. (2007a) found support for this proposition. Young participants who imagined interacting with an elderly individual reported less bias against elderly people than those who imagined an outdoor scene (Experiment 1) or simply thought about the

elderly (Experiment 2). Heterosexual participants who imagined interacting with a homosexual man reported less intergroup anxiety and more positive attitudes toward homosexual men than did participants who imagined a hiking trip (Experiment 3).

Imagining a social scenario is different from simple social category priming, which usually activates stereotypes and increases intergroup prejudice (Dovidio, Brigham, Johnson & Gaertner, 1996). Turner et al. (2007a) claim that imagining intergroup contact activates concepts normally associated with successful intergroup interactions such as feeling more comfortable and less apprehensive about the prospect of future contact with that group. In turn, this should lead to more positive evaluations of the outgroup, similar to the effects of face-to-face contact (e.g., Islam & Hewstone, 1993; Paolini et al., 2004; Voci & Hewstone, 2003).

For these reasons, Turner and colleagues (2007a) characterized imagined contact as “an inexpensive and practical means of reducing intergroup anxiety and prejudice that would be useful even where direct contact is very limited” (p. 439). Since this study, other studies have found that imagined contact can reduce intergroup prejudice. For example, Stathi and Crisp (2008) found that imagined contact also has consequences for projection of the self onto members of the outgroup using three imagined contact situations: between Indigenous people and Mestizos in Mexico (Experiment 1), from English nationals to French nationals (Experiment 2), and from British students to international students in Britain (Experiment 3) (see Crisp, Turner & Husnu, 2009 for a review).

### Other prejudice-reducing interventions

Though this thesis focuses on contact as a prejudice-reducing intervention, it is not my intention to suggest that contact is the *only* prejudice-reducing intervention of consequence. It is well established that other factors, such as education, affect prejudice against other groups (see Wagner & Zick, 1995). Contact is certainly not the only intervention for reducing prejudice, however, it holds its own well among other interventions. For example, Corrigan et al. (2001) compared the effects of contact, education and protest as ways of reducing prejudice against the severely mentally ill. Contact was more effective than either education or protest, and education was more effective than protest in reducing prejudice.

Similarly, Corrigan et al. (2002) compared the effects of two types of education (education on personal responsibility and education on dangerousness) and two types of contact (contact with discussion of personal responsibility and contact with discussion about dangerousness) on prejudice against persons with severe mental illnesses. Though education had some positive effects, contact still proved to be the more effective prejudice-reducing intervention. Furthermore, the content of discussion following the contact had no impact on the effectiveness of contact, and contact affected real-world behaviour (i.e. donating to a mental health aid fund). Still more remarkable, the prejudice-reducing effects of contact were still detectable after a week, while the effects of education were not.

### Critiques of Contact

The contact hypothesis has met with overwhelming support and may be considered one of the most successful social-psychological concepts ever coined (Brown, 2000). However, it has also received a fair amount of criticism. Some of these critiques are valid, and research (some of which is found in this thesis) is working to address these valid critiques, closing some of the gaps in the contact literature and developing ever more accurate and complete models of the effects of contact on prejudice. However, some of the critiques are less valid, based either on an ignorance of the contact literature or a misunderstanding of some of the concepts central to the contact hypothesis. In the following sections I discuss these critiques, starting with the invalid ones and explaining why they are invalid, and ending with the valid critiques and the ways I plan to address some of these in this thesis.

#### *Restrictive “Necessary” Conditions*

Devine et al. (1996) claim that the necessary conditions for contact to be effective are restrictive and unrepresentative of most real contact situations. Similarly, Dixon, Durheim and Tredoux (2005) assert that “the contact hypothesis proposes that interaction between members of different groups reduces intergroup prejudice if – and only if – certain optimal conditions are present” (p. 697). Devine et al. go even further, suggesting that the necessary conditions themselves are also subject to conditions. For example, they assert that even though cooperation is an optimal condition of contact (Allport, 1954), cooperation must be successful for the contact to effectively reduce prejudice. When

cooperative contact ends in failure, prejudice may be increased (e.g., Worchel, 1986; Worchel & Norvel, 1980).

However this critique is contradicted by the available evidence. In Pettigrew and Tropp's (2006) meta-analysis, contact significantly reduced prejudice regardless of whether or not Allport's conditions were met. Granted, the effects of contact on prejudice were greater when contact met Allport's conditions ( $r = -0.29, p < 0.001$ ), than when contact did not ( $r = -.20, p < 0.001$ ). But in *both* cases contact was associated with decreased prejudice.

#### *Unrealistically Optimistic Research Conditions*

Dixon et al. (2005) claim that much of the available contact research has investigated contact taking place under “rarefied conditions” (p. 697), conditions that are unrealistically positive and not representative of real contact situations. This critique does not square well with the reality of contact research. Much of this research has involved retrospective reports of past actual contact taking into account the nature of the reported contact (see Brown & Hewstone, 2005, for a review). It seems difficult to fathom how real contact could have taken place under unrealistic conditions.

Furthermore, in Pettigrew and Tropp's (2006) meta-analysis of all available contact literature, they explicitly specify the number of studies that took place under the recommended optimal conditions. Only a minority of the tests of contact (134 tests) were conducted under these conditions. The remaining 562 tests were not conducted under optimal conditions. In both cases they found negative relationships between contact and

prejudice ( $r = -0.287$  and  $r = -0.204$  respectively), which not only demonstrates that contact research has *not* prioritized unrealistic conditions, but also that contact works even under non-optimal conditions.

*Questionable Generalization Beyond the Scenario*

Devine et al. (1996) claim that the positive effects of contact, when obtained, rarely generalize beyond the specific contact scenario. Amichai-Hamburger and McKenna (2006) similarly assert that the positive effects of contact, however successful, “tend to be limited to the context of the meeting and its participants” (p. 825). Again, the evidence simply does not support this critique.

In Pettigrew and Tropp’s (2006) meta-analysis, a small minority of tests investigated the effect of contact on attitudes toward outgroup members directly involved in the contact situation (152 tests), but the grand majority of the tests (1,164 tests) examined the relationship between contact and prejudice against the outgroup as a whole. Both of these subsets of tests show a negative relationship between contact and prejudice ( $r = -0.231$  and  $r = -0.213$  respectively) and they found no significant difference in the strength of the relationships, indicating that positive attitudes engendered during the contact scenario generalized well to the outgroup as a whole.

Furthermore, 17 tests included in the analyses also investigated whether the effects of contact generalized across different situations with the same outgroup and 18 tests investigated whether the effects of contact generalized to outgroups not involved in the contact, an example of outgroup-to-outgroup generalization (see Brown & Hewstone,

2005). In both cases they found negative relationships between contact and prejudice ( $r = -0.244$  and  $r = -0.190$  respectively) indicating that the effects of contact not only generalize, but generalize more than is commonly thought.

### *Questionable Causal Direction*

Some previous research has demonstrated that more prejudiced people do avoid members of groups against whom they are prejudiced (e.g., Eller & Abrams, 2004; Herek & Capitanio, 1996; Levin, van Laar & Sidanius, 2003), and much of the research on contact and attitudes is correlational or cross-sectional (Brown & Hewstone, 2005; Pettigrew & Tropp, 2006). Consequently, a valid alternative explanation of the reliable negative relationship between contact and prejudice is the tendency of prejudiced people to avoid contact.

There are several solutions to this problem of questionable causal direction. Genuinely experimental studies remove any element of participant self-selection and offer a clear causal path between one variable and another. Several experimental studies show a clear effect of contact on prejudice. For example, Corrigan et al. (2002), using an experimental design, showed that contact with a mentally ill person led to more favourable attitudes, and more pro-social behaviour. It is also noteworthy that, in Pettigrew and Tropp's meta-analysis (2006), the effect of contact on prejudice was larger in genuine experimental studies ( $r = -0.34$ ) than in quasi-experimental studies ( $r = -0.24$ ) and larger in quasi-experimental ones than correlational studies ( $r = -0.20$ ).

Further evidence of the causal direction from contact to prejudice comes from the analyses of studies in which participants have a choice about experiencing contact and studies in which participants have no choice about experiencing contact. If the main effect is from prejudice to contact, one should find a stronger relationship in choice studies than in no-choice studies. However, Pettigrew and Tropp (2006) found the opposite; no-choice samples provided a larger mean effect size ( $r = -0.280$ ) than samples where participants had some choice ( $r = -0.190$ ) or full choice ( $r = -0.218$ ). This indicates that the primary causal direction is from contact to prejudice and not the inverse.

*Lack of Interest in Participants' Perspective on Contact*

Dixon et al. (2002) accuse contact researchers of a “strange incuriosity” (p. 701) about the ways in which participants themselves view and interpret their own contact experiences. According to the critique, contact is often measured by predetermined scales meant to reflect Allport’s (1954) necessary (now optimal) conditions. However, it seems unfair to disregard certain measures as indifferent to the perspective of the participants themselves, particularly when these measures (such as those of the quality of contact) explicitly take into account the pleasantness, friendliness, and depth of the interactions (see Brown & Hewstone, 2005).

The critique also seems to wholly ignore the wealth of research on the moderators and mediators of contact (see previous sections) that specifically outline when contact works and the mechanisms by which it works. Furthermore, the usefulness of the critique

is unclear, as the measures currently used, while far from all-inclusive, nonetheless offer evident predictive power (Pettigrew & Tropp, 2006).

*Focus on Majority Members as Participants*

Devine et al. (1996) point out that much of the contact research has focused exclusively on the effect of contact in reducing prejudice of majority members against minority members, and that this overemphasis on the thoughts and attitudes of majority members encourages the perception of minority group members as passive recipients of prejudice. For example, many of the studies done on contact and racial attitudes examine the views and beliefs of White people and their perceptions of people of other races (e.g., Jackman & Crane, 1986; Yancey, 1999).

To some extent this focus is understandable, as minority groups and non-dominant groups suffer the majority of the negative consequences of prejudice (see Tatum, 1999), though certainly not all (see Roediger, 1999). Nonetheless, the almost exclusive focus on the attitudes of majority members is not reasonable, especially when contact always necessarily involves members of both groups. Therefore the perspectives of minority group members must also be taken into account. Moreover, the dynamics of the interaction itself must also be taken into account, such as the expectations of interactions held by both sets of participants.

All these criticisms are valid, but it is worth noting that some researchers have tried to address this problem by investigating the attitudes of minority members or investigating the attitudes of both (or all) groups simultaneously. For example, Chinsky

and Rappaport (1970) investigated the effects of students' interactions with severely mentally ill patients on their attitudes toward them, but they also *simultaneously* investigated the attitudes of these mental patients toward the students. Both sets of attitudes showed improvement after the period of contact.

In similar fashion, Islam and Hewstone (1993) investigated the relationship between contact and attitudes of Hindus toward Muslims in Bangladesh, while simultaneously investigating the inverse – the relationship between contact and attitudes of Muslims toward Hindus in Bangladesh. They found that contact was associated with less intergroup anxiety, more favourable outgroup attitudes and greater perceived variability for both groups.

#### *Focus on Attitudes as Dependent Measures*

Allport (1954) argues the case for contact as a mechanism to improve intergroup relations. Yet Devine et al. (1996) point out that the primary outcome measure in many studies of the effects of contact is one of *attitude* toward the outgroup, instead of a measure of intergroup relations as it should rightfully be. While a favourable change in attitudes may be important, or even necessary, for engendering more positive intergroup relations, it is certainly not sufficient to produce it. Dixon et al. (2002) also point out that the “vast majority of contact studies” (p. 703) use attitude scales as outcome measures, and further suggest that, even though attitude may improve, this may have no effects, or paradoxical effects, on intergroup relations.

The overemphasis on attitudes as an outcome measure is a valid critique of much of the contact literature, particularly as these attitudes scales can be quite generic, applicable to almost any outgroup in any situation, and not at all descriptive of or related to the unique type of prejudice directed against certain outgroups (see Wright et al., 1997 for an example of such a scale). However, despite the emphasis on attitude measures, several studies have used different measures of prejudice. Angermeyer and Matschinger (1997), in studies of prejudice against the mentally ill, used measures of social distance. Corrigan et al. (2001 & 2001) used measures of avoidance or social rejection of the same group, as well as a behavioural measure. And Herek (1988) used very specific measures of prejudice against both lesbians and gay men.

Nonetheless, efforts should be made in subsequent contact literature to use outcome measures that are more specifically applicable to the outgroup in question. Efforts should also be made to link these measures of prejudiced attitude to actual behaviour or intergroup relations. I attempt to address some of these issues in this thesis by carefully combining attitude measures wherever possible or statistically sound, producing measures more relevant to the groups of interest.

#### *Reliance on Self-Reports*

Participants' self-reports of both contact and prejudice may be inaccurate for many reasons including a positive bias toward the self and social desirability (Nederhof, 1984). Much of the contact research is based on participants' self-reports of both contact and prejudice (e.g., Paolini et al., 2004). Recently however, Hewstone, Sharp and Judd

(2009) found that participants' self-reports of both contact and prejudice were highly correlated with others' perceptions of them, which supports the validity of self-report measures.

Furthermore, not all contact research has relied upon self-reported measures of prejudice. Implicit attitudes are used as a way of testing attitudes that are resistant to deliberate attempts at self-presentation (Greenwald et al., 1998). Research using implicit measures also finds the expected negative relationship between contact and prejudice, further supporting the contact hypothesis. For example, Tam et al. (2006) found that contact predicted more positive implicit and explicit attitudes toward the elderly.

#### *Focus on Socially Unacceptable Prejudice*

##### *The Relevance of Social Acceptability*

Despite vast amounts of research conducted on the topic, a certain amount of disagreement persists concerning the definition of prejudice, particularly concerning whether or not the definition should include an element of indefensibility. Allport (1954), for example, as well as defining prejudice as denying “groups of people equality of treatment which they may wish” (p. 51), further specified that prejudice includes perceptions of an outgroup that are inaccurate, unjustified, or overgeneralized.

Other researchers, however, reject the notion that prejudice must be in some way unwarranted or unfair. Crandall et al. (2002), for example, define prejudice as “a negative evaluation of a group or of an individual on the basis of group membership” (p. 359).

They deliberately exclude from the definition any attempt to discern whether or not this perception of the group is objectively accurate or justifiable, claiming that these things are “irrelevant to the understanding of the phenomena” (p. 359; see also Crandall, 2000; Crandall & Eshleman, 2003). According to this perspective, all kinds of negative outgroup evaluations represent the same underlying process; no objective reason exists for declaring one kind justifiable, and another kind unjustifiable. Consequently, the term “prejudice” simply denotes forms of negative outgroup evaluations that are currently considered socially undesirable.

A possible critique of a definition of prejudice that does include a reference to objectivity is that there may not be a truly standard or objective means by which one can interpret human behaviour, and especially intergroup behaviour. Crandall and Eshleman (2003) argue that it is “virtually impossible to ascertain rationality” (p. 414) and thus that it is unnecessary or even unwise to attempt to include objectivity or rationality in a definition of prejudice. They further point out that Allport himself, after 43 pages of discussion, concluded that it is a nearly hopeless task to determine whether a prejudice is objectively justified or based on a “well deserved reputation” (Allport, 1954, p. 125).

However, there are many possible critiques of a definition of prejudice that does *not* include reference to any objective reality. It does not appear to take into account the fact that the social acceptability of many forms of negative intergroup behaviour fluctuates: explicit racial prejudice has declined over the past few decades (e.g., Dovidio & Gaertner, 1991; Dowden & Robinson, 1993), as has explicit prejudice against women

(Blair et al., 2001), and prejudice against people of different sexualities (Lance, 1987). Social acceptability also varies according to place: in the United States of America (Herek, 2000), Britain (Ryan & Rivers, 2003) and Germany (Jensen, Gambles & Olsen, 1988), social norms do not permit the expression of overt sexual prejudice against homosexual men. In Jamaica, however, negative attitudes toward homosexual men are not only permitted, but encouraged (Chin, 1997), and male homosexuality is made illegal by the presence of anti-buggery laws (White & Carr, 2005).

It appears flippant to claim that the negative treatment of Blacks was simply another form of outgroup evaluation, only becoming prejudice when it was no longer considered socially acceptable. Nor does it seem reasonable to claim that the ill-treatment of homosexual men in the U.S., the U.K. or Germany should be considered prejudice, but that the same treatment or worse treatment in Jamaica should not. As such, this definition offers no prescription for useful societal behaviour, and seems not only flippant, but dangerous: it does nothing to challenge the status quo and may even perpetuate or encourage it in instances where a majority is abusing the rights of a minority, which includes most cases in human history (Jost & Hunyady, 2005).

This debate concerning the meaning of prejudice has practical implications. For example, recently, Pope Benedict XVII has said that saving humanity from homosexual and transsexual behaviour is just as important as saving the rainforest (“Pope Benedict”, 2008). Can this declaration be correctly labelled sexual prejudice (see Herek, 1986)? Or rather, are the attitudes of those who oppose the pope’s view examples of religious

prejudice (see, Blum & Mann, 1960)? In 2004, the international body, Human Rights Watch, demanded that Jamaica repeal its anti-buggery laws – laws that effectively make sexual relationships between consenting adult men criminal acts. The Jamaican government refused (We won't be bullied, 2004). Were the demands of Human Rights Watch examples of cultural prejudice (see Short & Carrington, 1996), or national prejudice (see Rutland, 1999)? Or was the response of the Jamaican government an example of sexual prejudice?

Over the past few decades various groups have claimed to be the targets of prejudice including, but not limited to, members of certain religious groups (Strabac & Listhaug, 2008), atheists and agnostics (Edgell, Gerteis & Hartmann, 2006), persons of different sexualities (Herek, 1986), persons from different cultures (Short & Carrington, 1996), persons of different races (Tatum, 1999), and persons suffering from various mental disorders (Schulze & Angermeyer, 2003). At every stage other groups have opposed these groups stating that their negative treatment was fair or justifiable (see Jost & Hunyady, 2005). Understanding if and why some negative intergroup relations are considered socially acceptable is essential for wrestling with the complex and difficult questions concerning contemporary intergroup relations.

### *Socially Acceptable Prejudice*

Despite disagreement concerning whether or not any form of prejudice or negative intergroup behaviour can ever be objectively justifiable or unjustifiable, it is a widely acknowledged, demonstrable fact that negative evaluations of some groups are

more socially acceptable than negative evaluations of others (Bishop, 1991; Crandall, 2000; Crandall et al., 2002; Feldman & Crandall, 2007). For example, most people would be comfortable evaluating rapists and child abusers negatively, but less comfortable evaluating Black people or blind people negatively (Crandall et al., 2002).

Certain expressions of prejudice can also be more or less socially acceptable than other prejudices against target groups in the same superordinate category. For example, in the U.S. negative attitudes toward Blacks are no longer considered socially acceptable (Greenwald et al., 1998), and some expressions of anti-Black racism, such as blackface, are thus no longer considered socially acceptable. However, similar expressions of racism toward Native Americans ('redface') remain comparatively acceptable (see Strong, 2004, p. 81).

Similarly, Feldman and Crandall (2007) compared 40 mental illnesses selected from the DSM IV, and found a continuum of social distance similar to the continuum of social acceptability found by Crandall et al. (2002): participants in this study reported the most social distance from sufferers of antisocial personality disorder and paedophilia, and the least social distance from sufferers of female sexual arousal disorder and narcolepsy (p. 141)

#### *Lack of Research on Socially Acceptable Prejudice*

Also, regardless of whether the definition of prejudice includes some reference to objectivity, it is widely accepted that most prejudice research investigates target groups against whom prejudice is considered socially unacceptable (see Crandall et al., 2002).

The contact hypothesis, for example, is one of the sturdiest and best supported prejudice-related hypotheses, and contact is consequently one of the best and most widely used prejudice-reducing interventions (see Brown & Hewstone, 2005; Oskamp & Jones, 2000). However, while a wealth of research exists investigating the relationship between contact and prejudice that is socially unacceptable, far less research investigates the relationship between contact and socially acceptable forms of prejudice. This emphasis on socially unacceptable prejudice and lack of research on socially acceptable prejudice is a valid critique of the contact literature. I intend to address this critique in this thesis by investigating two particular outgroups that are generally considered to be targets of socially acceptable prejudice, and that have been largely overlooked in contact research.

#### Outstanding research questions

##### *Social Acceptability*

The idea that some negative intergroup behaviours are more socially acceptable than others is neither new nor controversial (see Crandall, 2000). Furthermore, some research has demonstrated this empirically (e.g., Crandall et al., 2002). However, there has been very little research conducted in this area (Crandall et al., 2002) and consequently it is sometimes asserted that certain kinds of negative intergroup behaviours are socially acceptable, despite having no empirical backing for these claims. Such is the case for the two targets that will be the focus of this thesis – people with schizophrenia in the U.K., and homosexual men in Jamaica – it has often been suggested or asserted that

they are targets of relatively socially acceptable prejudice (e.g., Chin, 1997; Stier & Hinshaw, 2007), but neither of these claims has ever been tested empirically.

In this thesis I plan to fill some of these gaps in the available literature by investigating the relative social acceptability of prejudice against both the aforementioned targets. These groups were chosen because of their similarities, in that they are both purportedly targets of socially acceptable prejudice, but also because of their differences. People with schizophrenia are stereotyped as being dangerous, unpredictable, difficult to talk to and unlikely to recover (Crisp et al., 2000), while homosexual men are stereotyped as being weak, or effeminate (Herek, 1986). It is difficult to conceive of more divergent stereotypes.

#### *Actual Contact*

More research investigates prejudice that is considered socially objectionable than prejudice that is considered socially acceptable (Crandall et al., 2002). Pettigrew and Tropp's (2006) meta-analysis of available contact research shows that this critique holds true for tests of the contact hypothesis. For example, more than half of all studies included in the meta-analysis investigated the relationship between contact and prejudice against people of different races or ethnicities (362 of 696 studies), a kind of prejudice that is no longer socially acceptable (Greenwald et al., 1998).

By contrast, far fewer studies focused on the relationship between contact and prejudice against persons who suffer from mental illnesses (66 of 696 studies), a kind of prejudice that is still considered socially acceptable (Stier & Hinshaw, 2007). This dearth

of research is even more pronounced when different mental illnesses are considered separately – a reasonable, if not necessary, course of action in view of the widely divergent stereotypes about, and reactions to, people suffering from different mental illnesses (see Crisp et al., 2000). For example, *no* study has ever investigated the relationship between contact with people with schizophrenia and prejudice against people with schizophrenia (West, Hewstone & Holmes, 2010).

There are numerous important reasons to investigate the effectiveness of contact in reducing prejudice against such a group. People with schizophrenia are a somewhat unique outgroup, not only because prejudice against them remains socially acceptable but also because attitudes toward them may be getting worse, not better (Angermeyer & Matchingger, 1997). As well as the much needed research investigating such a severe kind of prejudice, testing the relationship between contact and prejudice against people with schizophrenia would provide an opportunity to test the effectiveness of contact under non-optimal conditions.

A similar geographic bias exists in the contact literature: according to the aforementioned meta-analysis (Pettigrew & Tropp, 2006) most contact research has been conducted in the United States of America (501 of 696 studies). Far fewer studies were conducted in Europe (80 of 696 studies), fewer still in Africa, Asia or Latin America (54 of 696 studies) and none in the Caribbean. This distribution represents an abundance of research in regions in which certain prejudices are milder and socially unacceptable, and

a complete lack of research in regions in which the same prejudices are more severe and socially acceptable.

To cite a specific example, it is highly problematic that the effectiveness of contact in reducing prejudice against homosexual men has been studied extensively in the U.S. – a country with relatively good and improving attitudes toward homosexuals (Lance, 1987) – but has not been studied at all in Jamaica, a country that has been called the most homophobic place on Earth (Pidgett, 2006). In this thesis I investigate contact and prejudice against gay men in Jamaica, another example of much needed research investigating severe and understudied prejudice, as well as an opportunity to test the effectiveness of contact under non-optimal conditions.

*Imagined contact.*

For both of the afore-mentioned target groups actual contact is difficult, rare, or actively discouraged (Chin, 1997; Schulze & Angermeyer, 2003). Imagined contact is a promising new alternative to actual contact that gets around this problem by eliminating the need for opportunity for actual contact. However, studies on imagined contact are currently very limited; thus far the majority of the research has involved homosexual men and the elderly as target groups, and most of the research has taken place in England (e.g., Abrams, Crisp, Marques, Fagg, Bedford, & Proviast, 2006; Turner et al., 2007a; but for a noteworthy exception, see Stathi & Crisp, 2008). An even more serious gap in the current imagined contact literature is that imagined contact has never been shown to

reduce prejudice against any target group for which it was designed – a target group for whom actual contact may be difficult or dangerous to orchestrate.

There are many possible reasons for which imagined contact might not be as effective as actual contact for reducing prejudice against members of these groups. For example, it has been shown that attitudes based on first-hand information are stronger than those based on second-hand information (Fazio, 1990). Also, other factors such as attitude strength, the intensity, certainty, importance, and accessibility of an attitude (Krosnick, Boninger, Chuang, Berent & Carnot, 1993) might influence the nature of the imagined contact activity. Stereotype content may also have an important role to play in the success or failure of imagined contact, as it would guide expectations of the contact scenario.

In this thesis, I test the effectiveness of imagined contact at its limits by using imagined contact to reduce prejudice against an outgroup against whom prejudice is both strong and socially acceptable – people suffering from schizophrenia. This constitutes a dramatically different test of the effectiveness of imagined contact than previous studies, which have been restricted to less threatening outgroups such as the elderly (Turner et al., 2007a) or the French (Stathi & Crisp, 2008). If imagined contact can be shown to work even in this situation, this could be considered important evidence of the robustness of imagined contact as a prejudice-reducing intervention.

CHAPTER 2: THE RELATIVE SOCIAL ACCEPTABILITY OF PREJUDICES  
WITHIN A SOCIETY AND BETWEEN SOCIETIES

Social psychological research on prejudice explores many areas of intergroup relations including stereotypes, attitudes and behaviour (see Hewstone et al., 2002). However, one area of prejudice research has been greatly overlooked – that of social norms (Crandall et al., 2002). This state of affairs is less than ideal as the relative social acceptability of a given prejudice may have profound implications for its conceptualization, its consequences, and for interventions aimed at reducing this prejudice (Crandall, 2000). It is frequently asserted that prejudice against two particular groups is relatively socially acceptable – people with schizophrenia in the U.K. (Stier & Hinshaw, 2007) and homosexual men in Jamaica (Chin, 1997). However, these claims have never been tested empirically. In two studies I investigate the claims that these two groups are targets of socially acceptable prejudice.

Social Acceptability of Prejudice within a Society

It is well-documented that negative reactions toward some groups are considered more socially acceptable than negative reactions toward others (for examples see Bishop, 1991; Crandall et al., 2002; Feldman & Crandall, 2007). An in-depth discussion of the reasons behind these varying perceptions of legitimacy is beyond the scope of this chapter, but they include the presence or absence of justification ideologies (Crandall, 2000), status or power differences between groups (Jost, Banaji & Nosek, 2004), varying

stereotypes held about different groups (Fiske, Cuddy, Glick & Xu, 2002) and perceptions of permeability of group boundaries (Gonzalez & Brown, 2006; Read, 2007).

Consequently, within any society, at any given time, it is possible to produce a list of stigmatized groups that exist along a continuum of social acceptability (see Bishop, 1991; Gruman & Sloan, 1983; Richardson, Hastorf, Goodman, & Dornbusch, 1961). Crandall et al. (2002) did such an analysis using a wide range of groups. They produced a list of 105 stigmatized groups, and asked American college students to rate how comfortable they would be holding negative attitudes toward members of each group. Participants responded on a three-point Likert scale (0 = *Not OK to feel negatively toward these people*, 2 = *OK to feel negatively toward these people*). Responses varied depending on the group in question. For example, participants in this study reported feeling mostly comfortable holding negative attitudes toward rapists ( $M = 1.97$ ), child abusers ( $M = 1.97$ ) and child molesters ( $M = 1.93$ ), but mostly uncomfortable holding negative attitudes toward mentally retarded people ( $M = 0.05$ ), deaf people ( $M = 0.05$ ), and blind people ( $M = 0.05$ ).

Certain prejudices, or certain expressions of prejudice, can also be more or less socially acceptable than similar prejudices against target groups in the same superordinate category. For example, though the overt expression of racism is no longer considered widely acceptable in the U.S. (Dovidio & Gaertner, 1991) some forms of racism are more acceptable than others. Because negative attitudes toward Blacks are no longer considered socially acceptable in the United States (Greenwald, McGhee & Schwartz,

1998), some expressions of anti-Black racism, such as blackface, are no longer considered socially acceptable. However, similar expressions of racism toward Native Americans ('redface') remain comparatively acceptable (see Strong, 2004, p. 81).

It should be made clear that 'socially acceptable prejudice' refers to prejudice with which *the participants themselves* are comfortable; a definition in line with that used in previous research (e.g., Crandall et al., 2002). The assumption is made in this, and similar, research that the participants' comfort is a reflection of that of the wider society. Thus, the qualifier 'social' does not compare or contrast the participants' comfort with the prejudice with that of their surrounding society, but only indicates that the prejudice is acceptable *to the participants*, not according to some objective standard of acceptability.

#### Prejudice against Persons Suffering from Schizophrenia

One group in particular has been repeatedly cited as a target of socially acceptable prejudice – people who suffer from mental illness and, in particular, severe, psychosis-related mental illness (Stier & Hinshaw, 2007). Stigma against the mentally ill is devastating for the sufferers and their families, affecting interpersonal relations and access to favourable social roles (Schulze & Angermeyer, 2003). This stigma has persisted, even as prejudice against other groups has declined (Steir & Hinshaw, 2007), and openly offensive depictions of mental illness remain widely acceptable (Wahl, 1995). Some research indicates that social distance from the mentally ill is *increasing* rather than decreasing with time, despite specific public awareness programs aimed at decreasing this social distance (Angermeyer & Matschinger, 2005).

However, attitudes toward all mental illnesses are not the same. For example, attitudes towards depressed people in Britain are generally positive, and may be improving (Paykel, Hart & Priest, 1998), with only a small minority of Britons perceiving depressed people as “mad or unstable” (p. 520). According to a recent survey of British households using a representative sample (Crisp et al., 2000) most Britons believe that people with severe depression are unpredictable (56.4%) and difficult to talk to (62.1%), but not dangerous (22.9%) or unlikely to recover (23.2%).

But of all mentally ill groups, persons suffering from schizophrenia are widely perceived as the most dangerous and suffer the worst stigmatization (Read, 2007; Schulze & Angermeyer, 2003). According to the same representative survey (Crisp et al., 2000) most Britons perceive people with schizophrenia as dangerous (71.3%), unpredictable (77.3%), difficult to talk to (58.4%) and unlikely to recover (50.8%). These views are unsupported by empirical evidence, yet are associated with acceptance of both individual and structural discrimination (Angermeyer & Matschinger, 2004), which in turn are associated with decreased life options for persons with schizophrenia, such as reduced employment opportunities (Marwaha & Johnson, 2004).

Nonetheless, despite the persistent claim that prejudice against the mentally ill in general, and against people with schizophrenia in particular, is more socially acceptable than many other prejudices (see Stier & Hinshaw, 2007; Read, 2007), these claims have never been tested empirically. People who suffer from schizophrenia were absent from Crandall and colleagues’ (2000) list of 105 targets of prejudice. The superordinate group

- the mentally ill - were also absent from this list, and the nearest approximation to this group was the “mentally unstable” (p. 362), which appeared about halfway down the list (ranked 59 out of 105,  $M = 0.407$ ).

Feldman and Crandall’s (2007) study of 40 mental illnesses was a study of social distance, but not of motivation to control prejudice, or comfort with holding or expressing a particular prejudice. Furthermore, no comparison was made in this study between prejudice against the mentally ill and prejudice against any other superordinate target group. This is a theoretically important point: a number of articles claim that prejudice against the mentally ill as a superordinate group is more socially acceptable than prejudices against members of most other superordinate groups (e.g., Hinshaw & Cicchetti 2000; Stier & Hinshaw, 2007), but I could find no actual comparisons between superordinate groups that have ever included the mentally ill, nor any subset of that group. While Feldman and Crandall’s (2007) study is useful for determining the strength of negative attitudes toward specific mental illnesses, it says nothing about whether or not prejudice against the mentally ill or any specific subset of that group is more acceptable than prejudice against any other group.

Social acceptability of stigmatization may have serious consequences on the well-being of the people with schizophrenia themselves, and on the effectiveness of any intervention aimed at reducing prejudice against them. Crandall et al. (2002) found evidence of varying reactions to instances of prejudice contingent on the social acceptability of the prejudice: if prejudice against an outgroup was socially acceptable,

more offensive jokes about them were considered funnier than less offensive jokes, but if prejudice against an outgroup was considered less socially acceptable, the opposite trend was found.

It is consequently very important to test whether or not people with schizophrenia are indeed a target of relatively socially acceptable prejudice. To test this hypothesis I directly compared the social acceptability of prejudice against people with schizophrenia to the social acceptability of prejudice against people who belong to another stigmatized outgroup (that is no longer considered a target of socially acceptable prejudice) - Black people.

#### Prejudice against Black Persons

Anti-Black racism is still prevalent in Western society. Blacks are overrepresented in the lower ranks of American society (Taylor, 2000; Sidanius et al., 1998), and are much more likely to go to prison, partially because of laws that make them easier targets (Sidanius et al., 1998). McIntosh (1998) lists 46 specific privileges that occur as a result of being White: these range from the seemingly benign (e.g., the ability to find “flesh” coloured bandages that actually look like their skin) to the distressing (e.g., not having to educate their children to be aware of systematic racism for their own daily physical protection). Tatum (1999) notes that “every social indicator, from salary to life expectancy, reveals the advantages of being White” (p. 8).

Anti-Black prejudice is also prevalent in Europe. In a study of seven racial outgroups in 4 different European countries (France, the Netherlands, Western Germany,

and Great Britain), the strongest endorsement of racism was the White British participants' response to Afro-Caribbeans (Leach et al., 2000). Anti-Black discrimination by the police has been a serious problem in Britain (Banton, 1994) and remains so to the extent that the London police have been accused of pernicious and persistent institutional racism (Eller, Abrams, Viki, Tendayi & Peerbux, 2007).

But despite the apparently ubiquitous nature of anti-Black racism in Western societies, overt expressions of racial prejudice are no longer considered acceptable (Gaertner & Dovidio, 1986). Measures of explicit or overt racism show a decline in racial prejudice over the last four decades (Case & Greenly, 1990; Firebaugh & Davis, 1988), as willingness to express racial prejudice has declined (Dowden & Robinson, 1993), and social norms increasingly prohibit the explicit expression of racial prejudice (see Blanchard, Crandall, Brigham & Vaughn, 1994; Blanchard, Lilly & Vaughn, 1991).

Consequently, contemporary research finds a disjunction between explicitly expressed racial attitudes and implicitly assessed racial prejudice (Greenwald et al., 1998), and other, less overt, expressions of racism have emerged. These include aversive racism (Gaertner & Dovidio, 1986), symbolic racism (Sears & Henry, 2003), conceptions of cultural differences and natural attractions to those culturally similar to oneself (Leach, Peng & Volckens, 2000), and the desire to protect the cultural integrity of one's country (Short & Carrington, 1996).

The nature of anti-Black prejudice in the U.K. makes Blacks an ideal comparison group for a test of social acceptability of prejudice. Prejudice against both groups - people

with schizophrenia and Black people – can be fairly described as ubiquitous and severe. However there is evidence of a steady decline in the acceptability of the expression of anti-Black prejudice (Greenwald et al., 1998; Short & Carrington, 1996), but not the acceptability of the expression of prejudice against people with schizophrenia. Moreover, I could find no research that has previously conducted this comparison in any country.

#### Motivation to Control Prejudice: a Measure of Social Norms

Two well-known pairs of scales are widely used to measure the suppression of prejudice – one developed by Dunton and Fazio (1997) and the other developed by Plant and Devine (1998). Dunton and Fazio use one scale to measure the motivation to suppress prejudice and another to measure restraint to avoid dispute. These are conceptually similar to the two scales developed by Plant and Devine, of which the first measures internal motivation to be or appear nonprejudiced and the second measures external motivation to be or appear nonprejudiced. For both sets of scales, one reportedly measures the motivation to suppress prejudice due to egalitarian motives (see Fazio, Jackson, Dunton & Williams, 1995), and one measures motivation to suppress prejudice due to societal pressure.

However, Crandall et al. (2002) propose a somewhat different interpretation of the motivation to control prejudice scales; according to their conceptualization of the scales, when people report internal motivation to suppress prejudice, what they are primarily reporting is their internalization of the prevailing group norms about that prejudice. By contrast, when they report external motivation to control prejudice, what they are

primarily reporting is their awareness of the *disjunction* between their personal values and the prevailing values of their group. Specific hypotheses can be derived from this interpretation. One is that self-identification with a group should predict more internal motivation to suppress prejudice discouraged by this group. Another is that, whenever an individual joins a group with values different from his own, his perceptions of external motivation should initially be high, but should decrease as group norms are internalized.

Crandall et al. (2002) tested these predictions using a population of White American students at a relatively racially diverse college. Their results were consistent with their interpretation of the scales. First, the students who identified more strongly with the college reported higher internal motivation to suppress anti-Black prejudice, indicating an internalization of social norms. Second, length of stay at the college was negatively correlated with perceptions of external pressure to suppress anti-Black prejudice, which indicated that the students were internalizing the social norms of the college over time.

In line with this conceptualization of motivation to control prejudice I chose to use modified versions of the scales developed by Dunton and Fazio (1997) and by Plant and Devine (1998) to test social norms. I used reports of internal motivation to control prejudice as indicators of the social norms of the group, where high internal motivation reflects low social acceptability of prejudice. However, I expected external motivation to control prejudice to be lower than internal motivation, regardless of outgroup, as this is

simply a measure of the participant's sense of (non-) identification with their social ingroup.

### Study 1

In Study 1 I tested the hypothesis that prejudice against people with schizophrenia is more acceptable than prejudice against Black people in the U.K. I did this by testing levels of motivation to control prejudice against members of both groups. I hypothesised that internal motivation to control prejudice against people with schizophrenia would be lower than internal motivation to control prejudice against Black people, as people with schizophrenia are hypothesised to be the targets of socially acceptable prejudice and Black people are not. I expected to find either no difference or a smaller difference between external motivation to control prejudice against people with schizophrenia and external motivation to control prejudice against Black people. I had no reasons to expect that perceptions of external motivation, an indication of (a lack of) social conformity, would vary greatly depending on the outgroups in question.

Similarly, I hypothesized that internal motivation to control prejudice would be higher than external motivation to control prejudice across both outgroups. I had reason to expect that participants would report internal motivation to control prejudice against both outgroups (a measure of internalised norms concerning the treatment of these outgroups), but I had no reason to expect participants to report external motivation to control prejudice (a measure of the disjunction between the internalized beliefs of the participant and the apparent beliefs of the surrounding community).

In summary, I specifically predicted that internal motivation to control prejudice against persons with schizophrenia would be lower than internal motivation to control prejudice against Black people, that levels of external motivation to control prejudice against both target groups would be more similar than corresponding levels of internal motivation, and that internal motivation would be higher than external motivation overall.

### *Method*

#### *Participants*

One hundred and sixty-four White, British university students (46 male, 118 female, mean age = 19.98) filled out questionnaires assessing their internal and external motivation to control prejudice against people with schizophrenia and against Black people. The students received the questionnaires at the end of a lecture, and received class credit for their participation. The experimenter did not interact with the students in any way during the completion of the questionnaires.

#### *Measures*

*Scale Construction.* Plant and Devine (1998) devised the internal and external motivation to appear non-prejudiced scales (IMS and EMS), scales that measure internal and external motivation to control specific anti-Black prejudice. Items from these scales were used without modification as measures of internal and external motivation to control prejudice against Black people in this study. A second version of each scale was created by replacing the word *Black* with the word *schizophrenic* in each item, to produce one

measure of internal motivation to control prejudice against people with schizophrenia and one measure of external motivation to control prejudice against people with schizophrenia.

However, most of the items from the Dunton and Fazio (1997) scales were not specific to any target group, but were in fact used to measure motivation to suppress unspecified prejudice. Only three of these items were group specific – relating to Black people. These three items were added to the IMS and EMS scales used by Plant and Devine (1998) to measure motivation to control prejudice against Black people, and modified versions of the three questions were added to the scales used to measure internal and external motivation to control prejudice against people suffering from schizophrenia. The items concerning motivation to control unspecified prejudice (i.e., motivation to be or appear less prejudiced regardless of the outgroup) were not used in this study.

This produced four reliable scales; one 7-item scale of internal motivation to control prejudice against Black people ( $\alpha = 0.72$ ), one 6-item scale of external motivation to control prejudice against Black people ( $\alpha = 0.80$ ), one 7-item scale of internal motivation to control prejudice against people with schizophrenia (Cronbach's  $\alpha = 0.77$ ), and one 6-item scale of external motivation to control prejudice against people with schizophrenia ( $\alpha = 0.83$ ).

For the scale measuring internal motivation to control prejudice against Black people, factor analysis revealed two factors with eigenvalues greater than 1. The two items from the concern with acting prejudiced scale loaded more heavily onto the second

factor ( $0.75 < \lambda < 0.53$ ) than onto the first ( $0.45 < \lambda < 0.27$ ). Deleting these two items produced a reliable 5-item scale ( $\alpha = 0.79$ ) for which factor analysis revealed only one factor with an eigenvalue greater than one, and in which all items loaded well onto this factor ( $0.69 < \lambda < 0.79$ ). For the scale measuring external motivation to control prejudice against Black people, factor analysis revealed only one factor with an eigenvalue over 1, and all six items loaded well onto this factor ( $0.48 < \lambda < 0.80$ ).

For the scale measuring internal motivation to control prejudice against people with schizophrenia, factor analysis revealed two factors with eigenvalues greater than 1. The two items from the concern with acting prejudiced scale loaded more heavily onto the second factor ( $0.66 < \lambda < 0.68$ ) than onto the first ( $0.44 < \lambda < 0.48$ ). Deleting these two items produced a reliable 5-item scale ( $\alpha = 0.80$ ) for which factor analysis revealed only one factor with an eigenvalue greater than one, and in which all items loaded well onto this factor ( $0.66 < \lambda < 0.85$ ). For the scale measuring external motivation to control prejudice against people with schizophrenia, factor analysis revealed only one factor with an eigenvalue over 1, and all six items loaded well onto this factor ( $0.39 < \lambda < 0.86$ ).

### *Procedure*

To assess internal motivation to control prejudice against Black people I asked participants to respond to the following five statements on seven-point Likert scales: “I attempt to act in nonprejudiced ways toward Black people because it is personally important to me”, “According to my personal values, using stereotypes about Black

people is OK” (reversed), “I am personally motivated by my beliefs to be non-prejudiced toward Black people”, “Because of my personal values, I believe that using stereotypes about Black people is wrong”, and “Being non-prejudiced toward Black people is important to my self-concept” (1 = *Strongly Disagree*, 7 = *Strongly agree*),  $\alpha = 0.79$ .

To assess external motivation to control prejudice against Black people I asked participants to respond to the following six statements on seven-point Likert scales: “I attempt to appear nonprejudiced toward Black people in order to avoid disapproval from others”, “If I acted prejudiced toward Black people, I would be concerned that others would be angry with me”, “I try to hide any negative thoughts about Black people in order to avoid negative reactions from others”, “Because of today’s PC (politically correct) standards I try to appear nonprejudiced toward Black people”, “I try to act nonprejudiced toward Black people because of pressure from others”, and “If I were participating in a class discussion and a Black student expressed an opinion with which I disagreed, I would be hesitant to express my own viewpoint.” (1 = *Strongly Disagree*, 7 = *Strongly Agree*),  $\alpha = 0.79$ .

To assess internal motivation to control prejudice against people with schizophrenia I asked participants to respond to five statements identical to those used to assess internal motivation to control prejudice against Black people, except that the word *schizophrenic* replaced the word *Black* in every case (see Appendix 1 for the full list of statements) (1 = *Strongly Disagree*, 7 = *Strongly agree*),  $\alpha = 0.80$ .

To assess external motivation to control prejudice against people with schizophrenia I asked participants to respond to six statements identical to those used to assess external motivation to control prejudice against Black people, except that the word *schizophrenic* replaced the word *Black* in every case (see Appendix 1 for the full list of statements) (1 = *Strongly Disagree*, 7 = *Strongly Agree*),  $\alpha = 0.83$ . To control for order effects the order in which the target groups were presented was counterbalanced. No order effects were detected.

### *Results and Discussion*

Table 2.1 displays the means and standard deviations of both measures of motivation to control prejudice used in Study 1. I investigated the differences between motivation to control prejudice against people with schizophrenia versus Black people, both internal and external, by conducting a 2 (Target Group: Black People vs People with Schizophrenia) X 2 (Motivation type: Internal vs. External) within-subjects analysis of variance (ANOVA).

As predicted, I found that, overall, motivation to control prejudice against persons with schizophrenia ( $M = 4.38$ ) was lower than motivation to control prejudice against Black people ( $M = 4.76$ );  $F(1, 163) = 78.04, p < 0.001, \eta_p^2 = 0.32$ . I also found that, overall, internal motivation to control prejudice ( $M = 5.68$ ) was higher than external motivation to control prejudice ( $M = 3.46$ );  $F(1, 163) = 430.94, p < 0.001, \eta_p^2 = 0.73$ .

*Table 2.1. Means and standard deviations of motivation to control prejudice scores as a function of target group and motivation type (Study 1).*

	People with Schizophrenia	Black People
Internal Motivation	5.40 (0.95)	5.95 (0.90)
External Motivation	3.36 (1.07)	3.57 (1.11)

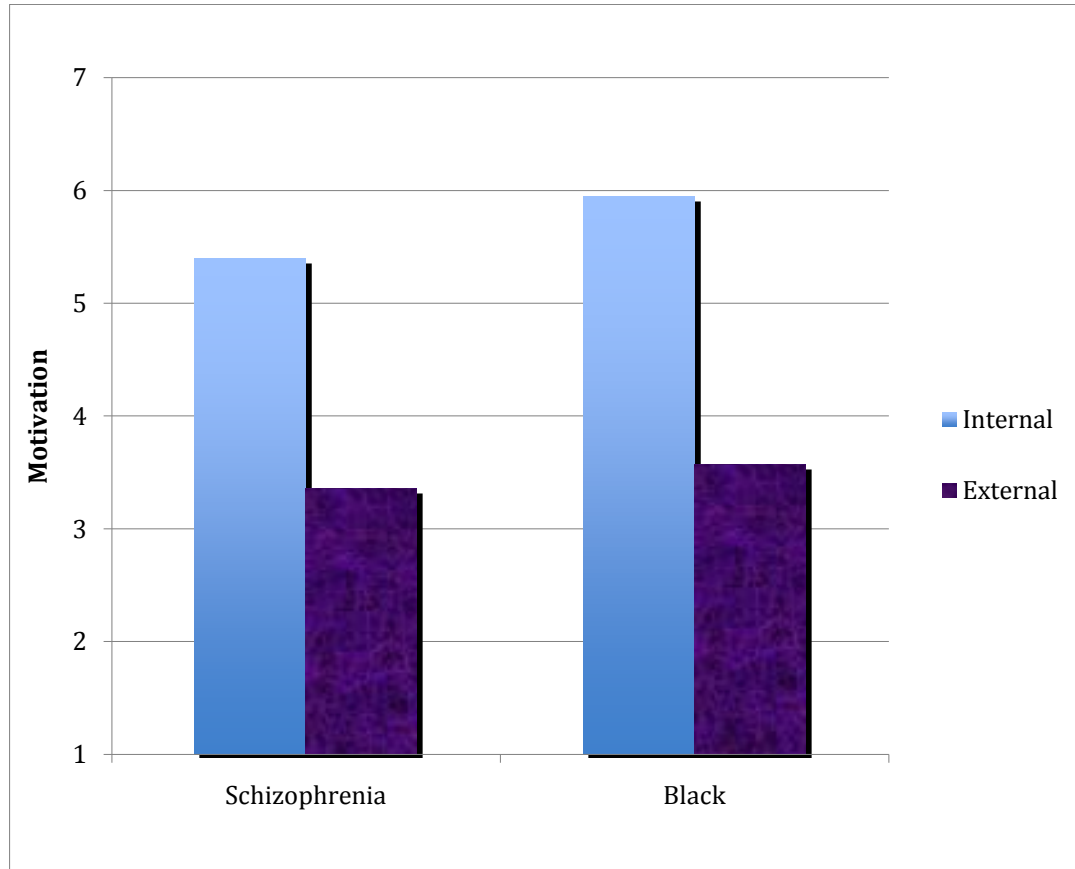
Note: Standard deviations shown in parentheses

I also predicted that the difference between internal motivation to control prejudice against people with schizophrenia compared with Black people would be greater than the corresponding difference between the external motivations to control prejudice against the two target groups. I found the expected interaction between target and motivation type:  $F(1, 163) = 11.54, p = 0.001, \eta_p^2 = 0.07$ . As expected, post-hoc simple main effects tests showed that internal motivation to control prejudice against people with schizophrenia ( $M = 5.40$ ) was lower than internal motivation to control prejudice against Black people ( $M = 5.95$ ),  $p < 0.001$ . External motivation to control prejudice against people with schizophrenia ( $M = 3.36$ ) was also lower than external motivation to control prejudice against Black people ( $M = 3.57$ ),  $p = 0.001$ , but the

difference for the levels of internal motivation (*Mean Difference* = 0.55) was larger than the difference for the levels of external motivation (*Mean Difference* = 0.21); see Figure 2.1.

In summary, using internal motivation to control prejudice against a target group as an indicator of the social acceptability of prejudice against members of that group, I found that prejudice against people with schizophrenia is more acceptable than prejudice against Black people in the U.K. The finding that external motivation to control prejudice is lower than internal motivation, and that the difference between the targets in internal motivation is greater than the difference in external motivation, supports Crandall and colleagues' (2002) interpretation of the motivation to control prejudice scales as measures of social norms.

Figure 2.1, *Internal and External Motivation to Control Prejudice Against People with Schizophrenia and Black People in the U.K.*



Study 2

In Study 1 I demonstrated that prejudice against people with schizophrenia is more socially acceptable than prejudice against Black people in Britain. This is an example of levels of social acceptability of prejudice that vary between groups within a single society. However, it is equally possible for negative attitudes toward the *same* group to be more or less socially acceptable *between* societies. For example, overt expressions of sexism have declined in the U.S. because they are no longer considered socially acceptable (Swim & Cohen, 1997), but overtly sexist attitudes remain relatively acceptable in certain parts of the Middle East (Mostafa, 2005). While some research has addressed varying levels of social acceptability of prejudice between groups within a single society, I could find no research that directly addressed varying levels of social acceptability of prejudice against a single group across multiple countries.

*Sexual Prejudice Between Societies*

As the world becomes ever more diverse and transnationally connected (Vertovec, 2007) conflicting conceptualizations of illegitimate prejudice and justifiable outgroup evaluations gain visibility. The treatment of homosexual men in different countries has recently received significant international attention (e.g., Identity Politics and Homophobia, 2008; London pressures dancehall stars, 2004) in part due to the wide discrepancies in the treatment of homosexual men between different countries (Pidget, 2006).

Despite this international attention, no comparative study of the social acceptability of prejudice against homosexual men has ever been conducted. Jensen et al. (1988) compared acceptance of homosexuality in Germany, England and Spain. They found that relatively fewer German and English participants believed that homosexuality was never acceptable (approximately 41%) than did Spanish participants (56%). However this was a study of prejudice against homosexuals, not one of the *acceptability* of prejudice against homosexuals. And while it is likely that attitude strength (see Bassilli, 1996) and social acceptability (see Crandall, 2000; Nederhof, 1984) are related, they are nonetheless distinct constructs.

Curiously, homosexual men were absent from Crandall et al.'s (2002) study of relative social acceptability of prejudice. This absence is particularly odd considering that Fiske et al. (2002), using a very similar procedure to Crandall et al. (2002) to obtain a list of stigmatized groups (i.e., asking participants themselves to suggest relevant targets of prejudice), found that a large proportion of their participants (39%) suggested gay men as a target of prejudice. None of the participants in Crandall et al.'s (2002) study suggested this outgroup, nor do the authors address this issue.

I chose to investigate the relative social acceptability of prejudice against homosexual men because of the discrepancy in the treatment of homosexual men between countries and the lack of research in this area. Sexual prejudice occurs in many different countries and can take many different forms (Gopinath, 2000; Henderson & Shefer, 2008; Subir, 2007; Williams & Maher, 2009). Sexual prejudice can also vary in

severity between different subgroups of a single society, such as Black and White Americans (Herek & Capitano, 1996). I chose prejudice against homosexual men in particular, as opposed to lesbians, because of all types of sexual prejudice, prejudice against homosexual men is often the most severe, while prejudice against homosexual women is somewhat less severe (Kite & Whitley, 1996).

The countries I chose to compare were Jamaica, the U.K., and the U.S. In Jamaica, prejudice against homosexual men is widely considered to be extremely severe and socially acceptable (Pidget, 2006; Salih, 2007). However, in more Western countries such as the U.K. and the U.S., open expressions of anti-homosexual prejudice are often frowned upon (Herek, 2000) and attitudes toward homosexuals are improving (Millham, 1976). Furthermore specific international incidents concerning expressions of anti-homosexual prejudice have occurred between Jamaica and the U.K., such as the attempted interventions of British gay-rights groups in Jamaica (OUTRAGED!, 2004). Other incidents have occurred between Jamaica and the United States, including severe censorship of Jamaican popular performers for anti-gay lyrics, and collaborative meetings between Jamaican performers and gay-rights groups (“Buju meets gay group”, 2009).

*Anti-Homosexual Prejudice in Jamaica*

"Our people know the difference, black is a race, jew [sic] is a religion, f\*g\*\*tism [sic] is a sin".

Salih (2007, p. 2)

The island of Jamaica is perceived to be the most homophobic country in the Caribbean (Williams, 2000). Strong anti-homosexual sentiment can be found in the popular media and political campaigns, and (male) homosexuality is implicitly made illegal by the presence of anti-buggery laws, which include maximum sentences of ten years imprisonment with hard labour for anal sex (White & Carr, 2005). Anti-homosexual sentiment runs so deep that violence, sometimes life-threatening violence, can follow the revelation that a man is gay (Carr, 2003).

Unlike in Britain (Galloway, 1984), the expression of sexual prejudice is not shameful in Jamaica. Quite the contrary; of all groups living with HIV, homosexual men are shown the least sympathy (Norman et al., 2006), HIV/AIDS workers sometimes face negative social pressure for “promoting” homosexuality and promiscuity (White & Carr, 2005, p. 350), and popular songs actively discourage all forms of interaction with homosexual men except violence (Williams, 2000). Indeed, it is denying or renouncing anti-homosexual sentiment that may have serious repercussions (Chin, 1997).

This is not without consequences. Jamaican anti-homosexual sentiment has been said to inspire “a series of anti-gay murders and gay-bashing incidents in the island” (Gay lobby rebuked, 2008; p.1). One of the most prominent of these was the murder of Brian Williamson, a noted public and vocal gay figure in the Jamaican community (OUTRAGED!, 2004). Members of OutRage, Britain’s leading gay rights group, claimed that the Jamaican police displayed a customary callous disregard for the lives of gay Jamaicans following the incident.

It has been claimed that anti-homosexual prejudice is more socially acceptable in Jamaica than in other countries (e.g., Chin, 1997). Other authors suggest that anti-homosexual prejudice is also more acceptable in Jamaica than prejudice against other groups (Norman, Carr & Jiménez, 2006). This is an important theoretical point. If anti-homosexual prejudice were worse in Jamaica than in other countries, but comparable to prejudice against other groups in Jamaica, then Jamaicans could rightly be described as more generally prejudiced, but not more anti-homosexual, than citizens of other countries.

It is also possible, however, that what is being observed in Jamaica is not more socially acceptable anti-homosexual prejudice in particular, but rather a cultural difference between Jamaica and other more Western countries like the U.K. and the U.S. Jamaicans may consider prejudice against homosexuals no more acceptable than do either Britons or Americans, but may simply be more likely to find the *expression* of prejudice against *any* group more acceptable than do either Britons or Americans. This seems unlikely, however, as Jamaicans generally express more tolerance toward other groups, such as people with differing political views, than do neighbouring countries, the only anomaly being homosexuals toward whom Jamaicans generally express less tolerance than do neighbouring countries (Boxhill, Lewis, Russell & Bailey, 2007).

If differences in reported motivation to control anti-homosexual prejudice are simply reflective of cultural differences, or differences in motivation to control unspecified prejudice, Jamaicans should display a similarly lower motivation to control

unspecified prejudice as well as anti-homosexual prejudice. However, a lack of differences, or smaller differences, in motivation to control unspecified prejudice is consistent with the position that differing cultural attitudes toward prejudice in general do not explain the different patterns of motivation to control anti-homosexual prejudice.

*Anti-Homosexual Prejudice in The U.K. and U.S.*

This chapter should not be read as implying that sexual prejudice is no longer a serious problem in either the U.K. or the U.S. Sexual prejudice occurs in many countries (Herek, 2000; Herek & Gonzalez-Rivera, 2006; McLelland, 2000; Rivers & Cowie, 2006; Subir, 2007) and can have severe and enduring physical and psychological consequences (Herek, Gillis & Cogan, 1999). Specifically, anti-gay violence is a problem in many places (Herek & Berrill, 1992) and sexual discrimination and victimization are serious problems in both the U.S. and the U.K. (Ryan & Rivers, 2003). For example, in 1997, there were 1,102 reported hate crimes in North America, and in 1998 at least two men - Matthew Shepard and Billy Jack Gaither – were murdered for being gay (Herek, 2000). However, while I acknowledge the presence and severity of sexual prejudice in these countries, the important point is that this behaviour is generally not considered socially acceptable, as it is in Jamaica.

*Hypotheses*

The central hypothesis of this study is that prejudice against gay men is more socially acceptable in Jamaica than it is in either the U.K. or the U.S. This led me to a

number of specific subsequent predictions. I expected to find a main effect of country, such that Jamaicans would report lower motivation to control prejudice than either Americans or Britons. I also expected to find a main effect of motivation type, as internal motivation is a measure of the norms of a society, while external motivation is a measure of the disjunction between the self and the society, which I expected to be lower in all cases.

I also expected to find a two-way interaction between country and target such that, for Jamaicans, motivation to control anti-homosexual prejudice will be lower than motivation to control unspecified prejudice, while for the British and American participants there should either be no difference or the reverse should be true.

Perhaps most important, I expected to find a three-way interaction between country, target and type of motivation to control prejudice. This is because prejudice against gay men is more socially acceptable in Jamaica than in the U.S. or the U.K., but I have no reasons to believe that prejudice in general is more socially acceptable in any of the three countries. Also, I expected that external motivation to control prejudice, either anti-homosexual or unspecified, would be lower than internal motivation to control prejudice, either anti-homosexual or unspecified. Thus, I expected the largest differences between the three countries to be on the level of internal motivation to control anti-homosexual prejudice. Furthermore, I expected that internal motivation to control anti-homosexual prejudice would be lower than internal motivation to control unspecified prejudice in Jamaica, but that the inverse would be true in the other two countries.

Lastly, because I have no reason to suspect differences between the three countries in motivation to control either unspecified prejudice (whether internal or external) or external motivation to control prejudice (either anti-homosexual or unspecified), I expected to find either smaller differences, or no differences, between the three countries in terms of external motivation to control anti-homosexual prejudice, internal motivation to control general prejudice and external motivation to control unspecified prejudice.

### *Method*

#### *Participants*

One hundred nineteen Jamaican undergraduate students (47 male, mean age = 26.05), 121 British undergraduate students (37 male, mean age = 20.89) and 142 American undergraduate students (28 male, mean age = 23.22), were asked to complete surveys about their motivation to control both anti-homosexual and unspecified prejudice. All students included in the study defined themselves as heterosexual and were attending universities in their countries of origin at the time of the study. Participants received no compensation for taking part in the research.

I checked to see if males and females were equally distributed across the country groups and found that they were not,  $\chi^2(2) = 12.36, p = 0.002$ . The Jamaican sample did not contain proportionally more males (47 of 119) than did the U.K. sample (37 of 121), using Fisher's exact test,  $p = 0.18$ . However, the Jamaican sample did contain

proportionally more males than did the U.S. sample (28 of 114), using Fisher's exact test,  $p = 0.001$ . The U.K. sample also contained proportionally more males than did the U.S. sample, using Fisher's exact test,  $p = 0.046$ .

Using a one-way analysis of variance (ANOVA) with country as the independent variable and age as the dependent variable, I also found that the three samples differed in age,  $F(2, 379) = 34.43$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.14$ . The Jamaican participants ( $M = 26.05$ ) were older than the British participants ( $M = 20.89$ ,  $p < 0.001$ ), and the American participants ( $M = 23.22$ ,  $p < 0.001$ ). The British participants were also younger than the American participants ( $p < 0.001$ ). Consequently, I included sex and age as covariates in all the analyses in order to partial out the effects of sex and age on the dependent variables.

### *Measures*

To measure internal and external motivation to control anti-homosexual prejudice I used modified versions of the scales used in Study 1, created by replacing "Black" with "homosexual", as well as making whatever minor changes were necessary to make it clear that the question referred to homosexual men. I then analysed the reliability of the scales in each country group separately to determine whether or not the scales were valid measures for all 3 country groups (see Appendix 2 for the complete scales).

*Scales of motivation to control anti-homosexual prejudice.* For the Jamaican sample, the seven-item internal motivation to control anti-homosexual prejudice scale was reliable,  $\alpha = 0.84$ . Factor analysis revealed only 1 factor with an eigenvalue greater

than 1, and all items loaded well on this factor,  $0.86 < \lambda < 0.51$ . The six-item external motivation to control anti-homosexual prejudice scale was also reliable,  $\alpha = 0.84$ , however, factor analysis revealed two factors with eigenvalues greater than 1, and one item (“If I were participating in a class and a male homosexual student expressed an opinion with which I disagreed I would be hesitant to express my own viewpoint”) loaded more heavily onto the second factor ( $\lambda = 0.92$ ) than onto the first ( $\lambda = 0.32$ ). This item was thus removed, resulting in a reliable 5-item scale ( $\alpha = 0.88$ ) for which all items loaded onto one factor.

For the U.K. sample, the seven-item internal motivation to control anti-homosexual prejudice scale was reliable,  $\alpha = 0.83$ . Factor analysis revealed two factors with eigenvalues greater than 1, but all items loaded more heavily onto the first factor than the second, and when forced into a 1 factor solution, all items loaded well onto that factor,  $0.86 < \lambda < 0.47$ . The six-item external motivation to control anti-homosexual prejudice scale ( $\alpha = 0.82$ ) was also reliable, however, factor analysis revealed two factors with eigenvalues greater than 1, and one item (“If I were participating in a class and a male homosexual student expressed an opinion with which I disagreed I would be hesitant to express my own viewpoint”) loaded more heavily onto the second factor ( $\lambda = 0.97$ ) than onto the first ( $\lambda = 0.19$ ). This item was thus removed, resulting in a reliable 5-item scale ( $\alpha = 0.86$ ) for which all items loaded onto one factor.

For the American sample the seven-item internal motivation to control anti-homosexual prejudice scale was reliable,  $\alpha = 0.74$ . Factor analysis revealed two factors

with eigenvalues greater than 1, but all items loaded more heavily onto the first factor than the second, and when forced into a 1 factor solution, all items loaded well onto that factor,  $0.77 < \lambda < 0.44$ . The six-item external motivation to control anti-homosexual prejudice scale ( $\alpha = 0.80$ ) was also reliable. Factor analysis revealed only one item with an eigenvalue greater than 1, and all items loaded well onto that factor,  $0.83 < \lambda < 0.41$ . However, for the sake of uniformity with the scales used with the other country groups, I removed the item that did not load well for the Jamaican and the British samples, which resulted in a reliable 5-item scale ( $\alpha = 0.82$ ) in which all items loaded onto one factor. Thus the same 5-item scale was used in all three samples.

Finally I checked whether, across all three country samples, the items in both scales loaded equally well on the construct being measured. Following the recommendations of Byrne (2001) I tested a measurement confirmatory factor analysis (CFA) model and then tested a subsequent CFA model in which all paths were constrained to be equal across groups. Invariance is the null hypothesis. If differences in  $\chi^2$  and  $df$  values indicate a significant alteration to the model, invariance should be rejected. However, I found no indication of noninvariance across the three samples for either the scale measuring internal motivation to control anti-homosexual prejudice ( $\Delta\chi^2 = 13.5$ ,  $\Delta df = 12$ ,  $p > 0.05$ ), or for the scale measuring external motivation to control anti-homosexual prejudice ( $\Delta\chi^2 = 13.3$ ,  $\Delta df = 8$ ,  $p > 0.05$ ) see Table 2.2 for all  $\chi^2$  and  $df$  values.

Table 2.2 Tests of invariance:  $\Delta\chi^2$  and  $\Delta df$  values for restrained and unrestrained CFA models of scales (Study 2).

		$\chi^2$	$df$	$\Delta\chi^2$	$\Delta df$	$p$
Homosexual Internal	Unrestrained	219.1	42			
	Restrained	232.6	54	13.5	12	> 0.05
Homosexual External	Unrestrained	51.1	15			
	Restrained	64.4	23	13.3	8	> 0.05
Unspecified Internal	Unrestrained	77.9	27			
	Restrained	64.4	23	24.4	10	< 0.01
Unspecified External	Unrestrained	27.2	6			
	Restrained	32.9	12	5.7	6	> 0.05

*Scales of motivation to control unspecified prejudice.* The scales devised by Dunton and Fazio (1997) measure two types of motivation to control prejudice. The first is “concern with acting prejudiced” (p. 320), which involved private concern with observing oneself having prejudiced thoughts or feelings and a personal standard of avoiding racist expressions. This is conceptually similar to internal motivation to control prejudice as described by Plant and Devine (1998). The second scale measures “restraint to avoid dispute” (p. 321), which reflects a willingness to suppress one’s personal reactions as a means of achieving smoother social interactions. This is conceptually

similar to external motivation to control prejudice as described by Plant and Devine (1998).

However, unlike the scales developed by Plant and Devine (1998), the scales developed by Dunton and Fazio (1997) are not specific to any group, but rather measured motivation to control unspecified prejudice. Thus I used them without modification, as measures of internal and external motivation to control unspecified prejudice. This produced two scales: one 9-item scale to measure internal motivation to control unspecified prejudice ( $\alpha = 0.75$ ), and one 5-item scale to measure external motivation to control unspecified prejudice ( $\alpha = 0.66$ ). However, I checked the reliability and internal validity of the scales with each country group separately to test the appropriateness of the scales' usage for all three groups.

For the Jamaican sample the 9-item scale to measure internal motivation to control unspecified prejudice was reliable ( $\alpha = 0.80$ ). However, in this study, the nine items used in the scale to measure internal motivation to control unspecified prejudice loaded onto two factors. Most items loaded more heavily onto the first factor, but two did not: “In today’s society it is important that one not be perceived as prejudiced in any manner”, and “I’m careful not to offend my friends, but I don’t worry about offending people I don’t know or don’t like.” Another item - “I feel it is important to behave according to society’s standards” – was removed for the sake of uniformity with the scales used for the British and American groups (see below). Removing these three items produced a more reliable six-item scale to measure internal motivation to control

unspecified prejudice ( $\alpha = 0.81$ ). Factor analysis revealed only one factor with an eigenvalue greater than 1, and all items in this new scale loaded well on that factor ( $0.61 < \lambda < 0.82$ ).

The 5-item scale to measure external motivation to control unspecified prejudice was not reliable ( $\alpha = 0.54$ ), but deleting one item (“if someone who made me feel uncomfortable sat next to me on a bus, I would not hesitate to move to the other seat”) resulted in a more reliable, 4-item scale ( $\alpha = 0.60$ ). For this 4-item scale, factor analysis revealed only 1 factor with an eigenvalue greater than 1 and all items loaded well onto this factor ( $0.77 < \lambda < 0.44$ ). I thus used this scale instead of the original 5-item scale.

For the British sample the 9-item scale to measure internal motivation to control unspecified prejudice was reliable ( $\alpha = 0.72$ ). However, in this study, the nine items used in the scale to measure internal motivation to control unspecified prejudice loaded onto three factors. Most items loaded most heavily onto the first factor, but three did not: “In today’s society it is important that one not be perceived as prejudiced in any manner”, “I feel it is important to behave according to society’s standards”, and “I’m careful not to offend my friends, but I don’t worry about offending people I don’t know or don’t like.” Removing these three items produced a more reliable six-item scale to measure internal motivation to control unspecified prejudice ( $\alpha = 0.75$ ). Factor analysis revealed only one factor with an eigenvalue greater than 1, and all items in this new scale loaded well on that factor ( $0.53 < \lambda < 0.77$ ).

The 5-item scale to measure external motivation to control unspecified prejudice was also reliable ( $\alpha = 0.77$ ). However, factor analysis revealed two factors with eigenvalues greater than one, and one item (“if someone who made me feel uncomfortable sat next to me on a bus, I would not hesitate to move to the other seat”) loaded more heavily onto the second factor ( $\lambda = 0.73$ ) than onto the first ( $\lambda = 0.24$ ). Deleting this item resulted in a more reliable, 4-item scale ( $\alpha = 0.79$ ). For this 4-item scale, factor analysis revealed only 1 factor with an eigenvalue greater than 1 and all items loaded well onto this factor ( $0.70 < \lambda < 0.54$ ). I thus used this scale instead of the original 5-item scale.

For the American sample the 9-item scale to measure internal motivation to control unspecified prejudice was reliable ( $\alpha = 0.72$ ). However, in this study, the nine items used in the scale to measure internal motivation to control unspecified prejudice loaded onto three factors. Most items loaded most heavily onto the first factor, but two did not: “I feel it is important to behave according to society’s standards”, and “I’m careful not to offend my friends, but I don’t worry about offending people I don’t know or don’t like.” Another item - “In today’s society it is important that one not be perceived as prejudiced in any manner” – was removed for the sake of uniformity with the Jamaican participants. Removing these three items produced a more reliable six-item scale to measure internal motivation to control unspecified prejudice ( $\alpha = 0.72$ ). Factor analysis revealed only one factor with an eigenvalue greater than 1, and all items in this new scale loaded well on that factor ( $0.51 < \lambda < 0.81$ ).

The 5-item scale to measure external motivation to control unspecified prejudice was not reliable ( $\alpha = 0.57$ ). Furthermore, factor analysis revealed 2 factors with eigenvalues greater than 1 and one item (“if someone who made me feel uncomfortable sat next to me on a bus, I would not hesitate to move to the other seat”) that loaded more heavily onto the second factor ( $\lambda = 0.84$ ) than onto the first ( $\lambda = 0.12$ ). Deleting this item resulted in a more reliable, 4-item scale ( $\alpha = 0.67$ ). For this 4-item scale, factor analysis revealed only 1 factor with an eigenvalue greater than 1 and all items loaded well onto this factor  $0.77 < \lambda < 0.68$ . I thus used this scale instead of the original 5-item scale.

Using restrained and unrestrained measurement CFA models, I checked whether, across all three country samples, the items in both scales loaded equally well on the construct being measured (see Byrne, 2001). I found indications of noninvariance across the three samples for the scale measuring internal motivation to control unspecified prejudice ( $\Delta\chi^2 = 24.4$ ,  $\Delta df = 10$ ,  $p < 0.01$ ). Systematic constraining of the paths of interest revealed that another item – “It bothers me a great deal when I think I’ve offended someone, so I’m always careful to consider other people’s feelings” – did not load equally well on the construct across all three groups and was thus removed from the scale. This resulted in a 5-item scale of internal motivation to control unspecified prejudice (Overall  $\alpha = 0.71$ ; Jamaican  $\alpha = 0.76$ ; British  $\alpha = 0.74$ ; American  $\alpha = 0.67$ ).

I found no indication of noninvariance across the three samples for the scale measuring external motivation to control unspecified prejudice ( $\Delta\chi^2 = 5.7$ ,  $\Delta df = 6$ ,  $p > 0.10$ ), see Table 2.2 for all  $\chi^2$  and  $df$  values.

*Procedure*

To assess internal motivation to control anti-homosexual prejudice I asked participants to respond to the following seven statements: “I attempt to act in nonprejudiced ways toward homosexual men because it is personally important to me”, “According to my personal values, using stereotypes about homosexual men is OK” (reversed), “I am personally motivated by my beliefs to be nonprejudiced toward homosexual men”, “Because of my personal values, I believe that using stereotypes about homosexual men is wrong”, “Being nonprejudiced toward homosexual men is important to my self-concept”, “When speaking to a homosexual man it is important to me that he not think I’m prejudiced.” and “I feel guilty when I have a negative thought or feeling about a homosexual man.” (1 = *Strongly Disagree*, 7 = *Strongly Agree*),  $\alpha = 0.87$ .

To assess external motivation to control anti-homosexual prejudice I asked participants to respond to the following five statements: “I attempt to appear nonprejudiced toward homosexual men in order to avoid disapproval from others”, “If I acted prejudiced toward homosexual men, I would be concerned that others would be angry with me”, “I try to hide any negative thoughts about homosexual men in order to avoid negative reactions from others.”, “Because of today’s PC (politically correct) standards, I try to appear nonprejudiced toward homosexual men.”, “I try to act nonprejudiced toward homosexual men because of pressure from others”, (1 = *Strongly Disagree*, 7 = *Strongly Agree*),  $\alpha = 0.84$ .

To assess internal motivation to control unspecified prejudice I asked participants to respond to the following six statements taken from Dunton and Fazio's (1997) Concern with Acting Prejudiced scale: "I get angry with myself when I have a thought or feeling that might be considered prejudiced.", "It's important to me that other people not think I'm prejudiced.", "It is never acceptable to express one's prejudices", "It bothers me a great deal when I think I've offended someone, so I'm always careful to consider other people's feelings", "If I have a prejudiced thought or feeling, I keep it to myself", "I would never tell jokes that might offend others" (1 = *Strongly Disagree*, 7 = *Strongly Agree*),  $\alpha = 0.81$ .

To assess external motivation to control unspecified prejudice I asked participants to respond to the following statements taken from Dunton and Fazio's (1997) Restraint to Avoid Dispute scale: "I always express my thoughts and feelings, regardless of how controversial they may be" (reversed), "Going through life worrying about whether you might offend someone is just more trouble than it's worth" (reversed), "I think that it is important to speak one's mind rather than to worry about offending someone." (reversed), "I'm not afraid to tell others what I think, even when I know they disagree with me." (reversed) (1 = *Strongly Disagree*, 7 = *Strongly Agree*),  $\alpha = 0.65$ .

After completing the attitude measures, participants were asked for basic demographic information including age, gender and sexuality. After providing demographic information, participants were thanked and debriefed.

*Results and Discussion*

Table 2.3 displays the means and standard deviations of all dependent variables in Study 2. I investigated the differences between Jamaicans', Britons' and Americans' motivation to control anti-homosexual prejudice and unspecified prejudice (both internal and external) by conducting a 3 (Country: Jamaica, vs. U.K., vs. U.S.) X 2 (Motivation target: Anti-homosexual prejudice vs. Unspecified prejudice) X 2 (Motivation type: Internal vs. External) mixed-model analysis of covariance (ANCOVA) with repeated measures on the last two factors, followed by Bonferroni post-hoc contrasts for multiple comparisons. To partial out the effects of sex and age I included both variables as covariates. I found a main effect of sex,  $F(1, 375) = 15.65, p < 0.001, \eta_p^2 = 0.04$ , but not of age,  $F(1, 375) = 1.72, p = 0.19, \eta_p^2 = 0.005$ .

*Table 2.3 Means and standard deviations of motivation to control prejudice scores as a function of country and motivation type (Study 2).*

	Jamaica	Britain	America
Homosexual Internal	4.03 (1.36)	5.14 (1.08)	5.44 (0.93)
Homosexual External	2.53 (1.27)	3.34 (1.25)	3.20 (1.28)
Unspecified Internal	4.10 (1.24)	4.27 (1.06)	4.43 (1.05)
Unspecified External	3.47 (1.05)	3.93 (1.24)	3.98 (1.07)

Note: Standard deviations shown in parentheses

I hypothesized specifically that Jamaicans would report less internal motivation to control anti-homosexual prejudice than either Britons or Americans. Furthermore I hypothesized that Jamaicans' internal motivation to control anti-homosexual prejudice would be lower than their internal motivation to control unspecified prejudice, but that this would not be true for either the British or American samples. I also predicted smaller differences, or no differences, between the three countries in either motivation to control unspecified prejudice or external motivation to control prejudice. All the expected results are derived from these central predictions.

*Main Effects*

I expected to find a main effect of country, such that Jamaicans would report lower motivation to control prejudice than would either Americans or Britons. I found the predicted main effect of country, ( $F(2, 375) = 22.09, p < 0.001, \eta_p^2 = 0.11$ ); Jamaicans reported lower motivation to control prejudice overall ( $M = 3.61$ ) than did either Britons ( $M = 4.15, p < 0.001$ ), or Americans ( $M = 4.23, p < 0.001$ ). I found no difference between Britons' and Americans' motivation to control prejudice overall,  $p = 1.00$ .

I also expected to find a main effect of motivation type such that internal motivation would be higher than external motivation. Across all three countries and both targets, participants reported higher internal motivation to control prejudice ( $M = 4.58$ ) than external motivation to control prejudice ( $M = 3.42$ ), but the expected main effect of type did not reach significance,  $F(1, 375) = 2.77, p = 0.097, \eta_p^2 = 0.007$ .

*Do Jamaicans report less motivation to control anti-homosexual prejudice than do Britons and Americans?*

Yes. I found the expected two-way interaction between country and target,  $F(2, 375) = 13.93, p < 0.001, \eta_p^2 = 0.069$ . Jamaican participants reported less motivation to control anti-homosexual prejudice ( $M = 3.35$ ) than did British participants ( $M = 4.21, p < 0.001$ ). In contrast Jamaican participants did not report less motivation to control unspecified prejudice ( $M = 3.87$ ) than did British participants ( $M = 4.09, p = 0.081$ ).

Similarly, Jamaican participants also reported less motivation to control anti-homosexual prejudice than did American participants ( $M = 4.30, p < 0.001$ ).

Furthermore, though Jamaican participants reported less motivation to control unspecified prejudice than did American participants ( $M = 4.16$ ,  $p = 0.014$ ), the difference between the Jamaican and American participants in motivation to control anti-homosexual prejudice (*Mean difference* = 0.95) was greater than the difference in motivation to control unspecified prejudice (*Mean difference* = 0.29).

*Do Jamaicans report less motivation to control anti-homosexual prejudice than motivation to control unspecified prejudice?*

Yes. Jamaicans reported less motivation to control anti-homosexual prejudice ( $M = 3.35$ ) than unspecified prejudice ( $M = 3.87$ ),  $p < 0.001$ . In contrast, I found no difference between Britons' self-reported levels of motivation to control anti-homosexual prejudice ( $M = 4.21$ ) and unspecified prejudice ( $M = 4.09$ ,  $p = 0.098$ ). Nor did I find a difference in the Americans' self-reported levels of motivation to control anti-homosexual prejudice ( $M = 4.30$ ) and unspecified prejudice ( $M = 4.16$ ,  $p = 0.088$ ).

*Were differences in internal motivation to control anti-homosexual prejudice larger than differences in motivation to control unspecified prejudice or external motivation to control prejudice?*

Yes. Perhaps most important, I expected to find a three-way interaction between country, target and type. I expected the largest differences between the three countries to be on the level of internal motivation to control anti-homosexual prejudice, and expected to find either smaller differences, or no differences, between the three countries in terms

of external motivation to control anti-homosexual prejudice, internal motivation to control unspecified prejudice or external motivation to control unspecified prejudice.

I found the expected three-way interaction between country, type and target,  $F(2, 375) = 8.64, p < 0.001, \eta_p^2 = 0.044$ . As predicted, Jamaicans reported lower internal motivation to control anti-homosexual prejudice ( $M = 4.07$ ) than did either Britons ( $M = 5.15, p < 0.001$ ) or Americans ( $M = 5.41, p < 0.001$ ). Britons' internal motivation to control anti-homosexual prejudice did not differ from Americans',  $p = 0.074$ .

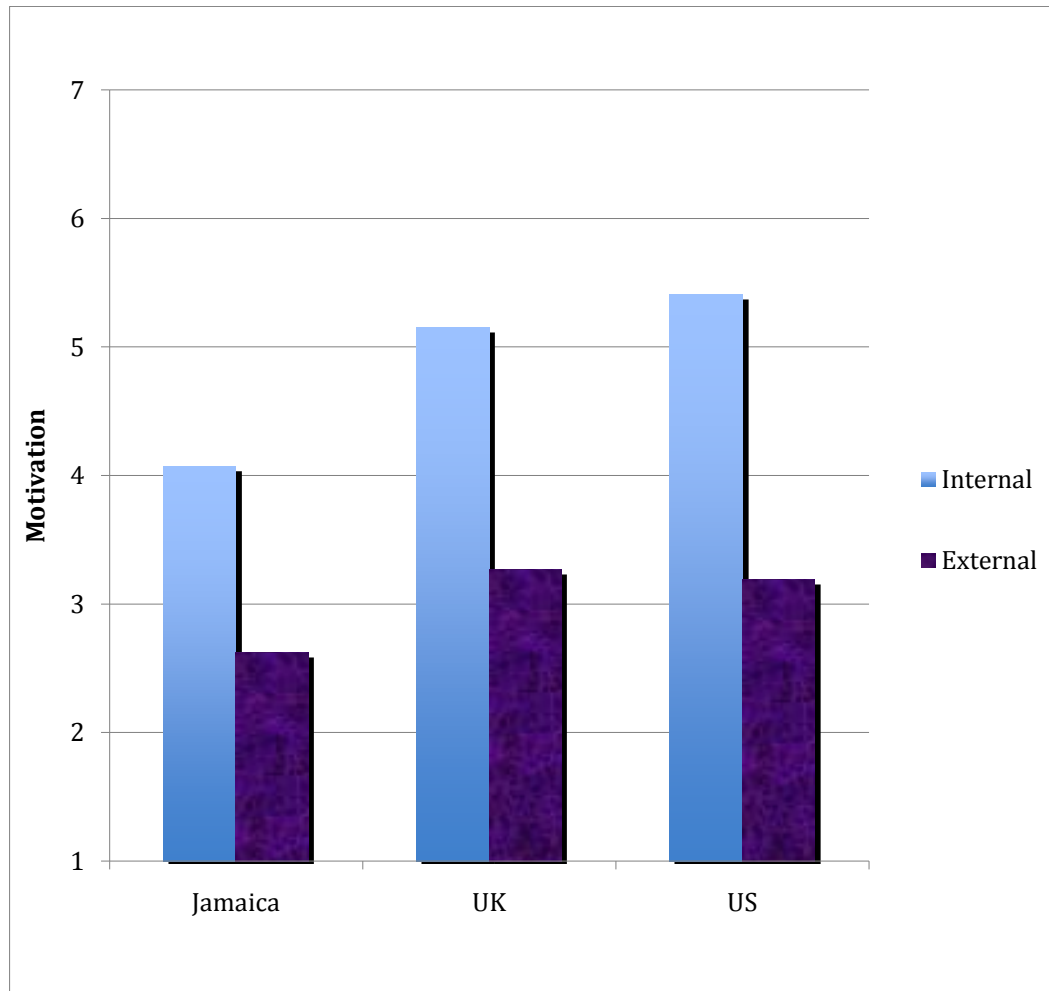
There were also differences between the three countries in external motivation to control anti-homosexual prejudice: Jamaicans reported lower external motivation to control anti-homosexual prejudice ( $M = 2.62$ ) than did either Britons ( $M = 3.27, p < 0.001$ ) or Americans ( $M = 3.19, p = 0.001$ ). However, as predicted, the differences in internal motivation to control anti-homosexual prejudice between Jamaicans and Britons (*Mean Difference* = 1.08), and between Jamaicans and Americans (*Mean Difference* = 1.33) were larger than the differences in external motivation to control anti-homosexual prejudice between Jamaicans and Britons (*Mean Difference* = 0.65), and between Jamaicans and Americans (*Mean Difference* = 0.57).

I also expected that the Jamaican participants would report less internal motivation to control anti-homosexual prejudice than internal motivation to control unspecified prejudice, but that there would be no differences or the inverse would be true in the other 2 countries. However, these predictions were only partially confirmed: Jamaican participants did not report less internal motivation to control anti-homosexual

prejudice ( $M = 4.07$ ) than internal motivation to control unspecified prejudice ( $M = 4.22$ ),  $p = 0.24$ . However, British participants did report more internal motivation to control anti-homosexual prejudice ( $M = 5.15$ ) than internal motivation to control unspecified prejudice ( $M = 4.25$ ),  $p < 0.001$ . Similarly, American participants also reported more internal motivation to control anti-homosexual prejudice ( $M = 5.41$ ) than internal motivation to control unspecified prejudice ( $M = 4.37$ ),  $p < 0.001$ , see Figure 2.2.

Stated otherwise, though Jamaican participants did, in fact, report less internal motivation to control anti-homosexual prejudice than did either the British or the Americans, this was not because, as predicted, the Jamaicans reported less internal motivation to control anti-homosexual prejudice than unspecified prejudice. The results were somewhat more optimistic in that, for the Jamaican participants, there was no difference between internal motivation to control anti-homosexual prejudice and internal motivation to control unspecified prejudice, while the British and American participants reported *more* internal motivation to control anti-homosexual prejudice than unspecified prejudice.

Figure 2.2 Internal and External Motivation to Control Anti-homosexual prejudice in Jamaica, Britain and the U.S.



*Differences in motivation to control unspecified prejudice*

Also as predicted, Jamaicans did not report lower internal motivation to control unspecified prejudice ( $M = 4.22$ ) than did either Britons ( $M = 4.25$ ,  $p = 0.84$ ) or Americans ( $M = 4.37$ ,  $p = 0.30$ ). Nor did Britons report lower internal motivation to control unspecified prejudice than did Americans,  $p = 0.39$ .

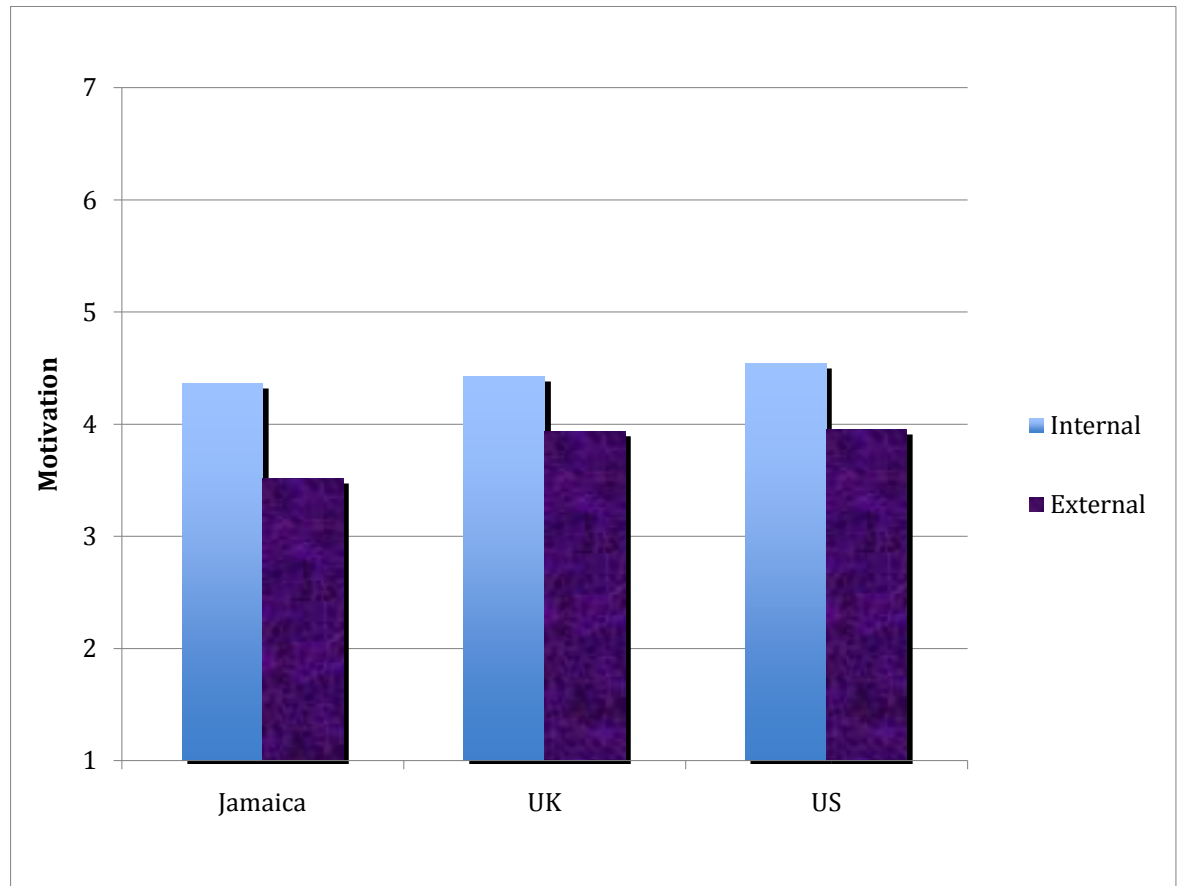
I found differences between the three countries in external motivation to control unspecified prejudice: Jamaicans reported lower external motivation to control unspecified prejudice ( $M = 3.53$ ) than did either Britons ( $M = 3.94$ ,  $p = 0.01$ ) or Americans ( $M = 3.95$ ,  $p = 0.004$ ). However the differences in internal motivation to control anti-homosexual prejudice between Jamaicans and Britons (*Mean Difference* = 1.08), and between Jamaicans and Americans (*Mean Difference* = 1.33), were larger than the differences in external motivation to control unspecified prejudice between Jamaicans and Britons (*Mean Difference* = 0.41), and between Jamaicans and Americans (*Mean Difference* = 0.43), see Figure 2.3.

*Summary of Results*

In summary, I found that Jamaicans reported less internal motivation to control prejudice against homosexual men than did either Britons or Americans, and that differences in external motivation to control prejudice against homosexual men, and in motivation to control unspecified prejudice, whether internal or external, were either smaller or wholly absent. Some differences in levels of motivation to control unspecified prejudice suggest that part of the difference in the social acceptability of anti-homosexual

prejudice between Jamaica and the other two countries – the U.K. and the U.S. – can be attributed to cultural differences concerning the permissibility of prejudice in general. However, the persistent interactions indicate that these cultural differences cannot fully explain the differences in the acceptability of anti-homosexual prejudice. Consequently, these findings support my assertion that anti-homosexual prejudice is more acceptable in Jamaica than in either the U.K. or the U.S. and that these differences are not attributable solely to cultural differences in the acceptability of prejudice in general.

Figure 2.3. Internal and External Motivation to Control Unspecified prejudice in Jamaica, Britain and the U.S.



*General Discussion*

Two studies investigated the relative social acceptability of certain prejudices. Study 1 compared the social acceptability of prejudice against two target groups in the same society – people with schizophrenia and Black people in the U.K. Study 2 compared the social acceptability of prejudice against one target group in three different societies – homosexual men in Jamaica, the U.K. and the U.S. The results of the first study indicated that prejudice against people with schizophrenia is more socially acceptable than prejudice against Black people in the U.K. The results of the second study indicated that anti-homosexual prejudice is more acceptable in Jamaica than in either the U.K. or the U.S. I will now discuss the findings and implications of these two studies with relevance to theory, scale construction, and study characteristics.

*Theory*

The results of these two studies are consistent with Crandall and colleagues' (2002) assertion that motivation to control prejudice can be used as an indicator of social norms concerning that prejudice. Specifically, I found that internal motivation was consistently higher than external motivation for three outgroups spread across three countries, and that larger differences were consistently found between levels of internal motivation than between levels of external motivation regardless of outgroup or country. This pattern of results is what should be expected if reported internal motivation reflects the internalization of societal norms, while reported external motivation reflects levels of (non)conformity to society.

Furthermore, the findings extend the usefulness of the two sets of scales. Both sets of scales have thus far only been used to measure internal and external motivation to control prejudice against Black people in the United States of America. In Study 1 slightly modified versions of the IMS and EMS (Plant & Devine, 1998) were successfully used to measure internal and external motivation to control prejudice against a new outgroup (people with schizophrenia), as well as prejudice against the same outgroup (Black people) in a new country (the U.K.). In Study 2, modified versions of these scales were used to measure motivation to control prejudice against a new outgroup (homosexual men) in two new countries (Jamaica and the U.K.).

One potentially challenging finding was that Jamaicans reported lower levels of external motivation to control both anti-homosexual prejudice and unspecified prejudice than Britons and Americans. It is possible to interpret this finding as running contrary to Crandall and colleagues' (2002) explanation of perceptions of external motivation, which states that they are no more than reflections of how well adjusted an individual is to his or her society. However, Crandall and colleagues implicitly structure their argument around societies in which blatant or explicit prejudice is either discouraged or silently condoned. The scales have not yet been expanded to include societies in which blatant expressions of prejudice are *encouraged* and the expression of egalitarian attitudes is penalized (Chin, 1997). Indeed, the items used to measure external motivation have no way of measuring that possible encouragement. This may account for Jamaicans' lower *external* motivation to control prejudice against homosexual men in Study 2. A truly culturally adaptable

scale would have to account for the possibility of encouragement to be prejudiced as well as discouragement from being prejudiced.

*Scale Construction*

Within each study, the scales used to measure motivation to control prejudice were used consistently across all target groups, country groups, and types of prejudice. However, the scales used in Study 1 did not contain the same items as the scales used in Study 2. There are a number of good reasons for this variation. First, the targets investigated in Study 1 (i.e., Black people and people who suffer from schizophrenia) were very different from the targets investigated in Study 2 (i.e., homosexual men). Second, in Study 1 all participants were British, but in Study 2 I compared Jamaican participants to British and American participants.

In both Study 1 and Study 2, items were removed from some of the scales for reasons of validity, reliability and invariance across groups. Possible reasons for these necessary alterations may include differences in stereotypes about target groups, relevant attitudes toward target groups, and possible cultural differences between countries (in Study 2). However, repetition of the study with larger sample sizes would also be ideal for conducting more conclusive factor analyses of the scales (see Gilford, 1954).

Cultural differences may also explain why the scales used to measure motivation to control unspecified prejudice had to be altered in Study 2. This may be because certain items that worked in the U.S. have different meanings in the Jamaican or British cultural context. Future research should work toward the development of scales of motivation to

control prejudice that are more universal, and less specific to the United States of America.

*Study Characteristics*

I used relatively small sample sizes to draw conclusions about (1) Britons' attitudes toward Black people and people with schizophrenia and (2) Jamaicans', Britons' and Americans' attitudes toward homosexual men and unspecified prejudice. In absolute terms, such broad conclusions cannot be drawn from such small sample sizes, and I recognize the limits of generalizability caused by using both smaller samples and student samples. However, for the purpose of comparisons between outgroups or countries, the study design worked quite well. The effects of age and sex were statistically accounted for, and as participants were university students they were roughly matched for and education level. Thus, the fact that the differences were nonetheless apparent with relatively small sample sizes argues for the strength of the differences, not against it.

*Conclusions*

In two Studies I demonstrated that it is possible to measure the relative social acceptability of a prejudice through measuring the motivation to control that prejudice. Furthermore I demonstrated that this can be tested between target groups within the same country and for the same group across countries using a method that takes into consideration the prevailing cultural norms about prejudice. I also reported the first study (Study 2) to demonstrate empirically that the same prejudice has different social valences

in different societies and, specifically, that prejudice against gay men is more socially acceptable in Jamaica than in either the U.K. or the U.S.

Social norms, and their implications, have received relatively little attention in the prejudice-related psychological literature (Crandall et al., 2002). But considerations of the varying levels of social acceptability of prejudices have important implications for potential interventions or programs aimed at reducing prejudice. In the following chapters, I investigate the effectiveness of contact and imagined contact as prejudice-reducing interventions (see Crisp, Stathi, Turner, & Husnu, 2008; Pettigrew & Tropp, 2006), in these contexts of relatively socially acceptable prejudice.

CHAPTER 3: CONTACT AND PREJUDICE AGAINST PEOPLE WITH  
SCHIZOPHRENIA

Hundreds of millions of people worldwide are affected by mental disorders (World Health Organization, 2008), and prejudice against persons with severe mental illnesses negatively affects their professional lives (Bordieri & Dhremer, 1986; Link, 1987), housing options (Page, 1983), and personal lives (Schulze & Angermeyer, 2003). Research concerning the effect of contact on prejudice against persons with mental illnesses is rarer than similar research concerning other outgroups (Pettigrew & Tropp, 2006). Moreover, what little research exists has often treated all mental illness as one large, undifferentiated category (e.g., Corrigan et al., 2001; Morris, 1964; Schicbe, 1965; Trute, Terfft & Segal, 1989; Wolff, Pathare, Craig & Leff, 1996; Wright, 1966), despite evidence that prejudice varies according to the mental illness in question (Angermeyer & Matschinger, 2003; Crisp, Gelder, Rix, Meltzer & Rowlands, 2000). In this study I investigate the relationship between contact and attitudes toward people with schizophrenia, the most strongly stigmatized of all mentally ill groups (Read, 2007).

The Stigma of Mental Illness

Stigma against the mentally ill is devastating for them and their families (Schulze & Angermeyer, 2003). This prejudice is not limited to Western countries, but instead persists in many societies (Arkar & Eker, 1991; Chou & Mak, 1998; Furnham & Chan, 2004; Guimon, Fischer & Sartorius, 1999; Ng, 1997; Ogendengbe, 1993; Raguram, Weiss, Channabasavanna & Devins, 1996; Shibre, et al., 2001; Stier & Hinshaw, 2007; Sugiura, Sakamoto, Kijima, Kitamura & Kitamura, 2000). Moreover, prejudice against

the mentally ill is not only found in the wider community (Chou & Mak, 1998; Chung et al., 2001; Holmes, Corrigan, Williams, Canar & Kubiak, 1999) but also among medical personnel (Brockington et al., 1993; Hicks & Spanner, 1962) and specifically mental health personnel and volunteers (Chinsky & Rappaport, 1970; Creech, 1977; Hicks & Spaner, 1962; Gelfand & Ullmann, 1961; Mirabi, Weinman, Magnetti & Keppler, 1985).

This stigma has persisted, even as tolerance for other groups has grown (Steir & Hinshaw, 2007), making the mentally ill one of the few groups whose castigation remains relatively socially acceptable (Hinshaw & Chicchetti, 2000). Very negative depictions of the mentally ill are common in the media (Allen & Nairn, 1997), and these openly offensive depictions of mental illness remain widely acceptable (Wahl, 1995). Some research indicates that social distance from the mentally ill has remained stable (Trute, Tefft & Segall, 1989) or, in some places, *increased* rather than decreased with time (Angermeyer & Matschinger, 1997, 2005; Chou & Mak, 1998), as is also true for some other groups, like Muslims in Europe (Das, Bushman, Bezemer, Kerkhof & Vermeulen, 2008).

Throughout the available research, there is widespread agreement that negative reactions to the mentally ill occur along the basic dimensions of fear and social rejection. The fear of mentally ill persons is tied to the perception that they are dangerous and unpredictable (Link et al., 1999), and the social rejection of the mentally ill results in avoidance or segregation of the mentally ill from the self and the community (Trute & Lowen, 1978).

Taylor and Dear (1981) conducted a large-scale study of attitudes toward the mentally ill, using 1,090 households in Toronto. In their analysis of responses to the mentally ill, two of the factors that emerged were analogous to these basic dimensions of fear and social rejection – “Community Health Ideology” and “Social Restrictiveness”. Community Health Ideology measured the extent to which participants were afraid of persons with mental illnesses, or saw them as a threat. The scale included items such as “It is frightening to think of people with mental problems living in residential neighborhoods” or “Having mental patients living within residential neighborhoods might be good therapy but the risks to residents are too great”. Social restrictiveness measured the extent to which participants separated themselves socially from mentally ill persons, and included items such as “I would not want to live next door to someone who has been mentally ill” and “The mentally ill should be isolated from the rest of the community” (p. 231).

Brockington et al., (1993), using a large-scale study of attitudes toward the mentally ill with 1,987 participants in England, found fear to be one of the underlying factors in mental illness stigma, and Brockington et al.’s fear scale shared most of its items with Taylor and Dear’s (1981) Community Health Ideology scale. Chou and Mak (1998) conducted a similar large-scale survey of the residents of Hong Kong and their prejudice against the mentally ill. Using different items they found a “Living Factor” (p. 218), which was also a reflection of how much (or little) the participant would be happy living near mentally ill people.

Other authors have expressed similar ideas in different terms. For example, Brockman and D'Arcy (1978) investigated “attitudinal social distance” (p. 69). Angermeyer and Matschinger (1997) also investigated the “social distance” (p. 136) from the mentally ill. Corrigan et al. (2001) investigated perceptions of dangerousness, fear and avoidance (see also: Corrigan et. al., 2002). The names differ but the underlying concepts remain largely the same – the belief that the mentally ill are dangerous or to be feared results in their rejection and exclusion.

*The Stigma of Schizophrenia*

People who suffer from schizophrenia, more than any other mentally ill group, are widely perceived as dangerous and consequently suffer worse stigmatization (Read, 2007; Roman & Floyd, 1981; Schulze & Angermeyer, 2003). A large, representative survey of British households (Crisp et al., 2000) found that Britons perceive people with schizophrenia as dangerous, unpredictable, difficult to talk to and unlikely to recover. Acceptance of these stereotypes positively predicts acceptance of both individual and structural discrimination (Angermeyer & Matschinger, 2004), which in turn are associated with decreased life options for people with schizophrenia, such as reduced employment opportunities (Marwaha & Johnson, 2004). Similar results have been found in other countries such as Germany (e.g., Angermeyer & Matschinger, 1997, 2003) and Turkey (Arkar & Eker, 1991): more than people suffering from other mental illnesses, people suffering from schizophrenia are considered dangerous and evoke fear.

*Contact and Prejudice Against People with Mental Illnesses*

In 1954 Gordon Allport, hypothesized that contact between members of opposing groups, under certain conditions, would lessen intergroup hostility and lead to more positive intergroup attitudes (Allport, 1954). Five decades of subsequent research have strongly supported this premise with a wide variety of groups and in a wide variety of situations (e.g., Harwood et al., 2005; Paolini et al., 2004; Plant & Devine, 2003; Voci & Hewstone, 2003;). Furthermore, a recent meta-analysis of 515 studies on intergroup contact conducted by Pettigrew and Tropp (2006) found a robust highly significant negative effect of contact on prejudice. Contact is now one of the most widely-used interventions for the reduction of prejudice and the improvement of intergroup relations (Oskamp & Jones, 2000).

However, in the aforementioned meta-analysis (Pettigrew & Tropp, 2006) the effect of contact on prejudice against the mentally ill ( $r = -0.184$ ) was weaker than the effect of contact on prejudice against most other outgroups (e.g., sexual orientation,  $r = -0.271$ , physically disabled,  $r = -0.243$ , race,  $r = -0.214$ ). Not all studies of contact and prejudice against mentally ill persons reported beneficial effects of contact. Several studies reported no effect of contact (e.g., Arkar & Eker, 1991; Bell et al., 2006; Brockman & D'Arcy, 1978; Crisp et al., 2000; Malla & Shaw, 1987; Morris, 1964) or even that contact increased prejudice under certain conditions (e.g., Wallach, 2004).

It is also worth noting that studies of contact and prejudice against the mentally ill often use different mediator and outcome variables than do studies of contact and

prejudice against other groups. Throughout the available contact research, intergroup anxiety is a commonly investigated mediator (see Pettigrew & Tropp, 2008) and attitudes toward the outgroup are commonly used as an outcome variable (see Brown & Hewstone, 2005 for a review; see also Devine, Evet & Vasques-Suson, 1996 for a critique of this methodology).

Perhaps understandably, however, when investigating the relationship between contact and prejudice against the mentally ill, investigators are more likely to use fear and social rejection as mediator and outcome variables respectively. For example, Angermeyer and Matschinger (1997) found that “personal experience” or contact (p. 136) predicted less “social rejection” of the mentally ill, and that this relationship was mediated by a decrease in “aggressive emotions” and “feelings of anxiety” and an increase in “pro-social reactions.” Similarly, Corrigan et al. (2001) found that “familiarity” with mentally ill persons predicted less “social distance” and that this relationship was mediated by reductions in “perceptions of dangerousness” and “fear”.

I have three specific critiques of the approach widely taken when investigating contact and prejudice against the mentally ill that may help explain the inconsistencies found in this area of the contact literature. First, in much of the contact literature, the many different types of mental illness are lumped together in one category. Second, contact is often treated as an all-or-nothing variable, a method that obscures the importance of both the quantity and quality of contact. Third, inconsistencies in the

mediator and outcome variables used may mean that the various studies are not investigating the same things. I discuss each of these critiques in more detail below.

*Lack of Differentiation Between Different Mental Illnesses*

The overwhelming majority of the studies of prejudice against the mentally ill treat all mental illnesses as one large undifferentiated category (e.g., Brockman & D’Arcy, 1978; Gelfand & Ullmann, 1961; Holmes et al., 1999; Malla & Shaw, 1987). This occurs with both predictor and outcome variables. In cross-sectional correlational studies, investigators have asked participants to report their previous experience with a person or persons identified as “a patient in a psychiatric hospital” (Trute & Lowen, 1978, p. 80), with “someone with a mental illness” (Holmes et al., p. 449), or “the mentally ill” (Brockington et al., 1993) without specifying any particular mental illness. In a quasi-experimental design Shera and Delva-Tauiiili (1996) investigated the attitudes of a group of participants who had interacted with more than 100 chronic mental patients, but did not investigate possible differences in attitudes according to the type of mental illnesses. In a full experimental design, Desforges et al. (1991) informed participants that they were going to interact with a “former mental patient” (p. 533) without ever specifying the mental disorder of the former patient.

The same lack of differentiation occurs in the assessment of dependent or outcome variables. Investigators have asked participants to report their attitudes toward “severe mental illness” (Holmes et al., 1999; p. 450), “people with mental problems” (Brockington et al., 1993, p. 94), a “typical former mental patient” (Desforges et al.,

1991, p. 533), or “the typical mental hospital patient” (Chinsky and Rappaport, 1970, p. 389) without specifying any mental illnesses or problems in particular. Malla and Shaw (1987) went as far as asking participants what they thought the best treatment for a “mentally ill person” (p. 35) would be, as though persons with different mental illnesses could all profit equally from the same kind of treatment. Widespread use of the Opinions about Mental Illness Questionnaire (e.g., Gelfand & Ullmann, 1961; Holmes et al., 1999) and the Community Attitudes Toward the Mentally Ill Scales (see Taylor & Dear, 1981) as measures of prejudice means that the majority of the available research has not investigated prejudice against people who suffer from *any* specific mental illness.

It is difficult to defend this approach in the face of a growing body of evidence that stereotypes vary depending on the mental illnesses in question (Crisp et al., 2000), and that some mental illnesses engender more social distance than others (Feldman & Crandall, 2000). Differing stereotypes and attitude strength may affect both the contact experience itself and the effectiveness of contact as a prejudice-reducing mechanism.

Moreover, this lumping of all subgroups into a superordinate category does not occur in other areas of prejudice research. Research on prejudice against “people of other races” would be neither meaningful nor useful, considering the evidence that stereotypes and attitudes vary according to the race in question (Leach et al., 2000; Tatum, 1999). Consequently research is done specifically on prejudice against, for example, Black people or Asians (Hamberger & Hewstone, 1997), but not on prejudice against people of other races in general. Similarly, in research concerning people of other sexualities, a

distinction is usually made between homosexual men and lesbians, especially in light of the evidence that attitudes toward gay men are different from attitudes toward lesbians (e.g., Herek & Capitano, 1999). Only in research concerning prejudice against the mentally ill are such varied groups lumped together.

*All-or-Nothing Measures of Contact*

Our second criticism of the available research is that it has often adopted a very simplistic test of the relationship between contact and prejudice: participants who have experienced contact are compared to those who have not (e.g., Arkar & Eker, 1991; Kulik, Martin & Scheibe, 1969; Wolff et al., 1996, Wright & Klein, 1966), a method that takes neither quantity nor quality of contact into account. Some experimental and quasi-experimental studies deliberately create conditions of positive, equal contact (e.g., Corrigan et al., 2002; Desforges et al., 1991), but others do not (e.g., Iguchi & Johnson, 1966). This is difficult to defend considering that Allport (1954) specified optimal conditions under which contact should occur, and that the beneficial nature of these optimal conditions has been repeatedly demonstrated (see Pettigrew & Tropp, 2006). Indeed, it is quite likely that unpleasant or superficial contact could worsen attitudes, something that has been found in previous studies (e.g., Wallach, 2004).

*Inconsistencies in the Mediator and Outcome Variables*

While none of the previous research should be slighted for using a wide variety of mediator and outcome variables, habitually using *different* mediator and outcome

variables renders comparisons between studies difficult, and relationships between the many relevant variables unclear. How should we compare Angermeyer and Matschinger's (1997) finding that "personal experience" predicted less "feelings of anxiety" (p. 136) with Corrigan et al.'s finding that "familiarity" predicted less "fear"? How does any of this square with the general finding in the contact literature that contact predicts more favourable intergroup attitudes (Pettigrew & Tropp, 2006)?

The use of different variables in different studies (e.g., contact, familiarity, personal experience, intergroup anxiety, feelings of anxiety, perceptions of dangerousness, fear, aggressive emotions, social rejection, social distance, avoidance) makes it unclear whether or not some of these are overlapping constructs. Are "feelings of anxiety" (Angermeyer & Matschinger, 1997) conceptually different from "intergroup anxiety" (Pettigrew & Tropp, 2006)? Furthermore, how does fear relate to intergroup anxiety, if indeed it does? A more complete model of the relationship between contact and prejudice against people with mental illnesses would resolve some of these problems created by the inconsistency of measures in the literature and identify the relationships between the relevant variables.

### Current Research

In this research, I addressed all three concerns. First, I conducted a simple test of the relationship between contact with and prejudice against people with schizophrenia by comparing participants who had experienced contact to those who had not. To date, no study has ever investigated the effects of contact specifically with people with

schizophrenia on prejudice specifically against people with schizophrenia. Second, I conducted a more complete test of the relationship between contact and social rejection by taking into account both the quantity and quality of contact. Third, as well as taking quality and quantity of contact into account I constructed a more complete model of the relationship between contact and prejudice against people with schizophrenia that included a more complete set of relevant mediators from previous literature.

### *Hypotheses*

#### *The effects of contact: A simple test*

This study investigated the relationship between contact and prejudice against people with schizophrenia in the U.K. I predicted that participants who had experienced contact with persons suffering from schizophrenia would report less intergroup anxiety, more positive attitudes, less fear and less social rejection. However, I made this initial prediction with a certain measure of caution, noting the inconsistencies in the previous contact literature concerning people with schizophrenia and the simplistic nature of tests of the contact hypothesis with this very negatively stereotyped outgroup.

#### *The effects of contact: A more complete test*

I followed the initial, simple test of the relationship between contact and social rejection with a more sophisticated test that took into account the quantity and the quality of the contact with people with schizophrenia, and the possible mediators of the effect of contact on social rejection. The variables I investigated were quality of contact, quantity

of contact, fear of people with schizophrenia, intergroup anxiety, attitudes toward people with schizophrenia and social rejection of people with schizophrenia. These variables have all been used in previous models of contact with and prejudice against people with mental illnesses.

I constructed my model by integrating previous models of contact and prejudice against people with schizophrenia, or the mentally ill in general (Angermeyer & Matschinger, 1997; Corrigan et al., 2001; Pettigrew & Tropp, 2006). I hypothesized that contact would predict less fear, which would in turn predict less social rejection (as found by Corrigan et. al., 2001). I also hypothesized that contact would predict less intergroup anxiety, which would in turn predict more favourable attitudes (as found by Pettigrew & Tropp, 2006). I also hypothesized that more favourable attitudes would predict less social rejection (as found by Angermeyer & Matschinger, 1997).

I am unaware of any research that has investigated the way in which fear relates to intergroup anxiety and attitudes. However, it seems theoretically sound that fear (the immediate concern that the interaction partner will behave in a dangerous or threatening manner) would positively predict intergroup anxiety (a negative state of arousal based on concerns of inappropriate behaviour on both sides during the interaction) and negatively predict attitudes (an affective measure of positivity or negativity toward the outgroup). Consequently I included these paths in the model as well.

In summary, I hypothesized that (1) more and higher-quality contact would predict less fear, less intergroup anxiety, and less social rejection; (2) less fear would

predict less intergroup anxiety, more favourable attitudes, and less social rejection; (3) less intergroup anxiety would predict more favourable attitudes, and (4) more favourable attitudes would predict less social rejection. Most of the hypothesized paths in the current model have been found in previous research, but have never before been studied in a single model. Consequently this model, if successful, would build upon previous research on contact and prejudice against people with schizophrenia not only through the use of more specific instructions and measures, but also through the integration of multiple models that previously have not been related.

### *Method*

#### *Participants*

One hundred and twenty-two university students, 48 male and 74 female, mean age = 18.67 (SD = 2.08) completed surveys about their previous contact with and evaluation of people with schizophrenia. Participants received course credit for taking part in the research.

#### *Measures*

Participants were asked to complete questionnaires concerning their prior contact experiences (if any) with persons with schizophrenia, intergroup anxiety, fear, attitudes toward persons with schizophrenia, and social rejection of persons with schizophrenia.

To assess quantity of contact, I asked participants to report, on a 7-point Likert scale, how much contact they had with persons with schizophrenia “At class or work”,

“In casual social situations”, “In intimate social situations” and “In all social situations” (1 = *None at all*, 7 = *Very Much*; Cronbach’s  $\alpha = 0.68$ ).

To assess the quality of self-reported prior contact, I asked participants to report, on a 7-point scale, how “Pleasant”, “Friendly”, “Negative” (reversed), “Enjoyable”, “Difficult” (reversed), “Cooperative”, “Natural”, and “Superficial” (reversed) their contact experiences with people with schizophrenia had been (1 = *Not at all*, 7 = *Very*;  $\alpha = 0.75$ ).

To assess intergroup anxiety, I asked participants to complete a shortened measure based on Stephan and Stephan (1985): “If you were to meet a schizophrenic in the future, how do you think you would feel?” They reported, on a 7-point scale, how “awkward”, “happy” (reversed), “self-conscious”, “competent” (reversed), and “relaxed” (reversed) they would feel (1 = *Not at all*, 7 = *Very*). This scale did not attain the conventional level of reliability in this study ( $\alpha = 0.58$ ), but item deletion did not result in a more reliable scale; since this scale has been used in previous studies (e.g., Turner, Crisp & Lambert, 2007; Voci & Hewstone, 2003), I retained all five items.

To measure attitudes toward people with schizophrenia, I asked participants to respond to six items (from Wright, Aron, McLaughlin-Volpe & Ropp, 1997) on 7-point semantic differential scales: cold–warm, positive–negative (reversed), friendly–hostile (reversed), suspicious–trusting, respectful–contempt (reversed), admiration–disgust (reversed),  $\alpha = 0.84$ .

To assess fear and social rejection I used nine items from Corrigan et al. (2002), three of which were designed to measure each of the following: perceptions of dangerousness, fear, and avoidance of people with mental illnesses. I modified the questions to relate specifically to people with schizophrenia. The nine questions were presented in one of two randomized orders. Participants responded to each question on a 7-point Likert scale.

To assess perceptions of dangerousness, I asked participants to respond to the following statements: “I would feel unsafe around persons with schizophrenia.” (1 = *Strongly Agree*, 7 = *Strongly Disagree*) (reversed), “How dangerous do you feel a person with schizophrenia is?” (1 = *Not at all*, 7 = *Very much*), and “I would feel threatened by a person with schizophrenia” (1 = *Not at all*, 7 = *Yes, absolutely*), ( $\alpha = 0.78$ ).

To assess fear, I asked participants to respond to the following statements: “Persons with schizophrenia terrify me.” (1 = *Not at all*, 7 = *Very much*), “How scared of a person with schizophrenia would you feel?” (1 = *Not at all*, 7 = *Very much*) and “How frightened of a person with schizophrenia would you feel?” (1 = *Not at all*, 7 = *Very Much*), ( $\alpha = 0.83$ ).

To assess avoidance, I asked participants to respond to the following statements: “I think persons with schizophrenia pose a risk to other people unless they are hospitalized” (1 = *Not at all*, 7 = *Very much*), “I would try to avoid a person with schizophrenia” (1 = *Definitely*, 7 = *Definitely not*) (reversed), “If I were a landlord, I probably would rent an apartment to a person with schizophrenia” (1 = *Definitely*, 7 =

*Definitely not*) ( $\alpha = 0.61$ ). This scale also did not attain the conventional level of reliability in this study. However, since this scale has been successfully used in previous research (see Corrigan et al., 2002) I retained all three items.

In the Corrigan et al. (2002) paper from which the perceptions of dangerousness, fear and avoidance measures were taken, the direct effect of perceptions of dangerousness on fear was unusually high ( $\beta = 0.99, p < 0.001$ ). I therefore suspected that all these items, in fact, loaded on the same factor. Thus I conducted a factor analysis of the six items, which revealed only one factor with an eigenvalue over 1. Consequently I combined all six items into a single “Fear” scale ( $\alpha = 0.88$ ). This new six-item Fear scale was used in all subsequent analyses.

Also, the three items in the avoidance scale used by Corrigan et al. (2002) describe a desire to maintain distance between the self and persons with schizophrenia, but only one item includes a behavioral intention related to avoidance. None assesses either past behavior or expected future behavior, but rather they assess the desire for segregation of mentally ill persons from the self and the community. Consequently I labeled this scale a measure of social rejection, instead of avoidance.

After completing the questionnaire measures, participants were asked for basic demographic information, thanked and debriefed. To control for order effects the different sections of the questionnaires were counterbalanced, and no order effects were detected.

*Results*

*Contact: A simple test*

Table 3.1 shows the means and standard deviations of all variables used in this study. Participants who had experienced contact with at least one person with schizophrenia ( $N = 43$ ) reported significantly less intergroup anxiety ( $M = 4.01$ ) than participants who had not ( $N = 79$ ;  $M = 4.43$ ),  $t(119) = 2.57$ ,  $p = 0.012$ ,  $d = 0.47$ . Participants who had experienced contact with persons with schizophrenia also reported more favourable attitudes ( $M = 4.74$ ) than participants who had not experienced contact ( $M = 4.35$ ),  $t(120) = 2.49$ ,  $p = 0.014$ ,  $d = 0.45$ .

Participants who had experienced contact reported less fear of people with schizophrenia ( $M = 2.94$ ) than did participants who had not experienced contact ( $M = 3.35$ )  $t(120) = 2.04$ ,  $p = 0.044$ ,  $d = 0.37$ , and participants who had experienced contact also reported less social rejection of people with schizophrenia ( $M = 2.64$ ) than did participants who had not experienced contact ( $M = 3.24$ ),  $t(120) = 3.19$ ,  $p = 0.002$ ,  $d = 0.58$ .

*Table 3.1 Means and standard deviations of outcome variables according to prior contact.*

	Prior Contact	No Prior Contact	<i>t</i>	<i>df</i>	<i>p</i>
Fear	2.94 (0.93)	3.35 (1.11)	2.04	120	0.044
Intergroup Anxiety	4.01 (0.66)	4.43 (0.93)	2.57	119	0.012
Attitudes	4.74 (0.90)	4.34 (0.82)	2.49	120	0.014
Social Rejection	2.64 (0.93)	3.24 (1.10)	3.03	120	0.003

Notes: Standard deviations shown in parentheses.

*Contact: A more complete test*

Using a simple test of the relationship between contact and all four outcome variables, I found contact to be associated with less fear, less intergroup anxiety, more positive attitudes and less social rejection of people with schizophrenia. I then conducted a more sophisticated test of the relationship between contact and social rejection. Despite the above-mentioned results I cannot assume that all contact is beneficial, particularly for this negatively-stereotyped group, and must investigate contact in a way that takes both the amount and the nature of the contact into account.

For these analyses, I only used participants who *had* experienced contact with at least one person with schizophrenia ( $N = 43$ ), and investigated the relationship between

contact, fear, intergroup anxiety, attitudes and social rejection, including whether fear, intergroup anxiety, and attitudes mediated the relationship between contact and social rejection.

I investigated that relationship between contact and social rejection, taking both quality and quantity of contact into account. Generally, quantity or quality of contact taken alone is not sufficient to reduce prejudice, and an optimal combination is desirable (Allport, 1954). I created a single measure of contact by using the product of quantity of contact and quality of contact scores. This method, which permitted me to investigate both aspects of contact simultaneously, has previously been used by Brown, Maras, Masser, Vivian and Hewstone (2001), and Voci and Hewstone (2003).

First I tested whether this index of contact was associated with all four outcome variables: the index of contact was negatively associated with intergroup anxiety ( $r = -0.46, p = 0.003$ ), fear ( $r = -0.41, p = 0.007$ ) and social rejection ( $r = -0.52, p < 0.001$ ), and positively associated with social attitudes ( $r = 0.41, p = 0.006$ ). However, none of the correlations between variables was high enough to suggest colinearity ( $-0.62 < \text{all } r < 0.49$ ); see Table 3.2.

Table 3.2. Correlations between variables in Study 3.

	Contact	Fear	Anxiety	Attitudes	Social Rejection
Contact	1.00				
Fear	-0.41 (0.007)	1.00			
Anxiety	-0.46 (0.003)	0.48 (<0.001)	1.00		
Attitudes	0.41 (0.006)	-0.48 (<0.001)	-0.49 (<0.001)	1.00	
Social Rejection	-0.37 (<0.001)	0.62 (<0.001)	0.49 (<0.001)	-0.62 (<0.001)	1.00

Notes: Pearson's  $r$  values shown,  $p$  values shown in parentheses.

I then tested my proposed model of the relationship between contact, fear, intergroup anxiety, attitudes and social rejection. I hypothesized that more and higher quality contact would predict less fear, less intergroup anxiety, and less social rejection, that less fear would predict less intergroup anxiety, more favourable attitudes, and less social rejection, that less intergroup anxiety would predict more favourable attitudes and

that more favourable attitudes would predict less social rejection. To test these relationships simultaneously I used a path model with observed variables.

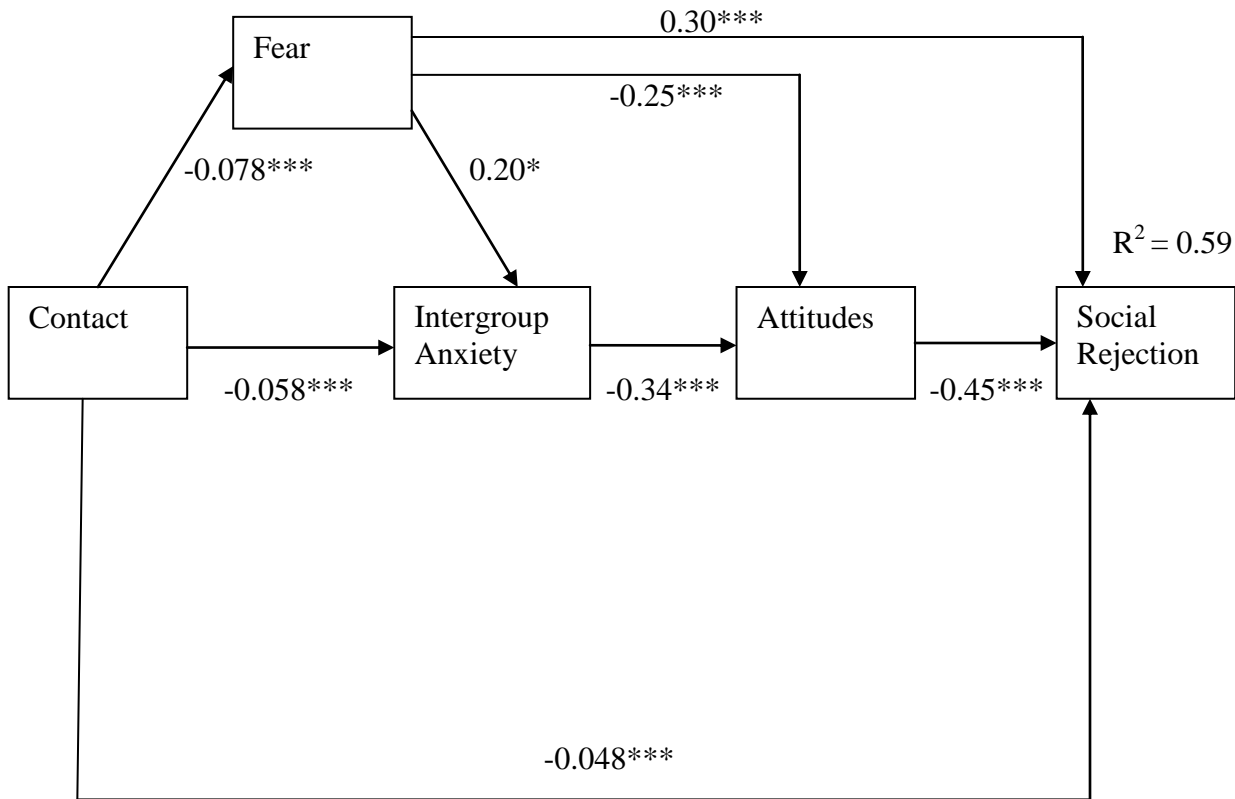
I assessed the goodness-of-fit of the model, and alternative models, by using the chi-square test, chi-square/degree of freedom ratio, the comparative fit index (CFI) and the root mean square error of approximation (RMSEA). A satisfactory fit is generally indicated by a non-significant chi-square (although significant values are acceptable when the sample size is large), a chi-square/df ratio  $\leq 3$ , a CFI  $\geq .95$ , and RMSEA values less than .06 (Byrne, 2001).

I found support for my model in which contact predicted fear ( $\beta = -0.078$ ,  $p < 0.001$ ), intergroup anxiety ( $\beta = -0.058$ ,  $p < 0.001$ ), and social rejection ( $\beta = -0.048$ ,  $p = 0.002$ ); fear predicted intergroup anxiety ( $\beta = 0.20$ ,  $p = 0.016$ ), attitudes ( $\beta = -0.25$ ,  $p < 0.001$ ), and social rejection ( $\beta = 0.30$ ,  $p < 0.001$ ); intergroup anxiety predicted attitudes ( $\beta = -0.34$ ,  $p < 0.001$ ); and attitudes predicted social rejection ( $\beta = -0.45$ ,  $p < 0.001$ ). My model fit the data well,  $\chi^2(2) = 1.61$ ,  $p = 0.45$ ,  $\chi^2/df = 0.80$ ; CFI = 1.00.; RMSEA < 0.001, accounting for 58.5% of the variance in social rejection scores (see Figure 3.1).

I also tested two theoretically plausible alternative models in order to be more confident that the proposed model fit the data best. First I tested a model in which all possible paths between variables were included. This model included a direct path from contact to attitudes. Though this path has not been demonstrated in previous research concerning this target group, in research concerning other target groups a direct path from contact to attitudes is sometimes found (e.g., Turner et al., 2007a) Thus, while I

hypothesized that fear and intergroup anxiety completely mediated the relationship between contact and attitudes, partial mediation is a possibility. This alternative model also included a path from intergroup anxiety to social rejection. This path has also not been demonstrated in previous research on prejudice against this group, but Stephan and Stephan (1985) hypothesized that more intergroup anxiety should lead to avoidance of the outgroup in question. In my proposed model this relationship is mediated by attitudes, but a direct relationship between intergroup anxiety and social rejection is also plausible.

Figure 3.1. Relationship between contact with and social rejection of people with schizophrenia, mediated by intergroup anxiety, social attitudes and fear.



Model Fit:  $\chi^2(2) = 1.61, p = 0.45, \chi^2/df = 0.80; CFI = 1.00.; RMSEA < 0.001$

Note: \* $p < 0.05, **p < 0.01, ***p < 0.001$

I compared the fit of the models by using the change in  $\chi^2$  values and the change in degrees of freedom (see Byrne, 2000). The alternative model did not fit the data significantly better than my proposed, more parsimonious model;  $\chi^2(1) = 0.039$ ,  $p = 0.84$ ,  $\chi^2/df = 0.039$ ; CFI = 1.00; RMSEA < 0.0001;  $\Delta\chi^2 = 1.57$ ,  $\Delta df = 1$ ,  $p > 0.10$ , and neither the direct path from contact to attitudes ( $\beta = 0.023$ ,  $p = 0.24$ ) nor the direct path from intergroup anxiety to social rejection ( $\beta = -0.051$ ,  $p = 0.88$ ) was significant.

Second, to examine whether the proposed causal order of the model fit the data best, I tested a model in which all theoretically plausible paths were reversed, with social rejection predicting intergroup anxiety, attitudes and fear, which in turn predicted contact. The question of causal direction has long been debated in contact research (see Brown & Hewstone, 2005, and Pettigrew & Tropp, 2006, for reviews), making it important to test whether contact predicts less social rejection, or whether the stronger path is from less social rejection to more contact via more intergroup anxiety, more fear, and less favourable attitudes.

However, this reversed model fit the data significantly worse than my proposed model;  $\chi^2(3) = 18.99$ ,  $p < 0.001$ ,  $\chi^2/df = 6.33$ ; CFI = 0.91; RMSEA = 0.21;  $\Delta\chi^2 = 17.38$ ,  $\Delta df = 1$ ,  $p < 0.001$ . In this reversed model, I used social rejection to predict fear, intergroup anxiety, attitudes, and contact, and I used intergroup anxiety and attitudes to predict contact. However, in this model, fear did not predict contact,  $\beta = -0.46$ ,  $p = 0.069$ , though all other paths were significant.

*Discussion*

This is the first study to test specifically the relationship between contact with people with schizophrenia and social rejection of these people. I found support for the negative relationship between contact and prejudice in two ways. First, participants who had experienced contact reported more positive attitudes and less social rejection than participants who had not experienced contact. Second, I found that, among participants who had experienced contact, more contact and higher quality contact was associated with less social rejection, and this relationship was mediated by fear, intergroup anxiety and attitudes. I now discuss these findings in terms of implications for research on contact and prejudice against people with schizophrenia, limitations of this study, and future directions.

*Contact and Prejudice against People with Schizophrenia*

Prejudice against people with schizophrenia is worse than that against any other group of mentally ill people (Read, 2007), and prejudice against the mentally ill remains both more severe and more socially acceptable than prejudice against many other groups (Stier & Hinshaw, 2007). Contact with people with schizophrenia is also rare (Schulze & Angermeyer, 2003) and often not between equals (Chinsky & Rappaport, 1970). Furthermore, no study prior to this one has ever investigated the relationship between contact and prejudice against people with schizophrenia at this level of detail, or specificity – ensuring that both the predictor and the outcome measures are specific for people with schizophrenia, instead of for mentally ill people in general.

Consequently this study can be considered the first specific test of the contact hypothesis for this particular outgroup. The results were encouraging. Using both a simple all-or-nothing test of contact and a more sophisticated test that took both the quantity and quality of contact into account, I found that contact was associated with less fear, less intergroup anxiety, more favourable attitudes and less social rejection. I was also able to integrate previously unrelated models of the relationship between contact and prejudice against people with schizophrenia (or persons with mental illnesses as a superordinate group) testing previously untested relationships between relevant variables such as fear and intergroup anxiety. This paints a more complete picture of the way in contact may reduce prejudice against people with schizophrenia.

*Limitations of this Study and Directions for Future Research*

Despite the success of my proposed model, some aspects of the stigma of schizophrenia, such as bio-genetic causal beliefs (see Angermeyer & Matschinger, 2005), and the tendencies to perpetuate or condone various kinds of individual and institutional discrimination against people with schizophrenia (see Marwaha & Johnson, 2004), were not included in my proposed model. Furthermore, though all paths in my model were significant, contact did not strongly predict fear ( $\beta = 0.078$ ), intergroup anxiety ( $\beta = 0.058$ ), or social rejection ( $\beta = 0.048$ ).

I acknowledge that I focused heavily on the negative aspects of reactions to people with schizophrenia. Some other aspects have a more positive, or at least ambivalent, nature. Chou and Mak (1998) found a “Community Care Factor” (p. 218)

that reflected desires to keep the mentally ill locked away for their own good, rather than for the safety of the surrounding community. Taylor and Dear (1981), and Brockington et al. (1993) also found benevolence, or the belief that the mentally ill should be cared for, to be an underlying factor, and Wolff et al. (1996) found goodwill as a factor. For other outgroups, empathy has been found to be an important mediator of the effects of contact on prejudice (see Pettigrew & Tropp, 2008).

I focused on the aspects of the stigma of schizophrenia related to fear and social rejection because these are the central features of the stigma. However, the inclusion of more positive mediators and outcome measures, as well as other negative ones, may provide a more complete picture of the relationship between contact and prejudice against this outgroup, and increase the predictive power of contact. Future research should include more of these positive variables, such as empathy and goodwill.

I also fully recognize the limits of generalizability of findings with such a small sample size, and a sample of convenience. Nevertheless, given the emerging stage of empirical research on attitudes toward people with schizophrenia, these data can be useful for formulating hypotheses for later testing with larger and more representative samples. The reported data should be viewed as preliminary and suggestive rather than definitive. Replication with probability samples representative of the general public will be especially valuable in determining the extent to which the present findings can be generalized.

As indicated by MacCallum and Austin (2000), care must be taken when using path analysis to make causal inferences from cross-sectional data. Where possible, I have conducted additional analyses to increase confidence in my findings. In the case of the models, I compared alternative models to determine whether the proposed model fit the data best, including analyses of reverse causation. Nonetheless, future research using genuine experimental designs should be conducted so that causality can be properly determined.

### *Conclusions*

Given the variation in responses to different mentally ill groups, it is no longer justifiable to do research about the mentally ill in general. Overall, these findings speak to the need for more research that specifically investigates the stigmas associated with different types of mental illness, rather than treating all mental illness stigmas as one. In the face of the growing body of literature indicating that these stigmas do in fact vary according to the mental illness in question, it is no longer justifiable to ignore these differences (Crisp et al., 2000). Interventions that are effective for one mental illness may not be applicable or relevant to others. This study suggests, however, that contact may be an effective means of reducing prejudice against persons with schizophrenia.

CHAPTER 4: CAN CONTACT REDUCE JAMAICAN SEXUAL PREJUDICE?

“If dem bring it tu wi, ful dem up a kappa shat

Ra-ta-tat evri chi chi man dem havi get flat

[. . .]

Chi-chi man fi ded an dats a fak.

[If they approach us with it (homosexuality), pump them full of copper shots (bullets)

Ra-ta-tat, every gay has to get flat (? Lie on the ground dodging bullets)

(. . .)

Gay men should die and that’s a fact.]”

Farquaharson, 2005, p. 109 – 110.

“Aal bati-man fi ded”

[All homosexuals must die].

Chin, 1997, p. 128.

Despite several claims of strong Jamaican prejudice against homosexuals (e.g., Farquaharson, 2005; OUTRAGED!, 2004; Pinnock, 2005; Schleifer, 2004), and numerous international incidents concerning Jamaican anti-homosexual sentiment (e.g.,

Homophobic silliness and a failure of leadership, 2008; Identity Politics and Homophobia, 2008; London pressures dancehall stars, 2004) no study to date has ever attempted to investigate the strength of Jamaican anti-homosexual attitude, assess any method of changing it, or understand its predictors. With no empirical research on the issue it is unsurprising that attempts by international gay-rights lobbies to impose anti-homophobia restrictions on Jamaicans have met with limited or no success (Gay lobby rebuked, 2008). In a cross-cultural study, I investigate the relationship between contact and anti-homosexuality in Jamaica, comparing it to the corresponding relationship in Britain.

### Sexual Prejudice

Any action, or general mode of conduct, whether it occurs on an individual or a systematic level, that disadvantages non-heterosexuals, can be defined as sexual prejudice (Herek, 1986). Homophobia is currently the most common term used to indicate anti-homosexual prejudice (see Diaz, 2001; Herek, 1984; Lehne, 1976; Morin & Garfinkle, 1978; Weinberg, 1972), but this term has long been criticized. Millham, San Miguel and Kellog (1976) considered it “oversimplification” (p. 3) to lump all the varied negative attitudes, beliefs and behaviours toward homosexuals as homophobia. Hansen (1982) suggested the term “homosexism” (p. 233), which is more similar to the terms racism and sexism.

Herek (1986) also discouraged the use of the term homophobia because it overly individualises and “psychologizes” (p. 553) the prejudice at hand, positing the

phenomenon as an individual's irrational fear of homosexuals. In its place Herek encouraged the use of the term sexual prejudice, which describes the phenomenon as what it actually is – prejudice that can be both individual and structural, and that can confer undeserved advantages on those who hold it.

Sexual prejudice is a global problem, occurring in many forms, at different levels of severity, and in many different societies (Herek, 2000; Herek & Gonzalez-Rivera, 2006; McLelland, 2000; Polimeni, Hardie & Buzwell, 2000; Rivers & Cowie, 2006; Subir, 2007; Williams & Maher, 2009). At its most severe it can result in violent hate crimes, and even murder (Willis, 2004). Other forms of victimization, including sexual attack, robbery or vandalism can have severe and enduring physical and psychological consequences (Herek et al., 1999). Anti-gay prejudice is a problem in many places (Herek & Berrill, 1992), but most research on prejudice against homosexuals has taken place in the U.S., a country in which attitudes toward homosexuals have been improving for some decades (Millham et al., 1976).

This pattern represents an abundance of research on sexual prejudice in a country of relatively positive attitudes, and a dearth of research where sexual prejudice may be at its worst. It is a serious shortcoming that the majority of the research is taking place in the U.S., where the gay movement has produced legal changes (Lance, 1987) including the contemporary debate around the legality of gay marriage (Goodnough, 2009), but no research is taking place in Iraq, where gay men are openly scorned and murdered (Williams & Maher, 2009), or in St. Martin, where gays are publicly beaten (Padgett,

2006). Places where anti-homosexual prejudice may be very severe are left to improve their situation either bereft of the guidance of any empirical research, or dependent upon empirical research conducted by and in other countries, without knowing which, if any research findings are applicable cross-culturally. In this chapter I take the first step toward filling the gaps in the research by investigating sexual prejudice in one country recently called “the most homophobic place on Earth” – Jamaica (Padgett, 2006; p. 1).

### *Sexual Prejudice in Jamaica*

The island of Jamaica is widely perceived to be the most homophobic country in the Caribbean (Williams, 2000), and possibly the world (Pidgett, 2006). Strong anti-homosexual sentiment can be found in the popular media and political campaigns, and (male) homosexuality is implicitly made illegal by the presence of anti-buggery laws, which include maximum sentences of ten years imprisonment with hard labour for anal sex (White & Carr, 2005). Anti-homosexual sentiment runs so deep that violence, sometimes life-threatening violence, can follow the revelation that a man is gay (Carr, 2003).

While some deny the severity of Jamaican sexual prejudice, positing it as a problem of the lower classes (The Gay Debate, 2004), it nonetheless carries serious visible consequences. Many Jamaicans have been attacked, beaten, or killed on accusations of homosexuality (Pidgett, 2006). Indeed, Jamaican anti-homosexual sentiment has been said to inspire “a series of anti-gay murders and gay-bashing incidents in the island” (Gay lobby rebuked, 2008; p.1), the most prominent of which was the

murder of Brian Williamson, a noted public and vocal gay figure in the Jamaican community (OUTRAGED!, 2004). After his death, a crowd rejoiced over Williamson's mutilated body (Pidgett, 2006).

Furthermore, sexual prejudice is not only strong, but also socially acceptable in Jamaica: of all groups living with HIV, homosexual men are shown the least sympathy (Norman et al., 2006), HIV/AIDS workers sometimes face negative social pressure for “promoting” homosexuality and promiscuity (White & Carr, 2005, p. 350), and popular songs actively discourage all forms of interaction with homosexual men except violence (Williams, 2000). Indeed, it is denying or renouncing anti-homosexual sentiment that may have serious repercussions (Chin, 1997).

It is also not without international consequences. Dancehall artists Beenie man and Bounty Killer have been banned from concerts in London at the hands of British gay-rights groups claiming that their music contains dangerous homophobic messages (London pressures dancehall stars, 2004). Other dancehall artists including Vybes Cartel, Capleton and Elephant Man have also been targeted by these groups. Prime Minister Bruce Golding, on the BBC programme *Hardtalk*, stated that no homosexual could be a member of his parliament, a statement that incited reactions from Jamaicans and Britons alike (Homophobic silliness and a failure of leadership, 2008).

However, despite the blatancy and volatility of the social climate, and the numerous international occurrences surrounding Jamaican sexual prejudice, no empirical data has ever been collected on the subject. Thus far, all work that has attempted to shed

light on Jamaican sexual prejudice has been done exclusively through anecdotes and the analysis of popular media (e.g., Pidgett, 2006; Sharpe & Pinto, 2006). Consequently, all claims of the nature and extremity of Jamaican anti-homosexuality are without empirical basis, and all actions taken by international bodies to curb sexual prejudice in Jamaica have taken place without empirical support.

*Sexual Prejudice in the U.K.*

This thesis should not be interpreted as saying that sexual prejudice no longer exists, or is no longer a problem in other countries. Far from it, I acknowledge that sexual prejudice, discrimination and victimization continue to be serious problems in countries of the industrialized West, such as the U.K. (Ryan & Rivers, 2003). Different studies offer conflicting views of British sexual prejudice. Some argue that, of all the countries of the industrialized West, it is the U.K. that has anti-gay norms most embedded in its culture, more so than either Continental European or North American societies (Rayside, 1992). From the eighteenth century onward homosexual offences were more often the subject of moral discussions in England than anywhere else in Europe or North America, and were also more severely punished.

In the early decades of the eighteenth century, thousands were brought before the British courts for sodomy and many were hanged. Gay materials are still more censored in Britain than in other Western countries and gay and lesbian couples can still be brought before the courts for kissing in public (Rayside, 1992). Unlike in the United States (Lance 1987), few legal gains had been made for gays in Britain between decriminalization in

1967 and the election in 1987, and as late as 1990 the Conservative government introduced a criminal justice bill in which various private, consensual forms of gay sex were listed as “serious sex crimes” (Rayside, p. 121).

A large-scale survey of secondary schools in the U.K. (Warwick, Aggleton & Douglas, 2001) indicated that most teachers (82%) are aware of some form of homophobic bullying in their school. This bullying can include having clothes set alight, being urinated upon, being burned with cigarettes, being dragged across the school playing field, or even being raped by teachers or fellow pupils. However, due in part to unclear policy guidelines on the issue of student homosexuality, most teachers are unable or unwilling to address these instances of bullying.

Other studies paint Britain in a much more positive light. Vonofakou, Hewstone and Voci (2007), using a sample of British university students, found that attitudes toward gay men were more positive than negative, especially for women. In a large-scale cross-cultural study involving three European countries, Jensen et al. (1988) found that English participants had very similar attitudes to German participants, and more positive attitudes than Spanish participants. Clashes between Britain and countries like Jamaica on the topic of anti-homosexual prejudice also indicate that Britain is one of the less sexually prejudiced nations (London pressures dancehall stars, 2004).

Nonetheless, compared with research conducted in the U.S., relatively little research addresses attitudes toward homosexuals in the U.K., and data concerning anti-homosexual prejudice can be difficult to come by (Warwick et al., 2001). In this study, I

not only investigate anti-gay attitudes in both Jamaica and Britain, but I also take the opportunity to conduct cross-cultural comparisons of sexual prejudice. Cross-cultural research is useful, not only because it allows us to compare the severity of a stigma across different countries, but also because it indicates whether or not certain prejudice-reducing strategies function equally well in more than one society.

The reasons for comparing Jamaica and Britain include their understudied sexual prejudice (especially in the case of Jamaica), as well as their shared history: Jamaica was a British colony until it gained independence in 1962 and continues to share some cultural tendencies with Britain (Lambert, Weisz, Knight, Desrosiers, Overly & Thesiger, 1989). Also, several of the international incidents surrounding Jamaican anti-gay prejudice have occurred between Jamaica and Britain, making comparisons of sexual prejudice between Jamaica and Britain even more relevant. These include the relatively benign, such as the cancellations of performances by Jamaican artistes in England (London pressures dancehall stars, 2004), as well as the more egregious, such as the murder of British honorary consul, John Terry (Bird & Reid, 2009).

### *Contact and Sexual Prejudice*

Over fifty years ago, Gordon Allport predicted that contact between members of opposing groups, under certain conditions, would reduce prejudice and improve intergroup relations (Allport, 1954). Much research supported the contact hypothesis in the decades that followed and many approaches to bias reduction focus on ways to improve the quantity or quality of intergroup contact (Hewstone et al., 2002). Contact has

been shown to reduce prejudice between people of different races (e.g., Plant & Devine, 2003), ethnicities (e.g., Hamberger & Hewstone, 1997; Paolini et al., 2004), nationalities (e.g., Brown, Vivian & Hewstone, 1999; Voci & Hewstone, 2003) and ages (e.g., Harwood et al., 2005).

A recent meta-analysis of 515 studies on intergroup contact conducted by Pettigrew and Tropp (2006) found a robust highly significant negative effect of contact on prejudice. Furthermore, the effect of contact on prejudice against people of different sexual orientations ( $r = -0.271$ ) was stronger than the effect of contact on prejudice against any other outgroup (e.g.,  $r$  (physically disabled) = -0.243,  $r$  (race) = -0.214,  $r$  (mentally ill) = -0.184). Recently imagined contact (Turner et al., 2007a) has also been shown to reduce prejudice against homosexual men.

Intergroup anxiety, a negative state of arousal caused by negative expectations of an intergroup interaction (Stephan & Stephan, 1985), is an important mediator of the effect of contact on prejudice (e.g., Turner et al., 2007b; Voci & Hewstone, 2003; see also Pettigrew & Tropp, 2008 for a meta-analysis confirming the importance of intergroup anxiety). It has also specifically been shown to mediate the relationship between contact and prejudice against homosexual men (e.g., Vonofakou et al., 2007) and even between imagined contact and prejudice against homosexual men (e.g., Turner et al., 2007a).

*Contact and Sexual Prejudice in Jamaica and Britain*

Contact has been shown to reduce prejudice in general and prejudice against people of other sexualities in particular. However, noteworthy gaps exist in the contact literature that must be addressed before it can be considered inclusive of, or applicable to, a broad range of societies. In Pettigrew and Tropp's (2006) meta-analysis of all contact research, most studies (71%) were conducted in North America. Of the studies specifically investigating the effect of contact on sexual prejudice, 23 of the 25 studies were conducted in the United States, one was conducted in Canada, and one in New Zealand.

I could find only one study of the relationship between contact and prejudice against gay men in Britain (Vonofakou et al., 2006) and no study investigating the relationship between contact and attitudes toward homosexuals, either male or female, in Jamaica. This represents a serious gap in the data, as the effectiveness of contact as a prejudice-reducing mechanism may be influenced by cultural variables. Furthermore, given the relatively positive attitudes toward homosexuals in the U.S., the overrepresentation of studies conducted in the U.S. could be seen as testing the contact hypothesis mostly in a relatively benign social climate.

Given the robust, stable, negative effect of contact on prejudice across a wide range of study designs and locations (Pettigrew & Tropp, 2006), and the previous finding that contact is associated with less prejudice against homosexual men in Britain

(Vonofakou et al., 2006) I hypothesise that contact will be associated with less prejudice against homosexual men in Britain in this study as well.

This prediction, however, cannot be so easily made about Jamaica. Investigating the relationship between contact and prejudice in Jamaica could be considered a test of the contact hypothesis at its limits, and in a cultural environment different from those in which contact has largely been tested so far. This is a test of the contact hypothesis in a situation where optimal conditions appear unlikely (see Allport, 1954); the law (Carr, 2003) and the popular media (Chin, 1997) openly denounce homosexuality, and many Jamaicans are openly hostile toward homosexuals (Pidgett, 2006). Contact in this environment occurs without institutional support and is unlikely to be friendly, equal, or cooperative, which bodes badly for the relationship between contact and prejudice in Jamaica; previous research has found that distant or impersonal contact with gay people tends not to result in more favourable attitudes (e.g., Herek & Capitanio, 1996).

However, intergroup contact that occurs without institutional support is not necessarily ineffective; previous research has found that contact can reduce prejudice even in situations where contact is institutionally discouraged, such as between Whites and Blacks in apartheid South Africa (Van Dyk, 1990). Neither do negative initial attitudes necessarily render contact ineffective; some previous research has found that participants with very negative attitudes toward gay men profited *more* from intergroup contact than those whose attitudes were initially relatively positive (e.g., Haddock, Zanna & Esses, 1993). Consequently it is difficult to predict if or how the relationship between

contact and anti-homosexual prejudice in Jamaica will differ from the same relationship in Britain.

### Current Research

I first compared Jamaicans' and Britons' attitudes toward homosexual men and conducted a simple test of the relationship between contact and prejudice against homosexual men. I hypothesized that Jamaicans would report more prejudice against homosexual men than would Britons, and that participants who had experienced contact with a homosexual man would report less prejudice against homosexual men than participants who had not.

I also conducted a more sophisticated test of the relationship between contact and sexual prejudice, taking both quantity and quality of contact into account, and testing the moderation of the strength of this relationship by country. I predicted that contact would be associated with more positive attitudes in both countries, and that intergroup anxiety would mediate that relationship. I also investigated whether the relationship between contact and prejudice in Jamaica differed from that in Britain.

Differences in males' and females' attitude toward homosexual men were not central to this study, but it has been repeatedly demonstrated that heterosexual males hold more negative attitudes toward homosexual men than do heterosexual females (e.g., Herek, 1988; Herek & Capitanio, 1999, Vonofakou et al., 2006). Consequently, I predicted that, in line with previous research, males would report more negative attitudes toward gay men than would females in both countries.

*Method*

*Participants*

Three hundred and fifteen heterosexual university students, 107 Jamaicans, 43 males and 64 females (mean age = 23.33, SD = 4.95), and 208 Britons, 70 males and 138 (mean age = 21.48, SD = 5.28), took part in the study. Students were recruited from, and participated in, universities in their home countries. All participants were asked to complete surveys about their previous contact with and evaluations of homosexual men. Participants received course credit for taking part in the research.

*Measures*

To assess quantity of contact I asked participants to report, on a 7 point scale, how much they had contact with homosexual men “At class or work”, “In casual social situations”, “In intimate social situations” and “In all social situations” (1 = *None at all*, 7 = *Very Much*; Cronbach’s  $\alpha = 0.85$ ). To assess quality of contact I asked participants to report, on a 7-point scale, how “Pleasant”, “Friendly”, “Negative” (reversed), “Enjoyable”, “Difficult” (reversed), “Cooperative”, “Natural”, and “Superficial” (reversed) their contact experiences had been (-3 = *Not at all*, +3 = *Very*;  $\alpha = 0.88$ ).

To assess intergroup anxiety, I asked participants to complete a shortened measure based on Stephan and Stephan (1985), previously used by Paolini et al. (2004): “If you were to meet a homosexual man in the future, how do you think you would feel?” They reported, on a 7-point scale, how “Awkward”, “Happy” (reversed), “Self-

Conscious”, “Competent” (reversed), and “Relaxed” (reversed) they would feel (1 = *Not at all*, 7 = *Very*;  $\alpha = .80$ ).

To measure attitudes toward homosexual men, I asked participants to describe how they felt about homosexual men, responding to six items (from Wright et al., 1997) on 7-point semantic differential scales: cold–warm, positive–negative (reversed), friendly–hostile (reversed), suspicious–trusting, respectful–contempt (reversed), admiration–disgust (reversed). I also asked participants to report on a 7-point scale the extent to which they agreed with three statements from the short form of the Attitudes Toward Gay Men scale (from Herek, 1988): “Sex between two men is just plain wrong.”(reversed), “I think male homosexuals are disgusting.”(reversed), and “Male homosexuality is a natural expression of sexuality in men.” (1 = *Not at all*, 7 = *Very Much*). All nine items loaded onto one factor, and were thus combined into a single attitudes scale ( $\alpha = 0.93$ ).

After completing the attitude measures, participants were asked for basic demographic information.

### *Results*

Table 4.1 displays the means and standard deviations of all variables used in this study. First, I investigated whether Jamaicans held more negative attitudes toward homosexual men than did Britons, whether people who had experienced contact with at least one gay man reported more positive attitudes than people who had not, and whether males reported less positive attitudes toward gay men than did females. I also

investigated the possible interactions between country and contact, and the strength of the relationship between contact and prejudice in the Jamaican and in British samples. I then investigated *how* contact might reduce prejudice by investigating both quality and quantity of contact, as well as the mediating role of intergroup anxiety.

*Table 4.1 Means and standard deviations of all variables in Study 4.*

	Jamaica	Britain	<i>t</i> (311)
Quality of contact	3.71 (1.64)	3.81 (1.52)	0.53
Quantity of contact	4.78 (1.34)	5.38 (0.94)	4.42***
Intergroup Anxiety	3.37 (1.42)	2.69 (1.01)	4.95***
Attitudes	3.92 (1.52)	5.41 (1.03)	10.18***

Note: Standard deviations appear in parentheses. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

#### *Comparing Participants by Country*

There was no difference in sex distribution between the Jamaican sample (43 males, 64 females) and the British sample (70 males, 138 females);  $\chi^2(1) = 1.31$ ,  $p = 0.27$ . There was a significant difference in racial composition between the two samples, with the Jamaican sample predominantly Black (72.9%) and the U.K. sample predominantly White (89.9%),  $\chi^2(4) = 256.26$ ,  $p < 0.001$ . Small numbers of East Asian

(JA = 2.8%, UK = 2.4%), South Asian (JA = 1.9%, UK = 3.4%) and multi-racial participants (JA = 16.8%, UK = 1.9%) made up the rest of the sample. Jamaican participants ( $M = 23.33$  years) were older than British participants ( $M = 21.48$  years),  $t(313) = 3.01, p = 0.003, d = 0.34$ . However age was not correlated with attitudes in either the Jamaican ( $r = -0.18, p = 0.072$ ) or the British sample ( $r = 0.035, p = 0.62$ ).

*Do Country, Contact and Gender Predict Intergroup Anxiety and Attitudes?*

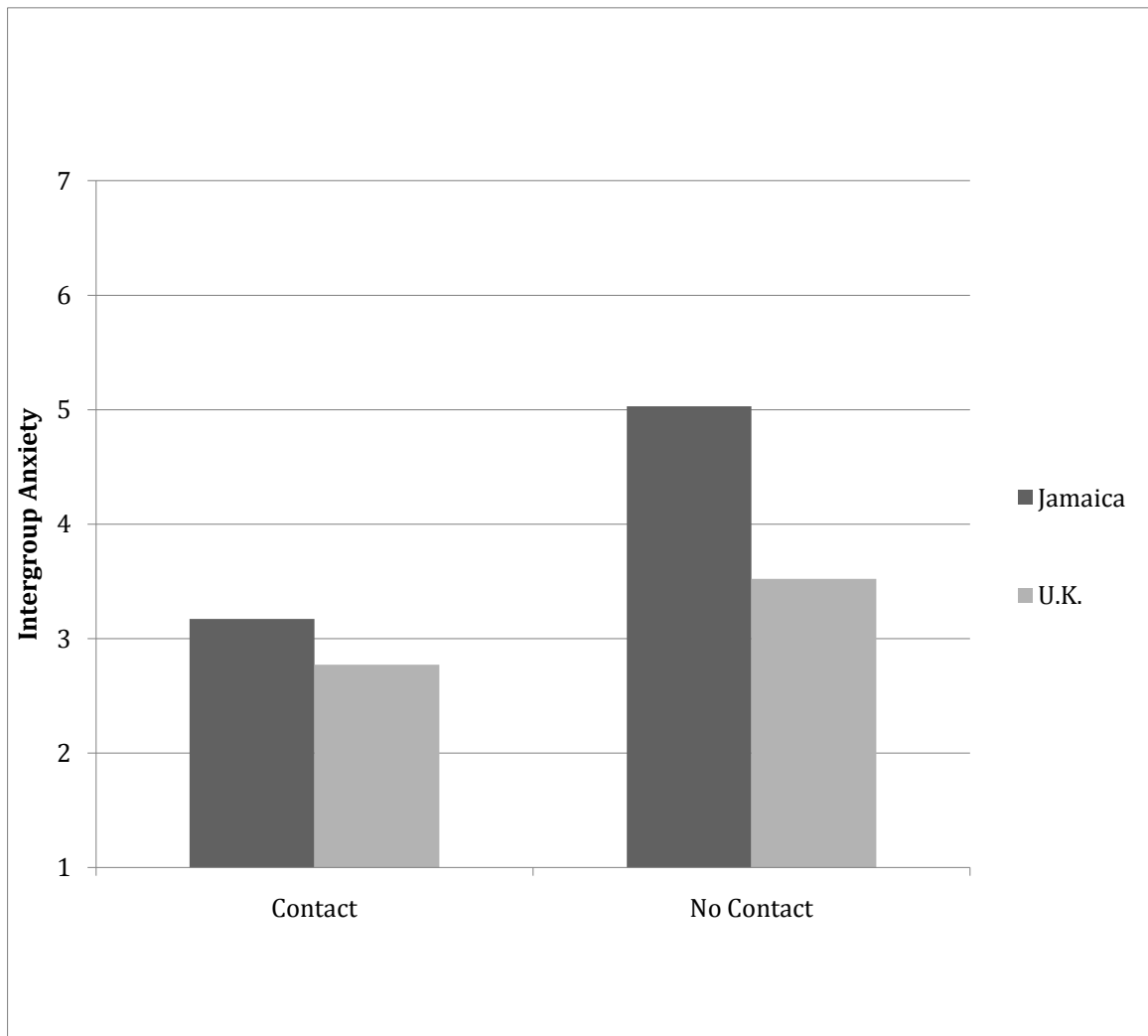
I first conducted a simple test of the relationship between country, contact, gender intergroup anxiety and attitudes. I investigated four predictions: (1) that Jamaicans report more prejudice against gay men than do Britons (2) that people who have experienced contact with a gay man report less prejudice against gay men than do people who have not experienced contact (3) that males report more prejudice against gay men than do females and (4) that the relationship between contact and prejudice in Jamaica differs from that in Britain. I investigated the effects of country, contact and sex of participant on intergroup anxiety and attitudes toward gay men by conducting a 2 (Country: Jamaica,  $N = 107$ , vs. U.K.,  $N = 208$ ) x 2 (Contact: Contact,  $N = 295$ , vs. No contact,  $N = 20$ ) x 2 (Sex: Male,  $N = 113$ , vs. Female,  $N = 202$ ) between-subjects analysis of variance (ANOVA).

*Intergroup anxiety.* Jamaican participants reported more intergroup anxiety toward gay men ( $M = 3.37$ ) than did British participants ( $M = 2.69$ ),  $F(1, 315) = 13.12, p < 0.001, \eta_p^2 = 0.041$ . Across both country samples, participants who had experienced contact with at least one gay man ( $M = 2.81$ ) reported less intergroup anxiety than did

participants who had not experienced any contact with a gay man ( $M = 4.47$ ),  $F(1, 315) = 24.65$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.074$ . Across both country samples, males reported more intergroup anxiety toward gay men ( $M = 3.37$ ) than did females ( $M = 2.66$ ),  $F(1, 315) = 10.71$ ,  $p = 0.001$ ,  $\eta_p^2 = 0.034$ .

If the effect of contact on intergroup anxiety is stronger or weaker in Jamaica than in the U.K., I should find an interaction between the independent variables country and contact. I found the expected interaction between the effect of country and the effect of contact on intergroup anxiety,  $F(1, 315) = 4.49$ ,  $p = 0.035$ ,  $\eta_p^2 = 0.014$ . Post-hoc simple main effects tests showed that Jamaican participants who had experienced contact with a gay man reported less intergroup anxiety ( $M = 3.17$ ) than Jamaican participants who had not ( $M = 5.03$ ),  $p < 0.001$ . However the difference in reported intergroup anxiety between British participants who had experienced contact with at least one gay man ( $M = 2.77$ ) and British participants who had not experienced contact with at least one gay man ( $M = 3.52$ ) was only marginally significant,  $p = 0.06$ ; see Figure 4.1. This indicated that the relationship between contact and intergroup anxiety was *stronger* in Jamaica than in Britain.

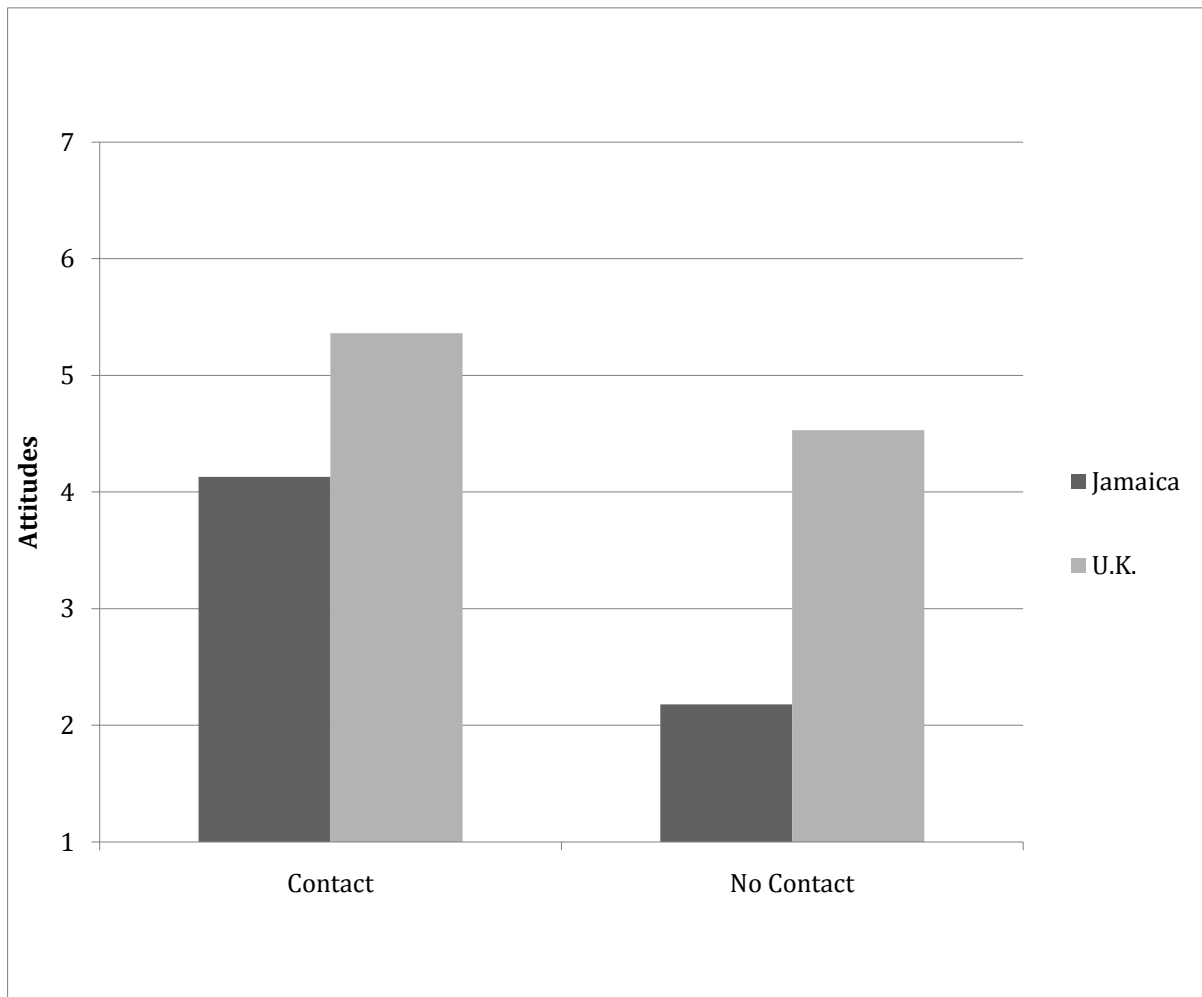
Figure 4.1. Intergroup Anxiety Toward Gay Men by Country and Contact.



*Attitudes.* Jamaican participants also reported less positive attitudes toward gay men ( $M = 3.95$ ) than did British participants ( $M = 5.41$ ),  $F(1, 315) = 41.47$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.12$ . Across both country samples, participants who had experienced contact with at least one gay man ( $M = 5.03$ ) also reported more positive attitudes than participants who had not experienced any contact with a gay man ( $M = 3.08$ ),  $F(1, 315) = 24.89$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.075$ . Also, across both country samples, males reported less positive attitudes toward gay men ( $M = 4.47$ ) than did females ( $M = 5.16$ ),  $F(1, 315) = 5.15$ ,  $p = 0.024$ ,  $\eta_p^2 = 0.016$ .

If the effect of contact on attitudes is stronger or weaker in Jamaica than in the U.K., I should find an interaction between the independent variables country and contact. I found the expected interaction between the effect of country and the effect of contact on attitudes,  $F(1, 315) = 4.046$ ,  $p = 0.045$ ,  $\eta_p^2 = 0.013$ . Similar to the effect on intergroup anxiety, the effect of contact on attitudes was *stronger* in Jamaica than in Britain. Post-hoc simple main effects tests revealed that Jamaicans who had experienced contact ( $M = 4.13$ ) reported more positive attitudes than Jamaicans who had not ( $M = 2.18$ ),  $p < 0.001$ . Britons who had experienced contact ( $M = 5.36$ ) also reported more positive attitudes than Britons who had not ( $M = 4.53$ ),  $p = 0.049$ , however, the difference between participants who had experienced contact with a homosexual man and those who had not was larger in Jamaica (*Mean difference* = 1.95) than in the U.K (*Mean difference* = 0.83); see Figure 4.2.

Figure 4.2. Attitudes Toward Gay Men by Country and Contact.



In summary, Jamaicans reported less favourable attitudes toward gay men than did Britons, participants who had experienced contact with gay men reported more favourable attitudes than did participants who had not experienced contact in both countries, and male participants reported more negative attitudes toward gay men than did female participants. The differences in intergroup anxiety and attitudes between participants who had experienced contact with a gay man and participants who had not were larger in the Jamaican sample than the British Sample.

### *How do Quantity and Quality of Contact Predict Attitudes?*

The previous analyses tested the relationship between contact and attitudes in a simple manner, by investigating whether participants who had experienced contact with a homosexual man or homosexual men reported less prejudice against homosexual men than participants who had experienced no contact. While this method has the advantage of being simple and direct, the disadvantage is that it does not take into account how the quality or quantity of contact are related to attitudes. This cannot be considered a complete test of the relationship between contact and attitudes considering that Allport (1954) specified conditions under which contact should occur, and that the beneficial nature of these conditions has been repeatedly demonstrated (see Pettigrew & Tropp, 2006).

In the following analyses I investigate the relationship between contact and attitudes in a more sophisticated manner, taking both quantity and quality of contact into account. For the following analyses, I only used participants who *had* experienced

contact with at least one homosexual man ( $N = 295$ ) and investigated the relationship between quantity of contact, quality of contact, intergroup anxiety and attitudes, including whether intergroup anxiety mediated the relationship between contact and attitudes.

The majority of participants in both samples had experienced contact with a homosexual man, though a larger portion of the Jamaican sample (12.1%) than the British sample (3.8%) had not,  $\chi^2(1) = 6.45, p = 0.011$ . For those who had experienced contact with at least one homosexual man, there was no difference in reported quantity of contact between Jamaican participants ( $M = 3.75$ ) and British participants ( $M = 3.82$ ),  $t(293) = 0.33, p = 0.74, d = 0.039$ . However, Jamaican participants reported lower quality of contact with homosexual men ( $M = 0.85$ ) than did British participants ( $M = 1.38$ ),  $t(293) = 3.99, p < 0.001, d = 0.47$ .

*Can differences in anti-homosexual prejudice between Jamaica and Britain be explained by differences in quality of contact?*

It is noteworthy that the Jamaican participants reported lower quality of contact with gay men as well as more intergroup anxiety and less positive attitudes. Consequently, the differences in anti-homosexual prejudice between the two groups of participants could be due to differences in prior contact. To test this hypothesis I regressed intergroup anxiety and attitude on quality of contact and country simultaneously. If differences in intergroup anxiety and attitude are entirely due to

differences in quality of contact, then country should have no effect on either dependent variable when quality of contact is controlled.

When I regressed intergroup anxiety scores on both quality of contact scores and country, quality of contact negatively predicted intergroup anxiety,  $\beta = -0.72$ ,  $p < 0.001$ , but country did not predict intergroup anxiety,  $\beta = -0.094$ ,  $p = 0.33$ . This suggested that differences in intergroup anxiety scores between countries resulted from differing quality of contact between countries.

However, when I regressed attitude scores on both quality of contact scores and country, quality of contact predicted attitudes,  $\beta = 0.76$ ,  $p < 0.001$ , but country also predicted attitudes,  $\beta = 0.85$ ,  $p < 0.001$ , indicating that Jamaicans' less positive attitude was not totally dependent upon lower quality of contact. Otherwise stated, Jamaicans' less positive attitude toward homosexual men cannot be explained purely by differences in quality of contact.

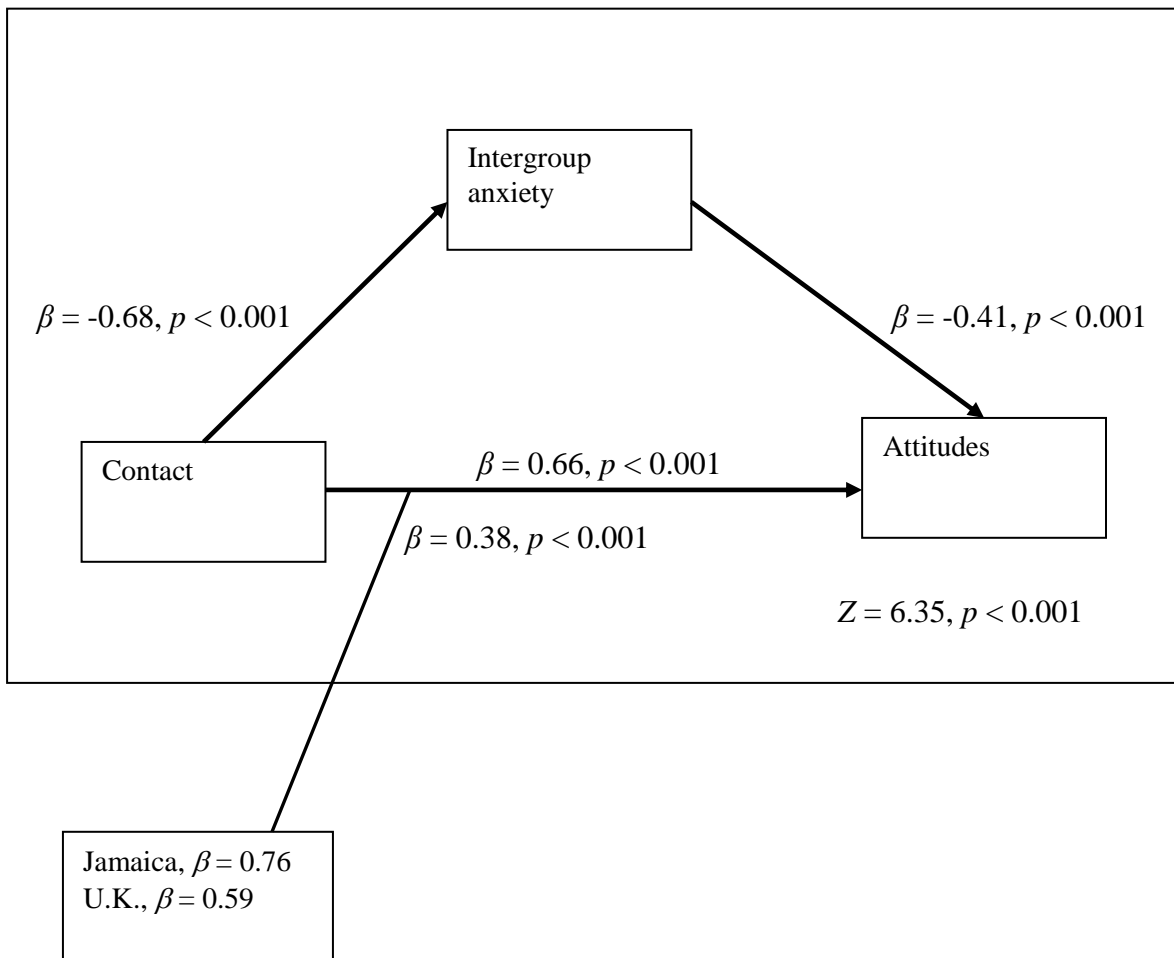
#### *Mediation by Intergroup Anxiety and Moderation by Country*

I investigated the relationship between contact and attitudes, taking both quality and quantity of contact into account, and investigating the mediating role of intergroup anxiety. I created a single measure of contact by using the product of quantity of contact and quality of contact scores. This was done to obtain a single index that took both the frequency and the nature of the contact into account. This procedure, which allows me to investigate both aspects of contact simultaneously, has previously been used by Brown et al., (2001), and Voci and Hewstone (2003).

*Mediation by Intergroup Anxiety.* I tested for mediation of the relationship between contact and attitudes by intergroup anxiety using the three-step process recommended by Baron and Kenny (1986). There was a significant path between contact and the mediator, intergroup anxiety,  $\beta = -0.68$ ,  $p < 0.001$ . Contact also predicted the dependent variable attitudes,  $\beta = 0.66$ ,  $p < 0.001$ . The path between intergroup anxiety and attitudes, while controlling for contact, was significant,  $\beta = -0.41$ ,  $p < 0.001$ . When the mediator was controlled the relationship between contact and attitudes was reduced but remained significant,  $\beta = 0.38$ ,  $p < 0.001$ , indicating partial mediation. A Sobel test was significant;  $Z = 6.35$ ,  $p < 0.001$ ; see Figure 4.3.

*Moderation by country.* Baron and Kenny (1986) recommended testing for moderation of paths by regressing the outcome variable simultaneously on the predictor variable, the moderator, and the product of the predictor and the moderator. A significant path between the product and the predicted variable indicates moderation. I thus repeated the above regression analyses, adding the moderator (country) and the product of the relevant predictors and the moderator to the regression analyses.

Figure 4.3. Mediation model of the role of intergroup anxiety in explaining the effects of contact on attitudes (Data from both Jamaica and Britain).



Only the direct path between contact and attitudes was moderated by country,  $\beta$  (product) = -0.32,  $t = 2.34$ ,  $p = 0.020$ . This relationship was stronger in the Jamaican sample,  $\beta = 0.76$ ,  $p < 0.001$ ,  $R^2 = 0.58$ , than in the British sample,  $\beta = 0.59$ ,  $p < 0.001$ ,  $R^2 = 0.35$ . No other relationship was significantly moderated by country ( $0.20 < p < 0.68$ ). Sobel tests were significant for both the Jamaican model ( $Z = 2.74$ ,  $p = 0.002$ ) and the British model, ( $Z = 6.13$ ,  $p < 0.001$ ).

*Testing the reverse model.* As indicated by MacCallum and Austin (2000), care must be taken when making causal inferences from cross-sectional data. Causal direction is an important question in contact research. Generally, the stronger causal effect is from contact to attitudes and not the inverse, but both effects have been shown to occur (see Pettigrew & Tropp, 2006). Consequently, it is necessary to test both causal directions. To examine whether the proposed causal order of the model fit the data best, I tested a model in which the paths were reversed, with attitudes predicting contact and intergroup anxiety mediating the relationship.

There was a significant path between attitudes and the mediator, intergroup anxiety,  $\beta = -0.67$ ,  $p < 0.001$ . Attitudes also predicted the dependent variable contact,  $\beta = 0.66$ ,  $p < 0.001$ . The path between intergroup anxiety and contact, while controlling for attitudes, was significant,  $\beta = -0.44$ ,  $p < 0.001$ . When the mediator was controlled the relationship between attitudes and contact remained significant,  $\beta = 0.37$ ,  $p < 0.001$ , indicating partial mediation. However, for this model, the Sobel test was nonsignificant, indicating a failure of the reversed model;  $Z = 1.74$ ,  $p = 0.082$ .

In summary, Jamaican participants reported more intergroup anxiety and less positive attitudes toward homosexual men than did Britons. In both countries, persons who had experienced some contact with homosexual men reported less intergroup anxiety and more positive attitudes than those who had experienced no contact. These differences were larger in the Jamaican sample than in the British sample. Also, in both countries, males reported more negative attitudes toward homosexual men than did females.

Using an index that took both quantity and quality of contact into account I found that more contact and higher quality of contact predicted more favourable attitudes in both countries, and that intergroup anxiety mediated this relationship. Lastly, the direct relationship between contact and attitudes was stronger for Jamaican participants than for British participants.

### Discussion

The research in this chapter investigated anti-homosexual prejudice in Jamaica, compared this prejudice with anti-homosexual prejudice in Britain, and investigated the relationship between contact and prejudice in both countries. As hypothesized, I found that Jamaicans' attitudes toward homosexual men were more negative than were Britons' attitudes and that contact was associated with more positive attitudes toward homosexual men in both countries. A less predictable finding was that the negative relationship between contact and prejudice was stronger in Jamaica than in Britain. I will now discuss these results with relation to sexual prejudice in Jamaica, the contact hypothesis, and limitations of this current work.

### *Sexual Prejudice in Jamaica*

An unfortunate truth is that a relative wealth of research on sexual prejudice is conducted in countries in which attitudes toward homosexuals are positive, benign (e.g., Vonofakou et al., 2006) or improving (e.g., Herek & Capitanio, 1996), while a dearth of research exists in countries in which attitudes are reportedly very negative (OUTRAGE!, 2004; Piddgett, 2006). This chapter reports the first empirical investigation of attitudes toward homosexual men in a country reputed for particularly strong sexual prejudice – Jamaica. The results were unsurprising; when compared to British participants, Jamaican participants reported more intergroup anxiety and less positive attitudes toward homosexual men.

This, however, only scratches the surface of Jamaican anti-homosexuality – a prejudice that cannot be adequately described in terms of attitude alone. Considering the repeated incidents of violence and murder allegedly due to sexual prejudice in Jamaica (Bird & Reid, 2009; OUTRAGED!, 2004), a more complete picture of Jamaican sexual prejudice should also include variables such as aggressive emotions and social distance (Angermeyer & Matschinger, 1997), as well as an understanding of (the lack of) positive predictors and mediators such as empathy and perspective-taking (Batson et al., 1997).

### *The Contact Hypothesis*

Though Jamaican participants reported more prejudice against homosexual men than did British participants, the results were encouraging in that Jamaicans' attitudes toward homosexual men appeared quite malleable. Contact was more strongly associated

with more positive attitudes in the Jamaican sample than in the British sample. Thus, though Jamaican sexual prejudice may be stronger than corresponding British sexual prejudice, it appears that change is possible.

These results speak to the robust and reliable negative relationship between contact and prejudice even when optimal conditions do not apply. Jamaican sexual prejudice is stronger than that of other countries, and widely socially accepted. Contact between heterosexual and homosexual Jamaicans is therefore unlikely to occur under optimal conditions. Nonetheless, I found a negative association between contact and prejudice in Jamaica. Furthermore, though causality cannot be genuinely determined from cross-sectional data, the model in which contact led to more favourable attitudes via reduced intergroup anxiety fit the data well, while the reversed model did not. The effects of contact do not appear to be limited to certain cultures, or to places where prejudice against the target group is relatively benign.

A somewhat unexpected finding was that the negative relationship between contact and prejudice was *stronger* in Jamaica than in the U.K., though this study would not be the first to report that contact is more strongly negatively associated with prejudice for participants who initially had less favourable attitudes, than for participants who initially had more favourable attitudes (e.g., Haddock et al., 1993). Nonetheless, it is not clear from this research whether the strength of the initial prejudice moderates the effectiveness of contact as a prejudice-reducing mechanism. Other variables, such as the social acceptability of the prejudice, or cultural variables that differ between Jamaican

and England, could also moderate the strength of the relationship between contact and prejudice. Future research should examine these possible moderators of the effectiveness of contact in order to better understand when contact can reduce severe sexual prejudice.

### *Limitations of this Work*

I fully recognize the limits of generalizability of findings with relatively small sample sizes. Nevertheless, given the emerging stage of empirical research on attitudes toward lesbians and gay men in Jamaica, these data can be useful for formulating hypotheses for later testing with larger and more representative samples. By necessity the reported data should be viewed as preliminary and suggestive rather than definitive. Replication with probability samples representative of the general public will be especially valuable in determining the extent to which the present findings can be generalized to the population as a whole.

I also recognize the limitations of using student groups as participants: student groups are not necessarily representative of the wider demographic of any country, and were less representative of the broader Jamaican population than the broader English population. This may have falsely inflated the favourability of attitudes toward homosexual men in both countries, and especially in Jamaica, as previous research has shown a reliable negative relationship between education and prejudice (Herek, 2000; Hewstone et al., 2002; Wagner & Zick, 1995), and some Jamaicans have denied the presence of sexual prejudice among the middle classes (The Gay Debate, 2004). Nonetheless, well-matched groups, even if less representative, can be useful for making

cross-cultural comparisons of similar individuals. Though the participant samples were not very large, they were well matched in terms of age, gender, and education level.

Contact alone is not the answer, especially not in a place like Jamaica where prejudice is very strong. Even granting the potential usefulness of contact as a prejudice-reducing mechanism, there are still many practical concerns surrounding the implementation of contact in such a hostile environment. More distant forms of contact, such as extended contact or imagined contact (Turner et al., 2007a) may have to precede or accompany direct contact in order for it to be both safe and effective. Reducing sexual prejudice in Jamaica may likely involve a good understanding of many other underlying variables as well, such as religious ideology and perceptions of masculinity (see Herek, 1986). However, it is encouraging that contact may be a part of the solution to such a serious problem, and can play a role in reducing the sexual prejudice in what has been called the most homophobic place on Earth.

CHAPTER 5: WHEN IT REALLY COUNTS: CAN IMAGINED CONTACT REDUCE  
PREJUDICE AGAINST PEOPLE WITH SCHIZOPHRENIA?

Many approaches to reducing intergroup bias focus on ways to improve the quantity or quality of intergroup contact (Hewstone et al., 2002), but for some outgroups contact can be difficult to orchestrate, or may involve an element of risk (Corrigan et al., 2002; Schulze & Angermeyer, 2003). Recent research has moreover demonstrated that actual contact may not even be necessary to reduce intergroup prejudice. Turner et al. (2007a) suggested imagined intergroup contact as a means of reducing intergroup bias that is easier and less risky than actual contact. However, despite the promising nature of imagined contact, it has not yet been tested on the targets for whom it has been designed, some of whom may pose considerable challenges and, potentially, yield negative rather than positive consequences. In this chapter, I investigate the possible negative effects of imagined contact with the mentally ill, specifically people with schizophrenia, and I explore modifications to imagined contact in order to increase its effectiveness in this context.

Extended Intergroup Contact

Allport (1954) hypothesized that contact between members of opposing groups, under the right conditions, would lessen intergroup hostility and lead to more positive intergroup attitudes. Over the past 50 years, research involving either actual contact or retrospective reports of past actual contact has widely supported this premise, and contact is now one of the most widely-used social-psychological interventions for the reduction of prejudice and the improvement of intergroup relations (Oskamp & Jones, 2000).

Having demonstrated the reliability of contact in decreasing prejudice, much recent research has concerned itself with the underlying variables that mediate the effect of contact on intergroup prejudice. A number of studies have found the effect of intergroup contact on reducing prejudice to be mediated by reduced intergroup anxiety, a negative form of arousal that arises as a consequence of negative expectations of cross-group interactions (Islam & Hewstone, 1993; Paolini et al., 2004; Stephan & Stephan, 1985; Voci & Hewstone, 2003; see Pettigrew & Tropp, 2008, for a meta-analysis of mediators confirming the key role of intergroup anxiety).

However, despite the possible benefits of intergroup contact, the technique is limited in that opportunity for contact is not always available (e.g., Phinney et al., 1997). One solution to this dilemma is to utilize intergroup contact in an indirect manner. One of the most significant recent advances in contact research is the finding that perceivers need not have actually experienced contact with the outgroup themselves to develop more positive intergroup attitudes. Wright, Aron, McLaughlin-Volpe, and Ropp (1997) provide evidence that an extended form of contact – knowing that an ingroup member has friends in the outgroup - can reduce intergroup bias. Subsequent research has yielded supporting evidence from a range of settings, assessing prejudice against various ethnic outgroups (e.g., Liebkind & McAlister, 1999; Paolini et al., 2004; see Turner et al., 2008a, for a review).

Vicarious experiences of cross-group friendship have specific benefits. Seeing, or learning about, a positive interaction between an ingroup and an outgroup member can

change expectations about intergroup interactions, and has the potential to change norms about the behavior of both groups. Indeed, recent research has shown that extended contact works, in part, via changes in perceived norms concerning ingroup and outgroup behaviour (see Turner, Hewstone, Voci & Vonofakou, 2008b). However, extended contact still requires at least one ingroup member to experience actual intergroup contact. Turner et al. (2007a) went one step further than vicarious contact, by investigating imagined contact as a means of reducing prejudice.

### Imagined Intergroup Contact

The idea behind imagined intergroup contact is that simply imagining a social interaction with a member of an outgroup has some of the benefits normally associated with actual contact. Turner et al. (2007a) found support for this proposition. Young participants who imagined interacting with an elderly individual reported less bias against elderly people than those who imagined an outdoor scene (Experiment 1) or simply thought (verbally) about the elderly (Experiment 2). Similarly, heterosexual participants who imagined interacting with a homosexual man reported less intergroup anxiety and more positive attitudes toward homosexual men than did participants who imagined a hiking trip (Experiment 3).

Stathi and Crisp (2008) found that imagined contact also has consequences for cognitive measures of prejudice, specifically projection of the self onto members of the outgroup. Stathi and Crisp found this projection of positive self-traits onto the outgroup in three previously untested imagined contact situations: between Indigenous people and

Mestizos in Mexico (Experiment 1), from English nationals to French nationals (Experiment 2), and from British students to international students in Britain (Experiment 3).

Imagining a social scenario is different from simple social category priming, which usually activates stereotypes and increases intergroup prejudice (Dovidio, Brigham, Johnson & Gaertner, 1996). Turner et al. (2007) claim that imagining intergroup contact activates concepts normally associated with successful intergroup interactions such as feeling more comfortable and less apprehensive about the prospect of future contact with that group. In turn, this should lead to more positive evaluations of the outgroup, similar to the effects of face-to-face contact (e.g., Islam & Hewstone, 1993; Paolini et al., 2004; Voci & Hewstone, 2003).

For these reasons, Turner and colleagues (2007a) characterized imagined contact as “an inexpensive and practical means of reducing intergroup anxiety and prejudice that would be useful even where direct contact is very limited” (p. 439). However, though imagined contact has been shown to effectively reduce prejudice against certain outgroups, I suggest caution before such a general claim is made. Mental imagery has been shown to have negative, as well as positive effects (see Holmes, Geddes, Colom & Goodwin, 2008, for a review).

For example, while processing information through imagery increases positive affect due to positive scenarios more than verbal processing alone (Holmes, Mathews, Dalgleish & Mackintosh, 2006), the reverse is also true: processing negative scenarios

through imagery increases negative affect more than verbal processing alone (Holmes & Mathews, 2005). Similarly, in the area of intergroup relations, Blair et al. (2001) found that imagining counter-stereotypic images of women led to less implicit bias against women, but they also found that imagining a very “feminine” woman (p. 833) increased implicit bias against women.

There are plausible reasons why imagined contact may not work for some outgroups. Stereotypes about some groups such as the mentally ill (Link & Cullen, 1986) are quite unlike stereotypes about homosexual men (Herek, 1986) or the elderly (Brewer, Dull & Lui, 1981). For example, while others might hold a moral prejudice against homosexual men (Herek, 1998), in contrast they might fear that someone with schizophrenia would attack them (Corrigan et al., 2002). These differing stereotypes may alter the nature of the imagined contact task, rendering it ineffective or even counter-effective as a prejudice-reducing intervention.

One safeguard against possible *negative* effects has been the recommendation that the imagined contact task be positive, rather than neutral (Crisp et al., 2008). Indeed, Stathi and Crisp (2008, Experiment 1) found that a positive imagined contact task enhanced positive projection to outgroups more than a neutral imagined contact task. However, most imagined contact research has *not* used the explicitly positive version of the task recommended by Crisp et al. (2008). Researchers largely continue to use neutral versions of the task, similar to the original task used by Turner et al. (2007a) (e.g., Husnu & Crisp, 2010; Stathi & Crisp, 2008, Experiment 2; Turner & Crisp, 2010, Experiment 1)

and have nonetheless found positive results. In four reported studies using a particularly challenging outgroup, I investigated whether, in some cases, the neutral task may be counter-effective, and a positive version of the task may be necessary.

### Contact and Attitudes toward People with Schizophrenia

The stigma of mental illness is devastating (Schulze & Angermeyer, 2003) and ubiquitous (Guimon, Fischer & Sartorius, 1999; Ng, 1997; Raguram et al., 1996; Shibre et al., 2001; Sugiura et al., 2000). It has persisted even as tolerance for other groups has grown (Stier & Hinshaw, 2007), and may be increasing, rather than decreasing with time (Angermeyer & Matschinger, 2005).

In their meta-analysis Pettigrew and Tropp (2006) reported that the effect of contact on prejudice was weaker for the mentally ill ( $r = -0.184$ ) than for most other outgroups (e.g., sexual orientation,  $r = -0.271$ ; physically disabled,  $r = -0.243$ ; race,  $r = -0.214$ ). Research on contact and attitudes towards the mentally ill has yielded contradictory findings; some studies report positive effects (e.g., Angermeyer & Matschinger, 1996a; Corrigan et al., 2002), some negative results (e.g., Wallach, 2004), and some null effects (e.g., Bell, Johns & Chen, 2006; Crisp, Gelder, Rix, Meltzer & Rowlands, 2000).

A number of studies have shown that the mentally ill are perceived as dangerous and unpredictable (e.g., Angermeyer & Matschinger, 1996a, 2005; Corrigan et al., 2001; Corrigan, et al., 2002; Crisp et al., 2000; Link & Cullen, 1986; Schulze & Angermeyer, 2003). This perception of dangerousness has been cited as “perhaps the most pernicious

of stigmatizing attitudes about mental illness” (Corrigan et al. 2002; p. 303), as well as the most central aspect of the stigma of mental illness for the sufferers themselves (Schulze & Angermeyer, 2003).

Moreover, of all mentally ill groups, persons suffering from schizophrenia are widely perceived as the most dangerous and suffer the worst stigmatization (Angermeyer & Matschinger, 1996b; Read, 2007; Schulze & Angermeyer, 2003). According to Crisp et al. (2000) people with schizophrenia are seen as dangerous, unpredictable, difficult to talk to and unlikely to recover. These views are unsupported by empirical evidence and are associated with acceptance of both individual and structural discrimination (Angermeyer & Matschinger, 2004), which in turn are associated with decreased life options for persons with schizophrenia, such as reduced employment opportunities (Marwaha & Johnson, 2004).

Contact with persons suffering from schizophrenia is rare. Members of this stigmatized group also tend to be secretive about their condition in an effort to avoid stigmatization, making identifiable contact even rarer (Schulze & Angermeyer, 2003). For this type of condition, interventions to reduce prejudice are much needed, but interventions that involve intergroup contact may be very difficult to establish. This renders imagined contact an ideal prejudice-reducing mechanism for this outgroup, but only if it successfully reduces prejudice.

However, since actual contact does not always reduce prejudice against persons with severe mental illnesses (Crisp et al., 2000; Wallach, 2004), it is likely that imagined

contact may sometimes also have no effects or even negative effects. Of particular importance, the stereotype that must be overcome is much more threatening in the case of schizophrenia. As mentioned before, people suffering from schizophrenia are stereotyped as dangerous and unpredictable (Angermeyer & Matschinger, 2003), while stereotypes of groups used in prior research on imagined contact are much less negative. For example, homosexual men are seen as effeminate and weak (e.g., Herek, 1986), and the elderly are stereotyped as frail (e.g., Brewer et al., 1981); neither of these groups poses an imagined physical threat.

Furthermore, quality of contact is important when investigating the effects of contact on attitudes (Harwood et al., 2005). Corrigan et al. (2002) found that high-quality contact with a mentally ill person, in the form of a ten-minute presentation by the person with a mental illness, improved attitudes toward people with mental illnesses. By contrast, Wallach (2004) found that limited or superficial contact with the mentally ill, in the form of brief visits to a mental institution, worsened intergroup attitudes. These findings have potentially serious implications for the imagined contact task as used by Turner et al. (2007a), because the task is brief, and the quality of the imagined contact is never investigated. Thus, imagined contact with people with schizophrenia may be a very different experience from imagined contact with homosexual men or the elderly, and may consequently have very different effects on prejudice.

### Experiment 1

In Experiment 1 I carried out an initial test of the effects of imagining intergroup contact on intergroup bias against people with schizophrenia. I instructed participants to imagine interacting with a person with schizophrenia or, in a control condition, to think about people with schizophrenia in general. If imagining contact with a person with schizophrenia has the same positive effects as imagining contact with an elderly person (Turner et al., 2007a, Experiments 1 and 2) or a homosexual man (Experiment 3), prejudice against people with schizophrenia should be reduced following the imagined contact task. However, if the stereotype associated with persons with schizophrenia is considerably more negative than that of gay people or the elderly, or if the negative attitudes toward people with schizophrenia are stronger or more socially acceptable, then imagined contact with a person with schizophrenia may be insufficient to overcome prejudice and, indeed, may even increase prejudice.

### *Method*

#### *Participants and Design*

Eighty seven undergraduate students, 33 male and 54 female, aged between 18 and 21 (mean age = 19.84, SD = 0.70), were randomly allocated to one of two conditions, either the imagined contact condition or a control condition. Participants received course credit for taking part in the research.

*Procedure*

I created two sets of instructions; the first instructed participants to imagine an intergroup interaction with a person with schizophrenia, and the second instructed participants to think about people with schizophrenia. These were analogous to the experimental and priming conditions in Experiment 2 of Turner et al. (2007a).

I asked participants assigned to the imagined contact condition to take five minutes to imagine meeting, for the first time, a stranger who has schizophrenia. They were asked to “Imagine their appearance, the conversation that follows and, from what you learn, all the different ways you could classify them into different groups of people.” Participants assigned to the control condition were instructed to complete a priming task as follows: “We would like you to take five minutes to think about schizophrenics.”

At the same time, both sets of participants also received the following instructions: “We want you to spend the time thinking, but also please write down, from time to time, the things that you imagine. Please write clearly and feel free to write down whatever springs to mind.” In both conditions, participants were given five minutes to complete the task. Following this manipulation, participants reported their levels of intergroup anxiety and attitudes toward people with schizophrenia using exactly the same measures used by Turner et al. (2007).

To assess intergroup anxiety, participants were asked to complete a shortened measure based on Stephan and Stephan (1985): “If you were to meet a schizophrenic in the future, how do you think you would feel?” They reported, on a 7-point scale, how

“Awkward”, “Happy” (reversed), “Self-Conscious”, “Competent” (reversed) and “Relaxed” (reversed) they would feel (1 = *Not at all*, 7 = *Very*; Cronbach’s  $\alpha = 0.80$ ).

To measure attitudes participants were asked, “Please describe how you feel about schizophrenics in general”, responding to six items (from Wright et al., 1997) on 7-point semantic differential scales: cold–warm, positive–negative (reversed), friendly–hostile (reversed), suspicious–trusting, respectful–contempt (reversed), admiration–disgust (reversed); Cronbach’s  $\alpha = 0.81$ .

To assess the quality of the imagined interactions described in the imagined contact condition, two independent raters reported, on seven-point Likert scales, how “Pleasant”, “Friendly”, “Negative” (reversed), “Enjoyable”, “Difficult” (reversed), “Cooperative”, “Natural” and “Superficial” (reversed) the participants’ descriptions of the imagined interactions with the person suffering from schizophrenia had been (1 = *Not at all*, 7 = *Very*; Rater 1  $\alpha = 0.75$ , Rater 2  $\alpha = 0.87$ ).

Participants in the control condition engaged in a cognitive task that was conceptually different from an imagined contact task. Instead of imagining interacting with a person with schizophrenia, they simply thought about the target group. Consequently, it was not possible to rate imagined interactions for participants in the control condition, and comparisons between the tasks in the two conditions were not theoretically meaningful.

After completing the dependent measures and providing demographic information, participants were asked what they thought the aim of the study was. No

participant reported any knowledge or suspicion of the hypotheses. To control for order effects the dependent measures were counterbalanced, and no order effects were detected.

### *Results and Discussion*

#### *Comparisons between Conditions*

Table 5.1 displays the means and standard deviations of all dependent variables in Experiment 1. To determine whether, as predicted from Turner et al. (2007a), imagining intergroup contact with a person with schizophrenia led to less intergroup anxiety and more positive outgroup attitudes I computed planned independent-sample t-tests. Participants in the imagined contact condition, in fact, reported *more* intergroup anxiety ( $M = 4.73$ ) than participants in the control condition ( $M = 4.12$ ),  $t(85) = 3.16$ ,  $p = 0.002$ ,  $d = 0.69$ . I also found a non-significant tendency for attitudes toward people with schizophrenia to be less positive following the imagined contact task ( $M = 4.31$ ) than in the control condition ( $M = 4.52$ ),  $t(85) = 1.30$ ,  $p = 0.207$ ,  $d = 0.28$ .

*Table 5.1. Means and standard deviations of dependent variables as a function of imagined contact condition (Experiment 1).*

	Imagined Contact	Control	<i>t</i>	<i>df</i>	<i>p</i>
Anxiety	4.73 (0.74)	4.12 (1.02)	3.16	85	0.002
Attitudes	4.31 (0.71)	4.52 (0.81)	1.30	85	0.21
Quality	3.04 (0.70)		7.93	33	< 0.001

Notes: Standard deviations shown in parentheses. Quality of imagined contact in the imagined contact condition is compared to the midpoint of the scale (4).

#### *Analyses of Free-response Data*

I hypothesized that negative imagined interactions could increase, rather than decrease, prejudice against people with schizophrenia. I tested this hypothesis in two ways. First, I investigated the quality of the imagined contact. Quality scores below the midpoint of the scale indicate an overall negative imagined contact experience. Second, I investigated the relationship between quality of imagined contact and both dependent

measures – intergroup anxiety and attitudes. The quality of imagined contact ratings were highly correlated between the two raters ( $r = 0.57, p = 0.002$ ). Consequently, I used the mean of the quality of contact scores of the two raters as an index of quality of imagined contact.

Results confirmed that imagined contact had been a negative rather than a positive experience. Using a one-sample t-test, I found that quality of imagined contact scores ( $M = 3.04$ ) were below the midpoint of the scale (4),  $t(33) = 7.93, p < 0.001, d = 2.76$ . Also the quality of imagined contact scores were negatively skewed: scores for 31 of the 34 participants in the imagined contact condition fell below the midpoint of the scale. Compressed variance of this nature tends to mask relationships between variables (Clark-Carter, 1997), thus I did not find relationships between quality of imagined contact and either intergroup anxiety ( $r = -0.08, p = 0.49$ ) or attitudes ( $r = -0.03, p = 0.71$ ).

In summary, while Turner and colleagues (2007a) found less intergroup anxiety and more positive attitudes following the imagined contact task, using similar instructions but a different outgroup I found an *increase* in intergroup anxiety following the imagined contact task and a non-significant tendency towards less positive attitude scores. Furthermore, the imagined interactions described by participants in the imagined contact condition were mostly negative. These results suggest that imagining contact with people with schizophrenia could be of a different nature than imagined contact with homosexuals or the elderly and may *increase*, rather than decrease, prejudice against

them. As it stands this would caution against strategies that used this form of imagined contact to combat prejudice against people with particular mental illnesses.

### Experiment 2

In Experiment 1, imagined intergroup contact *increased* intergroup anxiety and did not positively affect attitudes toward people with schizophrenia. Moreover, the imagined interactions described by the participants were overall negative. There are a number of possible explanations for these results, which I addressed in Experiment 2.

First, it is possible that the *priming task* used in the control condition of Experiment 1 *decreased* intergroup anxiety, and not that the imagined contact task increased it. Though category priming usually increases intergroup prejudice (Dovidio et al., 2006), it is possible that thinking about members of an outgroup described as *ill* or *suffering* could lead to an increase in empathy and thus more positive attitudes (see Batson et al., 2001). I thus removed the priming task in Experiment 2. Participants in the control condition were not instructed to engage in any mental imagery.

Second, the nature and severity of the stereotypes of people suffering from schizophrenia may be sufficient to render the imagined contact exercise negative, and thus counter-effective. I changed the manipulation of imagined contact in an attempt to counteract these negative stereotypes. Much research indicates that stereotype-inconsistent information can alter stereotypes (for a review see Hewstone, 1994) and that prior information has strong effects on our expectations and interpretations of others (Darley & Gross, 1983). I thus gave half the participants positive information about

people with schizophrenia before they did the imagined contact task. Positive information could alter the nature of imagined contact task for this outgroup, making it effective as a prejudice-reducing mechanism.

I designed the positive information to be the opposite of the commonly-held stereotypes about persons who suffer from schizophrenia. People with schizophrenia are normally stereotyped as dangerous, unpredictable, mentally or emotionally different, and difficult to talk to (Crisp et al., 2000). I thus created four factual vignettes, each one about a different, real person with schizophrenia who did not possess these stereotypical traits. Participants in the neutral information conditions received almost identical vignettes, in which the subjects of the vignettes did not have schizophrenia.

I gave participants factual positive information about real, well known people in order to maximize their belief that the information was true. However, I was aware that this method could also lead to subtyping effects, which occur when the outgroup member has too few traits that identify him or her stereotypically with the outgroup to which he or she belongs (Brown & Hewstone, 2005; Hewstone, 1994). Participants could subtype the persons in the vignettes, preventing the positive information from affecting the imagined contact task. Alternatively, participants could subtype the vignettes *and* the imagined contact task, preventing the imagined contact task from affecting either intergroup anxiety or attitudes. It is also possible that both of these effects occur to some degree, as they are not mutually exclusive.

Thus in Experiment 2 I predicted that if positive information alters the nature of the imagined contact task, imagined contact should result in less prejudice in the positive information condition, but not in the neutral information condition. However, if the positive information does not affect the imagined contact task, positive information should reduce prejudice and imagined contact should increase prejudice, but I should find no interaction. Moreover, if positive information alters the nature of the imagined contact task, quality of imagined contact should be higher in the positive information condition than in the neutral information condition. If positive information does not affect the imagined contact task, I should find no difference in quality of imagined contact scores between the two conditions.

A final possible critique of Experiment 1 is that the dependent variables used – intergroup anxiety and attitudes – were generally applicable to all outgroups but did not incorporate any specific aspects of the stigma most commonly associated with schizophrenia. In previous imagined contact research, general measures of attitudes toward outgroups have been combined with more specific measures to produce dependent measures that were more relevant for the target group in question (see Turner et al, 2007a).

As mentioned before, the mentally ill can be perceived as dangerous and unpredictable (Angermeyer & Matschinger, 1996a) and of all mentally ill groups people with schizophrenia are perceived as the most dangerous (Angermeyer & Matschinger, 1996b; Crisp et al., 2000). Corrigan et al. (2001) hypothesized and provided evidence

consistent with a pathway by which perceptions of dangerousness led to fear, which in turn led to avoidance (for a replication of these findings, see Corrigan et. al, 2002). The effect of contact in reducing perceptions of dangerousness has also been found experimentally (e.g., Corrigan et al., 2002). In Experiment 2 I modified the dependent variables to include perceptions of dangerousness, fear and avoidance as well as intergroup anxiety and attitudes. These modifications explored a wider range of potential effects of imagined contact on prejudice against persons with schizophrenia than did the dependent variables in Experiment 1.

### *Method*

#### *Participants and Design*

Ninety-nine undergraduates, 46 male and 53 female, aged between 18 and 25 (mean age = 19.48, *SD* = 1.49), were randomly allocated to the four cells of a 2 (Information: Positive vs. Neutral) X 2 (Condition: Imagined contact vs. Control) factorial design. Participants received course credit for taking part in the research.

#### *Material*

For the positive information conditions I created four factual vignettes about counter-stereotypic persons with schizophrenia. All persons described in the vignettes were actual people who suffered from schizophrenia, and all facts about them were true. They were described as mentally coherent, in touch with the world, predictable, neat or

well dressed, socially skilled and non-aggressive. Participants in the positive information condition read vignettes about Meera Popkin, John Nash, Tom Harell, and Andy Goram.

Participants in the neutral-information conditions received almost identical vignettes, but in which the subjects of the vignettes did not have schizophrenia. These participants read vignettes about Betty Buckley, Rienhard Selten, Arturo Sandoval, and David Beckham (see Appendix 1 for the full vignettes).

### *Procedure*

The procedure was identical to Experiment 1 with two exceptions; all participants were presented with four vignettes before the imagined contact exercise, and participants in the control condition engaged in no imagined activity, rather than a priming task. To ensure that participants thoroughly read the vignettes, they completed measures assessing how much they knew about each person beforehand, and how much they learned from each vignette.

To assess perceptions of dangerousness, fear, and avoidance of persons with schizophrenia, participants responded to nine questions on 7-point Likert scales, three of which measured each construct. The nine questions were presented in one of two randomized orders. These questions were identical to those used by Corrigan et al. (2002), except that the phrase *person with schizophrenia* replaced the phrase *mentally ill person* in each question.

Thus, to assess perceptions of dangerousness, I asked participants to respond to the following statements: “I would feel unsafe around persons with schizophrenia.” (1 =

*Strongly Agree*, 7 = *Strongly Disagree*) (reversed), “How dangerous do you feel a person with schizophrenia is?” (1 = *Not at all*, 7 = *Very much*), and “I would feel threatened by a person with schizophrenia” (1 = *Not at all*, 7 = *Yes, absolutely*), ( $\alpha = 0.76$ ).

To assess fear, I asked participants to respond to the following statements: “Persons with schizophrenia terrify me.” (1 = *Not at all*, 7 = *Very much*), “How scared of a person with schizophrenia would you feel?” (1 = *Not at all*, 7 = *Very much*), and “How frightened of a person with schizophrenia would you feel?” (1 = *Not at all*, 7 = *Very Much*), ( $\alpha = 0.78$ ).

To assess avoidance, I asked participants to respond to the following statements: “I think persons with schizophrenia pose a risk to other people unless they are hospitalized.” (1 = *Not at all*, 7 = *Very much*), “I would try to avoid a person with schizophrenia.” (1 = *Definitely*, 7 = *Definitely not*) (reversed), “If I were a landlord, I probably would rent an apartment to a person with schizophrenia.” (1 = *Definitely*, 7 = *Definitely not*), ( $\alpha = 0.75$ ).

In the Corrigan et al. (2002) paper from which the perceptions of dangerousness, fear and avoidance measures were taken, the direct effect of perceptions of dangerousness on fear was unusually high ( $\beta = 0.99$ ,  $p < 0.001$ ). I therefore suspected that all these items, in fact, loaded on the same factor. I therefore conducted a factor analysis of the six items, which revealed only one factor with an eigenvalue over 1. Consequently I combined all six items into a single *Fear* scale ( $\alpha = 0.88$ ). This new six-item Fear scale was then combined with the five-item intergroup anxiety scale used in Experiment 1.

This produced a reliable 11-item intergroup anxiety scale ( $\alpha = 0.91$ ). Factor analysis on all 11 items revealed only one factor with an eigenvalue over 1.

Similarly, the three items in the avoidance scale used by Corrigan et al., (2002) describe a desire to maintain distance between the self and persons with schizophrenia, but only one includes a behavioral intention related to avoidance. None assesses either past behavior or expected future behavior. Consequently I reverse-coded these three items and added them to the six-item attitudes scale used in Experiment 1. This produced a reliable nine-item attitude scale ( $\alpha = 0.78$ ). Factor analysis revealed two factors with eigenvalues greater than 1, but all items loaded more heavily on the first factor than on the second. When forced into a 1-factor solution, all items loaded well on that factor ( $0.48 < \lambda < 0.72$ ). I thus used the 11-item intergroup anxiety scale and the 9-item attitudes scale for all analyses instead of the scales used in Experiment 1. Combining separate scales in this manner, to produce intergroup anxiety and attitude measures that are more relevant to the group at hand, has been done successfully in previous imagined contact research (see Turner et al., 2007a).

Quality of imagined interaction in the imagined contact condition was assessed using the same scale that was used in Experiment 1 (Rater 1,  $\alpha = 0.93$ ; Rater 2,  $\alpha = 0.93$ ). Participants in the control condition did not engage in an imagined activity, which rendered ratings of imagined contact in the control condition and comparisons between the imagined contact and conditions impossible.

After completing the dependent measures and providing demographic information, participants were asked what they thought the aim of the study was. No participant reported any knowledge or suspicion of the hypotheses. To control for order effects the dependent measures were counterbalanced, and no order effects were detected.

*Results and Discussion*

Table 5.2 displays the means and standard deviations of all dependent variables in Experiment 2. I investigated the effects of positive information and imagining intergroup contact on the dependent measures by conducting a 2 (Information: Positive vs. Neutral) X 2 (Condition: Imagined contact vs. Control) between-subjects analysis of variance (ANOVA).

Table 5.2. Means and standard deviations of all dependent variables as a function of information type and imagined contact (Experiment 2).

	Positive Information		Neutral Information	
	Imagined Contact	Control	Imagined Contact	Control
Anxiety	3.19 (1.12)	2.88 (0.72)	3.92 (0.74)	3.52 (0.83)
Attitudes	4.91 (0.81)	5.02 (0.63)	4.41 (0.55)	4.46 (0.77)
Quality	4.56 (1.19)		3.89 (1.07)	

Note: Standard deviations shown in parentheses

#### Comparisons between Conditions

*Intergroup Anxiety.* Participants in the positive information condition ( $M = 3.03$ ) reported less intergroup anxiety toward people suffering from schizophrenia than did participants in the neutral information condition ( $M = 3.72$ ),  $F(1, 98) = 15.63$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.14$ . However, the effects of imagined contact on intergroup anxiety were the same as those in Experiment 1; participants in the imagined contact condition ( $M = 3.55$ ) reported *more* intergroup anxiety than did participants in the control condition ( $M = 3.20$ ),  $F(1, 98) = 4.02$ ,  $p = 0.048$ ,  $\eta_p^2 = 0.041$ . I detected no interaction of positive

information and imagined contact on intergroup anxiety  $F(1,98) = 0.064, p = 0.80, \eta_p^2 = 0.001$ .

*Attitudes.* Participants in the positive information condition ( $M = 4.97$ ) reported more positive attitudes toward people suffering from schizophrenia than did participants in the neutral information condition ( $M = 4.44$ ),  $F(1, 98) = 14.07, p < 0.001, \eta_p^2 = 0.13$ . However, the effects of imagined contact on attitudes were the same as those in Experiment 1; I found no difference in attitudes between participants in the imagined contact condition ( $M = 4.66$ ) and those in the control condition ( $M = 4.74$ ),  $F(1, 98) = 0.32, p = 0.57, \eta_p^2 = 0.003$ . I detected no interaction of positive information and imagined contact on attitudes  $F(1,98) = 0.037, p = 0.85, \eta_p^2 < 0.001$ .

#### *Mediational Analyses*

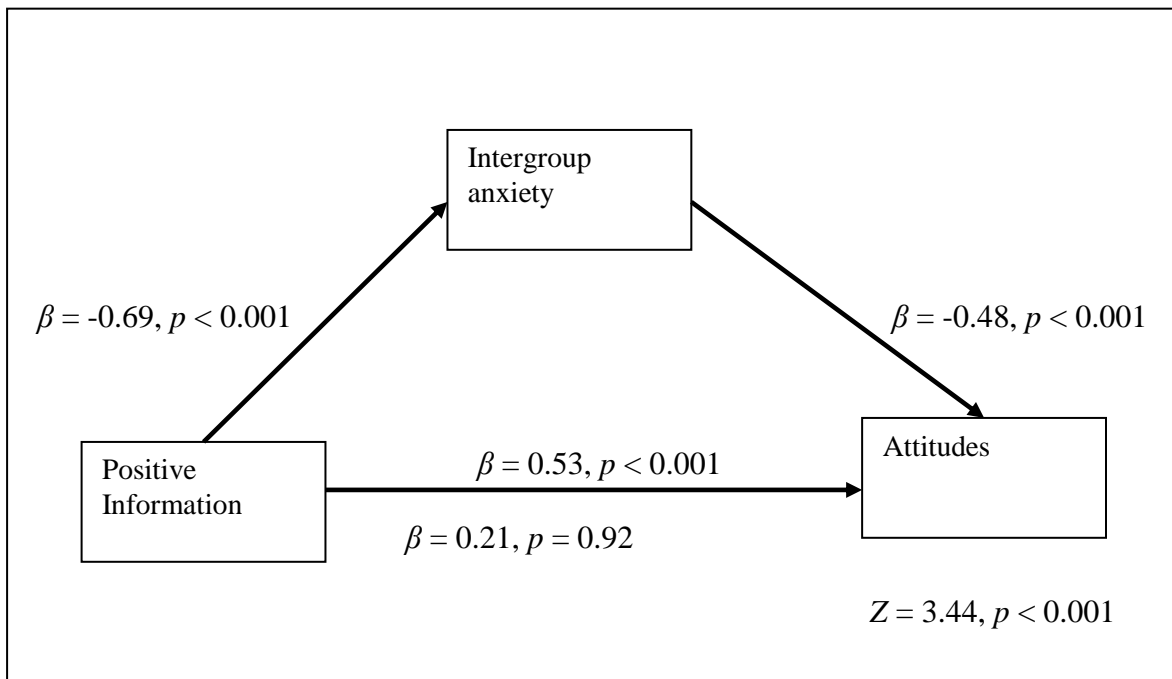
I investigated whether the effect of positive information on attitudes was mediated by intergroup anxiety using the procedure recommended by Baron and Kenny (1986). Across the imagined contact and control conditions, there was a significant path between positive information and attitudes,  $\beta = 0.53, p < 0.001$ . Positive information also predicted the mediator, intergroup anxiety,  $\beta = -0.69, p < 0.001$ . The path between intergroup anxiety and attitudes while controlling for the predictor was significant  $\beta = -0.48, p < 0.001$ , and when the mediator was controlled the path between positive information and attitudes became nonsignificant, indicating complete mediation,  $\beta = 0.21, p = 0.092$ . A Sobel test was significant,  $Z = 3.44, p < 0.001$ ; see Figure 5.1.

*Analyses of Free-response Data*

As in the previous experiment, quality of imagined contact ratings were highly correlated between the two raters ( $r = 0.79, p < 0.001$ ). Consequently, I used their mean score as an index of quality of imagined contact.

I investigated whether positive information altered the imagined contact exercise by comparing the quality of the imagined interaction in the positive information condition to that in the neutral information condition. If the positive information affected the nature of the imagined contact task, the quality of the imagined interaction in the positive information condition should be higher than in the neutral information condition. However, quality of imagined interaction scores were not significantly higher in the positive information condition ( $M = 4.51$ ) than in the neutral information condition ( $M = 3.89$ ),  $t(41) = 1.78, p = 0.083, d = 0.56$ . This finding is consistent with the proposition that the positive exemplars may have been subtyped, preventing the positive information from affecting the imagined contact task.

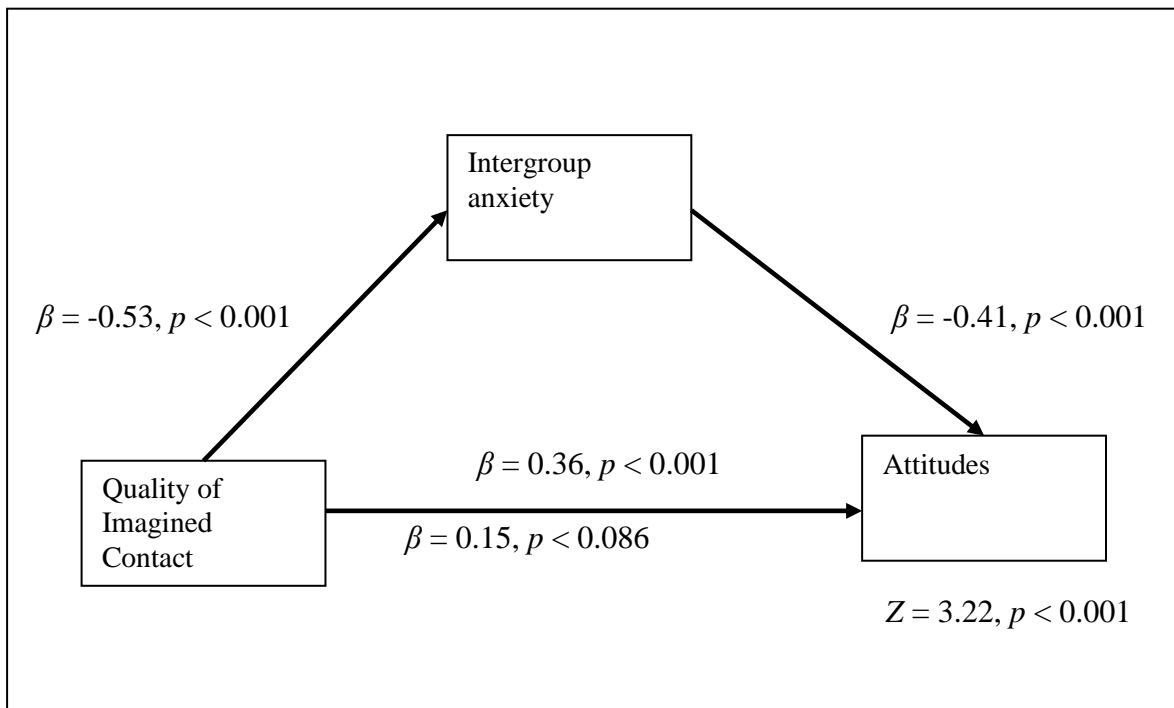
Figure 5.1. Mediation model of the role of intergroup anxiety in explaining the effects of positive information on attitudes (Experiment 2).



I also investigated the relationship between quality of imagined contact and both dependent variables – intergroup anxiety and attitudes. Across both the positive and neutral information conditions, quality of imagined contact predicted both attitudes,  $\beta = 0.36$ ,  $p < 0.001$ , and the mediator intergroup anxiety,  $\beta = -0.53$ ,  $p < 0.001$ . The path between intergroup anxiety and attitudes while controlling for quality of imagined contact was significant  $\beta = -0.41$ ,  $p < 0.001$ , and when the mediator was controlled the path between quality of imagined contact and intergroup anxiety became nonsignificant, indicating complete mediation,  $\beta = 0.15$ ,  $p = 0.086$ . A Sobel test was significant;  $Z = 3.22$ ,  $p < 0.001$ ; see Figure 5.2.

To summarize, in Experiment 2, using a more detailed set of response scales, I found that positive information improved attitudes toward people with schizophrenia, and that this relationship was mediated by a decrease in intergroup anxiety. However, as in Experiment 1, imagined contact *increased* intergroup anxiety toward people with schizophrenia and had no effect on attitudes. I detected no interaction between positive information and imagined contact, indicating that the positive information about people with schizophrenia given before the imagined contact task did not affect the imagined contact task. This result was bolstered by the finding that positive information did not alter the quality of the imagined interaction described by the participants.

Figure 5.2. Mediation model of the role of intergroup anxiety in explaining the effects of quality of imagined contact on attitudes (Experiment 2).



I did, however, find some promising evidence for this kind of intervention in that the effectiveness of the imagined contact task depended on the quality of the imagined interaction: higher quality of imagined contact predicted more positive attitudes, and this relationship was mediated by a decrease in intergroup anxiety.

### Experiment 3

In Experiments 1 and 2 I found a negative effect of imagined contact on intergroup anxiety and no effect on attitudes, despite giving participants positive information about persons with schizophrenia before the imagined contact task in Experiment 2. Positive information had positive effects on the measures of both prejudice and intergroup anxiety, but did not appear to alter the effectiveness of the imagined contact task.

These results indicated that I had to alter the imagined contact task itself to make it effective as a prejudice-reducing intervention with this negatively-stereotyped target group. The imagined contact task used in Experiments 1 and 2 was rather unspecific, leaving the details of the imagined interaction up to the participants. For Experiment 3 I created a more specific, explicitly positive imagined contact scenario involving a real person with schizophrenia.

In Experiment 2, the positive information did not affect the nature of the imagined contact task, possibly because the celebrities used as positive information were subtyped. For this reason I did not use celebrities for the imagined contact task in Experiment 3. Instead I constructed a scenario based on another real, but less atypical, person with

schizophrenia – Dr. Rufus May. Student participants in this condition were instructed to imagine that the Rector of their college had invited them to dine with the faculty at their college (a prestigious event for any student), and that the Rector’s friend, Dr. Rufus May, would be dining with them. Dr. Rufus May was factually described as a clinical psychologist who was diagnosed with schizophrenia at age 18, and a leading expert in psychiatric treatment. Very little information was given about Dr. Rufus May in order to avoid both subtyping effects and giving participants explicitly positive information about the person, rather than the scenario.

It is, however, possible that something in the explicitly positive imagined contact scenario other than the imagined contact task itself could lead to a reduction in prejudice. In Experiment 3 I controlled for this possibility by giving participants in the control condition an explicitly positive imaginary scenario almost identical to that of the imagined contact condition. Participants in the control condition also imagined dining with the Rector and the Rector’s friend; however, in this case the Rector’s friend was Mr. Jay Wright, a poet who did not suffer from schizophrenia.

Thus, in this experiment, participants in both the imagined contact and control conditions engaged in an imagined interaction task, the former with a person with schizophrenia, the latter with a person who did not have schizophrenia. Consequently, it was possible to compare the quality of the imagined interaction between the two conditions. I predicted that quality of the imagined interaction would be high in both the imagined contact and control conditions. Furthermore, quality of imagined contact should

affect both intergroup anxiety and attitudes in the imagined contact condition. However, quality of imagined contact in the control condition should have no effect on either of the two dependent variables because the interaction partner is not a member of the chosen target group.

I hypothesized that the new, positive imagined contact task would result in more positive attitudes and that the effect of imagined contact on attitudes would be mediated by a reduction in intergroup anxiety. In other words, though the imagined contact task used in Experiments 1 and 2 resulted in more intergroup anxiety and no change in attitudes, even when preceded by positive information about the target group (Experiment 2), I hypothesized that the modified imagined contact task in Experiment 3 would successfully decrease intergroup anxiety and improve attitudes toward people with schizophrenia. Moreover, I predicted that the effectiveness of this modified imagined contact task would be due to the improved quality of the imagined interaction, relative to the imagined interactions in Experiments 1 and 2.

### *Method*

#### *Participants and Design*

Thirty-eight undergraduate students, 8 male and 30 female, aged between 17 and 21 (mean age = 18.53,  $SD = 0.86$ ), were randomly allocated to either an imagined contact condition with a person with schizophrenia or a control condition involving imagined

contact with a person without schizophrenia. Participants received course credit for taking part in the research.

*Procedure*

The procedure was identical to that of Experiment 1 with two exceptions; the situation in the imagined contact scenario with the person with schizophrenia was altered to be less vague and more positive, and participants in the control condition engaged in an explicitly positive imagined scenario (but not with a member of the outgroup) instead of a priming task (see Appendix 2 for full instructions given). Dependent variables were the same 11-item intergroup anxiety ( $\alpha = 0.93$ ) and 9-item attitudes scales ( $\alpha = 0.86$ ) used in Experiment 2. Quality of imagined interaction was assessed using the same scale that was used in Experiments 1 and 2 (Rater 1,  $\alpha = 0.76$ ; Rater 2,  $\alpha = 0.88$ ).

*Results and Discussion*

Table 5.3 displays the means and standard deviations of all dependent variables in Experiment 3. Because the participant sample contained far fewer males than females, I first tested whether males and females were unequally distributed across the two groups and whether gender predicted either of the dependent measures. I found no difference between the gender distribution in the imagined contact condition (2 males, 18 females) and the gender distribution in the control condition (6 males, 12 females),  $\chi^2 = 3.10$ ,  $p = 0.078$ .

Furthermore, I found no difference between males ( $M = 3.06$ ,  $SD = 0.56$ ) and females ( $M = 3.47$ ,  $SD = 1.17$ ) in intergroup anxiety scores,  $t(36) = 0.97$ ,  $p = 0.34$ . Nor did I find a difference between males ( $M = 4.92$ ,  $SD = 0.51$ ) and females ( $M = 5.04$ ,  $SD = 0.93$ ) in attitude scores,  $t(36) = 0.37$ ,  $p = 0.71$ .

*Table 5.3. Means and standard deviations of all dependent variables as a function of imagined contact condition (Experiment 3).*

	Imagined Contact	Control	<i>t</i>	<i>df</i>	<i>p</i>
Anxiety	3.01 (0.91)	3.80 (1.12)	3.16	36	0.021
Attitudes	5.37 (0.71)	4.63 (0.86)	2.91	36	0.006
Quality	5.21 (0.77)	5.28 (0.93)	0.28	37	0.78

Notes: Standard deviations shown in parentheses.

#### *Comparisons between Conditions*

To determine whether imagining intergroup contact led to less intergroup anxiety and more positive attitudes toward people with schizophrenia, I conducted planned independent-sample t-tests. Participants in the imagined contact condition reported less

intergroup anxiety ( $M = 3.01$ ) than did participants in the control condition ( $M = 3.80$ ),  $t(36) = 2.41$ ,  $p = 0.021$ ,  $d = 0.80$ , and also reported more positive attitudes toward people with schizophrenia ( $M = 5.37$ ) than did participants in the control condition ( $M = 4.63$ ),  $t(36) = 2.91$ ,  $p = 0.006$ ,  $d = 0.97$ .

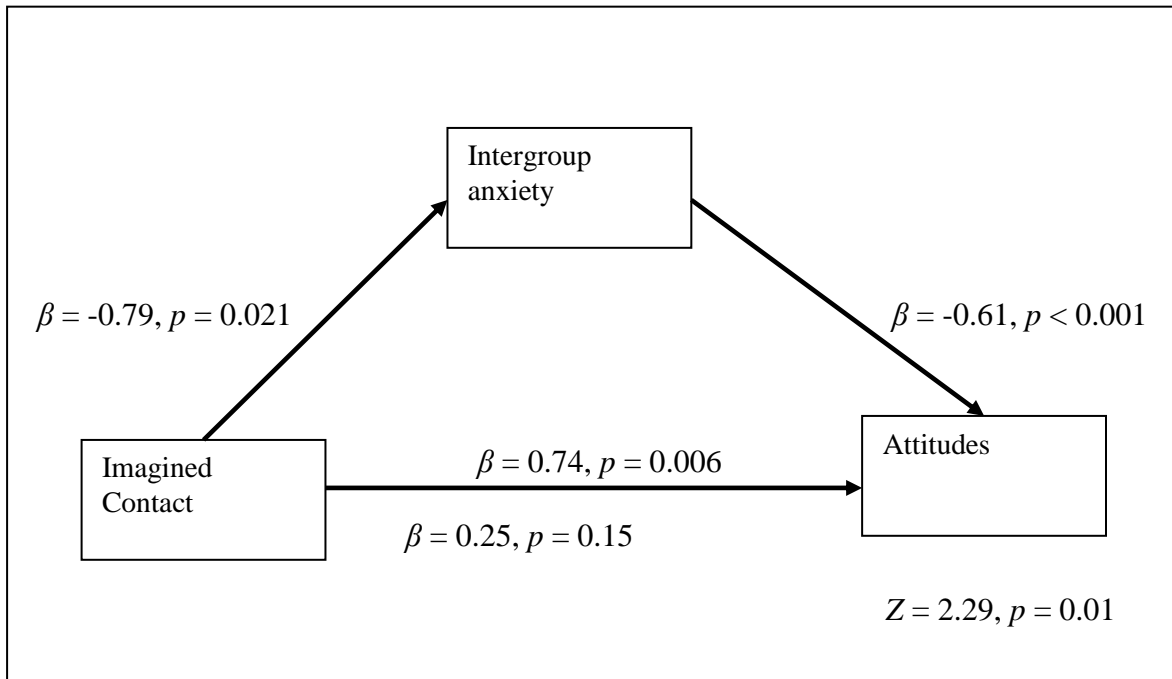
#### *Mediational Analyses*

There was a significant path between imagined contact and attitudes,  $\beta = 0.74$ ,  $p = 0.006$ . Imagined contact also predicted the mediator intergroup anxiety,  $\beta = -0.79$ ,  $p = 0.021$ . The path between intergroup anxiety and attitudes while controlling for imagined contact was significant  $\beta = -0.61$ ,  $p < 0.001$ , and when the mediator was controlled the path between imagined contact and intergroup anxiety became nonsignificant, indicating complete mediation,  $\beta = 0.25$ ,  $p = 0.15$ . A Sobel test was significant;  $Z = 2.29$ ,  $p = 0.01$ ; see Figure 5.3.

#### *Analyses of Free Response Data in Experiment 3*

As in the previous experiments, quality of imagined contact ratings were highly correlated between the two raters,  $r = 0.81$ ,  $p < 0.001$ , and I used the mean of the scores of the two raters as an index of quality of imagined contact.

Figure 5.3. Mediation model of the role of intergroup anxiety in explaining the effects of imagined contact on attitudes (Experiment 3).



As expected, I found no differences in quality of imagined interaction between the imagined contact condition ( $M = 5.21$ ) and the control condition ( $M = 5.28$ ),  $t(37) = 0.28, p = 0.78, d = 0.09$ . Results also confirmed that, unlike in Experiment 1, imagined contact had been a positive rather than a negative experience. Using a one-sample t-test, I found that quality of imagined contact scores were significantly higher than the mid-point of the scale in both the imagined contact condition,  $t(19) = 7.02, p < 0.001, d = 3.22$ , and the control condition,  $t(18) = 6.05, p < 0.001, d = 2.85$ . Also the quality of imagined

contact scores were positively skewed: scores for all participants in the imagined contact condition fell above the midpoint of the scale. Compressed variance of this nature tends to mask relationships between variables (Clark-Carter, 1997), thus I did not find relationships between quality of imagined contact and either intergroup anxiety ( $r = -0.25, p = 0.14$ ) or attitudes ( $r = 0.18, p = 0.29$ ).

*Analyses of Free Response Data Across Experiments 1 - 3*

I specifically hypothesized that the effectiveness of the imagined contact task in Experiment 3, and the ineffectiveness of the task in Experiments 1 and 2, would be explained by a higher quality of imagined interaction in Experiment 3 relative to Experiments 1 and 2. I tested this hypothesis in two ways. First, I tested whether the quality of imagined contact was higher in Experiment 3 than in Experiments 1 and 2. Second, I tested whether the quality of imagined contact predicted attitudes toward people with schizophrenia across all three experiments, and whether intergroup anxiety mediated this relationship.

For the purposes of analyzing the free-response data, I used only the imagined contact conditions from all three experiments. The control tasks in all three experiments were conceptually quite different which would prevent a meaningful comparison: in Experiment 1 participants in the control condition thought about “schizophrenics”; in Experiment 2 they engaged in no imagined activity at all; and in Experiment 3 they imagined a pleasant dinner conversation with a poet who did not suffer from schizophrenia. Of the imagined contact conditions in Experiment 2, only the positive

information condition was included. The positive information condition was more relevant to these analyses than the neutral information condition, as it was the condition in which the imagined contact task was modified to be more positive.

The quality of imagined contact scale was reliable (Rater 1,  $\alpha = 0.94$ , Rater 2,  $\alpha = 0.93$ ), and highly correlated between the two raters ( $r = 0.84$ ,  $p < 0.001$ ) across all three experiments. I used the mean of the scores of the two raters as an index of quality of imagined contact.

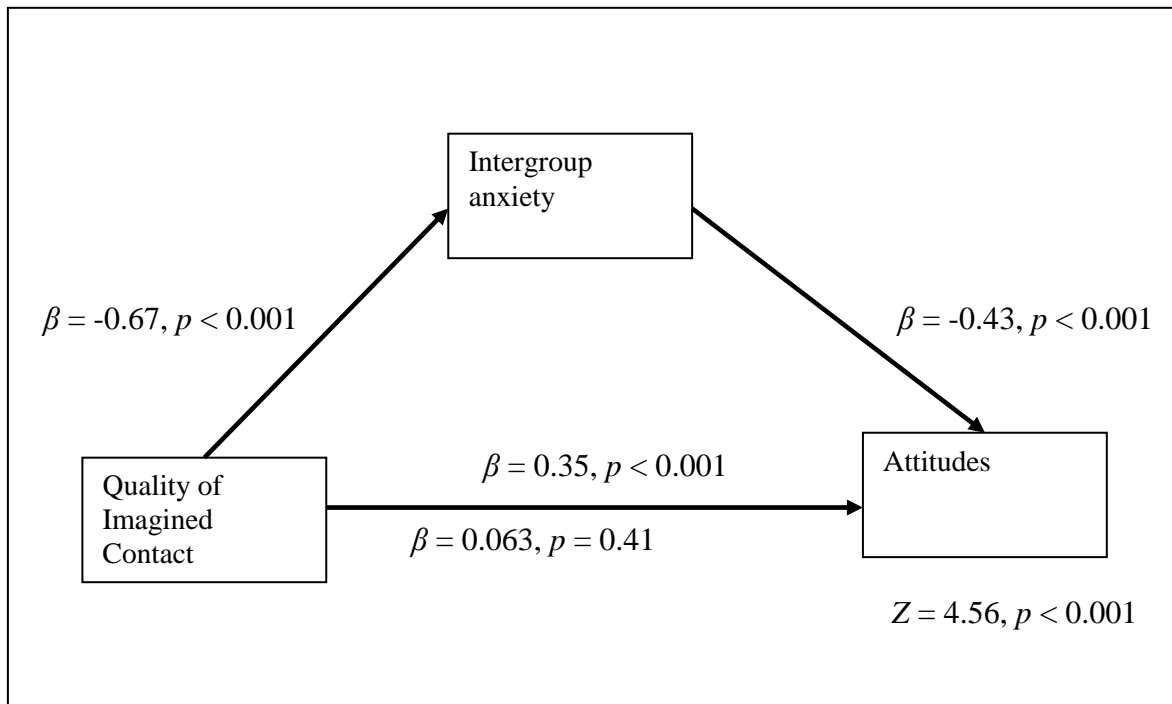
*Comparisons between Experiments.* I investigated the differences in quality of imagined contact between the three experiments by conducting a one-way ANOVA, using Experiment as the independent variable and quality of imagined contact as the dependent variable. As expected, the mean quality of imagined contact scores differed across the three experiments,  $F(2, 77) = 41.58$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.53$ . Post-hoc simple main effects tests revealed that the quality of imagined contact in Experiment 3 ( $M = 5.21$ ) was higher than the quality of imagined contact both in Experiment 1 ( $M = 3.04$ ,  $p < 0.001$ ) and Experiment 2 ( $M = 4.51$ ,  $p = 0.036$ ).

The quality of imagined contact in Experiment 2 was higher than the quality of imagined contact in Experiment 1 ( $p < 0.001$ ), suggesting that the positive information in Experiment 2 did have some effect on the imagined interaction. However, the higher quality of imagined interaction in Experiment 3, relative to Experiment 2, is consistent with the possibility that the positive exemplars used in Experiment 2 were subtyped to some extent.

*Mediational Analyses.* Across all three experiments there was a significant path between quality of imagined contact and attitudes,  $\beta = 0.35$ ,  $p < 0.001$ . Quality of imagined contact also predicted the mediator intergroup anxiety,  $\beta = -0.67$ ,  $p < 0.001$ . The path between intergroup anxiety and attitudes, while controlling for quality of imagined contact, was significant  $\beta = -0.43$ ,  $p < 0.001$ , and when the mediator was controlled the path between quality of imagined contact and intergroup anxiety became nonsignificant, indicating complete mediation,  $\beta = 0.063$ ,  $p = 0.41$ . A Sobel test was significant;  $Z = 4.56$ ,  $p < 0.001$ ; see Figure 5.4.

To summarize, in Experiment 3, the quality of the imagined interaction with the person with schizophrenia was overall high, and imagined contact resulted in more positive attitudes toward people with schizophrenia, and this effect was mediated by a reduction in intergroup anxiety. Comparing the results across all three studies showed that quality of imagined contact in Experiment 3 was higher than in Experiments 1 and 2, that higher quality of imagined contact led to improved attitudes across all three experiments, and a reduction in intergroup anxiety mediated this relationship.

Figure 5.4. Mediation model of the role of intergroup anxiety in explaining the effects of quality of imagined contact on attitudes across three experiments (Data from Experiments 1 - 3).



Experiment 4

In Experiment 3 I found that a modified, explicitly positive imagined contact task reduced intergroup anxiety and led to more favourable attitudes toward people with schizophrenia. Nonetheless, there remain some possible critiques of Experiment 3 that leave the results open to alternative explanations. One possible critique is that the contact task used in Experiment inadvertently provided participants with positive information. Though that was not my intention, and though I deliberately used no adjectives to describe the interaction partner who had schizophrenia, it is possible that the simple knowledge that the interaction partner who had schizophrenia was working as a psychotherapist was enough information to counteract some of the negative stereotypes associated with schizophrenia. Thus, in Experiment 3 there may have been a confound between imagined contact and positive information, and it consequently remained unclear whether the imagined contact task was having any effects beyond that of giving participants positive information.

Another critique of Experiment 3 is that it only demonstrates the usefulness of an extremely specific imagined contact scenario with one interaction partner. Other emotional variables (e.g., pride at being invited to dinner by the master of a college) may have played a part in reducing prejudice against people with schizophrenia. I cannot claim the broad usefulness of a technique that has only been used in one situation and with one exemplar.

In Experiment 4 I addressed both critiques. To ensure that the effects of imagined contact could not be attributed to positive information, I gave participants in both the imagined contact and control conditions exactly the same information. To rule out the effect of other positive emotions, such as pride, I reduced the explicit positivity of the situation by changing it from a congratulatory dinner to a chance meeting in a train station. To investigate whether an imagined interaction with a different person who had schizophrenia would also have positive effects, I used another person - Tom Harell - instead of Dr. Rufus May, the imagined interaction partner in Experiment 3.

Participants in both conditions were asked to imagine that they were waiting for a train, and that they saw two very similar men walk into the train station - Tom Harrell (who has schizophrenia) and Arturo Sandoval (who does not have schizophrenia). Participants in the imagined contact condition were then asked to imagine that Arturo Sandoval boarded his train and left, while Tom Harrell took the seat next to them and engaged in a pleasant conversation. By contrast, participants in the control condition were asked to imagine that Tom Harrell boarded his train and left while Arturo Sandoval took the seat next to them and engaged them in a pleasant conversation (for full instructions see Appendix 2).

### *Method*

#### *Participants and Design*

Forty-seven undergraduate students, 16 male and 31 female aged between 18 and 26 (mean age = 18.72,  $SD = 1.31$ ) were all given the same information about one person who had schizophrenia and another person who did not have schizophrenia. Participants were then randomly allocated to either an imagined contact condition with the person with schizophrenia or a control condition involving imagined contact with the person without schizophrenia. Participants received course credit for taking part in the research.

#### *Procedure*

The procedure was similar to that of Experiment 3 with three exceptions: (1) all participants received exactly the same information, (2) the interaction partner in the imagined contact condition was changed from Dr. Rufus May to Tom Harell, and (3) the positivity of the scenario was toned down by shifting it from a congratulatory dinner to a chance meeting in a train station. Dependent variables were the same 11-item intergroup anxiety ( $\alpha = 0.71$ ) and 9-item attitudes ( $\alpha = 0.77$ ) scales used in Experiments 2 and 3.

### *Results and Discussion*

#### *Comparisons between Conditions*

Table 5.4 displays the means and standard deviations of all dependent variables in Experiment 4. To determine whether imagining intergroup contact led to less intergroup anxiety and more positive attitudes toward people with schizophrenia, I conducted

planned independent-sample t-tests. Participants in the imagined contact condition reported less intergroup anxiety ( $M = 2.85$ ) than did participants in the control condition ( $M = 3.53$ ),  $t(45) = 2.69$ ,  $p = 0.010$ ,  $d = 0.80$ . Participants in the imagined contact condition also reported more positive attitudes toward people with schizophrenia ( $M = 5.36$ ) than did participants in the control condition ( $M = 4.96$ ),  $t(45) = 2.12$ ,  $p = 0.032$ ,  $d = 0.63$ .

*Table 5.4. Means and standard deviations of all dependent variables as a function of imagined contact condition (Experiment 4).*

	Imagined Contact	Control	<i>t</i>	<i>df</i>	<i>p</i>
Anxiety	2.85 (0.73)	3.53 (1.01)	2.69	45	0.010
Attitudes	5.36 (0.62)	4.96 (0.62)	2.12	45	0.032

Notes: Standard deviations shown in parentheses.

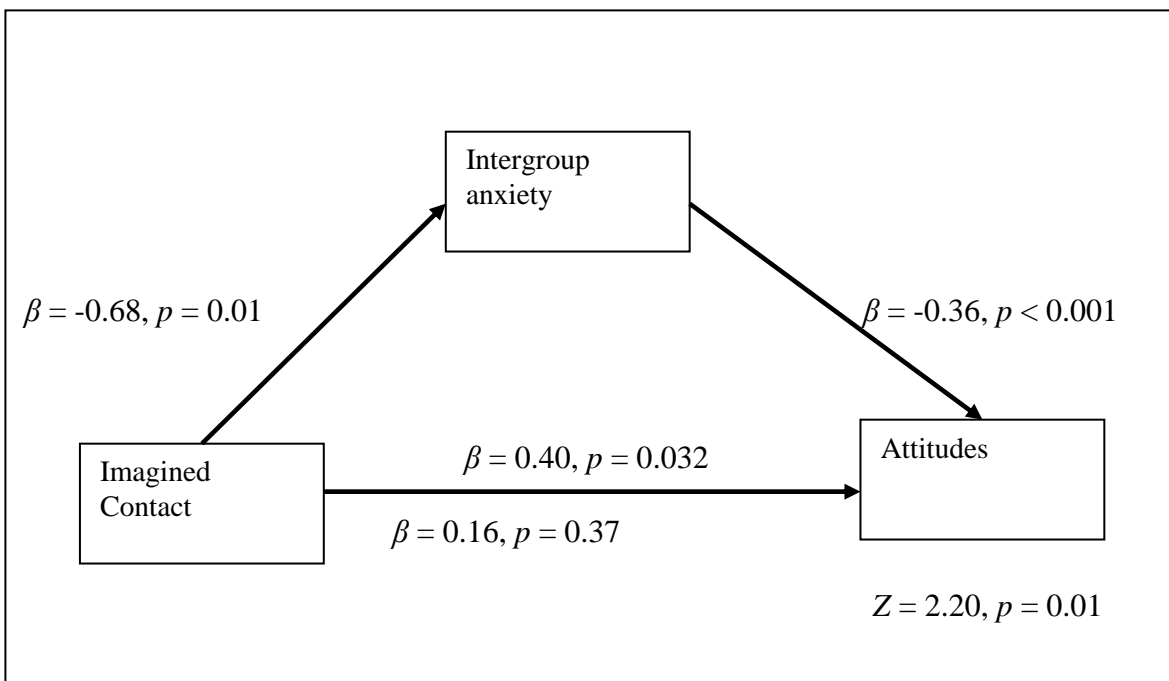
#### *Mediational Analyses*

There was a significant path between imagined contact and attitudes,  $\beta = 0.40$ ,  $p = 0.032$ . Imagined contact also predicted the mediator intergroup anxiety,  $\beta = -0.68$ ,  $p = 0.010$ . The path between intergroup anxiety and attitudes while controlling for imagined contact was significant  $\beta = -0.36$ ,  $p < 0.001$ , and when the mediator was controlled the

path between imagined contact and intergroup anxiety became nonsignificant, indicating complete mediation,  $\beta = 0.16$ ,  $p = 0.37$ . A Sobel test was significant;  $Z = 2.20$ ,  $p = 0.01$ ; see Figure 5.5.

In summary, in Experiment 4 an explicitly positive imagined contact task resulted in more favourable attitudes toward the outgroup, and intergroup anxiety mediated this relationship. The positive effects of imagined contact could not be attributed to inadvertent positive information as participants in both conditions received exactly the same information.

Figure 5.5. Mediation model of the role of intergroup anxiety in explaining the effects of imagined contact on attitudes (Experiment 5).



General Discussion

Imagining intergroup contact is potentially an easy, safe and effective intervention for the reduction of intergroup prejudice. It has previously been shown to have positive effects on attitudes toward some outgroups including the elderly, homosexual men (Turner et al., 2007a), and certain people of different ethnicities and nationalities (Stathi & Crisp, 2008). Nonetheless, even actual contact has limitations and does not work in all cases (Allport, 1954) or equally well for all outgroups (Pettigrew & Tropp, 2006). Before extrapolating previous findings to new outgroups, it is thus critical to examine whether or not imagined intergroup contact may also work less effectively or counter-effectively under challenging conditions or for challenging target groups.

This is particularly relevant because imagined contact was designed to work for groups for whom real contact may be difficult or dangerous (Crisp et al., 2009). However, these are *not* the groups for whom imagined contact has been thus far shown to work. Quite the contrary; the groups for whom imagined contact has thus far been shown to work are groups for whom the orchestration of actual contact would be simple or easy, such as homosexual men and the elderly (Turner et al., 2007). For imagined contact to truly serve its purpose it must be shown to work when real contact is not an easily available option.

In two studies (Experiments 1 & 2), I demonstrated that the imagined contact task, as operationalized by Turner et al. (2007), was not effective at reducing prejudice against a strongly stigmatized outgroup – people who suffer from schizophrenia – and, in fact,

*increased* intergroup anxiety toward members of this outgroup. However, two major advantages of imagined intergroup contact over actual intergroup contact are the malleability and the controllability of the imagined contact scenario.

In Experiments 3 and 4, after modifying the imagined contact task to make it explicitly pleasant as well as using more typical outgroup members, I found positive effects of imagined contact on prejudice against persons with schizophrenia. In Experiment 4, by giving all participants positive information I demonstrated that this effect could not be attributed to inadvertent positive information. I now discuss these findings with reference to the plausibility of study characteristics, the nature of the target group, and the nature of stigmatization.

#### *Study Characteristics*

Critics of Experiments 3 and 4 could argue that the explicitly positive imagined scenarios might have raised the suspicion of participants. However, participants indicated no awareness of the hypotheses of any of the studies. Furthermore, Turner and Crisp (2010), by demonstrating that imagined contact improved *implicit*, as well as explicit attitudes, ruled out demand characteristics as an explanation of the effects of imagined contact. While explicit attitudes are deliberative and controllable, implicit attitudes are unintentionally activated, and thus less likely to be influenced by social desirability or demand characteristics (see Greenwald et al., 1998; Crisp et al., 2008).

Another possible criticism of the imagined contact task used in Experiment 3 is that the effects are attributable to a confound between positive information and imagined

contact. This criticism would claim that the positive effects of the imagined contact task in Experiment 3 were due to the positive information given about Dr. Rufus May in this experiment, and *not* due to a difference in the quality of the imagined interaction itself or the effect of the imagined contact task on attitudes.

I ruled out this explanation in three ways. First, the analysis of the free-response data clearly contradicts this hypothesis. There was a significant difference in the quality of the imagined interaction across all three experiments. Specifically, participants imagined contact of a higher quality in Experiment 3 than in Experiments 1 and 2, even though I conducted analyses using only participants from the positive information condition of Experiment 2. Furthermore, higher quality of imagined interaction predicted better attitudes across all three experiments.

Second, the information given to participants about Dr. Rufus May was accurate, but not overly or explicitly positive (as in Experiment 2). While the positive vignettes in Experiment 2 described the four exemplars of people suffering from schizophrenia as “famous”, “good”, “exceptionally talented”, “charming”, “cool tempered”, “strong willed”, “impressive”, “well dressed” and “popular”, I used no adjectives at all to describe Dr. Rufus May. Nonetheless, it was in Experiment 3, and not in Experiment 2, that the quality of the imagined contact was the highest.

Third, and perhaps most importantly, the results of Experiment 4 point to an independent effect of imagined contact beyond that of the positive information.

Particularly by giving all participants the same information in Experiment 4, I was able to rule out the effect of positive information.

Lastly, the critique raises the question of how to create a positive imagined contact scenario without giving any information at all about the interaction partner that could be construed as positive. Participation in any positive scenario could imply positive attributes unless negative attributes are explicitly given. Notwithstanding, Experiments 3 and 4 demonstrated how the paradigm might best be adapted to benefit members of this highly stigmatised outgroup.

*Nature of the Outgroup or Nature of the Stigma?*

The question remains: why did the original imagined contact task increase, instead of decrease, intergroup anxiety toward people suffering from schizophrenia? One obvious potential explanation is the nature of the outgroup. Neither the elderly nor homosexual men are stereotyped as being dangerous or unpredictable (Brewer et al., 1981; Herek, 1986) - two central characteristics of the stigma of mental illness (Angermeyer & Matschinger, 2003). This difference may have altered the nature of the imagined contact exercise, changing it from a pleasant, or at least reasonable, interaction to a more threatening encounter. The resulting unpleasant nature of the imagined contact experience could help to explain the increase in intergroup anxiety found in Experiments 1 and 2.

Our modified imagined contact scenarios (Experiments 3 and 4) were designed to be more pleasant than the original. The setting was no longer ambiguous, but specified as

a situation that would be seen as an agreeable and safe event. Participants were explicitly instructed to imagine a pleasant conversation. Consequently the quality of the imagined interaction was better in Experiment 3 than in Experiments 1 and 2, which resulted in different effects on prejudice against people with schizophrenia.

However, an equally plausible explanation may lie in the nature of the stigmatization itself, specifically in the fact that prejudice against persons with schizophrenia is more legitimized than prejudice against most other groups (Stier & Hinshaw, 2007). Thus, it would not be the content of the stereotypes, but the *acceptability* of the stereotypes that moderates the effects of the imagined contact experience. If participants hold a negative stereotype that is quite normative and consensually held, they will probably be less motivated to imagine a positive intergroup interaction.

It is possible that, as well as making the interaction more pleasant, the imagined contact scenarios used in Experiments 3 and 4 rendered prejudice against persons with schizophrenia less acceptable by the presence of the imaginary Rector of the college who is a friend of Dr. Rufus May, or Arturo Sandoval who entered the train station along with Tom Harell. Of course these two effects are not mutually exclusive. Thus, the positive effects of this imagined contact task could be a result of a more pleasant contact experience, less acceptable prejudice, or some combination of the two.

Using the free-response data from the first three experiments, I found evidence supporting the hypothesis that a more positive imagined interaction led to reduced

prejudice, while a less positive imagined interaction had detrimental effects. Future research using imagined contact should make good use of the participants' free responses, a valuable data set (albeit, one that is time-consuming to analyse) that has thus far been ignored in the imagined contact research.

However, in these studies, nothing in the free-response data permitted me to test the effects of the imagined contact task on social acceptability of prejudice. Nor could I test the effects of social acceptability of prejudice on intergroup anxiety or attitudes. Future research on targets of more legitimized prejudice, such as people who suffer from schizophrenia, should endeavour to investigate both the antecedents and effects of social acceptability of prejudice.

Overall, these results call for more extensive research to determine if, when, and how imagined contact reduces prejudice against members of those groups for whom it was designed; targets of prejudice for whom actual contact may be difficult or dangerous to orchestrate. Future research could also investigate if, when and how imagined contact may have to be altered before positive effects are possible for these groups. It would be worthwhile to specifically investigate the aspects of the imagined contact scenario that render it effective, ineffective, or counter-effective.

To conclude, like actual contact, imagined contact is potentially a very useful tool for the reduction of intergroup prejudice and the improvement of intergroup relations. However, like real contact, it appears to have optimal and non-optimal conditions. Fortunately imagined contact is easier to implement, manipulate and investigate

experimentally than actual contact, which gives it a distinct advantage for groups for whom actual contact may not be a feasible solution. This work should not be seen as decreasing the importance of imagined contact as an intervention. Rather, because it has successfully overcome obstacles to change views of a rather negatively-stereotyped group that is viewed with fear and anxiety, it can be seen as increasing the range of applicability of imagined contact, and thus increasing its importance as one of many weapons to be used in the fight against prejudice.

## CHAPTER 6: SUMMARY AND CONCLUSIONS

The research reported in this thesis represents an investigation into the effectiveness of contact and imagined contact – a derivative of contact – as prejudice-reducing mechanisms for targets of socially acceptable prejudice. Specifically, the research has attempted to demonstrate that two target groups – people with schizophrenia in the U.K. and homosexual men in Jamaica - are targets of relatively socially acceptable prejudice, to investigate the relationship between actual contact and prejudice against both these target groups, and to investigate the effectiveness of imagined contact in reducing prejudice against one of these outgroups – people with schizophrenia in the U.K. The role of certain mediators of the relationship between contact and prejudice, such as fear in the case of people with schizophrenia, and intergroup anxiety in both cases, has also been examined throughout the thesis.

In this chapter I start with a summary of the main findings presented in the four empirical chapters, focusing on the contributions that this research has made to the study of socially acceptable prejudice and intergroup contact. I then discuss the limitations of this research and the efforts I made to minimize these limitations. Finally this chapter discusses possible future avenues for research in these areas and ends with concluding remarks.

### Key Findings and Implications of the Research.

The research in this thesis investigated the effectiveness of contact under conditions of socially acceptable prejudice. The thesis can be broken into the three

empirical sections (spread across four chapters), the first of which investigates whether two groups – people with schizophrenia in the U.K. and homosexual men in Jamaica – are truly targets of socially acceptable prejudice. Using motivation to control prejudice as a measure of the acceptability of the prejudice, I found that both groups were targets of legitimized prejudice: prejudice against people with schizophrenia was found to be more socially acceptable than prejudice against Black people in the U.K. and prejudice against homosexual men was more socially acceptable in Jamaica than in the U.K.

The second empirical section investigates whether or not contact is associated with less prejudice even against these targets. There was no evidence that increased relative social acceptability of prejudice in any way attenuates the effectiveness of contact as a prejudice-reducing mechanism. When people with schizophrenia were the relevant target group, contact was associated with less prejudice, though it is noteworthy that I did not compare the effectiveness of contact in this case with another case in which the prejudice was not socially acceptable.

However, when investigating contact and prejudice against homosexual men in Jamaica I did have the opportunity to compare the relationship between contact and prejudice in a condition of socially acceptable prejudice to the same relationship under a condition of socially unacceptable prejudice. I found that contact was a *better* negative predictor of prejudice when prejudice was socially acceptable than when it was not.

The third empirical section dealt with the effectiveness of imagined contact in reducing prejudice against people with schizophrenia in the U.K. The results of four

studies indicated that imagined contact may not always reduce prejudice against people with schizophrenia and, depending on the way in which it is conducted, may actually increase prejudice against this target group. However, if the imagined contact task is carefully constructed to be positive, imagined contact has the potential to successfully reduce prejudice, even in this case.

Below I highlight some of the contributions that this research has made to prejudice literature in general and contact literature in particular. Then I will discuss the potential limitations of this work and possible future research in these generally neglected areas before ending this section with a summary of the contributions of this thesis to the understanding of contact as a prejudice-reducing mechanism.

### Contributions of This Thesis

#### *Investigating Socially Acceptable Prejudice*

The idea that some forms of prejudice are more acceptable than others is neither a new, nor a controversial one (see Crandall, 2000). It is widely accepted that some forms of prejudice are more socially acceptable than others, and some research has demonstrated this empirically (e.g., Crandall et al., 2002). However, research in this area has been largely ignored (Crandall et al., 2002) and consequently it is sometimes the case that authors assert that a certain kind of prejudice is socially acceptable without any empirical backing. For two targets in particular – people with schizophrenia in the U.K., and homosexual men in Jamaica – it has often been suggested or asserted that they are

targets of relatively socially acceptable prejudice (e.g., Chin, 1997; Stier & Hinshaw, 2007), but neither of these two claims has ever been tested empirically.

In two studies using motivation to control prejudice as a measure of the relative social acceptability of prejudice, I demonstrated that the two selected target groups are indeed targets of socially acceptable prejudice. Of particular note is the fact that the second study demonstrated that the difference in the relative social acceptability of anti-homosexual prejudice between Jamaica, the U.K. and the U.S. cannot be attributed to cultural differences alone.

The first noteworthy contribution to the literature is the empirical finding that these two groups are indeed targets of socially acceptable prejudice. The second is the provision of a mechanism by which to test this assertion, not only for these groups but for several groups. Third is the expansion of the usefulness of the scales of motivation to control prejudice through using them, and examining their reliability, in three countries and for three different target groups. Originally, these scales were designed for use specifically in the U.S. with Black people as the relevant target group (Dunton & Fazio, 1997; Plant & Devine, 1998) The scales, with some minor modification, proved to be reliable ways of measuring the relative social acceptability of prejudice against three different target groups and in three different countries. Lastly, the methodology of Study 2 provided a means by which I could separate the cultural tendency to be more or less accepting of expressions of prejudice in general from the tendency to be more accepting of expressions of specific types of prejudice.

*Effects of Actual Contact under Conditions of Socially Acceptable Prejudice.*

Having established that the aforementioned groups are targets of socially acceptable prejudice, I examined the relationship between contact and prejudice against these groups. Five decades of contact research have provided ample evidence of the effectiveness of contact as a prejudice-reducing intervention for a wide variety of outgroups and under a wide variety of conditions (Pettigrew & Tropp, 2006). However, most contact research has been conducted in the U.S., using people of other races as the relevant target groups. Research concerning targets of socially acceptable prejudice is much rarer than research concerning targets against whom prejudice is not acceptable.

In both cases I found that contact was negatively related to prejudice, indicating that contact could be an effective prejudice-reducing mechanism, even under conditions that were far from optimal (see Allport, 1954; Pettigrew & Tropp, 2006). In Chapter 3 I investigated the role of fear, intergroup anxiety, and attitudes in mediating the relationship between contact and social rejection of people with schizophrenia. These variables have been discussed in the literature at some length (e.g., Angermeyer & Matschinger, 1997; Corrigan et al., 2001; Pettigrew & Tropp, 2006) but the relationships between these variables have never been explored in a single model. The research in Chapter 3 suggested not only that contact was negatively related to prejudice against this outgroup, but also suggested how contact may help to reduce prejudice.

In Chapter 4, I investigated the relationship between contact and prejudice against gay men in what has been called “the most homophobic place on Earth” (Pidget, 2006, p.

1). I found that contact was negatively related to prejudice, which further supported the robust nature of contact, and also found that intergroup anxiety mediated this relationship, which spoke to the reliability of intergroup anxiety as a mediator of the relationship between contact and attitudes (see also Pettigrew & Tropp, 2008 for a meta-analysis confirming the importance of intergroup anxiety). Perhaps more importantly, the research design provided the opportunity to compare the relationship between contact and prejudice in Jamaica to the same relationship in Britain, and found that the negative relationship between contact and prejudice was *stronger* in Jamaica, not weaker. This suggests that the social acceptability of a prejudice need not be an impediment to the effectiveness of contact at all, and may conversely render contact more effective.

*Effects of Imagined Contact under Conditions of Socially Acceptable Prejudice.*

Imagined contact is a relatively new intervention aimed at reducing prejudice in situations in which real contact is difficult, costly or potentially dangerous to orchestrate. However, imagined contact is yet to be tested in any of these situations, but rather only in situations in which contact would be relatively simple and safe to orchestrate (e.g., contact with gay men or the elderly in Britain; see Turner et al., 2007a). Imagined contact research involving targets for whom real contact is rare or difficult is necessary for demonstrating the usefulness of imagined contact in situations in which it is needed. Using people with schizophrenia in the U.K. as a target group offered the opportunity to do two things: to test the effectiveness of imagined contact in a situation for which it was

designed, and to test the effectiveness of imagined contact for a target of relatively socially acceptable prejudice.

The results were mixed. Imagined contact as operationalized previously (see Stathi et al., 2008; Turner et al., 2007a) failed to improve attitudes toward people with schizophrenia and even increased intergroup anxiety – a negative mediator of the effects of contact on prejudice. However, after some modification to make the imagined contact task more positive, I found that imagined contact did lead to less intergroup anxiety and more positive attitudes.

Chapter 5 suggests that, in some cases, the imagined contact instruction set may have to be explicitly positive in order to ensure a positive imagined contact experience and a subsequent improvement in intergroup attitudes. As such, imagined contact is similar to actual contact in that there are certain optimal conditions under which it works best and others under which it may be less effective or counter-effective. Of course the major advantage of imagined contact relative to actual contact is that it is far easier to manipulate the conditions of imagined contact scenarios than real contact scenarios.

Potential Limitations of This Research and Future Research

*Understanding the Role of Social Acceptability*

*A Moderator of the Effectiveness of Contact?*

It is a noteworthy point that even though this thesis seeks to explore the effectiveness of contact as a prejudice-reducing mechanism for targets of socially acceptable prejudice, there is no single study that incorporated both social acceptability and contact. The relative social acceptability of the prejudice against the two selected target groups was established in Chapter 2, but afterwards was not used either to predict prejudice against either outgroup or as a moderator of the relationship between contact and prejudice.

While this critique is valid, one must take into account the fact that research occurs in stages and that both of these groups are highly understudied. Many studies have attempted to explore the relationship between contact and prejudice against people with schizophrenia but none have done so specifically and directly. No study has ever attempted to investigate empirically the relationship between contact and anti-homosexual prejudice in Jamaica.

Thus, this thesis sought primarily to investigate whether or not contact and imagined contact work at all as prejudice-reducing mechanisms under such non-ideal conditions. Future research could then examine the precise role that social acceptability

has to play in the relationship between contact (or imagined contact) and prejudice against these target groups.

As mentioned in the previous sections, I hypothesise a moderating role of social acceptability on the effectiveness of contact. Specifically, I expect that direct contact is *more* effective as a prejudice-reducing mechanism under conditions of socially acceptable prejudice than under conditions of socially unacceptable prejudice. Similar moderating roles of social acceptability have been posited and found in previous research (e.g., Crandall et al., 2002), but I could find no research that directly investigated the role of social acceptability in moderating the relationship between contact, and any of its derivatives, and prejudice. In Study 4, I compared the relationship between contact and prejudice in Jamaica to the same relationship in Britain. However, this cannot truly be considered a test of the moderating role of social acceptability as many factors other than social acceptability, such as attitude strength or other cultural specificities, may explain the effectiveness of contact in the two countries. It is also equally reasonable to expect that the relationships between social acceptability, contact and prejudice are multi-directional. For example, contact with an outgroup could increase motivation to control prejudice against that group. All these relationships remain to be tested, and should be the subject of future research.

*A Moderator of the Effectiveness of Imagined Contact?*

In the previous section, I hypothesized that increased social acceptability may increase the strength of the (negative) relationship between direct contact and prejudice,

but increased social acceptability may paradoxically decrease the effectiveness of imagined contact. In the first 2 experiments in Chapter 5, I found that imagined contact was counter-effective as a means of reducing prejudice against people with schizophrenia. Alterations to the imagined contact task for the following 2 experiments rendered imagined contact effective for this outgroup. However, it is unclear whether the effectiveness of imagined contact in the next two experiments was due to the increased positivity of the imagined interaction, to the decreased social acceptability of prejudice against people with schizophrenia in these experiments, or to some combination. As present, there is not enough data to determine if social acceptability moderates the effectiveness of imagined contact, but future research could investigate the role that social acceptability has to play in the effectiveness of this promising new intervention.

*Sample Sizes and Samples of Convenience*

Another potential limitation of the work in this thesis is the reliance on relatively small sample sizes and samples of convenience (i.e., university students). It should be noted that the samples in these studies were limited to university students for pragmatic reasons, including but not limited to the financial resources necessary to gather representative population samples. However, it is also noteworthy that most psychological research relies on similar samples. Since the 1960's, most social psychological research has been conducted on college students using academic-like tasks in academic settings (see Sears, 1986). The consequences of this narrow data base for social psychology in general, and this thesis in particular, may include a distortion of

human behaviour so that it appears to resemble that of a university student more, and that of humanity in general less.

As yet, none of the research that has been conducted in this thesis has any parallel that has been conducted with more representative sample groups. This is unsurprising, as the two populations studied in this thesis are drastically understudied. However it is also problematic, and for this reason these results should be seen more as suggestive and preliminary than conclusive. As with all areas of research, replication and further investigation with larger and more representative samples will be necessary before conclusions can be drawn with a reasonable degree of certainty (Sears, 1986).

Furthermore, it is also important to note that efforts were made to minimize this limitation as far as possible. First, I made my samples as large as was pragmatically possible; most studies had over 100 participants and the largest contained almost 400 participants. For example, in Study 2 I compared almost four hundred students from Jamaica, Britain and the U.S., and in Study 4 I compared 375 students from Jamaica and Britain, participant numbers that are equal to or greater than those found in similar published research (e.g., Corrigan et al., 2001; Link & Cullen, 1986; Pinfold, Toulmin, Thornicroft, Huxley, Farmer & Graham, 2003). Also, when comparing two or more populations every attempt was made to match these populations as well as possible for gender and age (using university students meant that populations were already matched for education level), to statistically control for any relevant differences between the populations, and to test the invariance of the measures used across the populations.

*Correlational Data*

The data presented in Chapter 5 are from genuine experiments which allow statements of causation to be made. However a critique of the data reported in the first four chapters is that they are all correlational. As MacCallum and Austin (2000) point out, caution must be exercised when drawing any kind of causal conclusion, even from the most rigorous of statistical techniques. Thus, any causal relationships mentioned in the first four chapters (such as stating that contact influences prejudice and not the inverse) should be made very carefully if at all.

However, it is worth noting that this research does not exist in a vacuum, and that a large amount of previous research, including the extensive meta-analysis by Pettigrew and Tropp (2006), indicates that, even though the relationship between contact and prejudice is bi-directional, contact predicts prejudice far better than prejudice predicts contact. The use of longitudinal and genuinely experimental data in previous studies also justifies the assertion that contact influences prejudice.

Furthermore, I am aware of the possible pitfalls of cross-sectional data and did what was possible to increase confidence in my findings and proposed causal directions. In Chapter 3, in which I tested a model of contact and prejudice against people with schizophrenia, I also tested a reversed model and a theoretically plausible saturated model. In both cases the original model fit the data better than the alternative. Similarly, in Chapter 4, in which I tested a (somewhat simpler) model of the relationship between contact and prejudice against homosexual men, I also tested a reversed model and found

that the original model fit the data better than the reversed one. Nonetheless, given these limitations, future research should incorporate genuine experimental designs to permit causal conclusions to be drawn from the data.

*Additional Predictors and Mediators*

For both outgroups investigated in this thesis, I only looked at a limited, and largely negative, set of mediators and predicted variables. Recent research has attempted to include positive mediators and outcome variables into investigations of intergroup interactions. For homosexual men in Jamaica, empathy could be included as a mediator (Batson et al., 2007), as well as the potential for outgroup friendship (Paolini et al, 2007). Other predictors, such as religious ideology (Gentry, 1987; Herek & Capitanio, 1996; Herek & Gonzalez-Rivera, 2006) and perceptions of masculinity (Thompson & Pleck, 1986) have also been shown to predict attitudes toward homosexual men in other societies, and hypothesized to predict attitudes toward homosexual men in Jamaica (Pinnok, 2007; Saunders, 2003). The addition of these variables would contribute greatly to the understanding of the currently drastically understudied anti-homosexual prejudice found in Jamaica.

Similarly, when studying contact and prejudice against people with schizophrenia, I included mostly negative mediators such as fear and intergroup anxiety. However positive mediators such as benevolence (Taylor & Dear, 1981) and empathy (Batson et al., 1997) have also been shown to negatively predict prejudice. There are also other, ambivalent predictors of prejudice against persons with mental illnesses, such as

biogenetic causal beliefs. While increased adherence to beliefs in biogenetic causes of mental illnesses may result in less blame and personal responsibility attributed to the sufferer for his or her condition (Corrigan et al., 2001), increased biogenetic causal beliefs also predict increased perceptions of poorer prognoses, and overall greater social distance from people with schizophrenia (Angermeyer & Matschinger, 2005; Read, 2007). Predictors such as these are also very important in the study of prejudice against the mentally ill, and including these variables would paint a more complete picture of the antecedents of the stigma of schizophrenia.

*Attitude Strength and Endurance*

Previous studies have shown that imagined contact can reduce prejudice against other groups (e.g., Turner et al., 2007a) and the studies in this thesis have shown that modified imagined contact can reduce prejudice against people with schizophrenia. However, there is as yet no evidence that the effects of imagined contact endure beyond the duration of the experimental setting.

The goal of contact and of contact-based prejudice reducing interventions is not a temporary alteration of attitudes, but rather a lasting change in intergroup relations (Allport, 1954; Devine et al., 1996). Some studies have shown that the effects of direct contact do endure and have consequences for intergroup behaviour (e.g., Corrigan et al., 2001; 2002). However it is yet to be demonstrated that the reduction in prejudice after imagined contact endures any further than the experimental paradigm. If imagined

contact is to be a successful means of reducing prejudice and improving intergroup relations, it must be shown that the effects of imagined contact are not merely short lived.

### Conclusion

By investigating relatively socially acceptable prejudice, and the relationship between contact and prejudice and between imagined contact and prejudice under these extreme conditions, I believe that the research presented in this thesis has shown that actual contact is negatively related to prejudice even if the prejudice in question is relatively socially acceptable. The research reported in this thesis speaks to the robust nature of contact, even when conducted in realistic naturalistic settings, even under conditions of extreme and socially acceptable prejudice.

Similarly, this research also speaks to the potential of imagined contact as a prejudice-reducing mechanism against these outgroups. Like actual contact, imagined contact appears to work better under certain conditions - specifically, positive imagined contact reduced intergroup anxiety and improved attitudes better than neutral imagined contact. I stress that future work on prejudice against such outgroups can benefit from the simultaneous investigation of the relative social acceptability of the prejudice, along with contact, and the mediators of the relationship between contact and prejudice, if we are to design and implement prejudice-reducing strategies that can work even under the most severe conditions.

## REFERENCES

- Aberson, C. L., Shoemaker, C., & Tomolillo, C. (2004). Implicit bias and contact: The role of interethnic friendships. *Journal of Social Psychology, 144*, 335 – 347.
- Abrams, D., Crisp, R. J., Marques, S., Fagg, E., Bedford, L., & Provias, D. (2008). Threat inoculation: Experienced and imagined intergenerational contact prevents stereotype threat effects on older people's math performance. *Psychology and Aging, 23*, 934–939.
- Allen, R., & Nairn, R. G. (1997) Media depictions of mental illness: An analysis of the use of dangerousness. *Australian and New Zealand Journal of Psychiatry, 31*, 375 – 381.
- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Perseus Books.
- Amichai-Hamburger, Y., & McKenna, K. Y. A. (2006). The contact hypothesis reconsidered: Interacting via the Internet. *Journal of Computer-Mediated Communication, 11*, 825-843.
- Amir, Y. (1969). Contact hypothesis in ethnic relations. *Psychological Bulletin, 71*, 319–342.
- Amir, Y. (1976). The role of intergroup contact in change of prejudice and race relations. In P. Katz, & D. A. Taylor (Eds.), *Towards the elimination of racism* (pp. 245–308). New York: Pergamon Press.

- Amir, Y., Ben-Ari, R., Bizman, A., & Miriam Rivner. (1980). Objective versus subjective aspects of interpersonal relations between Jews and Arabs. *Journal of Conflict Resolution, 26*, 485 – 506.
- Angermeyer, M. C., & Matschinger, H. (1996a). The effect of personal experience with mental illness on the attitude towards individuals suffering from mental disorders. *Social Psychiatry and Psychiatric Epidemiology, 31*, 321 – 326.
- Angermeyer, M. C., & Matschinger, H. (1996b). The effect of diagnostic labelling on the lay theory regarding schizophrenic disorders. *Social Psychiatry and Psychiatric Epidemiology, 31*, 316 – 320.
- Angermeyer, M. C., & Matschinger, H. (1997) Social distance towards the mentally ill: results of representative surveys in the Federal Republic of Germany. *Psychological Medicine, 27*, 131–141.
- Angermeyer, M. C., & Matschinger, H. (2003). Public beliefs about schizophrenia and depression: Similarities and differences. *Journal of Social Psychiatry and Psychiatric Epidemiology, 38*, 526 – 553.
- Angermeyer, M. C., & Matschinger, H. (2004). The stereotype of schizophrenia and its impact on discrimination against people with schizophrenia: Results from a representative survey in Germany. *Schizophrenia Bulletin, 30*, 1049 – 1061.
- Angermeyer, M. C., & Matschinger, H. (2005). Causal beliefs and attitudes to people with schizophrenia: Trend analysis based on data from two population surveys in Germany. *British Journal of Psychiatry, 186*, 331 – 334.

- Arkar, H., & Eker, D. (1992). Influence of having a hospitalized mentally ill member in the family on attitudes toward mental patients in Turkey. *Journal of Social Psychiatry and Psychiatric Epidemiology*, *27*, 151 – 155.
- Aron, A., & Aron, E. N. (1996). Self and self-expansion in relationships. In G. Fletcher, & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 325-344). Hillsdale, NJ: Erlbaum.
- Baker, P. E. (1934). *Negro-White adjustment*. New York: Association Press.
- Banton, M. (1994). *Discrimination*. Buckingham, UK: Open University Press.
- Baron, R. M., & Kenny, D. A. (1986). The moderator – mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173 – 1182.
- Bassilli, J. N. (1996). Meta-judgmental versus operative indexes of psychological attributes: The case of measures of attitude strength. *Journal of Personality and Social Psychology*, *71*, 637 - 653.
- Batson, C. D., Polycarpou, M. P., Harmon-Jones, E., Imhoff, H. J., Mitchener, E. C., Bednar, L. L., Klein, T. R., & Highberger, L. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward the group? *Journal of Personality and Social Psychology*, *72*, 105 – 118.
- Bell, J. S., Johns, R., & Chen T. F. (2006). Pharmacy students' and graduates' attitudes towards people with schizophrenia and severe depression. *American Journal of Pharmaceutical Education*, *70*, 1 – 6.

- Bettencourt, B. A., Brewer, M. B., Croak, M. R., & Miller, N. (1992). Cooperation and reduction of intergroup bias: The role of reward structure and social orientation. *Journal of Experimental Social Psychology, 28*, 301-319.
- Bird, S., & Reid, T. (2009, September 11). British honorary consul, John Terry, murdered in Jamaica. *The Times Online*. Retrieved January 15, 2010 from [http://www.timesonline.co.uk/tol/news/world/us\\_and\\_americas/article6829343.e](http://www.timesonline.co.uk/tol/news/world/us_and_americas/article6829343.e)
- Bishop, G. (1991). Lay disease representations and responses to victims of disease. *Basic and Applied Social Psychology, 12*, 115 – 132.
- Blair, I. V., Ma, J. E., & Lenton, A. P. (2001). Imagining stereotypes away: The moderation of implicit stereotypes through mental imagery. *Journal of Personality and Social Psychology, 81*, 828 – 841.
- Blanchard, F. A., Crandall, C. S., Brigham, J. C., & Vaughn, L. A. (1994). Condemning and condoning racism: A social context approach to inter-racial settings. *Journal of Applied Psychology, 79*, 993 – 997.
- Blanchard, F. A., Lilly, T., & Vaughn, L. A. (1991). Reducing the expression of racial prejudice. *Psychological Science, 2*, 101–105.
- Blum, B. S., & Mann, J. H. (1960). The effect of religious membership on religious prejudice. *The Journal of Social Psychology, 52*, 97 - 101.
- Bordieri, L., & Dhremer, D. (1986). Hiring decisions for disabled workers: Looking at the cause. *Journal of Applied Social Psychology, 16*, 197 – 208.

- Bosman, J., Broder, J. M., Healy, J., Sussman, D., Urbina, I., & Zeleny, J. (2008, November 4). Obama wins election: McCain loses as Bush legacy is rejected. *The New York Times*, Retrieved June 18, 2009, from <http://www.nytimes.com/2008/11/05/us/politics/05campaign.html?ref=politics> .
- Boxhill, I., Lewis, B., Russell, R., & Bailey, A. (2007). *The political culture of democracy in Jamaica: 2006*. Vanderbilt University, Nashville, TN.
- Brewer, M. B. (1999). The psychology of prejudice: ingroup love or outgroup hate? *Journal of Social Issues*, *55*, 429 – 444.
- Brewer, M. B. (2000). Reducing prejudice through cross-categorization: Effects of multiple social identities. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 165-183). Mahwah, NJ: Erlbaum.
- Brewer, M. B., Dull, V., & Lui, L. (1981). Perceptions of the elderly: Stereotypes as prototypes. *Journal of Personality and Social Psychology*, *41*, 656 - 670
- Brewer, M. B., & Miller, N. (1984). Beyond the contact hypothesis: theoretical perspectives on desegregation. In N. Miller & M. B. Brewer (Eds.), *Groups in Contact: The Psychology of Desegregation* (pp. 281-302). Orlando, FL: Academic Press.
- Brockington, I. F., Hall, P., Levings, J., & Murphy, C. (1993). The community's tolerance of the mentally ill. *British Journal of Psychiatry*, *162*, 93 – 99.
- Brockman, J., & D'Arcy, C. (1978). Correlates of attitudinal social distance toward the mentally ill. *Social Psychiatry*, *13*, 69 – 77.

- Brown, R. (2000). Social identity theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology, 30*, 745 – 778.
- Brown, R., & Hewstone, M. (2005). An integrative theory of intergroup contact. In M. Zanna (Ed.), *Advances in experimental social psychology* (pp. 255-343). San Diego, CA: Academic Press.
- Brown, R., Maras, P., Masser, B., Vivian, J., & Hewstone, M. (2001). Life on the ocean wave: Testing some intergroup hypotheses in a naturalistic setting. *Group Processes and Intergroup Relations, 4*, 81 – 98.
- Brown, R., Vivian, J., & Hewstone, M. (1999). Changing attitudes through intergroup contact: The effects of group membership salience. *European Journal of Social Psychology, 29*, 741 – 764.
- Burns, J. F. (2009, February 2). Iceland Names New Prime Minister. *New York Times*. Retrieved February 1, 2010 from [http://www.nytimes.com/2009/02/02/world/europe/02iceland.html?\\_r=1](http://www.nytimes.com/2009/02/02/world/europe/02iceland.html?_r=1)
- Byrne, B. M. (2001). Structural equation modeling with AMOS: Basic concepts, applications and programming. Mahwah, NJ, US: Lawrence Erlbaum Associates, Inc.
- Campbell, H. (2009, October 14). Bujū meets gay group in San Francisco. *The Jamaica Gleaner*. Retrieved January, 20, 2010 from <http://www.jamaica-gleaner.com/gleaner/20091014/ent/ent2.html>.

- Carithers, M. W. (1970). School desegregation and racial cleavage, 1954 – 1970: A review of the literature. *Journal of Social Issues, 26*, 25–47.
- Carr, R. (2003). On “judgments”: poverty, sexuality-based violence and social justice in 21<sup>st</sup> Century Jamaica. *Caribbean Journal of Social Work, 2*, 71 – 87.
- Case, C. E., & Greeley, A. M. (1990). Attitudes toward racial equality. *Humboldt Journal of Social Relations, 16*, 67 – 94.
- Chin, T. S. (1997). ‘Bullers’ and ‘Battymen’; Contesting homophobia in black popular culture and contemporary Caribbean literature. *Callaloo, 20*, 127 – 141.
- Chinsky, J. M., & Rappaport, J. (1970). Attitude change in college students and chronic patients: A dual perspective. *Journal of Counselling and Clinical Psychology, 35*, 388 – 394.
- Chou, K. L., & Mak, K. Y. (1998) Attitudes to mental patients among Hong Kong Chinese: A trend study over two years. *International Journal of Social Psychiatry, 44*, 215 – 224.
- Chung, K. F., Chen, E. Y. H., & Lui, C. S. M. (2001). University students’ attitudes toward mental patients and psychiatric treatment. *International Journal of Social Psychiatry, 47*, 63 – 72.
- Clark-Carter, D. (1997). Doing quantitative psychological research: From design to report. Hove: Psychology Press.
- Cook, S. W. (1978). Interpersonal and attitudinal outcomes in cooperating interracial groups. *Journal of Research and Development in Education, 12*, 97-113.

- Cook, S. W. (1984). Cooperative interaction in multiethnic contexts. In N. Miller & M. B. Brewer (Eds.), *Groups in contact: The psychology of desegregation* (pp. 155–185). Orlando, FL: Academic Press.
- Corrigan, P. W., Green, A., Lundin, R., Kubiak, M. A., & Penn, D. L. (2001). Familiarity with and social distance from people who have serious mental illness. *Psychiatric Services, 52*, 953 – 958.
- Corrigan, P. W., Rowan, D., Green, A., Lundin, R., River, P., Uphoff-Wasowski, K., White, K., & Kubiak, M. A. (2002). Challenging two mental illness stigmas: personal responsibility and dangerousness. *Schizophrenia Bulletin, 28*, 293 – 310.
- Crandall, C. S. (2000). Ideology and lay theories of stigma: The justification of stigmatization. In T. Heatherton, J. Hull, R. Kleck, & M. Hebl (Eds.), *The social psychology of stigma* (pp. 126 - 150). New York: Guilford.
- Crandall, C. S., & Eshleman, A. (2003). A justification-suppression model of the expression of prejudice. *Psychological Bulletin, 129*, 414 - 446.
- Crandall, C. S., Eshleman, A., & O'Brien, L. (2002). Social norms and the expression and suppression of prejudice: The struggle for internalization. *Journal of Personality and Social Psychology, 82*, 359 – 378.
- Creech, S. K. (1977). Changes in attitudes about mental illness among nursing students following a psychiatric affiliation. *Journal of Psychiatric Nursing and Mental Health Services 15*, 9 – 14.

- Crisp, A. H., Gelder, M. G., Rix, S., Meltzer, H. I., & Rowlands, O. J. (2000). Stigmatization of people with mental illness. *British Journal of Psychiatry*, *177*, 4 – 7.
- Crisp, R., Stathi, S., Turner, R. N., & Husnu, S. (2008). Imagined Intergroup Contact: Theory, Paradigm and Practice. *Social and Personality Psychology Compass*, *3*, 1 – 18.
- Das, E., Bushman, B. J., Bezemer, M. D., Kerkhof, P., & Vermeulen, I. E. (2009). How terrorism news reports increase prejudice against outgroups: A terror management account. *Journal of Experimental Social Psychology*, *45*, 453 – 459.
- Desforges D. M., Lord, C. G., Ramsey, S. L., Mason, J. A., Van Leeuwen, M.D., West, M. C., & Lepper, M. R. (1991). Effects of structured cooperative contact on changing negative attitudes toward stigmatized social groups. *Journal of Personality and Social Psychology*, *60*, 531 – 44.
- Deutsch, M., & Collins, M. (1951). *Interracial housing: A psychological evaluation of a social experiment*. Minneapolis: University of Minnesota Press.
- Devine, P. G., Evett, S. R., & Vasques-Suson, K. A. (1996). Exploring the interpersonal dynamics of intergroup contact. In R. M. Soreentino & E. T. Higgins (Eds.), *Handbook of Motivation and Cognition, Vol 3, The interpersonal context* (pp. 423 - 464). New York: Guilford Press.

- Diaz, R. M. (2001). The impact of homophobia, poverty and racism on the mental health of gay and bisexual Latino men. *American Journal of Public Health, 91*, 927 – 932.
- Dixon, J., Durrheim, K., & Tredoux, C. (2005). Beyond the optimal contact strategy: A reality check for the contact hypothesis. *American Psychologist, 60*, 697-711.
- Dovidio, J. F., & Gaertner, S. L. (1991). Changes in the expression and assessment of racial prejudice. In H. J. Knopke, R. J. Norrell, & R. W. Rogers (Eds.), *Opening doors: Perspectives on race relations in contemporary America*. (pp. 119-148). University, AL, US: The University of Alabama Press
- Dovidio, J. F., Brigham J. C., Johnson, B. T., & Gaertner, S. L., (1996). Stereotyping, prejudice, and discrimination: another look. In C. N. Macrae, C. Stangor, & M. Hewstone (Eds.), *Stereotypes and stereotyping* (pp. 276–322). New York, NY: Guilford.
- Dowden, B. C., & Robinson, J. P. (1993). Age and cohort differences in American racial attitudes: The generational replacement hypothesis revisited. In P. M. Sniderman, P. E. Tetlock, & E. G. Carmines (Eds.), *Prejudice, Politics, and the American Dilemma* (pp. 86 - 103). Stanford, California, U. S. A.
- Dunton, B. C., & Fazio, R. H. (1997). An individual difference measure of motivation to control prejudiced reactions. *Personality and Social Psychology Bulletin, 23*, 316 – 326.

- Edgell, P., Gerteis, J., & Hartmann, D. (2006). Atheists as “Other”. Moral Boundaries and cultural membership in American society. *American Sociological Review*, 71, 211 - 234.
- Eller, A., & Abrams, D. (2003). 'Gringos' in Mexico: cross-sectional and longitudinal effects of language school-promoted contact on intergroup bias. *Group Processes and Intergroup Relations*, 6, 55 – 75.
- Eller, A., & Abrams, D. (2004). Come Together: Longitudinal Comparisons of Pettigrew's Reformulated Intergroup Contact Model and the Common Ingroup Identity Model in Anglo-French and Mexican-American Contexts. *European Journal of Social Psychology*, 34, 1 – 28.
- Eller, A., Abrams, D., Viki, G., Tendayi, I., Dionne, A., & Peerbux, S. (2007). Stay Cool, Hang Loose, Admit Nothing: Race, Intergroup Contact, and Public-Police Relations. *Basic and Applied Social Psychology*, 29, 213 — 224.
- Ensari, N., & Miller, N. (2002). The out-group must not be so bad after all: the effects of disclosure, typicality, and salience on intergroup bias. *Journal of Personality and Social Psychology*, 83, 313-329.
- Farquharson, J. T. (2005) Fiya-bon: The socio-pragmatics of homophobia in Jamaican (Dancehall) culture. (pp. 101 - 118) In Muhleisen, S. & Migge, B. (Eds.), *Politeness and Face in Caribbean Creoles*: Amsterdam: Blackwell Publishing.

- Fazio, R. H. (1990). Multiple processes by which attitudes guide behavior: The MODE model as an integrative framework. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 23, pp. 75-109). San Diego, CA: Academic Press.
- Fazio, R. H., Jackson, J. R., Dunton, B. C., & Williams, C. J. (1995). Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology*, *69*, 1013-1027.
- Feldman, D. B., & Crandall, C. S., (2007). Dimensions of mental illness stigma: What about mental illness causes social rejection? *Journal of Social and Clinical Psychology*, *26*, 137 – 154.
- Festinger, L., & Kelley, H. (1951). *Changing attitudes through social contact*. Ann Arbor: University of Michigan, Institute for Social Research.
- Fine, G. A. (1979). The Pinkston settlement: An historical and social psychological investigation of the contact hypothesis. *Phylon*, *40*, 229 – 242.
- Firebaugh, G., & Davis, K. E. (1988). Trends in anti-Black prejudice, 1972–1984: Region and cohort effects. *American Journal of Sociology*, *94*, 251–272.
- Fiske, S. T., Cuddy, A. J. C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, *82*, 878-902.
- Ford, W. S. (1986). Favorable intergroup contact may not reduce prejudice: Inconclusive journal evidence, 1960–1984. *Sociology and Social Research*, *70*, 256–258.

- Furnham, A., & Chan, E. (2004). Lay theories of schizophrenia: A cross-cultural comparison of British and Hong Kong Chinese attitudes, attributions and beliefs. *Social Psychiatry and Psychiatric Epidemiology*, *39*, 543 – 532.
- Gaertner, S. L., Rust, M.C., Dovidio, J. F., Bachman, B. A., & Anastasio, P. A. (1994). The contact hypothesis: The role of a common ingroup identity on reducing intergroup bias. *Small Group Research*, *25*, 224 – 49.
- Gaertner, S. L., Dovidio, J. F., & Bachman, B. A. (1996). Revisiting the contact hypothesis: The induction of a common ingroup identity. *International Journal of Intercultural Relations*, *20*, 271 – 290.
- Gaertner, S. L., Dovidio, J., Anastasio, P. A., Bachman, B. A., & Rust, M. C. (1993). The common ingroup identity model: Recategorization and the reduction of intergroup bias. *European Review of Social Psychology*, *4*, 1 – 26.
- Gaertner, S. L., & Dovidio, J. (2000). *Reducing intergroup bias: The common ingroup identity model*. Hove: Psychology Press.
- Galinsky, A. D., & Moskowitz, G. B. (2000). Perspective taking: Decreasing stereotype expression, stereotype accessibility and in-group favoritism. *Journal of Personality and Social Psychology*, *78*, 708 – 724.
- Gay lobby rebuked – Church says won't accept homosexual lifestyle in Jamaica. (2008, February 18). Jamaica Gleaner. Retrieved December 3, 2008 from <http://www.jamaica-gleaner.com/gleaner/20080218/lead/lead1.html>.

- Gelfand, S. & Ullmann, L. (1961) Attitude changes associated with a psychiatric affiliation. *Nursing Research*, 8, 201–203.
- Glascok, J. (2004). The Jasper dragging death: Crisis communication and the community newspaper. *Communication Studies*, 55, 29–47.
- Goodnough, A. (2009, June 3). New Hampshire Legalizes Same-Sex Marriage. *The New York Times*, p. A 19.
- Gonzalez, R. & Brown, R. (2006). Dual identities in intergroup contact: Group status and size moderate the generalization of positive attitude change. *Journal of Experimental Social Psychology*, 42, 6, 753 – 767.
- Gopinath, G. (2005). Impossible Desires. Queer Diasporas and South Asian Public Cultures. Durham: Duke UP, 2005.
- Green, D. P., McFalls, L. H., & Smith, J. K. (2001). Hate crime: An emergent research agenda. *Annual Review of Sociology*, 27, 479 – 504.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, 74, 1464 – 1480.
- Gruman, J. C., & Sloan, R. P. (1983). Disease as justice: Perceptions of the victims of physical illness. *Basic and Applied Social Psychology*, 4, 39 – 46.
- Guilford, J. P. (1954). *Psychometric methods*. New York:
- Guimon, J., Fischer, W., & Sartorius, N. (Eds.) (1999). The image of madness: The public facing mental illness and psychiatric treatment. Basel: Karger.

- Haddock, G., Zanna, M. P., & Esses, V. M. (1993). Assessing the structure of prejudicial attitudes: The case of attitudes toward homosexuals. *Journal of Personality and Social Psychology, 65*, 1105 – 1118.
- Hamberger, J., & Hewstone, M. (1997). Inter-ethnic contact as a predictor of blatant and subtle prejudice: Tests of a model in four West European nations. *British Journal of Social Psychology, 36*, 173 – 190.
- Hansen, G. L. (1982). Measuring prejudice against homosexuality (homosexism) among college students: A new scale. *Journal of Social Psychology, 117*, 233 – 236.
- Harwood, J., Hewstone, M., Paolini, S., & Voci, A. (2005). Grandparent-grandchild contact and attitudes towards older adults: Moderator and mediator effects. *Personality and Social Psychology Bulletin, 31*, 393 – 406.
- Hastings, R. P., & Graham, S. (1995). Adolescents' Perceptions of Young People with Severe Learning Difficulties: the effects of integration schemes and frequency of contact. *Educational Psychology, 15*, 149 — 159.
- Henderson, N., & Shefer, T. (2008). Practices of power and abuse in gay male relationships: an exploratory case study of a young, Xhosa-speaking man in the Western Cape, South Africa. *South African Journal of Psychology, 1*, 1 – 10.
- Herek, G. M. (1986). On heterosexual masculinity: Some psychical consequences of the social construction of gender and sexuality. *American Behavioral Scientist, 29*, 563 – 577.

- Herek, G. M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *Journal of Sex Research, 25*, 451 – 477.
- Herek, G. M. (2000). The psychology of sexual prejudice. *Current Directions in Psychological Science, 9*, 19 – 22.
- Herek, G. M., & Berrill, K. T. (1992). *Hate Crimes: Confronting Violence against Lesbians and Gay Men*. Thousand Oaks, CA: Sage.
- Herek, G. M., & Capitano, J. P. (1996). “Some of my best friends”: Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality and Social Psychology Bulletin, 22*, 412 – 424.
- Herek, G. M., & Capitano, J. P. (1999). Sex differences in how heterosexuals think about lesbians and gay men: Evidence from survey context effects. *Journal of Sex Research, 36*, 348 – 360.
- Herek, G. M., Gillis, J. R., & Cogan, C. J. (1999). Psychological sequelae of hate-crime victimization among lesbian, gay and bisexual adults. *Journal of Consulting and Clinical Psychology, 67*, 945 – 951.
- Herek, G.M., & Gonzalez-Rivera, M. (2006). Attitudes toward homosexuality among U.S. residents of Mexican descent. *Journal of Sex Research, 43*, 122 – 135.
- Hewstone, M. (1994). Revision and change of stereotypic beliefs: In search of the elusive subtyping model. In W. Stroebe, & M. Hewstone (Eds.), *European review of social psychology* (pp. 69 – 109). Chichester, UK: J. Wiley.

- Hewstone, M. (2009). Living apart, living together? The role of intergroup contact in social integration. *Max Planck Institute for the Study of Religious and Ethnic Diversity, Working Paper, 9 – 12.*
- Hewstone, M., & Cairns, E. (2001). Social psychology and intergroup conflict. In D. Chirot, & M. E. P. Seligman (Eds.), *Ethnopolitical warfare: Causes, consequences, and possible solutions* (pp. 319-342). Washington, D.C: American Psychological Association.
- Hewstone, M., & Brown, R. (1986). Contact is not enough: An intergroup perspective on the ‘contact hypothesis’. In M. Hewstone, & R. Brown (Eds.), *Contact and conflict in intergroup encounters* (pp. 1 – 44). Oxford, UK: Blackwell.
- Hewstone, M., Cairns, E., Voci, A., Hamberger, J., & Niens, U. (2006). Intergroup contact, forgiveness, and experience of ‘The Troubles’ in Northern Ireland. *Journal of Social Issues, 62*, 99 – 120.
- Hewstone, M., Cairns, E., Voci, A., McLernon, F., Niens, U., & Noor, M. (2004). Intergroup forgiveness and guilt in Northern Ireland: Social psychological dimensions of ‘The Troubles’. In N. R. Branscombe, & B. Doosje (Eds.), *Collective guilt: International perspectives* (pp. 193 – 215). New York: Cambridge University Press.
- Hewstone, M., Rubin, M., & Willis, H., (2002). Intergroup bias. *Annual Review of Psychology, 53*, 575 – 604.

- Hewstone, M., Sharp, M., & Judd, C. M. Validating self-reports of intergroup contact using observer ratings: A round-robin analysis. *Manuscript under review*.
- Hicks, J. M., & Spaner, F. E. (1962). Attitude change and mental hospital experience. *Journal of Abnormal and Social Psychology, 65*, 112 – 120.
- Hinshaw, S., & Cicchetti, D. (2000). Stigma and mental disorder: Conceptions of illness, public attitudes, personal disclosure, and social policy. *Development and Psychopathology, 12*, 555 – 598.
- Hochschild, J. L., & Monica, H. (1990). 'Yes, but . . . ': Principles and caveats in American racial attitudes. In J. W. Chapman, & A. Wertheimer, (Eds.), *Nomos XXXII: Majorities and Minorities* (pp. 308–35). New York: New York University Press.
- Holmes, E. A., & Mathews, A. (2005). Mental imagery and emotion: A special relationship? *Emotion, 5*, 489 – 497.
- Holmes, E. A., Geddes, J. R., Colom, F., & Goodwin, G. M. (2008). Mental imagery as an emotional amplifier: Application to bipolar disorder. *Behaviour Research and Therapy, 46*, 1251 – 1258.
- Holmes, E. A., Mathews, A., Dalgleish, T., & Mackintosh, B. (2006) Positive interpretation training: Effects of mental imagery versus verbal training on positive mood. *Behavior Therapy, 37*, 237 – 247.
- Holmes, E. P., Corrigan, P. W., Williams, P., Canar, J., & Kubiak, M. (1999). Changing attitudes about schizophrenia. *Schizophrenia Bulletin, 25*, 447 – 456.

- Homophobic silliness and a failure of leadership. (2008, May 22). *Jamaica Gleaner*. Retrieved December 3, 2008 from <http://www.jamaica-gleaner.com/gleaner/20080522/cleisure/cleisure1.html>.
- Hood, M. V., III, & Morris, I. L. (2000). Brother, can you spare a dime? Racial/ethnic context and the Anglo vote on Proposition 187. *Social Science Quarterly*, *81*, 194 – 206.
- Hornsey, M.J., & Hogg, M. A. (2000). Sub-group relations: two experiments comparing subgroup differentiation and common ingroup identity models of prejudice reduction. *Personality and Social Psychology Bulletin*, *26*, 242 – 56.
- Husnu, S. & Crisp, R. J. (2010). Imagined intergroup contact: A new technique for encouraging inter-ethnic contact in Cyprus. *Peace and Conflict: Journal of Peace Psychology*, *16*, 97 – 108.
- Identity Politics and Homophobia. (2008, June 1). *Jamaica Gleaner*. Retrieved December 3, 2008 from <http://www.jamaica-gleaner.com/gleaner/20080601/focus/focus3.html>.
- Iguchi, M. T., & Johnson, R. C. (1966). Attitudes of students associated with participation in a mental-hospital volunteer program. *Journal of Social Psychology*, *68*, 107 – 111.
- Islam, R. M., & Hewstone, M. (1993). Dimensions of contact as predictors of intergroup anxiety, perceived out-group variability and out-group attitudes: An integrative model. *Personality and Social Psychology Bulletin*, *19*, 700 – 710.

- Jackman, M. R., & Crane, M. (1986). "Some of my best friends are black . . .": Interracial friendship and whites' racial attitudes. *Public Opinion Quarterly*, *50*, 459 – 486.
- Jensen, L., Gambles, D., & Olsen, J. (1988). Attitudes toward homosexuality: A cross-cultural analysis of predictors. *International Journal of Social Psychiatry*, *34*, 47–57
- Jost, J. T., & Hunyady, O. (2005). Antecedents and Consequences of System-Justifying Ideologies. *Current Directions in Psychological Science*, *14*, 260 - 265.
- Jost, J. T., Banaji, M. R., & Nosek, B. A. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, *25*, 881 – 919.
- Judd, C. M., & Kenny, D. A. (1981). Process analysis: Estimating mediation in treatment evaluations. *Evaluation Review*, *5*, 602 – 619.
- Kite, M. E., & Whitley, B. E., Jr. (1998). Do heterosexual women and men differ in their attitudes toward homosexuality? A conceptual and methodological analysis. In G. M. Herek (Ed.), *Stigma and sexual orientation: Understanding prejudice against lesbians, gay men, and bisexuals* (pp. 39 - 61). Newbury Park, CA: Sage.
- Kraemer, H. C., Wilson, T., Fairburn, C. G., & Agras, W. S. (2002). Mediators and moderators of treatment effects in randomized clinical trials. *Archives of General Psychiatry*, *59*, 877 – 883.

- Krosnick, J. A., Boninger, D. S., Chuang, Y. C., Berent, M. K., & Carnot, C. G. (1993). Attitude strength: One construct or many related constructs? *Journal of Personality and Social Psychology*, *65*, 1132 – 1151.
- Kulik, J. A., Martin, R. A., & Scheibe, K. E. (1969). Effects of mental hospital volunteer work on students' conceptions of mental illness. *Journal of Clinical Psychology*, *25*, 326 – 329.
- Lambert, M. C., Weisz, J. R., Knight, F., Desrosiers, M., Overly, K., & Thesiger, C. (1992). Jamaican and American adult Perspectives on child psychopathology: Further exploration of the threshold model. *Journal of Consulting and Clinical Psychology*, *60*, 146 – 149.
- Lance, L. M. (1987). The effects of interaction with gay persons on attitudes toward homosexuality. *Human Relations*, *40*, 329 – 336.
- Leach, C. W., Peng, T. R., & Volkens, J. (2000). Is racism dead? Comparing (expressive) means and (structural equation) models. *British Journal of Social Psychology*, *39*, 449 – 465.
- Lehne, G. K. (1976). Homophobia among men. In D. David, & R. Brannon (Eds.), *The forty-nine percent majority: The male sex role* (pp. 66 - 88). Reading, MA: Addison-Wesley.
- Levin, S., van Laar, C., & Sidanius, J. (2003). The effects of ingroup and outgroup friendships on ethnic attitudes in college: A longitudinal study. *Group Processes and Intergroup Relations*, *6*, 76-92.

- Liebkind, K., & McAlister, A. L. (1999). Extended contact through peer modelling to promote tolerance in Finland. *European Journal of Social Psychology, 29*, 765 – 780.
- Link, B.G. (1987). Understanding labelling effects in the area of mental disorders: An assessment of the effects of expectations of rejection. *American Sociological Review, 52*, 96 – 112.
- Link, B. G., & Cullen, F. T. (1986). Contact with the mentally ill and perceptions of how dangerous they are. *Journal of Health and Social Behavior, 27*, 289 – 303.
- Link, B., Phelan, J., Bresnahan, M., Stueve, A., & Pescosolido, B. (1999). Public conceptions of mental illness: Labels, causes, dangerousness, and social distance. *American Journal of Public Health, 89*, 1328 – 1333.
- London pressures dancehall stars. (2004, June 24). *Jamaica Gleaner*. Retrieved December 3, 2008 from <http://www.jamaica-gleaner.com/gleaner/20040627/lead/lead2.html>.
- MacCallum, R. C., & Austin, J. T. (2000). Applications of structural equation modeling in psychological research. *Annual Review of Psychology, 51*, 201 – 226.
- Mackie, D. M., & Smith, E. R. (2002). From prejudice to intergroup emotions: Differentiated reactions to social groups. New York & Hove: Psychology Press.
- Malla, A., & Shaw, T. (1987) Attitudes towards mental illness: The influence of education and experience. *The International Journal of Social Psychiatry, 33*, 33 – 41.

- Marwaha, S., & Johnson, S. (2004). Schizophrenia and employment: A review. *Social Psychiatry and Psychiatric Epidemiology*, *39*, 337 – 349.
- Maykovich, M. K. (1975). Correlates of racial prejudice. *Journal of Personality and Social Psychology*, *32*, 1014 – 1020.
- McIntosh, P., (1998). White Privilege and Male Privilege: A Personal Account of Coming to See Correspondences Through Work in Women's Studies. *Working paper 189*.
- McLelland, M. J. (2000) Male homosexuality in modern Japan: Cultural myths and social realities. Richmond, Surrey: Curzon.
- Mendes, W. B., Blascovich, J., Lickel, B., & Hunter, S. (2002). Challenge and threat during social interactions with white and black men. *Personality and Social Psychology Bulletin*, *28*, 939 – 952.
- Millham, J., San Miguel, C. L., & Kellog, R. (1976). A factor-analytic conceptualization of attitudes toward males and female homosexuals. *Journal of Homosexuality*, *2*, 3 – 10.
- Mirabi, M., Weinman, M. L., Magnetti, S. M., & Keppler, K. N. (1985). Professional attitudes toward the chronic mentally ill. *Hospital and Community Psychology*, *36*, 404 – 405.
- Morin, S. F., & Garfinkle, E. M. (1978). Male homophobia. *Journal of Social Issues*, *34*, 29 – 47.

- Morris, K. D. (1964). Behavioural change: A concomitant of attitude change in nursing students. *Nursing Research, 13*, 132 – 138.
- Mostafa, M. M. (2005). Attitudes towards women managers in the United Arab Emirates: The effects of patriarchy, age, and sex differences, *Journal of Managerial Psychology, 20*, 522 – 540.
- Muller, D., Judd, C. M., & Yzerbyt, V. T. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology, 89*, 852-863.
- Nederhof, A. J. (1984). Methods of coping with social desirability bias: a review. *European Journal of Social Psychology, 15*, 263 – 280.
- Ng, C. H. (1997). The stigma of mental illness in Asian cultures. *Australian and New Zealand Journal of Psychiatry, 31*, 382 — 390.
- Norman, L. R., Carr, R., & Jiménez, J. (2006). Sexual stigma and sympathy: Attitudes towards persons living with HIV in Jamaica. *Culture, Health & Sexuality, 8*, 423 – 433.
- Ogedengbe R. O. (1993) Prior contacts and perceptions of previously mentally disturbed patients. *International Journal of Nursing Studies, 30*, 247–259.
- Oskamp, S., & Jones, J. M. (2000). Promising practice in reducing prejudice: A report from the President's Initiative on Race. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 319–334). Mahwah, NJ: Erlbaum.

- OUTRAGED! – British gays use Brian Williamson’s death to push agenda. (2004, June 13). *Jamaica Gleaner*. Retrieved December 3, 2008 from <http://www.jamaica-gleaner.com/gleaner/20040613/news/news1.html>.
- Page, S. (1983). Psychiatric stigma: Two studies of behaviour when the chips are down. *Canadian Journal of Community Mental Health, 2*, 13 – 19.
- Paolini, S., Hewstone, M., Cairns, E., & Voci, A. (2004). Effects of direct and indirect cross-group friendships on judgements of Catholics and Protestants in Northern Ireland: The mediating role of an anxiety-reduction mechanism. *Personality and Social Psychology Bulletin, 30*, 770 – 786.
- Patchen, M. (1999). Diversity and unity: Relations between racial and ethnic groups. Chicago: Nelson-Hall.
- Paykel, E. S., Hart, D., & Priest, R.G. (1998). Changes in public attitudes to depression during the Defeat Depression Campaign. *British Journal of Psychiatry, 173*, 519 – 522.
- Pettigrew, T. F. (1971). *Racially separate or together?* New York: McGraw-Hill.
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology, 49*, 65 - 85.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*, 751 – 783.

- Pettigrew, T. F., & Tropp, L. R. (2008). How does contact reduce prejudice? A meta-analytic test of three mediators. *European Journal of Social Psychology, 38*, 922-934.
- Phinney, J. S., Ferguson, D. L., & Tate, J. D. (1997). Intergroup attitudes among ethnic minority adolescents: A causal model. *Child Development, 68*, 955 – 969.
- Puhl, R., & Brownell, K. D. (2001). Bias, discrimination, and obesity. *Obesity Research, 9*, 788 – 805.
- Pidgett, T. (2006, April 12). “The most homophobic place on Earth?” *Time Magazine*.
- Pinfold, V., Toulmin, H., Thornicroft, G., Huxley, P., Farmer, P., & Graham, T. (2003). Reducing psychiatric stigma and discrimination: evaluation of education interventions in U.K. secondary schools. *British Journal of Psychiatry, 182*, 342 – 346.
- Pinnock, A. M. N. (2005). “A Ghetto Education is Basic”: (Jamaican) Dancehall masculinities as counter-culture. *Journal of Pan African Studies, 1*, 47 – 83.
- Plant, E. A., & Devine, P. G. (1998). Internal and External Motivation to Respond Without Prejudice. *Journal of Personality and Social Psychology, 72*, 811 – 832.
- Plant, E. A., & Devine, P. G. (2003). The antecedents and implications of interracial anxiety. *Personality and Social Psychology Bulletin, 29*, 790 – 801.
- Polimeni, A., Hardie E., & Buzwell, S. (2000) Homophobia among Australian heterosexuals: The role of sex, gender role ideology and gender role traits. *Current Research in Social Psychology, 5*, 47 – 62.

- Pope Benedict criticizes homosexual behaviour (2008, December 22). *New York Times*. Retrieved December 8, 2009 from <http://www.nytimes.com/2008/12/22/world/europe/22iht-23pope.18872459.html>.
- Powers, D. A., & Ellison, C. G. (1995). Interracial contact and black racial attitudes: the contact hypothesis and selectivity bias. *Social Forces*, 74, 205 – 226.
- Raguram, R., Weiss, M. G., Channabasavanna, S. M., & Devins, G. M. (1996). Stigma, depression, and somatization in South India. *American Journal of Psychiatry*, 153, 1043 – 1049.
- Rayside, D. M. (1992). Homophobia, class and party in England. *Canadian Journal of Political Science*, 25, 121 – 149.
- Read, J. (2007). Why promoting biological ideology increases prejudice against people labelled “schizophrenic”. *Australian Psychologist*, 42, 118 – 128.
- Richardson, S. A., Hastorf, A. H., Goodman, N., & Dornbusch, S. M. (1961). Cultural uniformity in reaction to physical disabilities. *American Sociological Review*, 26, 241 – 247.
- Richeson, J. A., Baird, A. A., Gordon, H. L., Heatherton, T. F., Wyland, C. L., Trawalter, S., & Shelton, J. N. (2003). An fMRI investigation of the impact of interracial contact on executive function. *Nature Neuroscience*, 6, 1323 - 1328.

- Rivers, I., & Cowie, H. (2006). Bullying and homophobia in U.K. schools: A perspective on factors affecting resilience and recovery. *Journal of Gay and Lesbian Issues in Education, 3*, 11 – 43.
- Roediger, D. (1999). *The Wages of Whiteness: Race and the Making of the American Working Class*. New York, Verso.
- Roman, P. M., & Floyd, H. H. (1981). Social acceptance of psychiatric illness and psychiatric treatment. *Social Psychiatry, 16*, 21 – 29.
- Rose, D. (2004, November 18). ‘We won’t be bullied’ – Gov’t says it has no plan to repeal buggery law; denies anti-gay allegations. *Jamaica Gleaner*. Retrieved October 14, 2008 from <http://www.jamaica-gleaner.com/gleaner/20041118/lead/lead1.html>
- Rudman, L. A., Ashmore, R. D., & Gary M. L. (2001). Unlearning automatic biases: The malleability of implicit prejudice and stereotypes. *Journal of Personality and Social Psychology, 81*, 856-868.
- Rutland, A. (1999). The development of national prejudice, in-group favouritism and self-stereotypes in British children. *British Journal of Social Psychology, 38*, 55 - 70.
- Ryan, C., & Rivers, I. (2003). Lesbian, gay, bisexual and transgender youth: Victimization and its correlates in the USA and UK. *Culture, Health and Sexuality, 5*, 103 – 119.

- Salih, S. (2007). "Our people know the difference, black is a race, Jew is a religion, fagotism is a sin". *Wasafiri*, 22, 1 – 5.
- Scheibe, K. E. (1965). College students spend eight weeks in mental hospital: A case report. *Psychotherapy: Theory, Research & Practice*, 2, 117-120.
- Schleifer, R. (2004). *Hated to Death: Homophobia, Violence and Jamaica's HIV / AIDS Epidemic*, New York, NY: Human Rights Watch.
- Schulze, B., & Angermeyer, M. C., (2003). Subjective experiences of stigma. A focus group study of schizophrenia patients, their relatives, and mental health professionals. *Social Science and Medicine*, 56, 299 – 312.
- Sears, D. O. (1986). College sophomores in the laboratory: Influences of a narrow data base on social psychology's view of human nature. *Journal of Personality and Social Psychology*, 51, 515 – 530.
- Sears, D. O., & Henry, P. J. (2003). The origins of symbolic racism. *Journal of Personality and Social Psychology*, 85, 259 – 275.
- Sharpe, J., & Pinto, S. (2006). The sweetest taboo: Studies of Caribbean sexualities; A review essay. *Journal of Women in Culture and Society*, 32, 247 – 274.
- Shelton, J. N., & Richeson, J. A. (2005). Intergroup contact and pluralistic ignorance. *Journal of Personality and Social Psychology*, 88, 91–107.
- Shera, W., & Delva-Tauiliili, J. (1996). Changing MSW students' attitudes towards the severely mentally ill. *Community Mental Health Journal*, 32, 159–169.
- Sherif, M., & Sherif, C. W. (1953). *Groups in Harmony and Tension*, New York: Harper.

- Shibre, T., Negash, A., Kullgren, G., Kebede, D., Alem, A., Fekadu, A., Fekadu, D., Medhin, G., & Jacobson, L. (2001). Perception of stigma among family members of individuals with schizophrenia and major affective disorders in rural Ethiopia. *Social Psychiatry and Psychiatric Epidemiology*, *36*, 299 – 303.
- Short, G., & Carrington, B. (1996). Anti-racist education, multiculturalism, and the new racism. *Educational Review*, *48*, 65 – 77.
- Sidanius, J., Levin, S., & Pratto, F., (1998). Hierarchical group relations, institutional terror, and the dynamics of the criminal justice system. In J. L. Eberhardt, & S. T. Fiske (Eds.), *Confronting racism: The problem and the response* (pp. 136-165). Thousand Oaks, CA, US: Sage Publications.
- Silver E., Arseneault, L. Langley, J., Caspi, A., & Moffitt, E. (2005). Mental disorder and violent victimization in a total birth cohort. *American Journal of Public Health*, *95*, 2015 – 2021.
- Smith, E. R. (1993). Social identity and social emotions: Toward new conceptualizations of prejudice. In D. L. Hamilton (Ed.), *Affect, cognition and stereotyping* (pp. 297-315). San Diego: Academic Press.
- Stathi, S., & Crisp, R. J. (2008). Imagining intergroup contact promotes projection to outgroups. *Journal of Experimental Social Psychology*, *44*, 943 – 957.
- Stephan, W. G., & Stephan, C. W. (1985). Intergroup anxiety. *Journal of Social Issues*, *41*, 157–176.

- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 23-46). Hillsdale, NJ: Erlbaum.
- Stier, A., & Hinshaw, S. P. (2007). Explicit and Implicit stigma against individuals with mental illness. *Australian Psychologist, 42*, 106 – 117.
- Strabac, Z., & Listhaug, O. (2008). Anti-Muslim prejudice in Europe: A multilevel analysis of survey data from 30 countries. *Social Science Research, 37*, 268–286
- Strong, P. T. (2004). The mascot slot: Cultural citizenship, political correctness, and pseudo-Indian sports symbols. *Journal of Sport and Social Issues, 28*, 79 – 87.
- Subir, K. K. (2007). Globalizing queer? AIDS, homophobia and the politics of sexual identity in India. *Globalization and Health, 3*, 1 – 16.
- Sugiura, T., Sakamoto, S., Kijima, N., Kitamura, F., & Kitamura, T. (2000). Stigmatizing perception of mental illness by Japanese students: Comparison of different psychiatric disorders. *Journal of Nervous and Mental Disease, 188*, 239 – 242.
- Swim, J. K., & Cohen, L. L. (1997). Overt, covert, and subtle sexism: A comparison between the Attitudes Toward Women and Modern Sexism scales. *Psychology of Women Quarterly, 21*, 103 – 118.
- Tam, T., Hewstone, M., Harwood, J., Voci, A., & Kenworthy, J. B. (2006). Intergroup contact and grandparent-grandchild communication: The effects of self-disclosure on implicit and explicit biases against older people. *Group Processes & Intergroup Relations, 9*, 413 – 430.

- Tam, T., Hewstone, M., Kenworthy, J., Cairns, E., Marinetti, C., Geddes, L., & Parkinson, B. (2008). Post-conflict reconciliation: Intergroup forgiveness, trust, and implicit biases in Northern Ireland. *Journal of Social Issues, 64*, 303 – 320.
- Tatum B. D., (1999). *“Why are all the Black kids sitting together in the cafeteria?” and other conversations about race*. New York, NY: Basic Books.
- Tausch, N., Hewstone, M., Kenworthy, J. B., Cairns, E., & Christ, O. (2007). Cross-community contact, perceived status differences and intergroup attitudes in Northern Ireland: The mediating roles of individual-level vs. group-level threats and the moderating role of social identification. *Political Psychology, 28*, 53 – 68.
- Taylor, M. C., (2000). Social contextual strategies for reducing racial discrimination. In Oskamp, Stuart (Ed.), *Reducing prejudice and discrimination. "The Claremont Symposium on Applied Social Psychology"* (pp. 71-89). Mahwah, NJ, US: Lawrence Erlbaum Associates.
- Taylor, S. M., & Dear, M. J. (1981) Scaling community attitudes toward the mentally ill. *Schizophrenia Bulletin, 7*, 225 – 240.
- Trute, B., & Loewen, A. (1978). Public attitude toward the mentally ill as a function of prior personal experience. *Social Psychiatry, 13*, 79 – 84.
- Trute, B., Tefft, B., & Segall, A. (1989). Social rejection of the mentally ill: a replication study of public attitude. *Social Psychiatry Psychiatric Epidemiology, 24*, 69 – 76.
- Turner, R. N., & Crisp, R. J. (2010). Imagining intergroup contact reduces implicit prejudice. *British Journal of Social Psychology, 49*, 129 – 142.

- Turner, R. N., Crisp R. J., & Lambert, E. (2007a). Imagining intergroup contact can improve intergroup attitudes. *Group Processes and Intergroup Relations, 10*, 427 – 441.
- Turner, R. N., Hewstone, M., & Voci, A. (2007b). Reducing explicit and implicit outgroup prejudice via direct and extended contact: The mediating role of self-disclosure and intergroup anxiety. *Journal of Personality and Social Psychology, 93*, 369 – 388.
- Turner, R. N., Hewstone, M., Voci, A., Paolini, S., & Christ, O. (2008). Reducing prejudice via direct and extended cross-group friendship. In W. Stroebe, & M. Hewstone (Eds.), *European Review of Social Psychology* (pp. 212-255). Hove, UK: Psychology Press.
- Turner, R. N., Hewstone, M., Voci, A., & Vonofakou, C. (2008). A test of the extended intergroup contact hypothesis: The mediating role of intergroup anxiety, perceived ingroup and outgroup norms, and inclusion of the outgroup in the self. *Journal of Personality and Social Psychology, 95*, 843 - 860.
- Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. In M. Zanna, (Ed.), *Advances in Experimental Social Psychology* (pp. 115-191). New York: Academic.
- Van Dick, R., Wagner, U., Pettigrew, T. F., Christ, O., Wolf, C., Petzel, T., et al. (2004). The role of perceived importance in intergroup contact. *Journal of Personality and Social Psychology, 87*, 211 – 227.

- Van Dyk, A. C. (1990). Voorspellers van etniese houdings in n noue kontaksituasie [Determinants of ethnic attitudes in a close contact situation]. *South African Journal of Psychology*, 20, 206 – 214.
- Van Oudenhoven, J. P., Groenewoud, J. T., & Hewstone, M. (1996). Cooperation, ethnic salience and generalisation of interethnic attitudes. *European Journal of Social Psychology*, 26, 649 – 661.
- Vertovec, S. (2007). Super-diversity and its implications. *Ethnic and Racial Studies*, 29, 1024 – 1054.
- Vertovec, S. (2009). Transnationalism. London: Routledge.
- Voci, A., & Hewstone, M. (2003). Intergroup contact and prejudice toward immigrants in Italy: The mediational role of anxiety and the moderational role of group salience. *Group Processes and Intergroup Relations*, 6, 37 – 54.
- Voci, A., Hewstone, M., Cairns, E., & McLernon, A. (2001). *Intergroup contact and intergroup attitudes in Northern Ireland*. EAESP Small-Group Meeting, Sardinia (as cited in Brown & Hewstone, 2005).
- Vonofakou, C., Hewstone, M., & Voci, A. (2007). Contact with out-group friends as a predictor of meta-attitudinal strength and accessibility of attitudes toward gay men. *Journal of Personality and Social Psychology*, 92, 804 – 820.
- Wagner, U., & Zick, A. (1995). The relationship of formal education to ethnic prejudice: Its reliability, validity and explanation. *European Journal of Social Psychology*, 24, 41 – 56.

- Wahl, O. F. (1995). *Media madness: Public images of mental illness*. New Brunswick, NJ: Rutgers University Press.
- Wallach, H. S. (2004). Changes in attitudes towards mental illness following exposure. *Community Mental Health Journal, 40*, 235 – 248.
- Warwick, I., Aggleton, P., & Douglas, N. (2001). Playing it safe: addressing the emotional and physical health of lesbian and gay pupils in the U.K. *Journal of Adolescence, 24*, 129 – 140.
- Weber, R., & Crocker, J. (1983). Cognitive processes in the revision of stereotypic beliefs. *Journal of Personality and Social Psychology, 45*, 961 – 997.
- Weinberg, G. (1972) *Society and the healthy homosexual*. New York, NY: St. Martin's.
- Weisel, A. (1988). Contact with mainstreamed disabled children and attitudes towards disability: A multidimensional analysis. *Educational Psychology, 8*, 161 – 168.
- West, K., Hewstone, M., & Holmes, E. A. (2010). Rethinking 'mental health stigma'. *European Journal of Public Health, 20*, 131 - 132.
- White, R. C., & Carr, R. (2005). Homosexuality and HIV/AIDS stigma in Jamaica. *Culture, Health & Sexuality, 7*, 347 – 359.
- Wilder, D., & Shapiro, P. N. (1989). Effects of anxiety on impression formation in a group context. *Journal of Experimental Social Psychology, 25*, 481 – 499.
- Wilder, D. A. (1984). Intergroup contact: the typical member and the exception to the rule. *Journal of Experimental Social Psychology, 20*, 177 – 194.

- Wilder, D. A. (1993). The role of anxiety in facilitating stereotypic judgements of outgroup behavior. In D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes on group perception* (pp. 87-109). San Diego: Academic Press.
- Wilder, D., & Simon, A. F. (2001). Affect as a cause of intergroup bias. In R. Brown, & S. L. Gaertner (Eds.), *Blackwell handbook of social psychology: Intergroup Processes* (pp. 153-72). Malden, MA & Oxford, UK: Blackwell.
- Williams, L. (2000). Homophobia and (gay rights) activism in Jamaica. *Small Axe*, 4, 106 - 111.
- Williams, P. (2004, December 5). The Gay Debate. *The Jamaica Observer*. Retrieved August 8, 2010 from <http://www.glapn.org/sodomylaws/world/jamaica/janews036.htm>
- Williams, R. M., Jr. (1947). *The reduction of intergroup tensions*. New York, NY: Social Science Research Council.
- Williams, T., & Maher, T. (2009, April 8). Iraq's Newly Open Gays Face Scorn and Murder. *The New York Times*, pp. A1.
- Willis, D. G. (2004). Hate crimes against gay males: An overview. *Issues in Mental Health Nursing*, 25, 115 – 132.
- Wittenbrink, B., Judd, C. M., & Park, B. (1997). Evidence for racial prejudice at the implicit level and its relationship with questionnaire measures. *Journal of Personality and Social Psychology*, 72, 262 – 274.

- Wolff, G., Pathare, S., Craig, T. & Leff, J. (1996). Community attitudes to mental illness. *British Journal of Psychiatry*, 168, 183 – 190.
- Worchel, S., & Norvell, N. (1980). Effect of perceived environmental conditions during cooperation on intergroup attraction. *Journal of Personality and Social Psychology*, 38, 764 – 772.
- World Health Organization: Mental Health. Retrieved September 11, 2008, from [http://www.who.int/mental\\_health/en/](http://www.who.int/mental_health/en/)
- Wright, F., & Klein, R. (1966) Attitudes of Hospital Personnel Community Regarding Mental Illness. *Journal of Consultation Psychology*, 19, 649 – 650.
- Wright, S. C., Aron, A., McLaughlin-Volpe, T., & Ropp, S. A. (1997). The extended contact effect: Knowledge of cross-group friendships and prejudice. *Journal of Personality and Social Psychology*, 73, 73 – 90.
- Yancy, G. (1999). An examination of the effects of residential and church integration on racial attitudes of whites. *Sociological Perspectives*, 42, 279 – 304.

APPENDICES

Appendix 1: Motivation to control prejudice scales for Study 1

*Internal motivation to control prejudice against Black people.*

(1 = Strongly Disagree, 7 = Strongly agree),  $\alpha = 0.79$ .

I attempt to act in nonprejudiced ways toward Black people because it is personally important to me

According to my personal values, using stereotypes about Black people is OK (reversed)

I am personally motivated by my beliefs to be non-prejudiced toward Black people.

Because of my personal values, I believe that using stereotypes about Black people is wrong.

Being non-prejudiced toward Black people is important to my self-concept.

*External motivation to control prejudice against Black people.*

(1 = Strongly Disagree, 7 = Strongly Agree),  $\alpha = 0.79$ .

I attempt to appear nonprejudiced toward Black people in order to avoid disapproval from others.

If I acted prejudiced toward Black people, I would be concerned that others would be angry with me

I try to hide any negative thoughts about Black people in order to avoid negative reactions from others.

Because of today's PC (politically correct) standards I try to appear nonprejudiced toward Black people.

I try to act nonprejudiced toward Black people because of pressure from others.

If I were participating in a class discussion and a Black student expressed an opinion with which I disagreed, I would be hesitant to express my own viewpoint.

*Internal motivation to control prejudice against people with schizophrenia.*

(1 = Strongly Disagree, 7 = Strongly agree),  $\alpha = 0.80$ .

I attempt to act in nonprejudiced ways toward schizophrenic people because it is personally important to me.

According to my personal values, using stereotypes about schizophrenic people is OK'(reversed).

I am personally motivated by my beliefs to be non-prejudiced toward schizophrenic people.

Because of my personal values, I believe that using stereotypes about schizophrenic people is wrong.

Being non-prejudiced toward schizophrenic people is important to my self-concept.

*External motivation to control prejudice against people with schizophrenia*

(1 = Strongly Disagree, 7 = Strongly Agree),  $\alpha = 0.83$ .

I attempt to appear nonprejudiced toward schizophrenic people in order to avoid disapproval from others.

If I acted prejudiced toward schizophrenic people, I would be concerned that others would be angry with me.

I try to hide any negative thoughts about schizophrenic people in order to avoid negative reactions from others.

Because of today's PC (politically correct) standards I try to appear nonprejudiced toward schizophrenic people.

I try to act nonprejudiced toward schizophrenic people because of pressure from others.

If I were participating in a class discussion and a schizophrenic student expressed an opinion with which I disagreed, I would be hesitant to express my own viewpoint.

Appendix 2: Motivation to control prejudice scales for Study 2

*Internal Motivation to Control Anti-homosexual Prejudice.*

(1 = Strongly Disagree, 7 = Strongly Agree), Overall  $\alpha = 0.87$ ; Jamaican  $\alpha = 0.84$ ; British  $\alpha = 0.83$ ; American  $\alpha = 0.74$ .

I attempt to act in nonprejudiced ways toward homosexual men because it is personally important to me.

According to my personal values, using stereotypes about homosexual men is OK. (reversed)

I am personally motivated by my beliefs to be nonprejudiced toward homosexual men.

Because of my personal values, I believe that using stereotypes about homosexual men is wrong.

Being nonprejudiced toward homosexual men is important to my self-concept.

When speaking to a homosexual man it is important to me that he not think I'm prejudiced.

I feel guilty when I have a negative thought or feeling about a homosexual man.

*External Motivation to Control Anti-homosexual Prejudice.*

(1 = Strongly Disagree, 7 = Strongly Agree), Overall  $\alpha = 0.84$ . ; Jamaican  $\alpha = 0.88$ ; British  $\alpha = 0.86$ ; American  $\alpha = 0.82$ .

I attempt to appear nonprejudiced toward homosexual men in order to avoid disapproval from others.

If I acted prejudiced toward homosexual men, I would be concerned that others would be angry with me.

I try to hide any negative thoughts about homosexual men in order to avoid negative reactions from others.

Because of today's PC (politically correct) standards, I try to appear nonprejudiced toward homosexual men.

I try to act nonprejudiced toward homosexual men because of pressure from others.

*Internal Motivation to Control Unspecified Prejudice*

(1 = Strongly Disagree, 7 = Strongly Agree), Overall  $\alpha = 0.81$ ; Jamaican  $\alpha = 0.81$ ; British  $\alpha = 0.75$ ; American  $\alpha = 0.72$ .

I get angry with myself when I have a thought or feeling that might be considered prejudiced.

It's important to me that other people not think I'm prejudiced.

It is never acceptable to express one's prejudices.

It bothers me a great deal when I think I've offended someone, so I'm always careful to consider other people's feelings.

If I have a prejudiced thought or feeling, I keep it to myself.

I would never tell jokes that might offend others

*External Motivation to Control Unspecified Prejudice*

(1 = Strongly Disagree, 7 = Strongly Agree), Overall  $\alpha = 0.65$ ; Jamaican  $\alpha = 0.60$ ; British  $\alpha = 0.79$ ; American  $\alpha = 0.67$ .

I always express my thoughts and feelings, regardless of how controversial they may be. (reversed)

Going through life worrying about whether you might offend someone is just more trouble than it's worth. (reversed)

I think that it is important to speak one's mind rather than to worry about offending someone. (reversed)

I'm not afraid to tell others what I think, even when I know they disagree with me. (reversed)

## Appendix 3

*Vignettes used in Experiment 2**Vignettes of people with schizophrenia (positive information condition).*

Meera Popkin is a famous singer and actress who had schizophrenia. She performed in such famous musicals as *Starlight Express* and *Cats* on Broadway. After being diagnosed with schizophrenia in 1997 she continued working as an actress and being a good mother to her baby girl, Kayla. The exceptionally talented, charming actresses remained cool-tempered during her bout with schizophrenia. She was overjoyed to recover completely some years later.

Dr. John Nash is a genius and mathematician who had schizophrenia. He won the Nobel Prize in economics in 1994 and continues to work as a senior mathematician at Princeton University. After being diagnosed with schizophrenia in 1959, he continued to publish papers and win prizes for his theories. Described as a strong-willed man with impressive self-control and disarming wit, he stopped taking anti-psychotic drugs in 1970 and instead chose to recover slowly with the passage of time.

Tom Harrell is a world famous Jazz trumpeter who has schizophrenia. He has received numerous jazz awards, such as top composer and trumpeter, "best jazz album of

the year" by Entertainment Weekly, and a Grammy nomination. After being diagnosed with schizophrenia he continued to compose and play music, releasing several chart-topping albums. This relaxed, constantly well-dressed "cool cat" loves the music of Louis Armstrong. He stopped taking anti-psychotic drugs years ago which, some say, make him fit in more with the "jazz crowd".

Andy Goram is a former professional football player who has schizophrenia. He played for the Scotland National Team, winning 43 caps and, in 2001, he was voted Rangers' greatest ever goalkeeper by fans. After being diagnosed with schizophrenia in 1998, he continued to be an instrumental player for the Rangers' Football Club. Now a goalkeeping coach for Airdrie United, he remains a popular after-dinner speaker at Rangers' events and is known for his enjoyable, coherent, socially aware speeches.

*Vignettes of people without schizophrenia (neutral information condition)*

Betty Buckley is a famous singer and actress. She performed in such famous musicals as *The Mystery of Edwin Drood* and *Cats* on Broadway. Her version of the song “Memory” in the Musical *Cats*, performed in 1983 is still seen as the quintessential version. The exceptionally talented, charming actress has remained cool-tempered about her fame and the ups and downs that accompany it.

Reinhard Selten is a genius and mathematician. He won the Nobel Prize in economics in 1994 and continues to work as a professor at the University of Bonn, Germany. He has published several papers and won several prizes, but is perhaps best known as a “founding father of experimental economics”. Described as a strong-willed man with impressive self-control and disarming wit, he has handled his success with calm humility.

Arturo Sandoval is a world famous Jazz trumpeter. He has had a wildly successful career, recording with Johnny Mathis, Gloria Estefan, Kenny G, Frank Sinatra and Dave Grusin. As well as composing and playing music, he owns a self-named live Jazz venue on Miami Beach. Past performers include Roberta Flack, Joshua Redman, Roy Haynes, and Omar Sosa. This relaxed, constantly well-dressed “cool cat” loves the music of Louis

Armstrong, and wants to be remembered as a man who loved music, not as a jazz trumpeter.

David Beckham is a famous professional football player. Beckham was captain of England's football team from November 2000 to July 2006. He now plays for and captains the Los Angeles Galaxy. In 2004 he was the world's highest paid footballer and since then has become an elite advertising brand and top fashion icon. A charming, handsome man, Beckham's new contract with the Galaxy gave him the highest salary of any MLS player in history. He remains one of the sports world's most "Googled" personalities.

Appendix 4

*Imagined contact instructions for Experiment 3*

*Imagined contact condition.*

Due to outstanding achievement during the term, the Rector of your college has invited you to dine with the faculty. Seated across from you are the Rector and his good friend, Dr. Rufus May.

Rufus May is a clinical psychologist who was diagnosed with schizophrenia at age 18. Now considered a leading expert in psychiatric treatment, Dr. May has written books on the issue and was the subject of the film *The Doctor who Hears Voices*. He currently lives and works in Bradford, but travels widely to give presentations on treatments for psychosis.

We want you to take five minutes to imagine having a pleasant conversation with Dr. Rufus May at dinner. Feel free to talk about anything. Imagine his appearance, his mannerisms, and specific things that you find admirable. I want you to spend the time thinking but also please write down, from time to time, the things that you imagine. Please write clearly and feel free to write down whatever springs to mind.

*Control condition.*

Due to outstanding achievement during the term, the rector of your college has invited you to dine with the faculty. Seated across from you are the rector and the rector's good friend, Mr. Jay Wright.

Jay Wright is a poet, playwright and essayist. Over the years he has been a poet in residence at Yale University, and the recipient of the Bollingen Prize for poetry. He is the author of several collections, most recently *Polynomials and Pollen*, and his work has received considerable acclaim. He currently lives and works in Bradford.

We want you to take five minutes to imagine having a pleasant conversation with Jay Wright at dinner. Feel free to talk about anything. Imagine his appearance, his mannerisms, and specific things that you find admirable. I want you to spend the time thinking but also please write down, from time to time, the things that you imagine. Please write clearly and feel free to write down whatever springs to mind.

Appendix 5

*Instructions Given to All Participants in Experiment 4*

We would like you to take a minute to imagine the following scenario.

Imagine that you are waiting at a crowded train station for a train to Oxford. Shortly after you find a seat, you see two other people enter the train station – **Tom Harrell** and **Arturo Sandoval**.

**Tom Harrell** is a Jazz trumpeter and composer who loves the music of Louis Armstrong. After being diagnosed with schizophrenia he continued to compose and play music, releasing several chart-topping albums. He stopped taking anti-psychotic drugs, finding that his music helps him cope with his illness.

**Arturo Sandoval** is a Jazz trumpeter and composer who owns a Jazz venue in Miami. He has played with many well-known Jazz artists, and wants to be remembered as a man who loved music.

*Imagined Contact Instructions in Experiment 4*

We would like you to take five minutes to imagine the following scenario.

Shortly after arriving at the train station, **Arturo Sandoval** catches his train and leaves. **Tom Harrell** takes the seat beside you.

Imagine yourself having a conversation with **Tom Harrell** at the train station. Imagine that the interaction is positive, relaxed and comfortable.

We would like you to spend the time thinking, but please write down, from time to time, the things that you imagine. Feel free to write whatever springs to mind.

*Control Instructions in Experiment 4*

**We would like you to take five minutes to imagine the following scenario.**

Shortly after arriving at the train station, **Tom Harrell** catches his train and leaves. **Arturo Sandoval** takes the seat beside you.

Imagine yourself having a conversation with **Arturo Sandoval** at the train station. Imagine that the interaction is positive, relaxed and comfortable.

We would like you to spend the time thinking, but please write down, from time to time, the things that you imagine. Feel free to write whatever springs to mind.