

**Examining the Consequences of Direct and Indirect Forms of
Negative Intergroup Contact**

Laura A Forder

4387287

School of Psychology, University of East Anglia, Norwich

Submitted for the degree of

Doctor of Philosophy in Psychology

May 14, 2023

© This copy of the thesis has been supplied on condition that anyone who consults it is understood to recognise that its copyright rests with the author and that use of any information derived therefrom must be in accordance with the current UK Copyright Law. In addition, any quotation or extract must include full attribution.

Abstract

Advancements in intergroup contact theory have highlighted the importance of recognising positive and negative contact experiences as related but separate dimensions. While the relationship between personal negative contact experiences and prejudice is now well-established, less attention has been devoted to types of contact such as indirect contact, and to outcomes such as future contact engagement. Further, the interpretation of contact experiences as relatively positive or negative has received little attention. Within this thesis nine studies broaden our understanding of the consequences of negative intergroup contact using a variety of methodology. The first two studies demonstrate that a negative encounter with an outgroup member, but not an ingroup member, can reduce intentions to engage in contact with the outgroup in the future. Study 3 further confirmed that the effect of negative contact on outgroup avoidance is not limited to the contacted outgroup and is indirectly associated with reduced intentions to engage with other, secondary outgroups. Studies 4, 5 and 9 found that people who witness a derogatory comment evaluate the person making the comment more negatively, than those people who do not witness a comment, although this is moderated by Social Dominance Orientation. Studies 6, 7, and 8 explored the consequences of intergroup contact encounters when the situation is – to some degree - open to interpretation and demonstrated, contrary to expectations, participants generally were not guided by pre-existing attitudes or contact experiences when evaluating the target's behaviour or the outgroup as a whole. As a whole, this research suggests that negative contact is damaging not just because it increases prejudice but also because it compromises future engagement with diversity. My thesis provides strong support for the importance of studying the effects of negative contact in a variety of forms and settings; future research programmes are suggested.

Access Condition and Agreement

Each deposit in UEA Digital Repository is protected by copyright and other intellectual property rights, and duplication or sale of all or part of any of the Data Collections is not permitted, except that material may be duplicated by you for your research use or for educational purposes in electronic or print form. You must obtain permission from the copyright holder, usually the author, for any other use. Exceptions only apply where a deposit may be explicitly provided under a stated licence, such as a Creative Commons licence or Open Government licence.

Electronic or print copies may not be offered, whether for sale or otherwise to anyone, unless explicitly stated under a Creative Commons or Open Government license. Unauthorised reproduction, editing or reformatting for resale purposes is explicitly prohibited (except where approved by the copyright holder themselves) and UEA reserves the right to take immediate 'take down' action on behalf of the copyright and/or rights holder if this Access condition of the UEA Digital Repository is breached. Any material in this database has been supplied on the understanding that it is copyright material and that no quotation from the material may be published without proper acknowledgement.

Contents

Abstract	2
Chapter 1: Introduction and Thesis Overview	18
Thesis Overview.....	22
Chapter 2: Literature Review	25
Intergroup contact theory.....	27
Indirect Contact.....	33
Vicarious Intergroup Contact.....	36
Generalisation: Beyond the Immediate Contact Situation.....	41
Not all Contact is Positive: The Effects of Negative Contact.....	44
Negative Experiences in the Wider Field of Psychology	45
Negative Intergroup Contact.....	48
Direct Negative Intergroup Contact.....	50
Indirect Negative Intergroup Contact	57
Concluding Remarks.....	62
Chapter 3: Examining the Broader Consequences of Direct Negative Contact.....	65
Study 1.....	71
Method.....	71
Results	75
Discussion	76
Study 2.....	77
Method.....	78
Results	79
Discussion.....	80
Chapter Summary and Conclusion	81
Chapter 4: Negative Intergroup Contact Promotes Generalised Outgroup Avoidance.....	83
Study 3.....	91

Method.....	91
Results	93
Discussion	100
Chapter 5: Reactions to Derogatory Comments Towards Outgroup Members:	103
The Moderating Role of Social Dominance Orientation.....	103
Study 4.....	112
Method.....	113
Results	118
Discussion	124
Study 5.....	126
Method.....	129
Results	131
Discussion	143
Chapter Summary and Conclusion	145
Chapter 6: The Ambiguity of Intergroup Contact Situations:	152
When Contact is Open to Interpretation.....	152
Study 6.....	154
Method.....	161
Results	164
Discussion	170
Study 7.....	172
Method.....	174

Results	176
Discussion	182
Study 8.....	183
Method.....	189
Results	192
Discussion	197
Chapter Summary and Conclusion	200
Chapter 7: Derogatory or Empathy? Judgements From Ingroup Members	205
Study 9.....	216
Method.....	216
Results	224
Discussion	238
Chapter 8: General Discussion, Conclusions and Future Research Directions.....	244
Theoretical Background and Aims	246
Summary of Empirical Studies.....	252
Summary of Findings.....	255
Limitations and Future Research Directions.....	265
Summary of Practical Implications	271
Conclusion	272
References	274
Appendices	283
Appendix A: Submitted Manuscript	283
Appendix B: Instructional Manipulation Check, Feedback and Demographic Questions	329
Appendix C: Feeling Thermometer	330
Appendix D: Intentions To Engage in Future Contact	331

Appendix E: General Evaluation Scale.....	332
Appendix F: Intentions to Engage in Future Contact with Secondary Groups.....	333
Appendix G: Contact Self-Efficacy	334
Appendix H: Social Dominance Orientation Scale	335
Appendix I: Evaluation of Target Individual.....	336
Appendix J: Anti-Immigrant Attitudes Scale	337
Appendix K: Ingroup Identification Scale.....	338
Appendix L: Positive Information About Türkiye.....	339
Appendix M: Negative Information About Türkiye	340
Appendix N: Manipulation Check and Mood Scale	341
Appendix O: Facebook Comments Examples	342

List of Tables

Table 1	<i>Mean Outgroup Evaluation and Future Contact Intentions by Condition in Study 2.....</i>	79
Table 2	<i>Correlations and Descriptive Statistics for all Variables in Study 3.....</i>	95
Table 3	<i>Positive and Negative Contact with Muslim Immigrants as Predictors of Outgroup Evaluation and Contact Intentions Towards this Group, as well as General Contact self-efficacy</i>	97
Table 4	<i>Point Estimates and Confidence Intervals for Indirect Effect of Negative and Positive Contact with Muslim Immigrants on Contact Intentions Towards Secondary Outgroups via Contact Intentions Towards the Primary Outgroup.....</i>	99
Table 5	<i>Means, Standard Deviations, and Correlations with Confidence Intervals for Outgroup Evaluation, Evaluation of Commentor and SDO Score.....</i>	118
Table 6	<i>Multiple Regression Model of Predictors of Outgroup Evaluation, with 95% Confidence Levels Reported in Parentheses (unstandardised and standardised coefficients).....</i>	120
Table 7	<i>Multiple Regression Model of Predictors of Evaluation of Commenter, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients).....</i>	122

Table 8	<i>Means, Standard Deviations, and Correlations with Confidence Intervals for Outgroup Evaluation, Evaluation of Commentor, SDO and Ingroup Identification Score</i>	131
Table 9	<i>Summary of Regression Analysis for Variables Predicting Outgroup Evaluation, with 95% Confidence Levels Reported in Parentheses (unstandardised and standardised coefficients)</i>	132
Table 10	<i>Multiple Regression Model of Interaction Between Condition and SDO on Outgroup Evaluation, with 95% Confidence Levels Reported in Parentheses (unstandardised and standardised coefficients)</i>	134
Table 11	<i>Multiple Regression Model of Interaction Between Condition and Ingroup Identification on Outgroup Evaluation, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients)</i>	136
Table 12	<i>Summary of Regression Analysis for Variables Predicting Commentor Evaluation, with 95% Confidence Levels Reported in Parentheses (unstandardised and standardised coefficients)</i>	137
Table 13	<i>Multiple Regression Model of Interaction Between Condition and SDO on Evaluation of Commenter, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients)</i>	139

Table 14	<i>Multiple Regression Model of Predictors of Group Identification, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients).....</i>	142
Table 15	<i>Means, Standard Deviations, and Correlations with Confidence Intervals for Scenario Evaluation, Previous Negative and Positive Contact Experiences and Attitudes Towards the Outgroup.....</i>	165
Table 16	<i>Means and Standard Deviations for the Overall Score of Each Scenario.....</i>	165
Table 17	<i>Means and Standard Deviations and t-test Results for Each Scenario by Condition in Study 6.....</i>	166
Table 18	<i>Individual t-tests for Each of the Outcome Variables of Experiment 6, Separate Evaluation Measures and Total Score of the Measure</i>	167
Table 19	<i>Hierarchical Regression Coefficients for Previous Intergroup Contact and Existing Attitudes Towards the Outgroup as Predictors of Total Evaluation of the Individual Within the Scenarios.....</i>	169
Table 20	<i>Spearman's Rho Non-Parametric Correlations Between All Variables in Experiment 7.....</i>	177
Table 21	<i>Means and Standard Deviations for the Overall Score of Each Scenario.....</i>	177
Table 22	<i>Means and Standard Deviations and t-test Results for Each Scenario by Condition in Study 7</i>	178

Table 23	<i>Means, Standard Deviations and Individual t-test Results for the Total Score of the Scenario Outcome Variable Followed by the Independent Individual Items of the Scenario Scale in Experiment 7</i>	179
Table 24	<i>Hierarchical Regression Coefficients for Previous Intergroup Contact and Existing Attitudes Towards the Outgroup as Predictors of Total Evaluation of the Individual within the Scenarios</i>	181
Table 25	<i>Means, Standard Deviations, and Correlations and for the Encounter Evaluation, Previous Contact Experiences with the Outgroup, Attitudes Towards the Outgroup and Future Contact Intentions with the Outgroup</i>	193
Table 26	<i>Hierarchical Regression Coefficients for Previous Intergroup Contact and Existing Attitudes Towards the Outgroup as Predictors of Total Evaluation of the Individual Within the Contact Situation</i>	194
Table 27	<i>Hierarchical Regression Coefficients for Previous Intergroup Contact and Existing Attitudes Towards the Outgroup as Predictors of Total Evaluation of the Individual Within the Contact Situation</i>	197
Table 28	<i>Means, Standard Deviations and Correlations with Confidence Intervals for all Study Variables</i>	226
Table 29	<i>Evaluations of the Outgroup Commentor and Ingroup Commenter by Condition</i>	227
Table 30	<i>Multiple Regression Model of Predictors of Evaluation of Commenter, with 95% Confidence Levels for b Reported in Parentheses</i>	

	<i>(unstandardised and standardised coefficients)</i>	230
Table 31	<i>Regression Coefficients for Previous Intergroup Contact as Predictors of Evaluations of the Outgroup, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients)</i>	233
Table 32	<i>Regression Coefficients for Previous Intergroup Contact as Predictors of Evaluations of the Outgroup Member</i>	235
Table 33	<i>Mean Outgroup Evaluation and Future Contact Intentions by Condition</i>	237
Table 34	<i>Multiple Regression Model of Predictors of Outgroup Evaluation, with 95% Confidence Levels Reported in Parentheses (unstandardised and standardised coefficients)</i>	238

List of Figures

Figure 1	<i>Schematic Representation of the Relationship Between Negative Intergroup Contact and Future Contact Intentions</i>	70
Figure 2	<i>Visual Illustration of the Trust Game</i>	72
Figure 3	<i>Screen Images of the Trust Game After Name Inserted and Role Assigned</i>	73
Figure 4	<i>Screen Images of Negative Contact Condition and Feeling Thermometer</i>	74
Figure 5	<i>Screen Image of the Ingroup Condition</i>	78
Figure 6	<i>First Two Pages of Imitation Facebook Profile of 'J' Seen by all Participants</i>	115
Figure 7	<i>Imitation Facebook Profile with Derogatory Comment Experimental Condition</i>	116
Figure 8	<i>Imitation Facebook Profile Participants Viewed in The Control Condition</i>	117
Figure 9	<i>SDO and Outgroup Evaluation Scores for Experimental and Control Condition</i>	121
Figure 10	<i>Evaluation of Commenter and SDO for Experimental Condition and Control Condition</i>	123
Figure 11	<i>Simple Slopes Analysis for levels of SDO by Condition on Evaluation of the Commenter</i>	124
Figure 12	<i>Initial Imitation Facebook pages used in Study 5</i>	130

Figure 13	<i>SDO and Outgroup Evaluation Scores for Experimental and Control Condition.....</i>	133
Figure 14	<i>Ingroup Identification and Outgroup Evaluation Scores for Experimental and Control Condition.....</i>	135
Figure 15	<i>Evaluation of commenter and SDO for Experimental and Control Condition.....</i>	140
Figure 16	<i>Simple Slopes Analysis for Levels of SDO by Condition on Evaluation of the Commenter.....</i>	141
Figure 17	<i>Ingroup Identification and Evaluation of Commenter Scores for Experimental and Control Condition.....</i>	143
Figure 18	<i>Visual Illustration of the Ultimatum Game.....</i>	186
Figure 19	<i>Screen Shot of Ultimatum Game Instructions.....</i>	190
Figure 20	<i>Screen Shot Ultimatum Game Role Allocation.....</i>	191
Figure 21	<i>Screen Shot Negative Contact Condition Result.....</i>	191
Figure 22	<i>Ambiguous Contact Condition.....</i>	192
Figure 23	<i>BBC News Article Used as Stimuli First Page Viewed by Participants ...</i>	220
Figure 24	<i>BBC News Article Stimuli Second Page Viewed by Participants.....</i>	221
Figure 25	<i>Facebook Stimuli Positive/Empathic Comment Condition Viewed by Participants.....</i>	222
Figure 26	<i>Facebook Stimuli Negative Comment Condition Viewed by Participants.</i>	223

Figure 27	<i>Mean of Evaluation of Outgroup Commenter</i>	227
Figure 28	<i>Mean Score of Evaluations of Ingroup Commenter.....</i>	228
Figure 29	<i>Evaluation of Ingroup Commenter and SDO Score.....</i>	231
Figure 30	<i>Theoretical Frameworks and used Within this Research.....</i>	251

Acknowledgements

Stephen Hawking once advised people suffering from illnesses and disabilities to not “be disabled in spirit.” Having completed my thesis working against the challenges of a chronic illness, and everything else life decided to throw my way to knock me off course including the small matter of a global pandemic, my undeterred yet often battered at times spirit carried me forward!

I truly believe that a positive spirit is easier to achieve when you have unconditional support and wonderful cheerleaders in your corner. My unconditional support mainly came from three very special people. Firstly, my beloved grandad, George, who believed in me when I started my academic journey and gave me the encouragement to apply for university. Even though you were sadly not with me for most of my PhD journey, your encouragement is always with me. Secondly, my truly wonderful mum, Anne, I can’t put into words all you do for me and the support you have given. Thank you. Finally, my amazing daughter Georgianna. I hope I inspire you to overcome any challenge that you may encounter in life with grace and tenacity. You are the most amazing human being and I’m so proud of you, you are a joy to me every day. Thank you for your patience.

Thank you also to all the cheerleaders throughout my academic journey, all my wonderful advisors, lecturers, and mentors. I’m proud to say that I met many truly amazing women and men to look up to and aspire to. Especially my undergraduate advisor who encouraged me to apply for my master’s and supported me throughout some difficult times with sincerity, care and understanding.

Special thanks to Lisa for your friendship over the years. I’m so thankful we met during our undergrad. Wish we could have got to the finish line together, but it’s been inspiring to watch you accomplish such an amazing career post PhD.

Thank you to all my wonderful friends who have been supportive and understanding while friendships took a backseat so my energy could be directed to my thesis.

Finally, I was so fortunate to have the best cheerleader in a supervisor, Charlie Seger, truly from the bottom of my heart thank you for your patience and infinite faith. You never doubted me. You have been a huge support from the moment you became my project supervisor during my undergraduate degree. I hope I have done you proud!

Author's declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work.

I also confirm that this work fully acknowledges opinions, ideas, and contributions from the work of others. Some of the research presented in Chapters 3 and 4 has been communicated to the scientific community by publication in *Group Processes and Intergroup Relations*. This paper can be found in Appendix A.

Any ethical clearance for the research presented in this thesis has been approved. Approval has been sought and granted by the School of Psychology Ethics Committee at the University of East Anglia.

Chapter 1: Introduction and Thesis Overview

Around fifty years ago, it was acceptable and legal to express racial discrimination in public places in the United Kingdom. Notice signs of “no Blacks, no Irish, no dogs” in the windows of rental accommodation and hotels were commonplace (Verma, 2018). It was customary for employers to reject job applications from people with a 'foreign' sounding name (Daniel, 1968; Jowell, & Prescott-Clarke, 1970). Experiences of verbal and physical abuse happened daily, especially towards Black and Asian immigrants who had come to Britain to work after World War Two (Adi, 2017).

There was however optimism from the British Government that discrimination would decline after the introduction of The Race Relations Act 1965 (Singh, 2018). The Act made the promotion of hatred on the grounds of ‘colour, race, or ethnic or national origins’ a criminal offence (UK Parliament, 2021). It was an important step in promoting equality and reducing the prejudice that ethnic minorities faced. During that era people predicting what society would look like in the future imagined a more harmonious, equal society (Singh, 2018). Indeed, survey data demonstrates that prejudice in the UK was in decline from around the 1990’s (Ford, 2008). The generational shift in attitudes towards ethnic minorities meant that opposition to positive interactions between White British people and people from ethnic minorities was markedly lower in the mid-1990’s than it was in the early 1980s (Ford, 2008).

However, attitudes are malleable and can shift in response to specific events. This was evident after the September 11th terrorist attacks that took place in the United States. From this catastrophic event in 2001 there has been an increase in prejudice especially towards Muslims, Arabs, and those perceived to be Middle Eastern (Deloughery, King, & Asal, 2012; Hanes and Machin, 2014; Park, Bryson, Clery, Curtice, & Phillips, 2013; Swahn, Mahendra, & Paulozzi, 2003). Data from the NatCen Social Research’s British Social Attitudes Survey demonstrated that in 2014, 30% of Britain’s described themselves as either “very” or a

“little” prejudiced against people of other races. Levels prior to 2001 were at 25%.

Furthermore, results indicated that this racism maybe fuelling opposition to immigration with 9 out of 10 people (92%) who admitted to some level of racial prejudice, wanting a reduction in the current level of immigration. Another recent survey of the British public conducted by the Equality and Human Rights Commission, observed that more than four in ten people indicated that they have experienced some form of prejudice (Abrams, Swift & Houston, 2018). Additionally, findings from a survey commissioned by NatCen in 2017 identified that one in four people in Britain admit to being prejudiced towards people of other races (Kelley & Sharrock, 2017).

Today the political and social importance for reducing prejudice and promoting positive change within our society is still evident. The horrific killings of George Floyd, Ahmaud Arbery and Breonna Taylor (BBC.co.uk, 2020; Hirsch, 2020) have created dialogues and highlighted awareness of prejudice and intolerance towards minority groups. Additionally, commentators have highlighted the role of xenophobia during the fallout from the 2016 referendum on membership of the European Union (Brexit) vote (Hannant, 2020; Hutchings & Sullivan, 2019) and others have discussed anti-Chinese prejudice at the beginnings of the COVID-19 pandemic (Croucher, Nguyen, & Rahmani, 2020). Despite decades of attempts to successfully implement social change by generations of politicians and policy makers, prejudice and conflict remain.

Understandably, social psychologists have long been interested in reducing prejudice. The term prejudice within this thesis is defined as a negative attitude, emotion, or behaviour towards a group or towards members of a differing social group (Brown, 2010; Stangor, 2009). One of the most robust theories within the field of intergroup contact, introduced by Gordon Allport (1954), has been dedicated to investigating the effects and mechanisms of positive intergroup contact. Allport posited that positive interactions between members of

different social groups effectively reduces prejudice towards the individual and the outgroup. However, positive intergroup contact is only one side of the coin; despite hundreds of studies demonstrating the positive effects of contact (Pettigrew & Tropp, 2006), very few have considered the other side of the coin, the consequences of negative interactions with outgroup members. When members of different groups meet, there is always a possibility that instead of a positive encounter, the encounter indeed becomes a negative intergroup contact experience.

This was evident in a study by Guffler and Wagner (2017) who investigated Jewish Israeli and Arab Israeli students in a positive intergroup contact intervention. Contrary to the authors' expectations of positive contact experiences, Jewish Israeli students reported worse attitudes towards Arab Israeli students following the contact intervention. By examining qualitative data from the participants' comments about their intergroup experience, the author's identified that this effect was most likely based on negative contact experiences during the intervention. However, although they did not measure prior contact experiences, they did report that prior negative attitudes towards the outgroup may have played a part for the Jewish participants.

The findings from the study above by Guffler and Wagner (2017) is just one example that illustrates the crucial importance to take intergroup contact research beyond the study of positive intergroup contact experiences, and to recognise the role negative intergroup contact plays when members of different groups interact. In more recent years, there has been a call to rectify the omission of negative contact within the contact literature (e.g., Barlow et al., 2012; Pettigrew & Tropp, 2013). Although the call for research to quantify the effects of negative contact has generated a few studies, research within the area of negative intergroup contact is still very much in its early stages and numerous questions remain.

So, what happens when an intergroup contact situation is negative, or not obviously positive and open to interpretation? Past research from other fields of social psychology has discovered that there is often greater power with negative events than positive events (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Some emerging results from the intergroup relations field suggest that negative contact may be damaging not just because it increases prejudice, but because it reduces the inclination to interact with members of the outgroup again in the future (Barlow et al., 2012; Hayward, Tropp, Hornsey, & Barlow, 2017; Meleady & Forder, 2019).

Within society today, online interactions provide a platform of anonymity to spread hate, or interactions can come with an amount of ambiguity and can be open to misinterpretation. Furthermore, the open expression of hate speech during recent political history such as Brexit in the United Kingdom (Corcoran & Smith, 2016) and the election of Donald Trump in the United States (Williamson & Gelfand, 2019), suggest that intergroup contact is undesirable for many individuals (Paolini, Harwood, Hewstone, & Neumann, 2018) and people will actively avoid intergroup interactions (Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008).

In consideration of the above the overarching research question for this thesis was formed - "What are the consequences of negative intergroup contact?" To address this question, this thesis is going to examine what happens in a variety of different negative intergroup contact encounters to examine what the effects are and whether they can be harmful impacting future opportunities for repairing the damage. By exploring this under researched area I will expand upon the negative intergroup relations body of literature to aid our understanding of how people behave in a negative intergroup encounter. I will do this by introducing some theoretically novel experimental methodology that closely reflects real-world interactions alongside correlational methods.

Thesis Overview

The primary aim of this thesis is to broaden understanding of the effects of negative intergroup contact and how people interpret contact that could be perceived as negative. I begin my thesis with a review of the literature including a brief exposition of intergroup contact theory and the contact hypothesis, conversely the most researched and utilised method of prejudice reduction within social psychology. This provides the underpinning theoretical framework for the research within this thesis. Next, I discuss indirect contact research. Indirect methods provide a means for positive intergroup contact when direct contact is not possible in the event of individuals not having the opportunity or inclination to engage in meaningful interactions. Finally, I provide a review of the negative intergroup contact literature exploring both direct and indirect negative contact. This research although in its infancy, is expanding and my thesis hopes to add to the understanding of this interesting topic through the exploration of both types of negative contact. I then commence the empirical chapters as outlined below.

The first empirical chapter beginning at chapter three, focuses on the impact of negative contact on outcomes beyond prejudice - the avoidance of future intergroup encounters. Research on negative intergroup contact is still in its infancy and most of the work to date has employed measures of prejudice/outgroup evaluation as the principal outcome variable. In recent years, however, scholars have emphasised the need to enlarge the pool of outcomes assessed in intergroup contact research to more fully capture its influence beyond simply improving individuals' feelings towards others (e.g., Dixon, Levine, Reicher, & Durrheim, 2012; McKeown & Dixon, 2017; Pettigrew & Tropp, 2011). Within two experimental studies the use of an economic game was utilised to simulate a real-world interaction between an ingroup member and an outgroup member to determine if a negative behaviour from an outgroup member can lead to avoidance of future contact opportunities.

The next empirical chapter (Chapter 4) expands on the first two studies and focuses on a generalisation effect to determine if past negative contact experiences with an initial primary outgroup would generalise further beyond that group to secondary outgroups. Previous research has demonstrated that the attitudinal benefits of positive contact with outgroup members can generalise not only to the outgroup as a whole but to other secondary outgroups (e.g., Pettigrew, 2009; Tausch et al., 2010). In Study 3 a correlational research design was utilised to examine whether a similar process may exist for the generalisation of outgroup avoidance. Specifically, if outgroup avoidance generalises, the impaired contact intentions that result from negative contact with one group should result in impaired contact intentions towards other outgroups.

Chapter 5 examines what happens when people bear witness to a negative interaction. Specifically, how people interpret and make judgments on a negative intergroup contact encounter that they observe indirectly such as witnessing derogatory or negative comments posted online by social media users about an outgroup. In this experimental research, I focused on the potential moderator of Social Dominance Orientation (SDO, Pratto, Sidanius, Stallworth, & Malle, 1994), which is conceptualised as a broad social attitude expressing an individual's preference for hierarchically structured group relations and inequality among social groups (Pratto et al., 1994; Sidanius & Pratto, 1999). An imitation Facebook profile was used to observe real-world responses to investigate the relationship between a negative intergroup contact encounter, SDO and evaluations of the ingroup commentor and outgroup as a whole. A unique perspective of this research is that it explores how people interpret the actions of an individual ingroup member and their comments towards a whole outgroup.

In Chapter 6, three experimental studies sought to gain some understanding of how people interpret contact experiences when they are open to interpretation. All contact situations are open to some degree of interpretation, here the situations were somewhat

ambiguous in nature, therefore these studies sought to gain some understanding as to whether we rely on previous intergroup contact experiences when the perceived behaviour of the outgroup member is vague or open to interpretation. Specifically, looking at whether past experiences of contact have an impact on interpretation of the current contact situation which could be viewed as relatively positive or negative. This research used a novel scenario paradigm and an economic game to understand how people evaluate the behaviour of an individual outgroup member.

The final empirical chapter (Chapter 7) was conducted during the Covid pandemic when prejudice towards people of Asian ethnicity was ubiquitous (Tessler, Choi, & Kao, 2020). The aim of this experimental study was to further the studies in Chapter 5 and provide a more in-depth insight into how people react when an outgroup member in this instance a Chinese person, has posted an online comment under an article about the pandemic and then an ingroup member has either empathised with them or responded in a hostile way underneath their comment.

Finally, in Chapter 8 there follows a discussion and conclusion of the empirical research. This chapter summarises the aims and the main findings of the present thesis. Potential limitations are considered and the applied potential of research into negative contact policy implication for online negative contact are considered. This thesis concludes by proposing a program for future research.

Chapter 2: Literature Review

This initial section provides an overview of intergroup contact theory, which proposes that contact between different social groups is sufficient to reduce intergroup prejudice (Allport, 1954). This is the primary social psychological theory underlying the research within this thesis. In summary, this research framework, mainly based on Gordon Allport's (1954) 'contact hypothesis' has identified that a more positive attitude towards the outgroup can be cultivated in situations where people engage in positive contact with members of different social groups, therefore, providing a mechanism to reduce prejudice.

Operationalisation of Indirect and Direct Contact Within This Research

To add to a gap in the negative contact literature, my PhD thesis will be exploring the effects of both *direct* and *indirect* forms of negative contact. It will also address what happens when the intergroup contact situation is vague in nature or open to interpretation. Within the social psychological intergroup contact literature, most research defines direct intergroup contact as face-to-face or direct contact interactions. Indirect contact is described as simply knowing about or observing ingroup and outgroup members interacting. However, there are some grey areas and multiple definitions of various forms of indirect contact (see Crisp & Husnu's, 2011 argument for imagined contact being defined as direct contact). I will clarify how these terms are defined for the purposes of my research below.

Additionally, there is very little research looking at interactions via social media within the social psychological literature base. This is one of the reasons why I have chosen to explore the impact of vicarious contact through the experience of witnessing derogatory comments online (Chapter 5 and 7). Within other disciplines, such as the field of computers in human behaviour which covers human-computer interaction and cyberpsychology, there is a definition of direct online contact as a personal comment written by an outgroup member

online and extended online contact or indirect online contact where individuals encounter and outgroup member through the comment written by the ingroup member (Kim & Wojcieszak, 2018). Research in E-contact has described the use of mediums such as the Internet Text Chat Tool as a direct form of contact as individuals interact in real time, allowing for the actual engagement of self in the immediate contact situation (White & Abu-Rayya, 2012).

For the purpose of the research within this thesis, I have defined direct contact as being an interaction where the participants believe they are interacting with a member of the outgroup directly in real time, for example through an economic game. This may not be entirely a face-to-face interaction per se but operationalised as a real time interaction. Indirect contact is defined as observing an ingroup or outgroup member interacting with an outgroup or members of an outgroup, such as reading derogatory comments posted online by an ingroup or outgroup member. As there is no clear definition to fit some areas of my research, and little research within social psychology on online interactions, I have applied this definition as best I can to suit a cross-over of both disciplines.

I will now introduce the underlying theoretical framework including Allport's (1954) original influential 'contact hypothesis' followed by subsequent reformations of the theory. Thereafter, I will describe direct and indirect forms of positive intergroup contact such as extended and imagined contact. Finally, I introduce the fundamentals of negative intergroup contact, the central theme of this thesis. Research within this subject is relatively limited at this point in time. The findings delivered within the empirical chapters will contribute and expand upon this growing field to add to our understanding of the implications of negative contact.

Intergroup contact theory

Intergroup contact has long been one of social psychology's most effective strategies for improving intergroup relations. Evidence of the effect of positive intergroup contact as a means of reducing racial tension was starting to emerge from the 1920's (Bogardus, 1928; Williams, 1947; Allport & Kramer, 1946). Around the start of the American civil rights movement in the early 20th century, research by Gordon Allport and his colleague Bernard Kramer (1946) explored the effects of equal-status contact on the anti-Jewish attitudes of non-Jewish American undergraduates. The results revealed that the more equal status contact the non-Jewish students self-reported as having with the Jewish students, the less they reported anti-Jewish prejudice. Whilst a causal effect could not be determined, this research contributed in part to the formulation of Allport's influential hypothesis. Another early influential study was by Kephart (1957) who observed through a large-scale survey of 1,081 White police officers in America that those working alongside Black colleagues had less prejudicial views and were more willing to partner with a Black colleague, than officers who were from an all-White police district.

In the early 1950's Gordon Allport wrote his book *The Nature of Prejudice* (1954) in which he addresses in Chapter 16 (The Effect of Contact) the question of what happens when different social groups interact through his "*intergroup contact hypothesis*." While scholars before Allport, such as William Graham Sumner generally believed that conflict would be an outcome of intergroup contact (Sumner, 1959), Allport proposed that positive interactions under certain conditions between members of different groups reduces prejudice and improves intergroup relations.

In the intervening years, since its inception, Allport's hypothesis has become one of the most extensively researched ideas in social psychology, generating over 500 supportive studies (Pettigrew & Tropp, 2006). Several meta-analyses have confirmed the robustness of

the hypothesis in a variety of situations (Pettigrew & Tropp, 2006; Pettigrew, Tropp, Wagner, & Christ, 2011). Arguably the most cited (with over 7,800 citations) of these is Pettigrew and Tropp's (2006) comprehensive meta-analysis of 515 studies with a combined sample size of approximately 200,000, which demonstrated a small-to-medium significant negative effect of contact on prejudice (mean $r = -.21$, $p < .001$). The samples included several different outgroup targets including different racial groups, homosexual people, disabled individuals, and elderly people. It is important to note that the effects of positive intergroup contact were present even when there was large amount of initial animosity between the groups.

There are, however, instances that can make positive intergroup contact more efficacious. Although early evidence for the effects of the contact hypothesis was optimistic, Allport himself recognised that mere exposure to outgroup members would not necessarily guarantee positive outcomes and that there are occasions when intergroup contact can indeed exacerbate intergroup tension and prejudice. He believed that contact functions best when the exchange is more intimate, as superficial contact is too shallow to be psychologically impactful and we are sensitised to perceive signs that confirm any existing stereotypes we hold (Allport, 1954). He gives an example in his book of witnessing one outgroup member misbehaving in a group. The larger number of well-behaved members of the outgroup get overlooked because casual contact permits our thinking about outgroups on what he called an "autistic level" (Allport, 1954, p.264). Allport therefore suggested that prejudice reduction would only occur when the four "optimal" conditions of either 1) equal status, 2) intergroup cooperation, 3) common goals and 4) social and institutional support, were present. These conditions will now be briefly discussed.

Equal status. Allport believed that the perception of equality by both groups within the contact situation was effective in promoting positive intergroup attitudes. For example, those within the contact situation should not have an unequal relationship such as

employer/employee. If the conditions are unequal, intergroup contact is likely to reinforce stereotypes and negative hierarchical perceptions of the outgroup. Research has demonstrated that equal status is important both *prior* to (Brewer & Kramer, 1985) and *during* (Cohen & Lotan, 1995) the contact situation. The contact-prejudice relationship has been found to be weaker among minority members than majority members (Tropp & Pettigrew, 2005; Vezzali, Giovannini, & Capozza, 2010) and weaker in hierarchical cultures than egalitarian cultures (Kende, Phalet, Van den Noortgate, Kara, & Fischer, 2017).

Intergroup cooperation and common goals. Competitive social behaviour where people jointly fight for resources against another group of people or when social groups pursue mutually exclusive goals has been found to increase intergroup hostility (Allport, 1954; Brewer, 1979). So, for these two conditions Allport suggested that group members should work together in a non-competitive environment to reach common goals. This works as the effort is based on cooperation rather than competition and leads to the perception of common interests and humanity (Allport, 1954). Allport's notion of commonality to create more positive intergroup relations was shared by Sherif and colleagues (1961) in their classic study known as the Robbers Cave Experiment. In this field experiment, 22 boys aged 11 years old were sent to a remote summer camp in Oklahoma America. The boys were randomly assigned to one of two teams for a four-day series of competitions during which hostility developed between the two groups. After a cooling off period, the experimenters then reunited the boys to work on shared tasks designed to benefit all groups. This phase of the experimental design represented cooperation to work towards common goals. After completion of the cooperation tasks, prejudice and hostility between the groups was reduced.

In their meta-analysis Pettigrew and Tropp (2006) found that samples that included common goals and cooperation did not differ in the contact effect size from samples that did not meet these criteria. Consequently, while working cooperatively together with outgroup

members towards a common goal is beneficial for contact, contact can be effective without this specific condition.

Social and institutional support. Finally, Allport (1954) hypothesised that authorities (including laws and customs), are necessary to introduce intergroup contact to establish a norm of acceptance. Authority support establishes norms of acceptance. With unequivocal social sanction, intergroup contact is more readily accepted and has more positive effects (Pettigrew, 1998). Field research within business and military contexts has uncovered support for this optimal condition (Landis, Hope, & Day, 1984; Morrison & Herlihy, 1992). Further, evidence in support for this prerequisite has been discovered again by Pettigrew and Tropp (2006) who found that structured programmes show stronger contact-prejudice effects than unstructured programmes. However, they suggest that this condition is not implemented in isolation as it can enhance animosity under conditions of competition or unequal status such as those found within the Robbers Cave experiment (see Sherif, 1966).

Under the optimal specifications, contact reduces anxiety and related negative emotions (e.g., fear, anger, threat). In the absence of these negative emotions, prejudice diminishes, and positive emotions such as empathy and perspective-taking in favour of the outgroup will increase (see Pettigrew & Tropp, 2008). Research following the introduction of Allport's hypothesis generally supports the importance of these four key conditions. However, although beneficial, these conditions are not always essential or exclusive in reducing prejudice (Pettigrew & Tropp, 2006; Pettigrew et al., 2011). Indeed, Pettigrew and Tropp (2006) in their review indicated that the optimal conditions could be more accurately described as *facilitating factors* rather than necessary components for successful positive intergroup contact. Later studies have identified moderators such as Social Dominance Orientation (SDO) and ingroup identification as moderators for contact to operate. One example of this was found by Dhont and Van Hiel (2009) who used SDO as a moderator to

show that individual difference factors can have powerful effects in moderating situational processes such as intergroup contact. They established that the effect of negative contact with immigrants on worsening racism outweighed the effect of positive contact on racism reduction. High scorers on SDO exhibited lower levels of prejudice when positive contact was increased, as well as exacerbated levels of prejudice when negative contact was heightened. Whilst, this finding is thought provoking, the results from this study were correlational and therefore causal inferences cannot be made. Contrasting to this study my research will use an experimental design to explore the moderation effects of SDO in Studies 4, 5 and 9.

SDO is an attitudinal orientation towards intergroup relations reflecting whether one generally prefers such relations to be equal or hierarchical (Pratto et al., 1994). Individuals high in SDO exhibit a preference for inequality among social groups. They want their group to dominate and be superior to other groups, and support initiatives and social policies that promote and enforce social hierarchies (Sidanius & Pratto, 1999). SDO, for example, has been found to moderate the effect of quantity and quality of contact on stigmatisation of the homeless; more contact with the homeless was related to lower stigmatisation for participants with low and moderate SDO scores but not those with high SDO (Smith & Stathi, 2022).

On the other hand, ingroup identification, is defined as the strength of an individual's ties with their ingroup identity (Ellemers, Spears & Doosje, 2002). High group identification increases both intergroup differentiation (e.g., Tajfel & Turner, 1986; Esses, Jackson, & Armstrong, 1998; Ellemers et al., 2002; Voci, 2006) and conformity to ingroup norms (e.g., Tajfel & Turner, 1986). In support of the moderation effects of ingroup identification Sechrist and Young (2011) found ingroup identification to be an important moderator of the influence of social consensus information on intergroup attitudes. By inducing participants to highly identify with their ingroup of White people, their racial attitudes towards African Americans

were more susceptible to consensus information provided by ingroup members. Individuals who highly identified with an ingroup, as compared to low identifiers, were more likely to change their attitudes toward African Americans to be more favourable or unfavourable when provided with positive or negative information.

Doosje and Branscome (2003) describe a possible mechanism for the effect of ingroup identification as a potential moderator. They argue that as ingroup identification increases, the intergroup attributional bias becomes stronger. The outgroup is seen as more homogeneous, and the ingroup and outgroup are perceived as increasingly different from one another. Further, discussion of these two moderators, can be found in more detail in Chapter 5 when I empirically explore whether they are a mechanism for negative contact leading to prejudice.

To summarise, the basic prejudice-reducing effect of positive intergroup contact is now well established within the literature. Robust research indicates that direct positive contact with an individual member of an outgroup can promote positive attitudes towards that individual and beyond to the outgroup. This can be applied to a vasty variety of groups including ethnic minorities and stigmatised outgroups (Hodson, Hewstone & Swart, 2013; Vonofakou, Hewstone & Voci, 2007). Allport's (1954) contact hypothesis has influenced hundreds of research papers, book chapters, and is now considered a developed theory within the field of social psychology (Brown & Hewstone 2005; Pettigrew, 2008).

In the next section below, I move beyond the basic concept of intergroup contact and review how positive intergroup contact can be applied when direct face-to-face opportunities are not feasible or phenomena such as segregation for example, inhibits willingness to engage in positive contact. I then describe the process of generalisation, an essential component to foster positive intergroup relations.

Indirect Contact

The majority of empirical research within this thesis focuses on negative indirect contact experiences. Indirect contact can be defined as contact strategies that do not involve actual interaction with a member of the outgroup. For example, having the knowledge of a friend who is friends with a member of an outgroup. In this next section, I give a short general introduction to indirect contact, then I introduce *vicarious contact*. This form of contact comes under the umbrella term of indirect contact and is used in many of my empirical studies. Although it is mainly utilised within positive contact research, vicarious negative contact may operate in the same process, worsening attitudes towards the outgroup individual and generalising to the outgroup as a whole.

While intergroup contact is now firmly established as a powerful strategy for combating prejudice, it relies on individuals having both the opportunity and inclination to engage in meaningful interactions across group boundaries. There are many situations where ingroup members will not have sufficient opportunities to engage in positive contact with outgroup members or are reluctant to engage in contact even if the opportunity arises. For example, where there is a lack of opportunities for people to meet people from other groups in a positive or friendly context, or where contact is infrequent or impossible in challenging contexts. One such example is within the many Catholic and Protestant communities in Belfast, Northern Ireland that comprise of a low percentage of residents from the other community (Crisp, Stathi, Turner & Husnu, 2009). Also, the ‘Green Line’ in Cyprus and the ‘West Bank Wall’ in Israel (Pettigrew, 2008). Closer to home within many British cities like Norwich for example, where currently 90.8% of the population is White (ONS, 2021), the segregation observed in research (e.g., Catney, 2018) is expected to exist as the opportunity for face-to-face contact with ethnic minorities is infrequent. Additionally, individuals are not always wanting to actively seek out opportunities to engage in contact with other groups

(Kauff et al., 2020). Accordingly, some recent extensions of the intergroup contact theory have considered the notion that indirect contact may also have a beneficial effect.

Even though indirect contact is readily described as an extension to Allport's contact hypothesis, Allport himself acknowledged that indirect approaches such as various media (vicarious contact) through films, novels or TV dramas could lead to prejudice reduction (Allport, 1954). Perhaps the most researched method of indirect contact has been extended contact (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). Extended contact refers to knowing about ingroup members who have outgroup friends (Wright et al., 1997). According to the extended contact hypothesis, this knowledge improves attitudes towards the outgroup even if personal contact or friendship with members of this outgroup is absent (Wright et al., 1997). Support for the extended contact hypothesis has been found through correlational studies in a variety of outgroups including among Northern Irish Catholic and Protestant community members (Christ et al., 2010, Study 2), Spanish and immigrant secondary school students (Gómez, Tropp, & Fernández, 2011) and heterosexual British undergraduate students and homosexual people (Hodson, Harry, & Mitchell, 2009). Experimental studies on extended contact have also found that it improves attitudes towards the outgroup. These have mostly been through written stories about friendships between ingroup and outgroup members using children or adolescents (e.g., Cameron & Rutland, 2006; Liebkind & McAlister, 1999). The benefits of cross-group friendships are now well supported meta-analytically (see Davies, Tropp, Aron, Pettigrew & Wright, 2011 and Zhou, Page-Gould, Aron, Moyer, & Hewstone, 2019, for a review).

More recently, imagined contact has been implemented as an indirect prejudice reduction technique. Imagined contact proposed by Crisp and Turner (2009) utilises the mental imagery of imagining contact with an outgroup member. Miles and Crisp (2014) report in their meta-analysis that over 70 studies demonstrate a reduction in prejudice and

more positive intergroup behaviour through imagining a positive interaction with an outgroup member in a broad range of outgroups and contexts. They argue that the imagined contact effect is stronger for children than for adults, suggesting imagined contact is a good tool in educational settings to promote positive social change. See also Vezzali, Crisp, Stathi, and Giovannini (2013) for additional review of imagined contact.

The effects of indirect contact occur independently of direct contact and involve distinct psychological mechanisms (Dovidio, Eller & Hewstone, 2011). Whereas imagined contact relies upon mental imagery to mimic the psychological processes of direct contact, extended contact and vicarious contact operate in a psychological manner by improving perceptions of the acceptability of intergroup contact. It is not a direct mechanism per se as the effects of both these forms of contact are often mediated indirectly by cognitive and affective mechanisms. Although indirect contact is generally a cognitive experience (Paolini, Hewstone & Cairns, 2007; Wright et al., 1997), research has identified that affective variables such as inclusion of outgroup in the self (Aron, Aron, & Smollan, 1992), perceptions of positive ingroup, and outgroup norms sustaining contact, contribute. For example, Wright et al. (1997) suggested four underlying mechanisms of indirect contact processes through which extended contact improves intergroup relations: reduced anxiety, increased perceptions that ingroup and outgroup norms sustain contact, and increased inclusion of other in the self (Aron et al., 1992).

Indirect positive contact has several advantages over direct contact. First, it does not require face-to-face interactions so it can be easily applied in settings where there is a lack of opportunity for contact (Turner, Hewstone, Voci, Paolini & Christ, 2007). Secondly, as found by Wright et al. (1997) group membership is more likely to be salient to an observer, than to people directly involved in contact and therefore generalisation of contact effects is favoured (Brown & Hewstone, 2005). Finally, indirect intergroup interaction can be less anxiety-

provoking than actual direct contact, and it can therefore facilitate positive intergroup relations (Turner, Hewstone, Voci, Vonofakou, 2008).

The section above has provided an overview of indirect contact. What now follows is an account of vicarious intergroup contact. This approach provides the framework for the indirect contact studies within this thesis. I then consider how intergroup contact generalises from the individual to the whole outgroup. The generalisability of negative contact effects, specifically outgroup avoidance is the focus of the research within Chapter 4. In the last section of this literature review, I consider the existing literature base on negative intergroup contact.

Vicarious Intergroup Contact

Vicarious contact is defined as the observation of an interaction between an ingroup member with an outgroup member (Dovidio et al., 2011; Vezzali, Hewstone, Capozza, Giovannini, Wölfer, 2014). The framework is based on Bandura's (1986) Social Cognitive Theory and proposes that through observation, an individual not involved in the cross-group interaction may acquire new behavioural patterns or apply a previously learnt behaviour strictly reserved for intergroup interactions (Mazziotta, Mummendey, & Wright, 2011). The fundamental distinction between vicarious contact and extended contact, mentioned earlier in this review, is that it typically involves observing an outgroup member via a medium. Previous research has applied this primarily through a parasocial relationship with a fictional character from a book or TV show (Harwood, Hewstone, Amichai-Hamburger & Tausch, 2013). The parasocial contact model argues that exposure to different outgroups in the media can have the same effect on prejudice reduction as interpersonal contact (Bond, 2020).

The vicarious form of contact has been operationalised in different ways, mainly through watching a video depicting a positive intergroup interaction, by reading short stories

about this type of interaction or implemented to an audience of millions of people through watching television (Brown & Patterson, 2016). Additionally, the potential of vicarious contact by means of computer technology has been explored through means such as video-based exchanges, images/media, internet text chat tools or a mixture of text-based and video exchanges mediated through cyberspace (White & Abu-Rayya, 2012; Amichai-Hamburger & McKenna, 2006; Amichai-Hamburger, 2012; Tavakoli, Hatami, & Thorngate, 2010).

Extensive research, mainly experimental, has demonstrated that vicarious contact improves attitudes and increases individuals' willingness to engage indirect contact with outgroup members (Mazziotta et al., 2011). This bias reducing method is both practical and more easily implemented than direct or extended contact as it requires only observation of intergroup contact. For this reason, vicarious contact through media-mediated storybooks has predominantly been used in research with children (e.g., Cameron, Rutland, Brown & Douch, 2006; Turner & Cameron, 2016).

Reading about characters in books who engage in intergroup interactions has been found to reduce prejudice towards various groups such as immigrants and refugees (Vezzali, Stathi, Giovannini, Capozza, & Trifiletti, 2015). This is exemplified in the work undertaken by Vezzali et al. (2015) who conducted two correlational studies to test the effects of reading Harry Potter books on outgroup attitudes. The number of Harry Potter books read was associated with more positive attitudes towards gay people among adolescents who identified more strongly with Harry Potter. Whereas the number of Harry Potter films watched by participants did not have any effect. In a second study, the number of Harry Potter books read was associated with more positive attitudes towards refugees via perspective taking among individuals who identified less strongly with Voldemort (the negative character). Number of Harry Potter films watched was associated with less perspective-taking and attitudes towards refugees although these effects were marginal. Brown and Patterson (2016) offer a potential

explanation of the mechanism for this effect in their review of indirect contact. They consider that as the outgroups in the Harry Potter books (e.g., elves, 'mud-bloods') are dissimilar to the outgroups investigated e.g., gay people, vicarious contact may produce secondary transfer effects. However, they note that the effects of the positive interventions do not have much longevity with the effects only lasting a few days. Indeed, other researchers have also reported effects only lasting approximately one-week postintervention for other types of indirect contact (e.g., Cameron & Rutland, 2006; Cameron, Rutland, & Brown, 2007; Vezzali, Capozza, Giovannini, & Stathi, 2012; Vezzali, Capozza, Stathi, & Giovanni, 2012). In contrast to this longevity finding, White and colleagues (White & Abu-Rayya, 2012; White, Abu-Rayya, & Weitzel, 2014) found long term effects when implementing multiple sessions (eight) repeating the intervention through a contemporary intergroup contact strategy, called electronic or E-contact (Maunder, White & Verrelli, 2019). Although continued longitudinal evidence for the effectiveness of E-contact is needed to support these robust effects, the effects nevertheless lasted 12 months postintervention.

Although described as extended contact, arguably the first experimental study exploring vicarious contact was by Wright et al. (1997). They used a minimal group paradigm (Study 4) in which participants observed a cross-group interaction through a one-way mirror. They manipulated the positivity of the interaction between the confederates playing the parts of the ingroup and the outgroup member as observed by the participant. Participants observed the conditions of either 1) close friend where the confederates acted as if they were friends who just recognised each other, 2) neutral stranger where the confederates gave no sign of recognising each other and interacted neither positively nor negatively, or 3) disliked acquaintance where the confederates acted as if they just recognised and did not like each other. Results demonstrated that observing a positive cross-group interaction (close friend condition) had stronger effects on outgroup stereotyping than being

exposed to less positive intergroup contact (neutral stranger and disliked acquaintance conditions). The authors proposed that observation of an interaction between cross-group friends led to more positive evaluations of the outgroup by eliminating the in-group bias they found within their neutral and hostile conditions. As a potential mechanism for the effect, they suggest that knowledge of the closeness of the cross-group friends leads to a partial inclusion of the out-group in the self (Aron et al., 1992). The cognitive overlap between the self and the ingroup means that people will automatically treat members of the ingroup like the self. Consequently, they will display empathy towards their problems, have pride in their accomplishments, and generally view them more positively (Turner et al., 2008).

In a later study, and the most cited within this field, Mazziotta et al (2011) demonstrated through two experimental studies that watching positive intergroup interactions increased positive attitudes and desire for future contact through increasing self-efficacy and decreasing intergroup uncertainty. Vicarious contact was operationalised by asking German university students to watch video clips depicting interactions between an ethnic ingroup (German) member and an ethnic outgroup (Chinese) member. Results revealed that, compared to a control condition where participants watched intragroup interactions, participants in the experimental condition displayed more positive attitudes towards and intention to have contact with Chinese people. Results were replicated in a second study by including a further control condition where the outgroup member did not interact with other people. They believe that observing ingroup members engaging successfully in cross-group contact can be conceptualised as a vicarious learning event (Bandura, 1965) in which an ingroup role model shows that and how cross-group contact is possible (Mazziotta et al., 2011). The mechanism identified above can also be applied to this research whereby observing ingroup members means that people will automatically treat members of the ingroup like the self.

West and Turner (2014) suggest that observing positive cross-group relationships may prepare people for future direct cross-group contact, which in turn results in more positive intergroup attitudes. The researchers provided evidence that vicarious contact can influence nonverbal intergroup behaviour. In their research, students from an English university watched a video of a brief, positive interaction between two strangers, one of whom they were led to believe had schizophrenia. Control participants watched the same video without being told that the person had schizophrenia. They later participated in a social interaction with a confederate whom they were led to believe had schizophrenia. They found that a vicarious contact intervention can go beyond the participant involved and improve intergroup interactions towards outgroup members in general.

Studies such as the one above, demonstrate that vicarious contact offers a mediating mechanism by which observation of a positive interaction can increase feelings of confidence about one's own behaviour in cross-group situations. This then in turn can decrease uncertainty and awkwardness and increase motivation to enter direct contact situations (Stephan & Stephan, 1985; Plant & Devine, 2003). Vicarious contact has the potential to overcome some of the psychological barriers that reduce motivation to engage in direct contact. This attitude change could happen through several mediating psychological processes, for example, through processes related to social learning (e.g., self-efficacy, acquisition of behavioural knowledge) and processes related to interpersonal closeness (e.g., inclusion of the other in the self). There are possibly more potential mediators for vicarious contact as the literature has mainly focused on extended contact mediators due to the large number of correlational studies on extended contact (Vezzali et al., 2014). The vicarious contact theoretical mechanism provides a pathway to manipulate contact experiences to explain the effects of negative contact and is utilised within the indirect contact experimental

studies in this thesis. Another significant aspect of intergroup contact theory is the generalisation process which I will now discuss.

Generalisation: Beyond the Immediate Contact Situation

Despite the success of the contact hypothesis in the reduction of prejudice, the theory was subject to a major criticism; Allport's original formulation failed to specify how the effects of contact would generalise beyond the immediate situation to other situations, and from the individuals involved in the contact to the entire outgroup (Crisp & Turner, 2014). This has now been addressed within more contemporary research in the domain of positive contact. Evidence of generalisation from the individual to the whole outgroup, known as the *primary transfer effect* of intergroup contact (Pettigrew & Tropp, 2006), has been found in multiple studies of positive direct face-to-face contact (Van Oudenhoven, Groenewoud & Hewstone, 1996; Brown, Vivian, & Hewstone, 1999; Brown & Hewstone, 2005) and indirect intergroup contact (Paolini, Hewstone, Cairns, & Voci, 2004).

Van Oudenhoven and colleagues (1996) found that the generalisation effects of direct contact are strongest when the contacted person is considered typical of his or her out-group and group memberships are salient. In their experimental study they asked Dutch participants to engage in a cooperative-learning task with a Turkish confederate. In the high-group-salience condition, the experimenter made explicit reference to participants' ethnicities when introducing the task (highlighting their typicality). Afterward, participants evaluated their Turkish collaborator and Turkish people in general. Although the confederate was considered favourably across both conditions, when the confederate's nationality was salient, positive evaluations also generalised to Turkish people as a whole. Their results support earlier findings by Hewstone and Brown (1986), who argue that social categories need to be kept present or emphasised in order to obtain generalisation. Ingroup members who have contact

with outgroup members must, at some level, continue to be aware of the contact partner as a member of the outgroup and not simply a positive individual.

Paolini and colleagues (2004) found that that cross-group friendship generalises the effect of positive contact from the individual to the outgroup as a whole. Their study looked at this effect across a sample of participants from Northern Ireland where there is an extremely segregated society between Catholics and Protestants. Their results indicated that simply having ingroup friends who have outgroup friends relates to diminished prejudice. Inclusion of the other in the Self (Aron et al., 1992) has been hypothesised as a principal mechanism by which friendship works to improve intergroup attitudes, the traits of close friends become closer to the psychological self (e.g., Wright et al., 1997). However, it is important to note that the changed attitudes produced by indirect contact are not as strong as those from direct contact (Turner et al., 2007). Nevertheless, these indirect contact effects are important for those who live in segregated areas and have no outgroup friends. These findings have been replicated in studies in Italy, Germany, and the United States considering various behavioural outcomes (Pettigrew, Wagner, Christ, & Stellmacher, 2007; Wright, Aron, & Brody, 2008; Wright et al., 1997).

The generalisation effect has been further extended so that contact with one group (i.e., the primary group) can make us less prejudiced towards other, unrelated groups (i.e., the secondary group), known as the *Secondary Transfer Effect* of intergroup contact (Pettigrew, 2009). For secondary transfer effects to occur via '*attitude generalisation*' the primary outgroup attitude mediates the effects of primary outgroup, whereby intergroup contact effects on secondary outgroup attitudes are mediated by positive attitude change towards the primary outgroup (Pettigrew, 2009). Schmid, Hewstone, Küpper, Zick, and Wagner (2012) demonstrated this using a large-scale cross-national comparison of eight European countries. While examining the extent to which secondary transfer effects of contact may occur due to a

process of attitude generalisation, they found that positive contact with immigrants did not only improve attitudes towards immigrants, but it also improved attitudes towards gay and Jewish people. Their findings align with prior research that has found that people who hold a negative view of one outgroup often tend to also think negatively about other outgroups (e.g., Altemeyer, 1998). Therefore, positive contact can produce a positive change in attitude toward one outgroup which may transfer to and manifest itself in more positive attitudes toward other outgroups also (Schmid et al., 2012). Pettigrew (2009) believes that secondary transfer effects may only be witnessed with regard to outgroups for which similar stereotypes, stigma, or status are present. Within this research although the author's selected outgroups that appeared unrelated, participants may have subjectively perceived them to be part of a shared common minority outgroup category. For example, as outgroups of similar status, rather than perceiving them as separate outgroup categories. This possibly explains the mechanisms underlying attitude generalisation (Schmid et al., 2012).

The secondary transfer effects of positive direct contact have mostly been demonstrated in cross-sectional research (Pettigrew, 2009) with only a few studies using longitudinal (Eller & Abrams, 2004; Mähönen & Jasinskaja-Lahti, 2016; Tausch et al., 2010) or experimental designs (Shook, Hopkins & Koech, 2016). Taken together, research on the secondary transfer effect demonstrates that positive intergroup contact can reduce prejudice beyond the groups involved in intergroup encounters, thus extending its effects more widely.

In summary, the emerging evidence of indirect intergroup contact effects are one of the most important advancements in research of intergroup contact. Although they can also commonly occur in everyday situations naturally, extended contact, imagined contact and vicarious contact offer three types of indirect contact which can be implemented when opportunities for direct contact are problematic. This is especially important as modern social lives rely heavily on the use of social media and television and literature (Mutz & Goldman,

2010). Whilst extended contact research has predominantly used correlational methods, research exploring the effects of vicarious contact has mainly been using experimental methods (Vezzali & Stathi, 2020) although this has mainly been used within a child/adolescent population. Generalisation is necessary to improve attitudes from the individual within the contact situation to the whole outgroup. This process has been explored within the positive contact literature, however, considerably less within the field of negative contact. In the next section I review the literature on negative direct and indirect contact.

Not all Contact is Positive: The Effects of Negative Contact

So, what happens when people from different social groups interact in everyday situations? If we are guided by the copious amounts of robust intergroup contact research literature and real-world evidence, following a positive interaction most people become more positive in their orientations towards minority outgroups and prejudice is reduced. Sometimes, however, when people interact or even observe an interaction between members of different groups, the outcome can have a variety of negative effects.

In May 2020, the United Nations secretary-general António Guterres warned that the coronavirus pandemic may “unleash a tsunami of hate and xenophobia, scapegoating and scare-mongering” (United Nations, 2020). Unfortunately, he was correct. Since the introduction of social media platforms and their availability that is easily accessible worldwide, voicing hate has become easier and can be expressed explicitly. Hate speech online has been linked to a global increase in violence toward minorities, including mass shootings, lynchings, and ethnic cleansing (Laub, 2019). Incidents have been reported on nearly every continent. Individuals may observe negative behaviour through reading online journals, blogs, services, and participate in chat rooms (Schaan & Phillips, 2011). They may even enter forums which could be an arena for extremist ideology (Schaan & Phillips, 2011). For example, Von Behr, Reding, Edwards and Gribbon (2013) found widespread evidence

within 15 case studies that the internet provided opportunities to become radicalised. This is largely due to the widespread use of the internet and increasing availability of extremist content online (Von Behr et al., 2013). The internet provides anonymity, as a consequence of this behaviours and attitudes that otherwise may be considered as unacceptable or inappropriate in the physical world can be normalised (Bjelopera, 2011). Furthermore, as more and more people are accessing the world wide web, individuals inclined toward racism, misogyny, or homophobia have found niches that can reinforce their views and goad them to violence (Laub, 2019).

As the opportunity to directly experience or witness negative contact through online interactions is now greater than it ever has been, research within this area is of utmost importance. Despite the above, a central critique of the intergroup contact research is that negative intergroup contact experiences have been largely neglected within the literature (Pettigrew & Tropp, 2006; Dixon, Durrheim, & Tredoux, 2005). When Pettigrew and Tropp (2006) reviewed the negative literature in their meta-analysis of 713 studies of intergroup contact, they observed that only 4% of studies focused on negative contact and its potential to disrupt the beneficial effects of positive contact. Their meta-analysis results revealed that our understanding of negative contact is limited by the emphasis placed on positive contact within the literature and made a call for research to focus on negative factors. Since their review the focus on negative contact within the literature has advanced. However, there is still more to do to increase our knowledge and understanding of the subject particularly with online negative contact, which I will discuss in further detail shortly.

Negative Experiences in the Wider Field of Psychology

Before I begin to discuss more specific types of negative contact, first I will take a moment to discuss the large body of evidence in the wider field. There is a large body of evidence within the wider social psychology field that suggests that, across a range of

psychological phenomena, negative information is weighted more heavily than positive information “bad is stronger than good” (Baumeister et al., 2001). Baumeister and colleagues (2001) for example, reviewed evidence from 15 different domains including learning, emotions, stereotypes, child development, social support, information processing, forming impressions, the self, feedback, and health. Their research found that everyday events such as major life events, personal interactions, negative feedback, negative or bad events, have a long lasting and stronger impact than good events or pleasant results. For an everyday example imagine how you would feel finding £20.00 compared to losing £20.00. Rozin & Royzman, (2001) believe that most people would feel more distressed at losing £20.00 than the joy at finding £20.00. Based on theories from evolutionary psychology, Baumeister et al. (2001) suggest that the reason for this is that people have adapted to respond more strongly to bad events than good ones, especially as when people ignore signs of danger, they could be placed at risk for injury or death.

The most investigated area within the broader field appears to be within impression formation research where the researchers strongly suggests that bad information has a stronger impact than good (see Skowronski & Carlston, 1989 for a review). These phenomena have been referred to as a *positive-negative asymmetry* (Peeters & Czapinski, 1990). Within other domains it has been found that people often spend more time processing negative, than positive, behaviours (Fiske, 1980; Ohira, Winton, & Oyama, 1998).

Furthermore, negative personal traits attract more attention than positive personality traits (Pratto & John, 1991) and carry more weight when forming first impressions (Hamilton & Zanna, 1972). Within the wider intergroup domain, Rothbart and Park (1986) found that negative stereotypes are quicker to form than positive ones. Once established, negative impressions are more resistant to change, they require less evidence to be confirmed and more evidence to be disconfirmed (Rothbart & Park, 1986). When considering these

interpretations, it could be predicted that when positive and negative information co-occur within a negative contact situation, the negative component should disproportionately be more influential in determining the overall judgement (Graf & Paolini, 2017).

Although there is still limited evidence on the effects of negative online intergroup contact, a few studies within the field of Computer Mediated Communication (CMC) have explored negative contact through users' comments online, an easy and accessible venue for intergroup encounters both positive and negative (Hsueh, Yogeewaran & Malinen, 2015). For example, Hsueh et al. (2015) found that user comments that were prejudiced towards Asian Americans led to increased prejudice amongst participants who were exposed to these comments compared to participants who were exposed to antiprejudice comments.

A recent study by Weber and colleagues (2020) investigated whether hate and negativity in user comments would inhibit actual prosocial behaviour through an online experiment where participants read user comments (neutral, civil-negative, hateful) about refugees (Weber, Viehmann, Ziegele & Schemer, 2020). Participants were given five Euros which they could donate for a refugee aid organisation or keep for themselves. Their results demonstrated that future behavioural intentions were decreased when participants were confronted with hateful or negative user comments and subsequently donated less money. People who perpetrate or witness online negativity from an ingroup member, may be persuaded to become more prejudiced in their attitudes (Hsueh, 2015). Nevertheless, comparable to the positive contact literature, the principal focus has been on the promotion of positive contact through online technologies (e.g., Kim & Wojcieszak, 2018). I discuss negative online contact in more detail within the empirical chapters.

In summary, the main findings from the research discussed above is that within the broader domain of social psychology it has been found that negative information is more

impactful and weighted more heavily than positive information (Baumeister et al, 2001). Next follows a review of the negative contact literature that has started to emerge, beginning with direct followed by indirect negative contact. The majority of intergroup contact research has explored direct negative contact alongside positive contact as if they were at opposite ends of the same scale and it has predominantly been measured through self-report methods.

Negative Intergroup Contact

Within the intergroup contact field, negative contact is characterised by an interaction that takes place with a negative or perceived negative outcome for the interaction partner. Alternatively, this can also be a hostile behaviour by the interaction partner (Hayward et al., 2017). Broadly, research on negative intergroup contact finds that negative contact experiences relate to less favourable affective reactions to outgroups. Everyday interactions between members of different social groups do not always provide a guaranteed positive outcome or intergroup experience. Therefore, this thesis aims to broaden our understanding of the consequences of negative intergroup contact and contact that may be perceived as negative contact. As will be demonstrated from the literature reviewed below, past research has mainly compared the effects of positive contact in conjunction with negative intergroup contact. However, the phenomenon is more complicated than the effects of negative contact simply being the inverse of those of positive contact (Pettigrew, 2012). Although I have included elements of positive contact experiences in a couple of the empirical studies within this thesis, due to the research design of my experiments, I have taken a different approach and focused upon on what happens in a contact situation when the encounter is negative or can be interpreted as negative.

We are often faced with an everyday situation on social media and online mediums of vicariously witnessing a negative or derogatory remark. Or we may observe a direct interaction that is unfriendly, or we may even witness an ethnic slur. The Internet because of

its ability to disseminate information and reach large audiences especially through platforms such as social media, provides a forum for interpersonal discussion surrounding issues that may not be widely covered in traditional media. These online platforms have the potential to foster discussion and deliberation among far-reaching audiences in spaces such as the comments section of news items, blog posts and social media posts. However, these discussions are not always rational and can indeed be harmful. Although, negative contact that is found within online channels is not the only focus of the work in this thesis, one area that makes the research in this thesis unique is a focus on the individual within the contact situation, specifically how other ingroup members evaluate them after they make a derogatory comment. This is rather than a focus on effects on the outgroup a whole, which has been an emphasis to a great extent of past research. Here within this research reactions towards an ingroup member after they make a negative response towards an outgroup is explored. This will be discussed in further detail later.

Only recently have researchers started to empirically examine the possible detrimental effects of negative intergroup contact. This early research considered the possibility that negative contact may even undermine the positive effects of positive intergroup contact (e.g., Barlow et al., 2012) and may even increase intergroup conflict (Graf & Paolini, 2017). Studies comparing both positive and negative contact indicate that negative contact is less common than positive contact (Pettigrew & Tropp, 2011; Graf, Paolini & Rubin, 2014). However, research has also indicated that a negative contact interaction may have a stronger effect on prejudice than positive contact (Barlow et al., 2012). What now follows is a review of the direct and indirect negative contact literature which includes the discussion of some these above-mentioned studies in greater depth. I begin with direct negative contact where the main research has focused on two streams of research focusing on 1) the potentially stronger effect of negative contact and 2) the frequency of negative contact.

Direct Negative Intergroup Contact

Responding to Pettigrew and Tropp's (2006) call for research on negative contact, one of the earliest studies within the field was by Paolini, Harwood and Rubin (2010). Through a face-to-face laboratory experiment, the authors demonstrated that negative contact increased category salience more strongly than positive contact. The researchers measured ethnicity salience using White Australians and an ethnic minority confederate in her 20's (Study 1). Participants were told that they were to evaluate an unfamiliar student after engaging in a series of tasks together. Contact was operationalised by varying the confederate's nonverbal behaviour so that it was either warm and relaxed (positive contact), very distant and tense (negative contact) or somewhere between (neutral contact). The White participants were found to make more frequent reference to ethnicity when describing their ethnic contact partner, if they had displayed negative non-verbal behaviour compared to positive contact or neutral contact. This effect was replicated in a second study where young participants were asked to recall and re-enact in their mind a contact experience, they have had with an older person that was either negative or positive. Negative intergenerational contact led to increased higher age salience. Their model demonstrated that negative experiences with outgroup members can cause worsening outgroup evaluations when people hold negative expectations of outgroups.

The authors propose a novel hypothesis for a *valence-salience effect*—that is, negative contact leads to high category salience. Category salience then moderates the effect of intergroup contact on intergroup attitudes. This is perhaps due to negative outgroup experiences encourage attending to the intergroup distinction, whereas positive outgroup experiences dampen intergroup distinctions and produce small positive improvements (Paolini & McIntyre, 2019). This is in line with the psychological phenomena discussed earlier whereby negative information is weighted more heavily than positive information

“bad is stronger than good” (Baumeister et al., 2001). Here negative contact raised the salience of group membership and could therefore encourage disadvantaged-group members to think and feel as group members rather than individuals and may even facilitate the perception of discrimination (Wright, 2013).

Positive-Negative Asymmetry of Intergroup Contact

In order to confirm Paolini et al.’s (2010) prediction, that negative contact has a stronger effect on attitudes towards the outgroup than positive contact, Barlow et al. (2012) simultaneously examined the effect of positive and negative contact on prejudice proposing a *positive-negative asymmetry of intergroup contact* effects. They looked at the interaction between contact quantity and valence on prejudice of White Americans towards outgroups such as Black people, Muslims and asylum seekers. Replicating the traditional contact effect, positive contact was negatively associated with prejudice and contact avoidance, however, this relationship was comparably weaker when negative contact was included in the analysis. Their data was cross-sectional rather than experimental, and therefore cannot speak to causality. Nevertheless, their findings suggest that negative contact is indeed more influential or “prominent” in shaping outgroup attitudes than positive contact.

Similarly, in a correlational study using a general community sample from Belgium, Dhont and Van Hiel (2009) found that the effect of negative contact with immigrants on worsening racism outweighed the effect of positive contact on racism reduction. They used SDO as a moderator of these effects and discovered that high scorers on SDO exhibited lower levels of prejudice when positive contact was increased, as well as exacerbated levels of prejudice when negative contact was heightened. Graf et al. (2014) suggest that these results indicate that intergroup contact may be naturally skewed towards enhancing rather than

reducing intergroup animosity, because of the disproportionate influence of negative contact on category salience and on outgroup attitudes.

Despite this compelling research, findings supporting the evidence for the positive-negative valence asymmetry are mixed, some studies have, indeed, found asymmetry (in favour of negative contact) on various outcome measures (Barlow et al., 2012; Dhont & Van Hiel, 2009; Dhont, Cornelis, & Van Hiel, 2010; Graf et al., 2014; Labianca, Brass, & Gray, 1998; Paolini et al., 2010; Paolini et al., 2014). Others, however, have failed to observe it, with some finding stronger effects for positive contact (Pettigrew et al., 2011).

Furthermore, there are studies that find no reliable differences in the magnitude of positive and negative contact effects (Aberson & Gaffney, 2009; Bekhuis, Ruiter, & Coenders, 2013; Stark, Flache, & Veenstra, 2013; Mazziotta, Rohmann, Wright, De Tezanos Pinto, & Lutterbach, 2015; Árnadóttir, Lolliot, Brown, & Hewstone, 2018). Árnadóttir and colleagues (2018) provided cross-sectional evidence from a survey found little evidence of the stronger effect of negative than positive contact. Although they did report consistent evidence that positive contact was associated with lower, and negative contact with higher, category salience.

Stark et al. (2013) argue that the different time dimensions in which attitude generalisation was explored within studies that found evidence of the positive-negative asymmetry effect may affect the outcome. Their research on Dutch school aged children found no evidence of valence asymmetry when directly comparing the effects of positive and negative contact. Positive and negative attitudes towards classmates of different ethnicity generalised (cross sectionally, as well as longitudinally) onto attitudes towards these ethnic groups to the same degree. However, in their research the participants in the outgroup were known to the ingroup members and schools like other institutionalised settings where their

research was conducted contact is carefully structured and monitored by teacher so that negative exchanges with outgroup members never reach the strength of negative contact as it can be experienced in unstructured and uncontrolled settings (cf. Graf et al., 2014).

Nevertheless, there is a large amount of research that demonstrates negative contact is harmful (MacInnis & Page-Gould, 2015).

Frequency of Negative Contact

I turn now to the other stream of negative contact research that has focused on the frequency of positive compared to negative intergroup contact. This research has argued that the potential stronger effects of negative intergroup contact might be compensated for by a higher prevalence of positive intergroup contact (Graf & Paolini, 2017). Graf et al. (2014) for example, examined attitudes across several European societies (Austria, the Czech Republic, Germany, Poland and Slovakia) through a self-reported history of contact experiences with neighbouring nationalities and found that while participants report less frequent negative contact than positive contact, negative contact was associated with increased intergroup prejudice. In their review of the literature on positive and negative contact Schäfer et al. (2021) state that this finding is consistent in various settings including different outgroups such as Black Americans (Hayward, 2018), overweight people (Alperin, Hornsey, Hayward, Diedrichs, & Barlow, 2014) and in settings of high conflict (Schäfer et al., 2021).

In contrast, Dhont et al. (2010) reported more negative than positive contact with outgroup members. Their study focused on the frequency of positive and negative contact of Flemish operational police officers with immigrant citizens. They argue that the benefits of positive contact are outweighed, negative contact occurs more frequently and shows stronger relations with prejudice than positive contact. However, this reported mean frequency of negative contact was quite high within the sample of police officers. They reported

significantly more negative contact compared to positive contact. Furthermore, they reported more negative contact compared to the few negative contact experiences reported in other research within the general community (e.g., Dhont & Van Hiel, 2009) or in student samples (e.g., Aberson & Gaffney, 2009). This demonstrates the importance of studying the effects of intergroup contact in different sample populations as the effects may vary.

Suggested Mechanisms of Negative Contact

Research has also explored the mechanism driving the effect of negative intergroup contact on prejudice. Initial investigations suggest negative contact may work via the same mediational pathways as positive intergroup contact, confirming or enhancing intergroup anxiety and perceptions of threat, and reducing empathy towards the outgroup (e.g., Aberson, 2015; Visintin, Voci, Pagotto, & Hewstone, 2016). Other findings argue that additional emotion-based mediators (e.g., intergroup anger) may also be important in explaining negative contact effects (e.g., Hayward, Tropp, Hornsey, & Barlow, 2017; Visintin, Green, Pereira, & Miteva, 2017). Alternatively, *negativity biases* which refers to our tendency to attend to, learn from, and use negative information far more than positive information (Vaish, Grossmann, & Woodward, 2008) considers that in general, people are more sensitive to negative than positive information (Skowronski & Carlston 1989; Baumeister et al. 2001; Rozin & Royzman 2001).

There is also evidence that negative and positive contact may relate more strongly to different dimensions of prejudice (Aberson, 2015). For example, Aberson (2015) found that positive and negative contact were similarly predictive of affective dimensions of prejudice, while negative contact was particularly important in explaining the cognitive dimensions of prejudice, such as stereotyping. Negative contact with an outgroup member is more likely seen as typical of the outgroup than positive contact and promotes negative cognitive

evaluations that generalise to the outgroup as a whole (Wolsko, Park, Judd, & Bachelor, 2003).

Furthermore, it is important to recall the research of Guffler and Wagner (2017) mentioned earlier and give consideration that prior negative attitudes towards the outgroup may be a mechanism for a negative contact encounter. Here, in a conflictual intergroup setting, intergroup contact demonstrated that it could involve unintended negativities that may harm intergroup relationships. Within this research participants in a positive intergroup contact intervention actually reported worse attitudes towards the outgroup following the positive contact intervention. After examining qualitative data from the participants' comments about their intergroup experience, the author's identified that this effect was most likely based on negative contact experiences during the intervention. Although they did not measure prior contact experiences, they did report that prior negative attitudes towards the outgroup may have played a part for the Jewish participants.

Generalisation of Negative Contact

It has been shown in a variety of psychological domains, negative information is generalised more quickly than positive information (Shook, Fazio & Eiser, 2006). Shook et al. (2006) for example, found that with participants taking part in a computer game where they had to form attitudes toward positive and negative, mild, or extreme stimuli, negative attitudes generalised more than positive attitudes. This pattern was more obvious with extreme attitudes than mild attitudes. That is, extreme attitudes were more influential and given more weight than mild attitudes. This suggests that attitudes formed about individual group members are transferred more readily when individuals are outgroup members, and when the information about the individuals is negative (Ratliff & Nosek, 2011). However,

there may not be a strong generalisation of negative contact in which the individual outgroup members are known to each other as found by Stark et al. (2013).

Non-Attitude Outcomes for Negative Contact Research

Research has demonstrated that negative contact experiences relate to less favourable affective reactions to outgroups. However, an area that requires further research within both the positive and negative contact literature is to move beyond the emphasis on attitudes as a criteria (Hodson, Turner & Choma, 2017). Whilst exploring outcomes for negative contact on outgroup evaluations is still needed, another avenue for expansion is the exploration of other outcomes such as political support, outgroup trust and engaging in future contact with the outgroup. This is particularly important as many negative experiences occur in situations that are involuntary and threatening (Pettigrew & Tropp, 2011) and positive extended contact has been found to shift expectancies for future contact (Gómez et al., 2011) the same process could happen with negative contact.

Summary of Direct Negative Contact

In summary, when considering direct negative contact within the intergroup contact literature there appears to be two main streams of research for direct contact effects. Consistent with Allport's (1954) original view that intergroup contact without optimal conditions can exacerbate rather than reduce prejudice, one stream has centred around potential negative effects of intergroup contact. Suggesting that intergroup encounters can produce negative outcomes other than the beneficial ones. Proposing that although high category salience is beneficial for positive contact, it can still be potentially harmful in instances of negative contact (Paolini et al., 2010). The other stream explores intergroup contact valence and determines the effects of negative intergroup contact. Here, rather than looking at negativity as a result of intergroup contact (i.e., an output or a mediator variable),

this approach treats negativity as an input variable. Operatively, participants are engaged to either a pleasant or unpleasant interaction with an outgroup member as seen in direct contact by Paolini and colleagues (2010).

From the reviewed literature above it appears that research on direct negative contact has overlooked potential outcomes of negative contact beyond reductions in outgroup evaluations. To aid our broader understanding of negative contact, in the empirical chapters I aim to address this by exploring the effect of other dependant variables as a result of negative contact such as future contact intentions. I now introduce the final section of this literature review which looks at the indirect negative contact literature.

Indirect Negative Intergroup Contact

Within today's society whilst the internet is an important source of information and means of social contact, it is also one of the most common settings where both young people and adults can encounter prejudice and hate speech (Celuch et al., 2022). We live in an internet age where smart phones, tablet devices and computers in the classroom are commonplace. Vicariously observing negative comments online can have damaging consequences and sometimes in a way you would not expect. For example, Hseuh et al. (2015) found that exposure to prejudiced comments influenced responders to post more prejudiced comments themselves. They discovered that participants adopted the groups '*social norm*' and adjusted their response, suggesting that the online comments people read can impact their own attitudes and behaviours. The authors believe that this finding is consistent with literature on persuasion in online contexts where people are guided by others' opinions when making judgements.

In chapters 5 and 7, I examine how exposure to prejudicial remarks on social media may impact attitudes towards both the person making the comment and the outgroup in question. This is a real-world everyday problem. People often express derogatory remarks

even extremist content online in response to comments, images, newspaper articles, social media posts etc. It is a very real circumstance that people even become radicalised by observing stories online (Schaan & Phillips, 2011; Von Behr et al., 2013; Williams, 2021). Teenagers and young people are considered to be at greater risk as extremists know how to capitalise on feelings of insecurity on many of the popular online channels such as Facebook, Instagram, Twitter and Reddit (Department for Education, 2022). Unfortunately, behaviours and attitudes that otherwise may be considered as unacceptable or inappropriate in the physical world can be normalised online through the internet (Bjelopera & Randol, 2011; Williams, 2021; Reichelmann et al., 2020).

We know from the positive contact research that simply knowing or observing other people in the ingroup who have positive contact with the outgroup has been shown to indirectly reduce prejudice. However, there is little in the contact literature that has investigated the possible effects of negative indirect contact experiences, direct negative experiences remain central to research (Schäfer et al., 2021).

One exception is provided by Mazziotta et al. (2015) who examined the effects of positive and negative extended contact on reported direct cross-group contact and intergroup attitudes. Non-Turkish German participants completed an online survey assessing their positive and negative direct contact experience, as well as their positive and negative extended contact (through measuring friends positive/negative experiences) experience with the outgroup of Turkish people. Results indicated that negative extended contact predicts intergroup attitudes, even when controlling for positive extended contact. Furthermore, in contrast to findings on direct cross-group contact, positive and negative extended contact were positively correlated. Increased exposure to the cross-group contact of other ingroup members led to people learning about both positive and negative cross-group interactions.

Similar to the findings associated with direct negative contact, this implies that negative extended contact may reduce the effects of positive extended contact.

Vicarious exposure to negative contact can have detrimental effects on outgroup attitudes. Weisbuch, Pauker, and Ambady (2009) found, in both correlational and experimental studies, that White people in television displayed nonverbal race bias. In turn, among White viewers, exposure to nonverbal race bias increased implicit prejudice. Notably, viewers were not aware of having been exposed to nonverbal race bias, nor (evidently) of its influence on their own outgroup attitudes. Lack of awareness can be especially dangerous, as people may be unprepared to face the subtle influence of unspoken nonverbal behaviours, which as a consequence can have broad detrimental effects on relationships between groups (for the effects of exposure to negative portrayals of social groups in mass media, see also, e.g., Mastro, 2009).

In a recent study by Vezzali et al. (2021) the effect of negative vicarious contact on collective action was explored. The authors utilised the fantasy books *The Hunger Games* tested whether reading about fantasy characters living in a postapocalyptic conflictual society with large social disparities between advantaged and disadvantaged groups leads advantaged group members to display greater willingness to engage in collective action on behalf of the disadvantaged group. Through a correlational and an experimental intervention reading *The Hunger Games* was indirectly associated with greater collective action intentions via increased anger toward injustice. However, the effect of vicarious contact was dependent upon SDO. Findings revealed that negative vicarious contact concerning fantasy books was effective in promoting collective action intentions on behalf of disadvantaged groups among advantaged group members. However, the direction of the moderation was inconsistent between the two studies.

Through a vicarious contact context Andrews, Yogeeswaran, Walker, and Hewstone (2018) tested the effects of observing a positive, a negative, or a neutral interaction between an ingroup poker player and a Russian (outgroup) player among New Zealand participants. Their results found that watching a fellow ingroup member in an online poker context engage in negative contact can lead to more negative attitudes towards an outgroup compared with watching positive or neutral contact, while watching positive contact between the players can lead to less prejudicial attitudes towards the outgroup compared to watching negative or neutral contact.

Although not traditionally considered within the remit of intergroup contact theory (or extended contact theory), a small body of literature has also examined the impact of overhearing a negative comment directed towards an outgroup member by an ingroup member. For my purposes and definition, this is a type of vicarious negative contact. Overhearing such comments, or seeing them on social media or other platforms, is relatively common (Hsueh et al., 2015; Soral, Bilewicz & Winiewski, 2018; Rieger, Kümpel, Wich, Kiening, & Groh, 2021). What are the consequences of this type of negative contact? A small body of research suggests it may change perceptions of both the outgroup and the person making the comment.

Greenberg and Pyszczynski (1985), for instance, demonstrated that overhearing a prejudiced slur can cue prejudiced behaviour in those that are exposed to them. Their aim was to assess the effects of an ethnic slur on evaluations of a target minority group member by those who overheard the slur. This experiment was implemented through a staged debate situation. After the debate, a White confederate made a racist slur against an African American who had either won or lost the debate. Participants then anonymously evaluated the debater. Findings indicated that White participants' lowered their evaluation of the African American debator after hearing the White confederate employ the ethnic slur, regardless of if

he won or lost the debate. The authors' believe that use of a strong derogatory ethnic label created a hostile environment, where denigration towards the target of the expression becomes acceptable.

Goodman, Schell, Alexander and Eidelman (2008) replicated this finding in a different intergroup context. Participants evaluated the leadership skills of a team leader after a confederate commented "He is so gay" with disgust when the leader left the room. Results demonstrated that when the leader was derogated, his leadership abilities were evaluated less favourably compared to a control condition in which no comment was made. In these above studies, the dependent variable was measured at the level of the individual, however, research has also shown that exposure to racist opinion can impair attitudes towards the outgroup as a whole and undermine support for anti-racism policies (e.g., Blanchard, Crandall, Brigham & Vaughn, 1994; Blanchard, Lilly & Vaughn, 1991).

Simon and Greenberg (1996) also explored the impact of a derogatory ethnic label made by an ingroup member on evaluations of both the target of the ethnic label and the person making the derogatory comment. The manipulation was implemented by presenting White participants with a remark written on a piece of paper, presumably from someone completing the task in the next cubical with whom they had to swap papers with. In the derogatory ethnic label condition participant read the remark "I can't believe they stuck us with this nigger! (please erase this)" (Simon & Greenberg, p.1198). In the ethnic criticism condition participants read the same comment except the racial slur was replaced with "*Black person*". The researchers found that participants who read the derogatory label, had less positive attitudes towards the commenter. The effects of the comment on attitudes towards the targeted group were found to depend on the individual's pre-existing attitude towards that group. Specifically, participants who held Anti-Black attitudes rated the African American target more negatively in the derogatory label condition. Indicating that pre-existing attitudes

may affect reactions to people who express prejudice and who are targets of derogatory comments. Among those with positive attitudes towards African Americans, the comments had no effects on ratings of the outgroup target.

Racial slurs targeted at an individual can be extremely damaging to individual targets, and the entire targeted group. Several scholars have indicated that future attacks on ethnic groups is likely to continue because the reason for the comments (i.e., one's race) cannot be changed (Graumann, 1998). Derogatory comments can also have longer-term negative impacts on targets of the slur. For example, slurs bring negative perceptions and stereotypes to mind both in observers of the slur and individuals targeted by the slur (Jeshion, 2013).

Concluding Remarks

This literature review provides a contribution to the existing literature base by considering the overall picture of intergroup contact including the main theoretical frameworks, both positive and negative contact, direct and indirect contact and even online intergroup contact literature. In reviewing the evidence within this literature review there is a general lack of empirical research exploring the consequences of negative intergroup contact. Research has mainly focused on positive intergroup contact. As suggested by Barlow et al. (2012) negative contact with outgroup members, whether experienced directly or vicariously, can increase discrimination and prejudice towards such groups.

Although the imbalance caused by the positivity bias is beginning to be addressed, there remains areas that require particular attention of the impact and consequences of negative contact. One such area is how a negative contact encounter impacts how much people are willing to engage in future contact with the outgroup as a whole. Another area is to provide a greater understanding of the consequences of indirect negative contact, especially online indirect contact. This is an area that has received greater attention outside of the

intergroup contact literature. Negative online contact can have a variety of outcomes, such as online harassment, online bullying, negative health outcomes, such as increased heartrate and blood pressure (Krieger & Sidney, 1996; Schneider, Hitlan, & Radhakrishnan, 2000; Forde et al., 2020) for the target individual. People who perpetrate or witness online negativity from an ingroup member, may be persuaded to become more prejudiced in their attitudes (Hsueh, 2015). Whilst largely outside of the scope of the present research, a body of literature shows that participation in misogynistic or racist-leaning online communities can lead to real-world radicalisation or violence (Habib, Srinivasan, & Nithyanand, 2022). Therefore, this area of online indirect contact warrants further exploration.

A question I have found that remains unanswered is what happens when the intergroup contact encounter is ambiguous or open to interpretation. To some extent, the outcome of all social interactions are dependent on the interpretation and understanding of the individuals involved. In the interpersonal perception literature, our own attributional biases for example, hostile attribution bias (Nasby, Hayden, & DePaulo, 1980) and our previous experiences with similar others (Harwood et al., 2017) influence the fluidity of social interactions, and how we perceive other people. When an intergroup context is salient, it has long been assumed that stereotypes influence our perceptions of others (Devine, 1989). Comparatively little research has examined how past contact experiences influence our perceptions of following contact experiences. As will be discussed in chapter 6 research has found that for out-groups that are typically perceived negatively, having negative contact with this out-group provides a better “fit” to prior negative perceptions, which leads to greater salience (Harwood et al., 2017). This will be discussed in further detail in the chapter. Studies 6, 7 and 8 will further examine if and how we rely on past contact experiences to guide us through situations in which intergroup behaviour could be interpreted as positive or negative, to various degrees.

Most research focuses of the evaluations of the outgroup in general after the contact interaction, rather than the individuals within the intergroup contact encounter. Often, when we overhear or read a negative comment, this is from someone we know, or may encounter again online or in real life. This is something that is of particular interest to me and something I will address within the empirical chapters, specifically evaluating how members of the ingroup evaluate an ingroup member when they act in a negative way towards the outgroup or an outgroup member. In an effort to understand how conciliatory ingroup members are perceived, and their effects on perceptions of the outgroup, I will further examine how members of the ingroup evaluate an ingroup member when they respond in either a positive/empathic or negative way towards an outgroup member who has been hostile towards the ingroup.

To conclude, this review has identified many areas within the intergroup contact literature that the research is either limited or in its infancy, especially when considering the impact of negative contact. While positive experiences might be more prevalent in people's daily experience (Pettigrew, 2008) at least with face-to-face contact, bad experiences with outgroup members could be more influential or have greater impact on intergroup affect, cognitions, and behaviours than positive outgroup experiences.

Chapter 3: Examining the Broader Consequences of Direct Negative Contact

The studies presented in this chapter have been published in the following journal article:

Meleady, R., & Forder, L. (2019). When contact goes wrong: Negative intergroup contact promotes generalized outgroup avoidance. *Group Processes & Intergroup Relations*, 22(5), 688-707. <https://doi.org/10.1177/1368430218761568>

Chapter Summary

The first two studies of this thesis aimed to experimentally examine the influence of negative contact on outcomes beyond prejudice. In Study 1, participants took part in a real intergroup context, experimentally manipulating negative contact experience within the context of an economic game. Results revealed that a negative encounter with an outgroup member was found to reduce intentions to engage in contact with the whole outgroup in the future. In Study 2, the experiment was replicated and improved in order to rule out a mood effect and ensure the results were an intergroup effect. Here using a between groups design participants took part in the economic game with either an ingroup member or an outgroup member. The findings were replicated and confirmed that a negative encounter with an outgroup member, but not an ingroup member, was found to reduce intentions to engage in contact with the outgroup in the future. The current findings suggest that negative contact may be doubly bad: Not only does it increase prejudice, but it may also lead to the avoidance of future contact with the contacted outgroup.

Introduction

The present research aimed to examine the influence of negative contact on outcomes beyond prejudice. From reviewing the emerging research within this field, most of the work has employed measures of prejudice/outgroup evaluation as the principal outcome variable. In recent years, however, scholars have emphasised the need to enlarge the pool of outcomes assessed in intergroup contact research to more fully capture its influence beyond simply improving individuals' feelings towards others (e.g., Dixon, et al., 2012; McKeown & Dixon, 2017; Pettigrew & Tropp, 2011).

A particularly important area for attention is the impact of negative contact on what McKeown and Dixon (2017) refer to as “informal practices of social segregation” (p. 3). A growing body of observational research that maps patterns of intergroup contact in social settings (e.g., classrooms and lecture theatres, nightclubs, canteens) demonstrates that even in the absence of structural barriers, individuals often voluntarily eschew intergroup encounters (e.g., Alexander & Tredoux, 2010; Dixon & Durrheim, 2003; Tredoux & Dixon, 2009; Tredoux, Dixon, Underwood, Nunez, & Finchilescu, 2005). As McKeown and Dixon (2017) note, factors leading to such practices are likely to include individuals' past experience of intergroup contact. Some evidence suggests that positive contact in one context at a given point in time tends to increase the likelihood that individuals will open themselves up to contact in other contexts and at other times (Braddock, 1980; Braddock & McPartland, 1989). On the other hand, we may expect that negative contact experiences work in the opposite direction, creating a negative cycle of avoidance.

Some initial evidence supports this. In their cross-sectional investigation, Barlow et al. (2012) found that while positive contact experience predicted intentions to interact again with the outgroup in the future, frequency of negative contact experience predicted greater prejudice and greater avoidance of the outgroup. Hayward et al. (2017) also delivers some

experimental evidence in a study that employed contact vignettes that described a contact scenario with a member of a fictional ethnic outgroup (“Broneans”). Participants who imagined a negative intergroup encounter subsequently rated themselves as less willing to engage in future contact with this group compared to both a positive and a neutral contact condition. Gaunt (2011) using a sample of Arab and Jewish high school students found that people’s willingness to engage in intergroup contact would be determined by the degree to which they perceived intergroup conflict and by their past contact experiences with outgroup members. The less people perceive a conflict between the in-group and the out-group, and the greater their past contact with outgroup members, the more they were willing to engage in intergroup contact. Other research also demonstrates how negative expectancies about interracial interactions can lead to a desire to avoid interacting with outgroup members (e.g., Butz & Plant, 2006; Plant & Devine, 2003; Tropp, 2003). Importantly, if negative contact not only increases prejudice, but also reduces individuals’ willingness to interact again with the outgroup in the future, then, there is little chance of reconciliation or resolution between groups.

The main literature review at the start described the process of generalisation from the individual involved in the contact encounter to the outgroup as a whole and how there has been some evidence of a negative generalisation effect (Barlow et al., 2012; Birtel & Crisp, 2012; Graf et al., 2014). Given this research it is predicted that a direct negative encounter would generalise from the individual to the outgroup as a whole. Furthermore, this effect would lead to avoidance of intergroup contact with the outgroup in the future. As mentioned above, Hayward and colleagues (2017) offer some initial experimental evidence for the impact of negative intergroup contact on outgroup avoidance. However, this study was limited to an imagined, scenario-based interaction paradigm that described a contact experience with a fictional outgroup. In two studies, I sought to replicate this effect

experimentally manipulating negative contact experience within the context of an economic game.

Economic games are an effective tool for exploring human behaviour and have been used to demonstrate ingroup bias between a wide range of groups within the economics and game theory literature (Balliet, Wu, De Dreu, 2014). Although economic games have rarely been used within the field of intergroup contact theory, the strength of economic games, such as the Trust Game, for research within intergroup contact is their focus on behaviour, rather than attitudes or self-reported behaviour. One such example is research by Vermue, Seger and Sanfey (2018) who demonstrated through the use of an economic game that the influence of group membership on trust decisions depended on the valence of the interactions with individual group members.

It has long been established that there is on occasion, a gap between self-reported and actual behaviour (Mischel, 1972). Behavioural games provide researchers with a context in which behaviour can be observed and explore what individuals *actually do*, rather than what they *say* they will do. Competitive, or hostile behaviour can be exhibited within these games without harm to people and the opportunity for observe negative behaviours contact in a controlled setting (Pruitt & Kimmel, 1977). For a review of the external validity of economic games and their ability to predict individuals' behaviour in the field see Benz and Meier (2008).

The Trust Game (Berg, Dickhaut, & McCabe, 1995) was utilised for this experiment as it provides an opportunity to observe interactions between different members of different groups in a setting that provides high internal validity. This simple game, also provides a novel approach to the investigation of negative contact in a controlled setting. The game has often been used as metaphors for more complicated social situations (Bracht & Feltovich,

2008) and it was considered a good choice to simulate both a negative and a neutral (control) interaction. A positive or negative encounter can be simulated by a fair amount of return tokens or a return of zero tokens respectively. In this study, participants believed they were playing an economic game with an outgroup member, and responses were pre-programmed to allow experimental manipulation of a noncooperative intergroup encounter (full details are provided in the procedure below).

Figure 1

Schematic Representation of the Relationship Between Negative Intergroup Contact and Future Contact Intentions

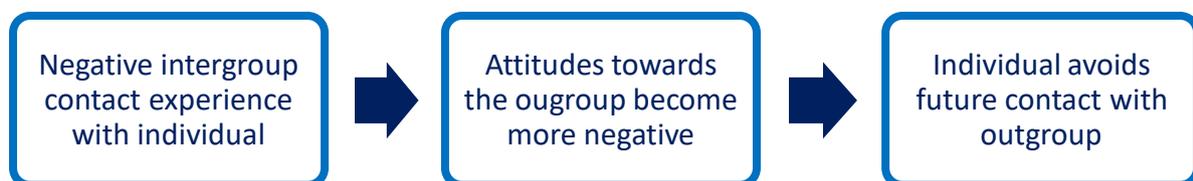


Figure 1 illustrates the expected pathway of how a direct negative contact encounter with an individual outgroup member may generalise so that their attitude towards the outgroup as a whole will also be negative. This pathway is expected as indicated within the research outlined within the literature review. Additionally, considering the broader framework of research regarding segregation it is predicted that direct negative contact with an individual outgroup member inhibits future engagement with diversity in the future.

Consequently, the following hypotheses were formulated:

Hypothesis One: Participants in the experimental condition, who experience a negative intergroup contact interaction with an individual from the outgroup, will demonstrate lower evaluations towards the outgroup as a whole than participants in the control condition.

Hypothesis Two: After experiencing a negative intergroup contact interaction with an individual from the outgroup, participants from the experimental condition will display lower attitudes towards the outgroup and lower intentions to engage with the outgroup in the future than participants in the control condition.

Study 1

Method

Participants

Data were collected from a sample of 92 undergraduate participants from a UK university. Because the experimental paradigm was novel, effect sizes could not be estimated in advance therefore, data was collected from undergraduate participants from a UK university until a target sample size of 100 participants or until the end of the university semester, whichever came first. The target outgroup in this study was Chinese people. Data from 7 participants was removed because they identified as South Asian or mixed ethnicity. Following exclusions, the final sample size for analysis was 81 which included 9 males and 72 females, aged between 18 and 50 years old. Participants were randomly assigned to either the negative outgroup contact condition ($n = 41$), or a neutral outgroup contact condition ($n = 40$). A power analysis indicates that this sample size yields reasonable power (.60) for detecting a medium effect size ($d = .50$) in pairwise comparisons.

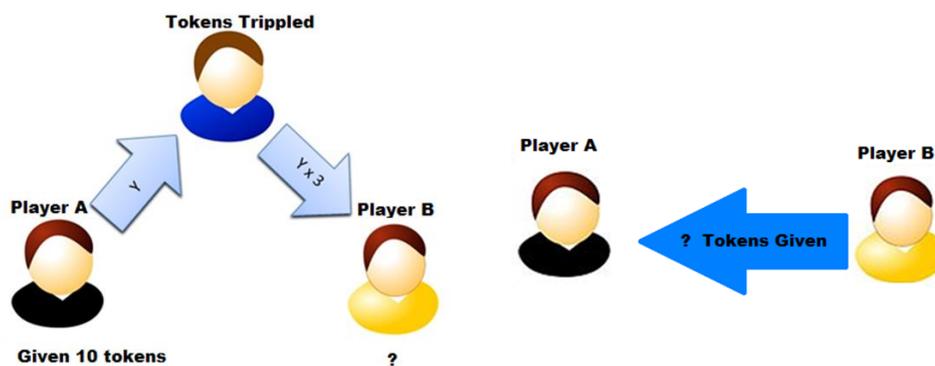
Procedure

Participants reported to the laboratory which contained four individual booths to take part in a study on decision-making. The stimuli were presented electronically on PC's using the E-Prime 3.0 software (Psychology Software Tools, Pittsburgh, PA). All instructions and tasks were given on the computer screen. Participants first completed a Trust Game (Berg et

al., 1995) with another person who was ostensibly taking part in the next cubicle. In the Trust Game there are two roles, Player A and Player B. Player A is the decision maker. They are allocated 10 tokens and can choose whether to send any number of these tokens to Player B. Any tokens sent to Player B are tripled by the experimenter and Player B can then decide whether to return any number of tokens to Player A (see Figure 2). The best joint outcome is obtained if Player A sends a large proportion of their endowment to Player B so the overall number available to two parties increases, and Player B then splits the proceeds equally. Participants were told that each token corresponds to one entry into a lottery for two chances to win £25– the more tokens they end with, the more chance of winning the money.

Figure 2

Visual Illustration of the Trust Game



Note. Adapted from Silas (2012).

After the instructions advising participants how to play, participants were given some test questions to ensure they understood how to play the game with their opponent. All participants were told that they had been assigned to the role of Player A and had the opportunity to input their own name or name they would like to identify as at the start of the

game. Player B was identified by the name ‘Chang Wei’ signalling their membership in the outgroup (for similar procedure see De Dreu, Greer, Van Kleef, Shalvi, & Handgraaf, 2000). Figure 3 shows a copy of the screen participants saw introducing them to their opponent (Chang Wei) and being assigned to their role in the game.

The participants made their investment decision as Player A and the behaviour of Player B was pre-programmed by the experimenter forming the manipulation of intergroup contact. In the negative contact condition, participants were told that Chang Wei had chosen to return 0 tokens – constituting a non-cooperative response (see Figure 4). In the neutral contact condition, no choice feedback was provided - participants were asked to complete the remaining questionnaires while they wait for Chang Wei to make their decision.

Following the manipulation, participants completed a manipulation check (Appendix B) followed by the dependent measures. The dependent measures assessed attitudes towards the outgroup as a whole and a cover story was provided that concerned a partnership the University has formed with an international education agency which had led to an increase in the number of applications from Chinese people.

Figure 3

Screen Images of the Trust Game After Name Inserted and Role Assigned

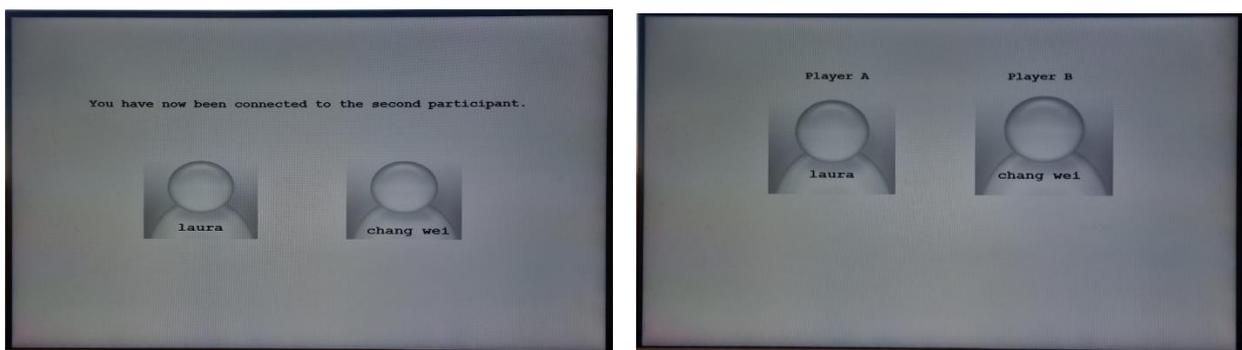
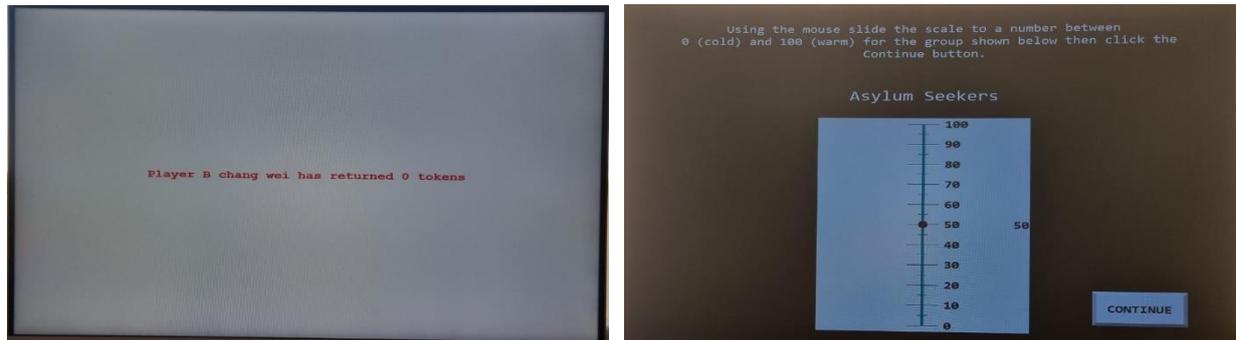


Figure 4*Screen Images of Negative Contact Condition and Feeling Thermometer*

Outgroup evaluation was measured with a feeling thermometer scale (Haddock, Zanna, & Esses, 1993). Participants were asked to indicate how warm (favorable), or cold (unfavorable) they felt towards Chinese people, in general, on a scale from 0 ° to 100 ° (example in Appendix C). Other minority outgroups such as Japanese people, Immigrants and disabled people were included to disguise the target outgroup. As shown in Figure 4.

Intentions to engage in future contact with the outgroup were measured with 4 items adapted from Asbrock, Gutenbrunner, and Wagner (2013) including “If the opportunity arises, I would probably start a conversation with a Chinese person” and “In the future, I will deliberately approach Chinese people to get in touch” (from 1 = *don’t agree at all*, to 7 = *completely agree*, $\alpha = .81$). This scale can be found in Appendix D.

A number of filler items assessing general political attitudes (such as “immigrants coming to the UK don’t respect British values” and “additional effort should be made to privatise the NHS”), were also included to help mask our hypotheses. Two participants were chosen at random to receive the lottery payment when data collection was complete.

Results

The data was analysed using the statistics program SPSS version 26. The number of tokens participants selected to send to Player B was not the interest of the analysis, but rather the effect of Player B's alleged non-cooperation on attitudes towards the outgroup, and intentions to interact with members of that group again in the future. Therefore, two further participants had to be removed from the analysis at this point because they opted to send zero tokens to Player B and therefore a return of 0 tokens from this person would not constitute a negative encounter.

An independent samples *t*-test confirmed that attitudes towards Chinese people were significantly reduced in the negative contact condition ($M = 67.29$, $SD = 21.33$) compared to the neutral contact condition ($M = 76.31$, $SD = 16.83$), $t(77) = 2.08$, $p = .04$, $d = .47$ ¹. As the number of tokens participants chose to send to Player B influences the extremity of Player B's non-cooperative response and could also potentially be considered as an indication of existing prejudice towards the outgroup, I also conducted an ANCOVA controlling for the number of tokens sent in the Trust Game. This analysis revealed that the covariate was not significantly related to evaluation of the outgroup ($p = .53$) but that the effect of condition remained when accounting for this variable, $F(1, 76) = 4.05$, $p = .048$, $\eta_p^2 = .05$.

A second set of analyses was then performed with future contact intentions as the dependent variable. Results confirmed that intentions to engage with the outgroup in the future were significantly reduced in the negative contact condition ($M = 4.68$, $SD = 1.09$), compared to the neutral contact condition ($M = 5.31$, $SD = 0.94$), $t(79) = 2.81$, $p = .01$, $d = .63$. Again, when including the number of tokens the participant sent to Player B in the Trust

¹ The df for the analysis of outgroup evaluation is slightly lower than that of future contact intentions due to some missing data on the feeling thermometer scale.

Game as a covariate, the effect of contact condition remained, $F(1, 78) = 7.95, p = .01, \eta_p^2 = .09$. There was no significant effect of the covariate on contact intentions, $p = .79$.

Discussion

The results of Study 1 provide experimental evidence of the ability of a negative intergroup contact encounter to harm individuals' attitudes towards the outgroup, and intentions to engage with members of that group again in the future. Although there was an effect of condition on generalised attitudes towards Chinese people, an alternative explanation for results could be that participants' responses in the negative contact condition were not a result of the negative intergroup encounter per se, but instead reflect general negative affect having been victim to a trust violation. To address this potential concern, a second study in which a third condition will be introduced within the next study where participants also receive feedback that Player B had returned 0 tokens in the Trust Game, however this person will not be identified as an outgroup member. If the effect is specific to negative intergroup contact, it should demonstrate that outgroup attitudes and future contact intentions are impaired only when the non-cooperative partner belongs to the target outgroup.

Study 2

Introduction

Study 1 provided experimental evidence of the ability of a negative intergroup contact encounter to harm individuals' attitudes towards the outgroup, and intentions to engage with members of that group again in the future. However, in order to explore if these results replicate, and importantly identify whether attitudes towards the outgroup and future contact intentions are impaired only when the non-cooperative partner belongs to the target outgroup, a follow up study was required. The following four hypotheses were formed in order to explore the above:

Hypothesis One: Participants in the experimental condition, who experience a negative intergroup contact interaction with an individual from the outgroup, will demonstrate lower evaluations towards the outgroup as a whole than participants in the control condition.

Hypothesis Two: There will be no difference between participants in the control group condition and those in the experimental ingroup condition on their evaluations towards the outgroup as a whole.

Hypothesis Three: After experiencing a negative intergroup contact interaction with an individual from the outgroup, participants from the experimental condition may display lower intentions to engage with the outgroup in the future than participants in the control condition.

Hypothesis Four: There will be no difference between participants in the control group condition and those in the experimental ingroup condition in their intentions to engage with the outgroup in the future.

Method

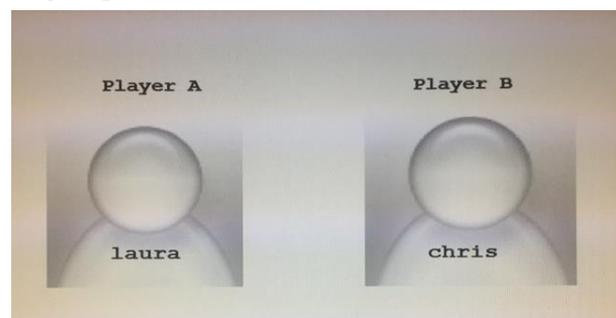
The experiment followed the same procedure as Study 1 except for the inclusion of a third condition where participants were the recipient of the same non-cooperative response in the Trust Game but from an ingroup member rather than outgroup member. To do this I varied the name of Player B so that they were identified by a typical British name – ‘Chris’ – rather than by a Chinese name (see Figure 5). This condition was designed to recreate the same uncooperative encounter, but without the important intergroup component. Outgroup evaluation and intentions to engage in future outgroup contact ($\alpha = .79$) were measured with the same items as in Study 1.

Participants

Data were collected from a sample of 158 undergraduate participants from the University of East Anglia. As in Study 1, the recruitment aim was 50 participants per cell. Again, the target outgroup was Chinese people. Data from 9 participants were removed because they identified as South Asian, or mixed ethnicity. The final sample included 123 females and 25 males (one participant did not report their gender), aged between 18-50 years. Participants were randomly assigned to either the negative outgroup contact condition ($n = 46$), neutral outgroup contact control ($n = 51$), or negative ingroup contact condition ($n = 52$).

Figure 5

Screen Image of the Ingroup Condition



Results

Before the analysis the data of two participants who sent zero tokens was removed. Univariate ANCOVAs were conducted to explore the effect on condition on both outgroup evaluation and intentions to engage in future intergroup contact, controlling for the number of tokens sent to Player B in the Trust Game. Means by condition are shown in Table 1². Results revealed no significant effect the covariate on outgroup evaluation ($p = .54$). The effect of condition was, however, significant $F(2, 133) = 3.74, p = .03, \eta_p^2 = .05$. Pairwise comparisons with a bonferroni adjustment revealed that outgroup evaluation was significantly lower in the negative outgroup contact condition than in the negative ingroup contact condition $p = .048$, and marginally significantly lower than in the neutral contact condition, $p = .07$. There was no difference in outgroup evaluation between the negative ingroup contact condition and the neutral outgroup contact condition, $p = .99$. An a priori test comparing the negative outgroup contact condition with the combined neutral contact and negative ingroup contact conditions was significant, $t(133), = 2.72, p = .01$.

Table 1

Mean Outgroup Evaluation and Future Contact Intentions by Condition in Study 2

Condition	Outgroup evaluation		Contact intentions	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative outgroup contact	63.74	20.76	4.78	1.02
Negative ingroup contact	74.10	17.79	5.27	1.00
Neural outgroup contact	73.37	20.36	5.17	0.93

² The bivariate correlation between outgroup evaluation and contact intentions in Study 1 was .328, and .275 in Study 2.

A significant effect of condition on future contact intentions was also observed, $F(2, 145) = 3.43, p = .04, \eta p^2 = .05$. Again, there was no significant effect of the covariate ($p = .59$). The pattern of results was the same whereby contact intentions were lower in the negative outgroup contact condition compared to the negative ingroup contact condition, $p = .045$, and the neutral contact control condition, though this latter pairwise comparison did not reach statistical significance, $p = .16$. There was no difference in contact intentions between the negative ingroup contact condition and the neutral outgroup contact condition, $p = .100$. Again, a priori test comparing the negative outgroup contact condition to the combined neutral contact and negative ingroup contact condition was significant, $t(145) = 2.56, p = .01$.

Discussion

Replicating the pattern of results of Study 1, Study 2 demonstrated that a negative, non-cooperative encounter with an outgroup member increases prejudice towards the outgroup and lowers intentions to engage with members of that group in the future. Importantly, Study 2 was able confirm that effects are not simply a result of being the recipient of a non-cooperative return within the economic game, by demonstrating that effects only emerge when the non-cooperative partner belonged to the outgroup category – someone named ‘Chang Wei’ and not someone named ‘Chris.’

Chapter Summary and Conclusion

Relative to positive intergroup contact, the influence of negative intergroup contact has received considerably less scientific attention. Recent research has taken important first steps to demonstrate the prejudice-enhancing potential of negative contact. The present research aimed to provide to a broader understanding of the consequences of negative contact focusing in particular on what McKeown and Dixon (2017) referred to as informal practices of social segregation. It aimed to expand the emerging literature on negative intergroup contact, by examining the effect of negative intergroup contact on future contact intentions and by using an experimental method to manipulate negative intergroup contact. The benefit of using an economic game is that they can be used to reveal individuals' private preferences in ways that observational and correlational data cannot (Pisor, Gervais, Purzycki, & Ross, 2020). Furthermore, they can be designed so that they provide insights into real-world behaviour, in this study the game simulated a negative contact encounter.

Study 1 provided an initial test of the impact of negative contact on outgroup avoidance with an experimental design. Studying negative intergroup contact in the laboratory sacrifices some external validity but allows more confidence in drawing causal conclusions. Negative intergroup contact was manipulated within the context of an economic game which participants ostensibly completed with a Chinese partner. Compared to a neutral contact condition, a negative intergroup encounter where individuals discovered that their trust has been violated by an outgroup member resulted in increased prejudice and lower intentions to engage with this outgroup in the future. As a follow-up Study 2 ruled out a possible alternative explanation for results by confirming that these same effects did not emerge following the same non-cooperative encounter with an ingroup member.

Limitations and Future Directions

There are some limitations to the present research that should be acknowledged. Firstly, although both studies provide experimental evidence of the influence on negative contact on contact intentions towards the primary outgroup some effects did fall short of statistical significance in these experiments. Therefore, future investigations may benefit from employing more powerful manipulations of negative contact. Secondly, I chose to manipulate negative contact within the context of an economic game because it allowed a model of a situation of interdependence between individuals where the non-cooperation of an outgroup member has real implications for the provision of valued resources. The particular economic game chosen involved a ‘one-shot’ uncooperative signal from an outgroup member and did not include the opportunity any further interaction with that person. Future studies may consider using iterated games where participants make several cooperative or competitive choices over repeated trials, or tasks that involve face-to-face contact manipulations such as Paolini’s and colleagues’ manipulation of outgroup confederates’ non-verbal behaviour (Paolini et al., 2010). Finally, participants were drawn from a sample of British University students. As is common with such samples, there was also a gender skew in my sample and a small number of male respondents. It will be important for future research to replicate these effects within more representative samples.

Conclusion

To conclude, these studies provide initial evidence within this thesis of the impact on negative intergroup contact on outcomes beyond standard indices of prejudice - on measures of outgroup avoidance. They also substantiate the impact of and importance of negative contact research. In the next chapter Study 3 aims to further these findings and demonstrate that the influence of negative intergroup contact is not limited to the outgroup with whom the contact occurred but can also compromise engagement with other minority groups.

Chapter 4: Negative Intergroup Contact Promotes Generalised Outgroup Avoidance

The study presented in this chapter has been published in the following journal article:

Meleady, R., & Forder, L. (2019). When contact goes wrong: Negative intergroup contact promotes generalized outgroup avoidance. *Group Processes & Intergroup Relations*, 22(5), 688-707. <https://doi.org/10.1177/1368430218761568>

Chapter Summary

Studies 1 and 2 demonstrated that a direct negative encounter with an outgroup member, but not an ingroup member, was found to reduce intentions to engage in contact with that outgroup in the future. In Study 3, a correlational design was implemented to examine how the impact of negative contact may generalise beyond the contacted outgroup. Results from this study revealed that the effect of negative contact on outgroup avoidance is not limited to the contacted outgroup but is indirectly associated with reduced intentions to engage with other, secondary outgroups. Negative contact was also associated with lower general contact self-efficacy, the belief about one's ability to interact effectively with outgroup members. Together with Studies 1 and 2, findings suggest that negative contact is damaging not just because it increases prejudice but also because it compromises future engagement with diversity.

Introduction

The present research sought to build on the previous two experiments in order to examine whether avoidance may spread beyond the encountered outgroup to other secondary outgroups. Previous research within positive contact, has demonstrated that the attitudinal benefits of positive contact with outgroup members can generalise to the outgroup as a whole, and from here, to other secondary outgroups (e.g., Pettigrew, 2009; Tausch et al., 2010). This research has suggested that the attitudinal benefits of positive intergroup contact may extend beyond the encountered outgroup, to other outgroups not directly involved in the contact experience – an effect known as a Secondary Transfer Effect (STE) (Pettigrew, 2009). The section describing the generalisation process in the literature review gives an introduction to STE's. In the next section, research on negative STE's, attitude generalisation and contact self-efficacy are discussed.

Evidence of secondary transfer effects has been found in a range of intergroup contexts (for review, see Lolliot et al., 2013). Pettigrew (2009) for instance in a cross-sectional study, demonstrated that German citizens' contact with foreigners produced secondary reductions in prejudice towards homosexuals and homeless people. Similarly, through cross-sectional, longitudinal and experimental studies, contact between Catholics and Protestants in Northern Ireland has been shown to improve attitudes not just towards the religious outgroup, but also towards racial minority groups (Tausch et al., 2010). These studies provide evidence for STE to be explained through '*attitude generalisation*', which is the process whereby attitudes that an individual has about one object generalises to other, related attitude objects. Attitudes towards the primary outgroup act as the mediator of the relationship between positive contact with the primary outgroup and reduced prejudice toward the secondary outgroup (Pettigrew, 2009; Tausch et al., 2010). Attitude generalisation

is the most studied mediator within the positive contact STE framework and has received ample empirical support (Vezzali, Di Bernardo, Cocco, Stathi & Capozza, 2021).

Although studies exploring the STE resulting from negative intergroup interactions have been called for (Pettigrew, 2009), thus far it remains largely unexplored to what extent negative intergroup contact can produce the STE (Brylka, Jasinskaja-Lahti, & Mähönen, 2016; Vezzali et al., 2021). Some emerging research has suggested that such attitude generalisation effects may also occur for negative contact encounters, with the mediating processes comparable to the processes identified for the STE of positive contact (Harwood, Paolini, Joyce, Rubin & Arroyo, 2011; Brylka, et. al, 2016; Lissitsa & Kushnirovich, 2018).

Possibly the first study to explore negative STE was by Harwood et al. (2011). By using an imagined contact paradigm, the authors experimentally examined the effects on attitudes towards illegal immigrants and subsequent effects of that attitude change on feelings about other groups (STE). Their findings indicated that compared to a condition in which participants imagined negative contact with an illegal immigrant, participants who imagined positive contact reported more positive attitudes concerning illegal immigrants. However, there was no difference in attitudes about illegal immigrants between the negative imagined contact condition and the control condition nor was there evidence of SET's involving the negative-control comparison. The researchers expected that imagining negative contact would yield more negative attitudes about the outgroup given intergroup contact's theoretical potential to work in positive or negative directions (Harwood et al., 2011).

Later studies have focused on potential mediators of STE beyond attitude generalisation such as the generalisation of emotions, collective self-esteem, empathy or perception of threat (Lolliot et al., 2013; Mähönen & Jasinskaja-Lahti, 2016; Vezzali & Giovannini, 2012). Brylka et al. (2016) for example, studied the STE of positive and negative

contact with the national majority of Finnish people on Estonian and Russian immigrants' attitudes towards each other and found initial support for the STEs of both positive and negative contact in their cross-sectional study. The STE and negative contact were mediated by public collective self-esteem and attitudes toward the primary outgroup (as was the case of positive contact, but in the opposite direction). These results indicated that negative majority–minority interactions can be as powerful in shaping attitudes of both primary and secondary different minority groups toward one another as positive majority–minority contact is (Brylka et al., 2016).

In another study, when examining the factors associated with discrimination against gay people in a public referendum Zingora and Graf (2019) found that the STE emerged for negative contact, mediated by realistic and symbolic threat toward primary and secondary outgroup (but no evidence for attitude generalisation emerged). In contrast, in the longitudinal study by Mähönen and Jasinskaja-Lahti (2016), the STE for negative contact did not emerge, neither via perceived gains nor via intergroup threat. However, threat perceived from the primary group was generally very low, which could account for the lack of the mediation effect that can be present in intergroup settings where perception of threat from outgroups is high. In a recent study, Ünver, Çakal, Güler, and Tropp (2022) examined the moderating role of threat perceptions in the secondary transfer process. The researchers investigated whether dimensions of contact, positive versus negative, between a historically advantaged group and a disadvantaged group, extend to a novel disadvantaged outgroup (Syrian refugees) via attitude generalisation and as a function of the perceived threat from the novel outgroup. Their findings demonstrated that both positive and negative contact with the primary outgroup is associated with support for policies benefiting the secondary outgroup, Syrian refugees, but these associations are moderated by perceived threats posed by the secondary outgroup.

Finally, through an online contact study between Israeli Jews and Israeli Palestinians on attitudes of the former toward non-Israeli Palestinians, Lissitsa and Kushnirovich (2018) investigated STE of *online* contact, examining the mediating effect of attitude generalisation from the primary out-group on the secondary out-group. They found that both positive and negative contact effects generalised to the secondary outgroup via attitudes toward the primary outgroup, although the indirect effect was greater for positive than for negative contact (Lissitsa & Kushnirovich, 2018).

Overview of the Present Research

The STE of negative intergroup contact has not been given due attention although it represents a serious risk with respect to spreading prejudice from one outgroup to another. In the present research a new outcome variable was adopted and aimed to explore whether such generalisation effects may exist not just for attitudes, but also for outgroup avoidance. Here, the effect of negative contact on outgroup avoidance may be expected to generalise beyond the contacted outgroup to increase avoidance with other, secondary outgroups. The emergence of such effects would suggest that negative contact is dangerous not just because it discourages future engagement with the outgroup with whom the encounter occurred, but because it encourages a more general retreat from contact.

Contact self-efficacy

As a second way of exploring the generalised consequences of negative intergroup contact participants' perceptions of contact self-efficacy would also be explored. Self-efficacy refers to an individual's belief in their ability to successfully perform a specific behaviour (Bandura, 1986). Bandura defined self-efficacy as a person's belief that she or he can effectively perform "courses of action required to deal with prospective situations containing many ambiguous, unpredictable, and often stressful elements" (Bandura &

Schunk, 1981, p. 587). Self-efficacy has been found to be a key facilitator of behaviour, having enormous predictive power across the domains of education, health, and work (Bandura, 1997). Therefore, it is possible that self-efficacy plays a crucial role in how people think and feel about the possibility of their own cross-group contact and if given the opportunity whether they will seek out or avoid direct cross-group contact.

Within the intergroup contact literature, Stathi and colleagues (2011) coined the term '*contact self-efficacy*' specifically referring to a particular set of beliefs about one's ability to interact effectively with outgroup members (Stathi, Crisp, & Hogg, 2011). They believe that self-efficacy beliefs tap directly into people's intentions to engage in future contact. Using an imagined contact paradigm, their research explored the impact of imagined contact on contact self-efficacy, and the conditions that enhance imagined contact's member-to-group generalisation effects. They found that mentally simulating interactions with outgroup members lead to greater confidence in engaging in future direct contact with outgroup members in general. In the present study this construct was adopted to explore whether negative contact may manifest not only in reduced intentions to engage with specific primary and secondary outgroups in the future but may also harm individuals' general confidence in cross-group situations.

The aim of Study 3 was to examine how the impact of negative contact may generalise beyond the contacted outgroup. Previous research has demonstrated that the attitudinal benefits of positive contact with outgroup members can generalise to the outgroup as a whole, and from here, to other secondary outgroups (e.g., Pettigrew, 2009; Tausch et al., 2010). This research sought to examine whether a similar process may exist for the generalisation of outgroup avoidance. Specifically, if outgroup avoidance generalises, the impaired contact intentions that result from negative contact with one group should result in impaired contact intentions towards other outgroups. If this is the case, contact intentions

towards the encountered group should mediate the relationship between contact and secondary outgroup contact intentions. In considering the above aims and previous research mentioned above the following hypotheses were formulated:

Hypotheses

Hypothesis One: Negative contact with the primary outgroup will be associated with lower evaluations of the outgroup, whereas positive contact with the primary outgroup will be associated with higher evaluations of the outgroup.

Hypothesis Two: The more negative contact experiences people have with the outgroup the lower their intentions will be to engage with this group in the future whereas positive contact will be positively associated with future contact intentions.

Hypothesis Three: Negative contact may be associated with lower general contact self-efficacy and positive contact experiences will be associated with higher self-efficacy.

Hypothesis Four: The effect of negative contact on outgroup avoidance may generalise beyond the contacted outgroup to increase avoidance with other, secondary outgroups. Specifically, negative contact may be indirectly associated with reduced intentions to engage with other, secondary outgroups and positive contact may be indirectly associated with higher contact intentions towards the secondary outgroups.

Study 3

Method

Participants

Data were collected from a sample of 205 undergraduate participants at a British university, which included 182 females and 24 males, aged between 18 and 58 ($M = 20.15$, $SD = 4.39$). Participants received partial course credit in exchange for their participation. As attitudes towards a number of ethnic minority immigrant groups were measured, the study was only available to White British respondents. No exclusions were made. This sample size was sufficient to provide considerable power (.80) for detecting small to medium mediated effects using bias-corrected bootstrapped estimates (Fritz & MacKinnon, 2007).

Materials and Procedure

This experiment was programmed on the online software program Qualtrics and distributed via the University recruitment platform. The study was described as a survey on social attitudes and experiences. The primary outgroup target was Muslim immigrants. The measures tapped prior contact with this group and anticipated future approach towards them. After informed consent was obtained, participants completed the following measures:

Previous positive and negative contact experiences. Quantity of negative intergroup contact, and quantity of positive intergroup contact were measured as two independent dimensions with measures adapted from Reimer et al. (2017). To measure negative intergroup contact, participants indicated how often they had had a variety of negative experiences with Muslim immigrants (from 1 = *never* to 5 = *very often*), specifically: *being verbally abused, intimidated, threatened with harm, ridiculed, and made to feel unwelcome* ($\alpha = .88$). To measure positive intergroup contact, participants indicated how often they had

positive experiences with Muslim immigrants, including: *being supported, helped, complimented, befriended, and made to feel welcome* ($\alpha = .89$).

Attitudes towards the primary outgroup. Outgroup evaluation was measured with the General Evaluation Scale (Wright et al., 1997) (Appendix E). Participants indicated their feelings towards Muslim immigrants, in general, on six bipolar scales (1- 7; warm-cold*, negative-positive, friendly- hostile*, suspicious-trusting, respect-contempt*, admiration-disgust*). Items marked with an asterisk were reverse scored, such that a higher score always indicated more positive outgroup evaluation ($\alpha = .94$).

Future contact intentions. Intentions to engage in future contact with Muslim immigrants were measured with the same scale as used in Study 1 and 2 (Asbrock et al., 2013, $\alpha = .88$).

Outgroup avoidance generalisation. To examine how the effect of negative contact on outgroup avoidance may generalise beyond the contacted group, contact intentions towards a number of other immigrant groups were measured, specifically: Eastern European immigrants, Indian immigrants and Black African immigrants. To avoid shared method variance, an alternative measurement item to those used to measure contact intentions towards the primary group was utilised (see Tausch et al., 2010). Specifically, participants reported their intentions to engage with each of the secondary groups in the future on a single item, for example “How much do you intend to interact with Eastern European immigrants in the future” (from 1 = *not at all* to 7 = *very much*, Husnu & Crisp, 2010). Importantly, I also measured and controlled for participants contact with the secondary groups (see Tausch et al., 2010). Positive and negative contact with each of the secondary groups was measured with two single items adapted from Barlow, Louis, and Hewstone (2009), for example: “On average, how frequently do you have positive/good contact with Eastern European

immigrants”, “On average, how frequently do you have negative/bad contact with Eastern European immigrants” (from 1 = *never* to 7 = *extremely frequently*) (Appendix F).

Contact Self-efficacy. Finally, contact self-efficacy was measured with a scale adapted from Stathi et al. (2011) (see Appendix G). This measure was treated as another test of the generalised effect of the negative intergroup contact because it was not restricted to any particular group, but instead assessed efficacy beliefs towards ‘immigrants’ in general. Participants rated their agreement with six items including “I would feel I have common topic for conversation with an immigrant”, and “I would be worried that I might not handle myself well in social gatherings with immigrants (reverse scored)” (1 = *strongly disagree* to 7 = *strongly agree*, $\alpha = .80$).

Results

The correlations amongst these all variables are presented in Table 2 with means and variance. A paired samples *t*-test indicated that people experienced positive intergroup contact with Muslims immigrants more frequently ($M = 2.92$, $SD = .97$) than negative intergroup contact ($M = 1.47$, $SD = .69$), $t(205) = 16.94$, $p < .001$, $d = 1.18$.

A series of regressions were then conducted to examine the unique effect of negative and positive contact with Muslim immigrants on the dependent variables (see Table 3). Together, negative and positive intergroup contact experience explained a significant amount of variance in outgroup evaluation. As expected, negative contact with Muslim immigrants was associated with lower evaluation of this group ($\beta = -.43$, $p < .001$) while positive contact was associated with higher outgroup evaluation ($\beta = .47$, $p < .001$). Contact experiences also explained a significant amount of variance in future contact intentions. The more negative contact experience individuals had with Muslim immigrants, the lower their intentions to

engage with this group again in the future ($\beta = -.24, p < .001$). Positive contact, meanwhile, was positively associated with future contact intentions ($\beta = -.42, p < .001$). Negative and positive contact with Muslim immigrants also explained a significant amount of variance in perceptions of contact self-efficacy. As expected, negative contact experience was associated with lower contact self-efficacy ($\beta = -.30, p < .001$), while positive contact was associated with higher contact self-efficacy ($\beta = .37, p < .001$).

Table 2*Correlations and Descriptive Statistics for all Variables in Study 3*

Variable	M (SD)	1	2	3	4	5	6	7
(1) Negative contact	1.47 (0.69)	-						
(2) Positive contact	2.92 (0.97)	-.08	-					
(3) Outgroup evaluation	5.26 (1.16)	-.47**	.50**	-				
(4) Contact intentions	4.72 (1.28)	-.27**	.43**	.69**	-			
(5) Contact self-efficacy	6.02 (1.06)	-.33**	.39**	.55**	.61**	-		
(6) Secondary outgroup intentions – Eastern European immigrants	4.85 (1.40)	-.21*	.27**	.45**	.58**	.45**	-	
(7) Secondary outgroup intentions – Indian immigrants	4.78 (1.38)	-.15*	.41**	.55**	.67**	.48**	.68**	-
(8) Secondary outgroup intentions – Black African immigrants	4.97 (1.30)	-.14*	.36**	.48**	.53**	.50**	.72**	.76**

Note. * $p < .05$, ** $p < .001$

The generalisation of contact effects to secondary outgroups was then investigated by examining the indirect path from negative and positive contact with Muslim immigrants to contact intentions towards secondary outgroups *through* contact intentions towards the primary outgroup. The examination of the indirect path constitutes the most appropriate test of the secondary transfer effect because it specifically tests the generalisation process in which negative contact promotes avoidance of the contacted group, which then spreads to other, non-contacted groups (for similar procedure see Harwood et al., 2011). The analysis was conducted using bootstrapped tests of the indirect path (based on 5,000 bootstrapped resamples), with effects calculated using Hayes (2013) PROCESS macro (Model 4).

Analyses were conducted separately for negative contact and positive contact. Within each mediational model, negative contact [positive contact] with the primary outgroup represented the independent variable, contact intentions towards the primary outgroup was the mediator, and contact intentions towards the secondary outgroups was the dependent variable. Negative contact with the secondary outgroup [positive contact with the secondary outgroup] was included as a covariate. Separate models were tested for each of the three secondary groups (6 models in total).

Table 3

Positive and Negative Contact with Muslim Immigrants as Predictors of Outgroup Evaluation and Contact Intentions Towards this Group, as well as General Contact self-efficacy

Outgroup evaluation	Contact intentions			Contact self-efficacy					
	<i>b</i> (SE)	B	<i>sr</i> ²	<i>b</i> (SE)	β	<i>sr</i> ²	<i>b</i> (SE)	β	<i>sr</i> ²
Baseline model									
Intercept	4.68			3.78			5.54		
Negative contact	-.73 (.09)**	-.43	.18	-.45 (.11)**	-.24	.06	-.47 (.10)**	-.30	.09
Positive contact	.57 (.06)**	.47	.22	.55 (.08)**	.42	.17	.40 (.07)**	.37	.13
<i>F</i>		78.41**		33.25**				32.16**	
<i>R</i> ²		.44			.25			.24	

Note. * $p < .05$, ** $p < .001$

Total, direct and indirect effects are shown in Table 3. Results showed that, when controlling for secondary outgroup contact, there was no significant total or direct effect of negative contact with Muslim immigrants on contact intentions towards any of the secondary groups. Instead, significant indirect effects emerged in every case. Negative contact was indirectly associated with lower contact intentions towards Eastern European immigrants, Indian immigrants and Black African immigrants via reduced contact intentions towards the primary group. Meanwhile positive contact was indirectly associated with higher contact intentions towards each secondary outgroup via increased contact intentions towards the primary group.

A further series of models were then tested using an adaptation to the PROCESS macro which allows for multiple predictor variables (Hayes, 2013). In doing so, I can confirm the whether the indirect effects of negative contact persist when controlling for positive contact, and vice versa. In each model, negative and positive contact with Muslim immigrants were entered simultaneously as independent variables, contact intentions towards Muslim immigrants was the mediator, and contact intentions towards the secondary outgroup was the dependent variable. Positive and negative contact with the secondary outgroup was included as covariates. Again, separate analyses were performed for each of the three secondary groups (3 models in total). As can be seen in Table 4, the same pattern of indirect effects replicate with this method of analysis.

Table 4

Point Estimates and Confidence Intervals for Indirect Effect of Negative and Positive Contact with Muslim Immigrants on Contact Intentions Towards Secondary Outgroups via Contact Intentions Towards the Primary Outgroup

Model	Negative Contact						Positive Contact						
	Total Effect		Direct Effect		Indirect Effect		Total Effect		Direct Effect		Indirect Effect		
	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	
Eastern European Immigrants	1	-.23 (.14)	[-5126, .0523]	.02 (.12)	[.2258, .2627]	-.25 (.08)	[-.4511, -.1134]*	.10 (.08)	[-.0687, .2639]	-.10 (.08)	[-.2565, .0623]	.19 (.05)	[.1148, .3003]*
	2	-.22 (.12)	[-.4462, .0156]	-.04 (.11)	[-.2602, .1726]	-.17 (.06)	[-.3219, -.0768]*	.09 (.08)	[-.0781, .2493]	-.10 (.08)	[-.2553, .0621]	.18 (.04)	[.1049, .2893]*
Indian Immigrants	1	-.09 (.14)	[-.3726, .1929]	.18 (.11)	[-.0382, .4028]	-.27 (.11)	[-.5365, -.0964]*	.30 (.08)	[.1370, .4714]*	.07 (.08)	[-.0770, .2201]	.23 (.06)	[.1292, .3575]*
	2	-.05 (.12)	[-.2838, .1754]	.14 (.10)	[-.0563, .3408]	-.20 (.08)	[-.3853, -.0721]*	.27 (.08)	[.1112, .4415]*	.06 (.07)	[-.0909, .2040]	.22 (.05)	[.1174, .3348]*
Black African Immigrants	1	-.18 (.14)	[-.4532, .0899]	.04 (.12)	[-.2013, .2772]	-.22 (.08)	[-.4048, -.0887]*	.27 (.08)	[.1073, .4262]*	.09 (.08)	[-.0631, .2523]	.17 (.04)	[.1022, .2711]*
	2	-.12 (.11)	[-.3454, .1036]	.02 (.11)	[-.1986, .2285]	-.14 (.05)	[-.2641, -.0545]*	.26 (.08)	[.0949, .4160]*	.09 (.08)	[-.0658, .2524]	.16 (.04)	[.0086, .2596]*

Note: In Model 1, the IVs were tested in separate models, in Model 2 the IVs were tested simultaneously in the same model. Significant effects as indicated by the lack of a presence of a zero within the 95% CI, are marked with an asterisk. All results are based on 5,000 bootstrapped resamples.

Discussion

In Study 3 novel evidence of an ‘*avoidance generalisation effect*’ whereby negative intergroup contact is associated with lower future contact intentions not only towards the contacted outgroup, but also, indirectly, with contact intentions towards other, non-contacted groups is reported. There was no evidence of an overall association between negative contact with Muslim immigrant and avoidance of other immigrant groups after controlling for contact with the secondary group. Rather, these results point to the emergence of an indirect effect, such that contact with Muslim immigrants is associated with lower intentions to engage with secondary outgroups via reductions in contact intentions towards the primary group.

Evidence was also found for an association between negative contact and lower perceptions of contact self-efficacy. This measure was conceptualised as another test of the generalised effects of the intergroup contact because it was not restricted to any particular group, but instead assessed efficacy beliefs regarding interactions with immigrants in general. While positive contact with Muslim immigrants was associated with increased confidence in one’s ability to interact effectively with immigrants, in general, negative contact was associated with lower perceived self-efficacy.

Limitations and Future Directions

First, the secondary outgroups under consideration were all high in similarity to the focal outgroup (Muslim immigrants) in that they represented three further immigrant groups (Eastern European immigrants, Black African immigrants and Indian immigrants). It will be important for future research to explore whether effects extend to more dissimilar groups, or groups stigmatised on different underlying dimensions (e.g., Fiske, Cuddy, Glick, & Xu, 2002). It is likely that a stimulus generalisation gradient exists whereby transfer effects are larger for more similar groups and smaller for less similar groups (Harwood et al., 2011).

Moreover, evidence of the generalised consequences of negative intergroup contact relies on cross-sectional data and so it is not possible to make firm conclusions regarding causality.

Previous research has provided evidence of the attitudinal secondary transfer effects with both longitudinal (e.g. Eller & Abrams, 2004; Pettigrew, 2009; Tausch et al., 2010; Van Laar, Levin, Sinclair, & Sidanius, 2005) and experimental data (e.g. Galinsky & Moskowitz, 2000; Harwood et al., 2011), and I interpreted my findings accordingly. Nevertheless, I invite further research examining the generalisation of outgroup avoidance using longitudinal or experimental designs.

The fact that I did not find a direct association between primary outgroup contact and secondary outgroup intentions (after controlling for secondary outgroup contact) does not undermine the validity of the results. Indeed, this pattern of indirect effects in the absence of direct effects is not uncommon in the literature on the secondary transfer effects of intergroup contact (e.g. Brylka et al., 2016; Drury, Abrams, Swift, Lamont, Gerocova, 2017; Harwood et al., 2011; Vezzali & Giovanni, 2012).

The contact intentions item used assessed individuals' intention to approach outgroup members. This finding warrants further attention and suggests that negative contact may potentially represent a stronger predictor of avoidance tendencies, while positive contact is a stronger predictor of approach tendencies. More generally, findings add to growing appreciation of the caveats and nuances of the positive-negative contact asymmetry effects (see Pettigrew & Hewstone, 2017).

Conclusion

Again, this research same as in Study 1 and 2, has provided evidence of the impact on negative contact on outcomes beyond the standard indices of prejudice – here on measures of contact self-efficacy. This research adds to the previous studies that focused principally on

measures of outgroup avoidance. The findings highlight the dangers of negative intergroup contact and demonstrate the extent to which the effect of negative intergroup contact may even extend beyond the encountered group to secondary outgroups as well as to more general beliefs about one's preparedness for intercultural contact. In the next chapter, I begin another stream of research to explore some of the effects of indirect negative contact using a real-world analogue in which participants read a derogatory comment online. The aim of these next set of studies is to explore how as readers of derogatory comments we evaluate the person making the comments and how reading these comments may affect our evaluations of the target outgroup.

Chapter 5: Reactions to Derogatory Comments Towards Outgroup Members:**The Moderating Role of Social Dominance Orientation**

Chapter Summary

In the previous empirical chapters, my research explored the effects of a direct negative interaction with a member of the outgroup. Studies 1 and 2 demonstrated that a direct negative encounter with an outgroup member, but not an ingroup member, was found to reduce intentions to engage in contact with that outgroup in the future. Study 3 went further, demonstrating that these avoidance effects may generalise to other secondary groups, however this study was correlational in nature and therefore causation can not be employed. Nevertheless, it is possible that the avoidance effect found in Studies 1 and 2 may extend to other non-contacted groups indicating that negative secondary transfer effects extend beyond attitudes to behavioural intentions. Together these first three studies, suggest that negative contact is damaging not only because it increases prejudice, but it also compromises future engagement in intergroup contact and inhibits diversity.

These initial studies explored what happens when an outgroup member has behaved in a way that has been perceived as being negative. For this next stream of research I change direction to explore what happens when a member of the ingroup acts in a negative way towards an outgroup, specifically how do we evaluate that individual and do their derogatory comments influence our opinions of the outgroup. Negativity towards immigrants, a group that often has a negative portrayals especially within the media was explored. This stream of research aimed to identify some of the effects of indirect negative contact through the vicarious contact framework discussed in the literature review. Results from the next two studies indicated that people who witness a derogatory comment evaluate the person making the comment lower, than those people who do not witness a comment. However, it would appear that people's evaluations of the commenter are moderated by their level of SDO. People high in SDO will evaluate the commenter relatively less negatively.

Introduction

Imagine drinking your morning coffee while browsing the internet and seeing a derogatory comment about a minority group or outgroup in your Facebook newsfeed or in the comments section of an online article. It quite possibly happened to you this morning. So, what are the consequences of this type of indirect negative contact? As readers, how might this affect our evaluations of the targeted group and how do we evaluate the person making the comment, and? The aim of this next set of empirical studies was explore this research question and specifically examine how individual differences in Social Dominance Orientation may moderate reactions to prejudicial online comments.

Over a decade ago, Glaser and Kahn (2005) predicted that the nature and reach of internet use is likely to increase expressions of prejudice. Suggesting that the anonymity of the internet would allow for unrestricted expression of thoughts, beliefs and feelings and therefore resulting in less self-censoring of prejudicial attitudes. They also considered that the vast reach of the internet would allow for prejudiced individuals to easily contact like-minded others. Within today's society whilst the internet is an important source of information and means of social contact, it is also one of the most common settings where both young people and adults can encounter prejudice and hate speech (Celuch et al., 2022). We live in an internet age where smart phones, tablet devices and computers in the classroom are commonplace.

Understanding how people react to negative comments and people's attitudes towards those who target outgroups through hate speech may aid understanding and help aid prejudice reduction interventions and inform future policies to improve human health. This is of particular importance as acceptance of this type of subject matter could contribute to spreading hate speech as well as ideology contamination (Schaan & Phillips, 2011). When you examine the statistics related to online hate crime it is apparent the commonality of

derogatory comments online. For example, the last recorded statistics related to online hate crime collected by the Home Office was 2017/18. This data was provided by 30 police forces recorded 1,605 online hate crimes in England and Wales, the proportion of online hate crimes as a proportion of all hate crimes ranged from 2% for racist online hate crime to 6% for transgender crime in 2017/18 (Zayed & Allen, 2022). Additionally, in November 2020, the social media platform Facebook reported that the percentage of content exposure for hate speech was 0.10 to 0.11% (Facebook company, 2020). This means that for every 1,000 times a piece of content is viewed on the platform, one of them is likely be hateful content.

One of the possible reasons for the expression of bigoted comments is that the internet allows for disinhibition (Anderson, Brossard, Scheufle, Xenos & Ladwig, 2013) resulting in people behaving in an unpleasant way and leading to hostile online environments (Suler, 2004). In addition to anonymity, using an online platform attracts a larger audience and provides ease of access (Brown, 2018). Despite the prevalence of explicit expressions of prejudice in online environments (Awan, 2014; Chaudhry, 2015), it is a relatively unexplored area within the intergroup contact field, although it has been explored within other disciplines (Paz, Montero-Díaz, & Moreno-Delgado, 2020). While overhearing derogatory comments online differs in various ways to overhearing comments in person, this has been investigated within the intergroup contact field.

Copious amounts of the research on the use of racial slurs and derogatory comments have been in the discipline of linguistics, focusing primarily on the structures, phonology, and semantics of the words themselves (Dodson, 2014). Some past intergroup contact studies, for example, have examined the impact of overhearing a negative comment directed towards an outgroup member by an ingroup member in person. Given that prejudice is generally considered to be socially undesirable, research demonstrates, perhaps unsurprisingly, that ingroup persons expressing overt prejudice tend to be negatively evaluated by observers. Mae

and Carlston (2005), for instance, showed how making prejudiced remarks can backfire on the speaker. Speakers who made negative remarks regarding age, race or sexual orientation were perceived as less likeable even by ingroup-members who agreed with their opinions. Negative evaluations about ingroup members who express prejudice about outgroup members has also been found in other race related studies (e.g., Simon & Greenberg, 1996; Castelli, Vanzetto, Sherman & Arcuri, 2001). Castelli et al. (2001) however, found that even though an indirect use of outgroup discrimination may be condemned explicitly, implicitly people feel a conformity towards ingroup members who discriminate. Through two experiments they found that stereotype activation may influence not only the perception of members of the group to which the stereotype applies, but also the perception of individuals who use that stereotype. Their study demonstrated that when an individual observes an ingroup member using a stereotype, despite open condemnation of prejudiced individuals, people are more likely to conform to that person rather than a person who does not use stereotypes.

Research has also considered how exposure to prejudiced remarks may affect observers' attitudes towards the target of the label. Greenberg and Pyszczynski (1985), for example, found that White participants' lowered their evaluation of the African American target individual after hearing the White confederate employ an ethnic slur to describe this person. Goodman et al (2008) replicated this finding in a different intergroup context. Participants evaluated the leadership skills of a team leader after a confederate commented "He is so gay" with disgust when the leader left the room. Results demonstrated that when the leader was derogated, his leadership abilities were evaluated less favourably compared to a control condition in which no comment was made. In these above studies, the dependent variable was measured at the level of the individual, however, research has also shown that exposure to racist opinion can impair attitudes towards the outgroup as a whole and

undermine support for anti-racism policies (e.g., Blanchard et al., 1994; Blanchard et al., 1991).

More recently Soral et al. (2016) utilised two survey and one experimental study to investigate the effects of exposure to hate speech on outgroup prejudice. They believe that frequent and repetitive exposure to hate speech leads to desensitisation and subsequently to lower evaluations of the outgroup, greater distancing thus increasing outgroup prejudice. Concluding that hate speech affects both the targets of hate speech (e.g., Mullen & Smyth, 2004) and the wider society that witnesses such violence. Although under some circumstances people high in personality traits such as SDO may simply tolerate hate speech or even use it as a tool to protect their ingroup (White & Crandall, 2017). The section below sub headed SDO covers this proposal in more detail.

Furthermore, Conder and Lane (2021) explored the impact of overhearing people make derogatory or disparaging comments about social groups and how this influences children's attitudes toward other social groups. They used an experimental approach whereby the children heard a comment within others' conversations propagated on electronic media, in this instance a nearby video chat from an unfamiliar speaker. Children who heard the caller's message demonstrated stronger, negative attitudes toward the novel outgroup than children who heard no message. This finding is consistent with prior research on children's developing intergroup attitudes, that has found the influence of overhearing derogatory comments tends to increase with children's age; effects being stronger among the oldest participants (Gonzalez, Steele & Baron, 2017; Jordan & Hernandez-Reif, 2009; Lane, Conder & Rottman, 2020). Interestingly these effects were maintained longitudinally following a 2-week delay and existed whether the message was uttered by an adult or a child. This research provides evidence that social attitudes can be profoundly influenced by denigrating messages that individuals overhear about other groups.

Overview of the Present Research

In this research, I consider the case of online bigotry. User comments under media articles are prominent, frequent and offer multiple opportunities for what has been termed '*dark participation*.' Dark participation has been defined as the spreading of digital offenses, hate speech, fake news, and conspiracy theories (Quandt, 2018). It can have severe effects on the victims and on society at large (Quandt, Klapproth, & Frischlich, 2022). For example, Hseuh et al. (2015) found that exposure to prejudiced comments influenced responders to post more prejudiced comments themselves. They discovered that participants adopted the groups '*social norm*' and adjusted their response, suggesting that the online comments people read can impact their own attitudes and behaviours. The authors believe that this finding is consistent with literature on persuasion in online contexts where people are guided by others' opinions when making judgements.

Although this research highlighted an important finding, exploring how people react derogatory comments that are led by an ingroup member rather than an outgroup member is an area that has received little research attention. Here I examine how exposure to prejudice remarks on social media may impact attitudes towards both the person making the comment and the outgroup in question. The literature review introduced the vicarious contact framework where simply observing a cross-group interaction provides the means for the viewer to see. I also consider the possible moderational role of individual differences in Social Dominance Orientation (SDO) which I introduced in the literature review and now briefly discuss below.

Social Dominance Orientation

To recap, SDO is an attitudinal orientation towards intergroup relations reflecting whether one generally prefers such relations to be equal or hierarchical (Pratto et al., 1994). Individuals high in SDO exhibit a preference for inequality among social groups. They want

their group to dominate and be superior to other groups, and support initiatives and social policies that promote and enforce social hierarchies (Sidanius & Pratto, 1999).

According to this approach, high SDO individuals promote and endorse prejudices as a way of fulfilling their desire to achieve and maintain hierarchical social structures. Prejudiced attitudes function as legitimising beliefs' that serve to justify and entrench inequality.

Addressing which individual differences are receptive or hostile to positive contact effects is also an important direction for research. In this research SDO was chosen as a potential moderator as a considerable amount of research demonstrates that SDO is amongst the strongest predictors of prejudiced attitudes (see Sidanius, Levin, Lui & Pratto, 2000). According to Duckitt and Sibley (2010), SDO leads to prejudice against low-status outgroups. For example, it has been shown that SDO correlated particularly strongly with prejudice in countries with higher relative unemployment rates of immigrants (Cohrs & Stelzl, 2010). This was also evidenced in research by Küpper, Wolf and Zick, (2010) who discovered that individuals with higher SDO are more likely to discriminate against immigrants, attributable to both stronger anti-immigrant prejudice and lack of belief in diversity. Furthermore, when Bilewicz, Soral, Marchlewska and Winiewski (2015) presented participants with examples of hate speech from the internet and assessed their willingness to support the prohibition of public expressions of derogatory remarks, they found that people with high in SDO were tolerant of hate speech: SDO was positively related to the acceptance of hate speech. These effects of SDO are in line with other studies that have found people high in SDO express higher prejudice and tolerate hate speech against minorities (e.g., Duckitt, 1992; Pratto et al., 1994). It has been found to exacerbate levels of prejudice when individuals high in SDO have negative contact (Dhont & Van Hiel, 2009).

If individuals high in SDO endorse prejudicial attitudes as an instrumental means of entrenching and legitimising inequality, then we may expect there to be some situations

where they are likely to have more tolerance for prejudicial remarks when it is spoken by an ingroup member. If a prejudiced remark reinforces established status hierarchies, people high in SDO may show more tolerance for a display of dominance. We may also expect SDO to moderate the effects of derogatory comments on observers' own prejudice. Simon and Greenberg (1996) for example, reported that the effect of derogatory ethnic slurs on attitudes towards the target outgroup is moderated by existing intergroup attitudes. Exposure to a racial slur only increased observed own anti-Black attitudes when their existing attitudes were already negative. Pro-Black individuals were resistant to the effects of the slur. Similarly, then, we may expect individuals high in SDO to behave relatively more favourably to a derogatory comment compared to those low in SDO.

Study 4

The research above suggests that hearing derogatory comments from ingroup members will influence people to feel less favourable towards the outgroup (e.g., Blanchard et al., 1991; Blanchard et al., 1994; Simon & Greenberg, 1996; Soral et al., 2016; Conder & Lane, 2021). Therefore, the hypotheses below were developed to examine the impact of seeing a derogatory comment about an outgroup on evaluations of both the outgroup and the person making the comment. Additionally, research especially that of Mae and Carlston (2005) has found that speakers who make negative remarks can be perceived as less likeable even by ingroup-members who agreed with their opinions (e.g., Simon & Greenberg, 1996; Castelli et al., 2001). However, given that SDO is amongst the strongest predictors of prejudiced attitudes it maybe that SDO will moderate the effects of derogatory comments on observers' own prejudice.

Outgroup evaluation

Hypothesis One: After reading the negative comment, participants in the negative comment condition will evaluate the outgroup less favourably than those in the no comment condition.

Hypothesis Two: Participants who are high in SDO will evaluate the outgroup more negatively after reading the derogatory comment compared to people who are low in SDO.

Evaluation of commentor

Hypothesis Three: Participants reading a negative comment about immigrants will evaluate the commenter more negatively than those in the no comment condition.

Hypothesis Four: Participants who are high in SDO will evaluate the person making the negative comment more favourably than those low in SDO.

Method

A between-subjects experimental design was used in which participants were either assigned to a prejudiced comment condition or a no comment control condition. As a large amount of reported prejudice incidents occur online (Feldman & Littler, 2015) imitation Facebook pages were created by the researcher in which a genuine article was included. The biased comments placed under the article in the experimental condition were generated based on comments made by the public in response to online newspaper articles, such as the *Daily Mail*. The outgroup target for the prejudiced comment was immigrants. News within the media about immigration is often negative (Eberl et al., 2018). For example, a recent comparative study of news coverage in 16 Western democracies found that ‘immigration and integration’ was the third most negative topic in political news coverage (Esser, Engesser, Matthes, & Berganza, 2017). In the last two decades, anti-immigration rhetoric has intensified in Western European countries and in the United States (Grande, Schwarzbözl & Fatke, 2019; Newman, Shah, & Collingwood, 2018). As a result, social media often relies on unverified sources and provocative content has frequently framed immigrant people as a threat. These negative depictions of immigration in media discourse increase prejudice and mistrust toward immigrants (Fuochi et al., 2020). There were two principle dependent variables: a) attitudes towards the target outgroup and b) attitudes towards the ingroup member.

Participants

The sample consisted of 99 undergraduate students from an English university, recruited from the university research participant system. Because the experimental paradigm was novel, effect sizes could not be estimated in advance therefore, data was collected from undergraduate participants from a UK university until a target sample size of 100 participants or until the end of the university semester, which ever came first. All participants were

volunteers and were awarded one participant system credit for participation. The majority of the participants (90.9%) were below the age of 22 years. The data were collected within several laboratory sessions on campus lasting approximately 10-15 minutes each. Participants from all races and ethnicities were invited to complete this study in order to provide an equal educational opportunity for all eligible participants. However, a *priori* decision was made to exclude non-British citizens ($n = 12$) from the data analysis. The study had been designed using E-prime software programme, through this software participants were randomly assigned to either the experimental ($n = 43$) or ($n = 44$) control condition, in a between subject's design. A power analysis indicates that this sample size yields reasonable power (.60) for detecting a medium effect size ($d = .50$) in pairwise comparisons.

Procedure

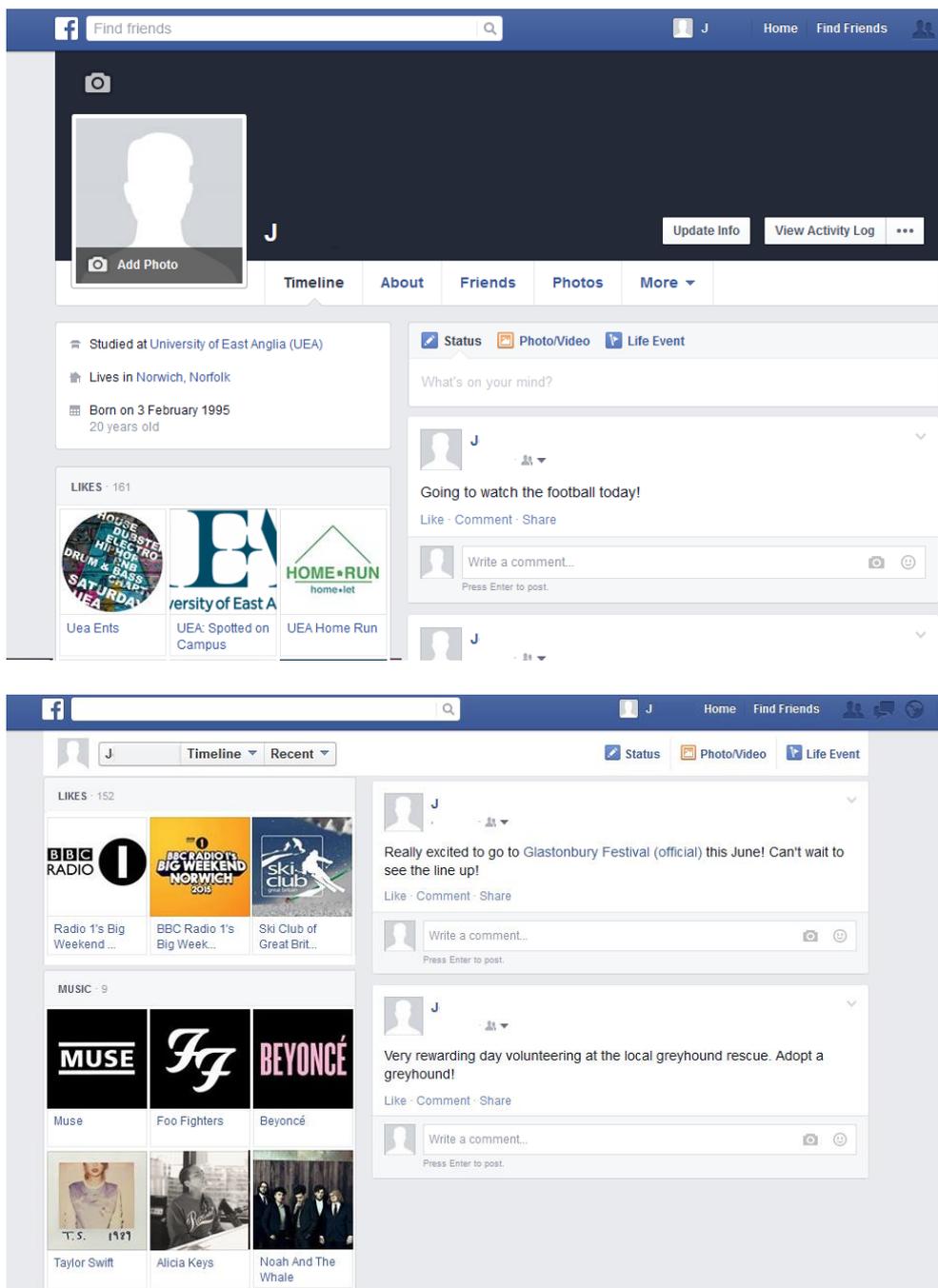
Standardised instructions were presented to participants along with a consent form to sign. Participants were seated in front of a computer and told that they were to complete a series of tasks introduced as a series of studies exploring impression formation.

After completing demographic information (e.g., age, gender, ethnicity and nationality), participant's responded to the well-validated 16-item SDO scale from Pratto et al. (1994). Sample items include "Some groups of people are simply inferior to other groups" and "Group equality should be our ideal." Participant's rate items on a seven-point likert scale from definitely agree to definitely disagree, with eight items reverse scored (appendix H). Reliability for this study was high ($\alpha = .88$).

Next participants were presented with an 'imitation' Facebook profile of someone by the name of 'J.' In order to control for potential biasing effects their gender was ambiguous. Participants were instructed to read the Facebook profile. The first two pages of the profile contained some neutral status updates (see Figure 6). The final page contained an article about migration statistics.

Figure 6

First Two Pages of Imitation Facebook Profile of 'J' Seen by all Participants



For those in the experimental condition underneath this article was a derogatory comment aimed at the outgroup:

I am sick of these immigrants streaming into Britain. Why are people justifying their behaviour and feeling sympathy for them? They take our benefits, they take our jobs, our houses and abuse our health care services. I bet either 85% are benefit abusers, criminals or terrorists. Kick them out of England!!!

Figure 7 demonstrates the stimulus material used in the experimental condition. The control condition did not contain this comment (see Figure 8).

Figure 7

Imitation Facebook Profile with Derogatory Comment Experimental Condition



Figure 8*Imitation Facebook Profile Participants Viewed in The Control Condition*

Participants then completed the evaluation of the commenter measure. This scale was created by the researcher, to assess the perception of the owner of the imitation Facebook Profile. The items on the perception of 'J' (the Facebook user) assessed the evaluative component (i.e., I think J is likeable, I think J is kind, I think J is intelligent, overall my opinion of J is positive). As well as the willingness to interact (e.g., I would like to know J) (Appendix I). Responses to these 12 items was based on a 7-point likert scale ranging from 1 *strongly disagree* to 7 *strongly agree*, with two items reversed scored, $\alpha = .95$.

To conclude the experiment participants completed the evaluation of the outgroup scale through the anti-immigrant attitudes scale (Azrout, van Spanje & de Vreese, 2010). This eight-item composite index measures attitudes immigrants (see Appendix J) using five-point scales (1 = Agree, 5 = Disagree). Example items include “immigrants abuse the social

welfare system” and “immigrants are an important cause of crime in the UK.” A low score indicated a negative attitude towards immigrants. Reliability for this study was improved with the removal of item seven from .57 to .73. The experiment took 10-15 minutes in total.

Results

First, the correlations among all variables were examined. These are presented in Table 5 along with descriptive statistics. SDO was negatively correlated with outgroup evaluation and positively correlated with evaluation of the commenter.

Table 5

Means, Standard Deviations, and Correlations with Confidence Intervals for Outgroup Evaluation, Evaluation of Commentor and SDO Score

Variable	<i>M</i>	<i>SD</i>	1	2
1. Outgroup Evaluation	3.21	.67		
2. Commentor Evaluation	3.83	1.02	-.25* [-.44, -.04]	
3. SDO	2.44	.81	-.58** [-.71, -.42]	.24* [.03, .43]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively.

Values in square brackets indicate the 95% confidence interval for each correlation.

*Indicates $p < .05$. ** Indicates $p < .01$.

Outgroup Evaluation

An independent *t*-test was conducted to compare the evaluation scores of the outgroup for the experimental and control condition to test hypothesis one. There was no significant difference between participants' evaluations of the outgroup in the control, no comment condition ($M = 3.67, SD = .77$) and participants in the negative comment, experimental condition ($M = 3.67, SD = .77$); $t(85) = -0.05, p = .96$ (two-tailed) (mean difference = $-.01$, 95% CI: $-.34$ to $.32$ $d = .01$).

Hypothesis two predicted that there will be a direct effect of condition and an effect of SDO on outgroup evaluation. Following the recommendations of Aiken, West & Reno (1991), the scores of the independent variables were centered. In order to explore effect of SDO on attitudes towards the outgroup, a simple regression was performed utilising outgroup evaluation scores as the criterion and SDO as the predictor. This was significant, $F(1, 85) = 43.35, p < .001$ and accounted for 33.8% of the variation of the outgroup evaluation. These findings indicate that participants' opinions of people who are immigrants influenced by their SDO score.

To test the interaction between condition and SDO on evaluation of the outgroup, a two-step multiple regression was performed to explore the relationship between the predictor variables of condition (control, experimental), SDO, and Condition x SDO interaction, following Aiken et al. (1991). The evaluation of the outgroup variable was utilised as the criterion. Condition and SDO centred on its respective means were entered at step one and the Condition x SDO interaction was entered into step two. Table 6 gives information about regression coefficients for the predictor variables entered into the model. The Condition x SDO interaction was not statistically significant, ($B = -.12, p = .47$).

Table 6

Multiple Regression Model of Predictors of Outgroup Evaluation, with 95% Confidence

Levels Reported in Parentheses (unstandardised and standardised coefficients)

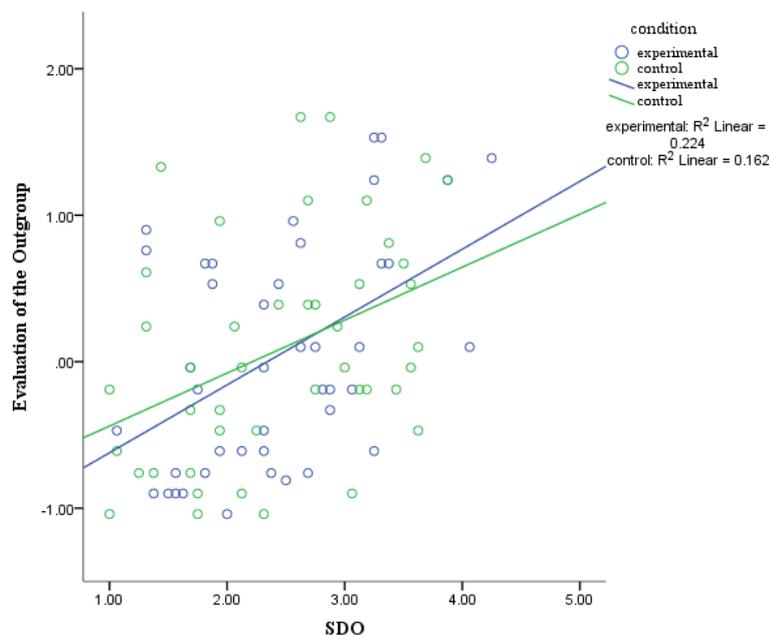
Variable	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>t</i>	<i>p</i>
Step 1					
Constant	.01 (-.18, .20)	.095		.08	<i>p</i> = .94
Condition (negative)	-.02 (-.28, .25)	.14	-.01	-.11	<i>p</i> = .91
SDO (centred)	-.55 (-.71, -.38)	.08	-.58	-6.55	<i>p</i> < .001
Step 2					
Constant	-.01 (-.18, .20)	.10		.07	<i>p</i> = .94
Condition (negative)	-.02 (-.28, -.26)	.14	-.01	-.11	<i>p</i> = .91
SDO (centred)	-.49 (-.72, -.27)	.11	-.52	-4.36	<i>p</i> < .001
Condition x SDO	-.12 (-.46, .21)	.17	-.09	-.72	<i>p</i> = .47

Note. $R^2 = .34$ for step 1; $\Delta R^2 = .00$ for step 2, ($p = .52$)

The Condition x SDO interaction model was not statistically significant, $b = -.12$, 95% CI [-.46, .21], $t = -.72$, $p = .47$. As demonstrated in Figure 9, there was a large overall effect of SDO on both conditions and therefore, no statistical significance transition points within the observed range of the moderator.

Figure 9

SDO and Outgroup Evaluation Scores for Experimental and Control Condition



Evaluation of ingroup commenter

An independent *t*-test was conducted to compare the evaluation scores of the commenter for the experimental and control condition. Results revealed that evaluations were significantly lower in the negative comment, experimental condition ($M = 3.61$, $SD = 1.00$) compared to the control, no comment condition ($M = 5.31$, $SD = .63$), $t(85) = -9.51$, $p < .001$ (two-tailed) (mean difference = -1.70 , 95% *CI*: -2.06 to $-.135$ $d = 2.04$).

Hypothesis four predicted that there will be an effect of condition and an effect of SDO on the evaluation of the commenter. In order to explore the main effect of SDO on the evaluation of the commenter, a regression was performed utilising evaluation of the commenter as the criterion and SDO as the predictor. This was found to be significant, $F(1, 85) = 5.26$, $p = .02$, with a recorded beta value of $\beta = .24$, $p = .02$, and accounted for 5.8% variance in the evaluation of the commenter.

The interaction was tested using the same two-step multiple regression as before. The evaluation of the commenter was utilised as the criterion. Condition and SDO centred on its respective means were entered at step one and the Condition x SDO interaction was entered into step two. Table 7 gives information about regression coefficients for the predictor variables entered into the model. The Condition x SDO interaction was statistically significant, ($B = .78$, $p = .001$).

Table 7

Multiple Regression Model of Predictors of Evaluation of Commenter, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients)

Variable	b	SE B	β	t	p
Step 1					
Constant	.84 (.60, 1.08)	.12		7.05	$p < .001$
Condition	-1.70 (-2.03, -1.36)	.17	-.72	-10.02	$p < .001$
SDO (centred)	.35 (.14, .55)	.10	.24	3.30	$p < .001$
Step 2					
Constant	.84 (.62, 1.06)	.11		7.69	$p < .001$
Condition	-1.70 (-2.01, -1.39)	.16	-.72	-10.90	$p < .001$
SDO (centred)	-.01 (-.27, .25)	.13	-.01	-.01	$p = .955$
Condition x SDO	.78 (.40, 1.16)	.19	.36	4.06	$p < .001$

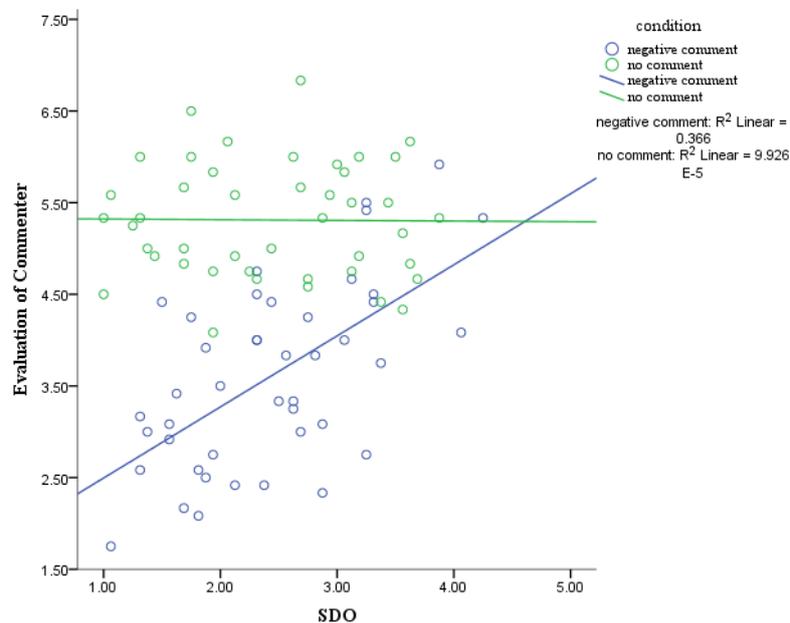
Note. $R^2 = .57$ for step 1; $\Delta R^2 = .07$ for step 2 ($p < .001$)

As demonstrated in Figure 10, these findings suggest that people in the experimental condition evaluated the commenter less favourably than those in the no comment condition. However, when participants' in the experimental condition were higher in SDO they liked the

commenter more compared to those low in SDO. Therefore, the negative effect of the comment on the evaluator is relatively harsher for those lower in SDO.

Figure 10

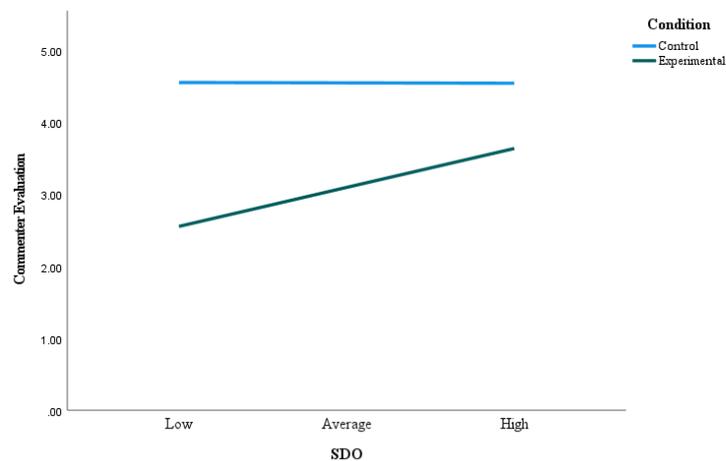
Evaluation of Commenter and SDO for Experimental Condition and Control Condition



To further probe the significant interaction, the simple slopes were examined. The effect is more specifically decomposed into simple slopes in Figure 11. This analysis revealed that in the no comment condition there is not a significant relationship between SDO and evaluation of the commenter, $b = -.01$, 95% CI [-.24, .22], $t = -.07$, $p = .95$. In the experimental negative comment condition, there is a significant relationship between SDO and evaluation of the commenter, $b = .78$, 95% CI [.45, 1.10], $t = 4.86$, $p < .001$. As Figure 11 demonstrates for those in the experimental condition the higher the SDO score the higher they evaluated the commenter.

Figure 11

Simple Slopes Analysis for levels of SDO by Condition on Evaluation of the Commenter



Discussion

This initial study exploring the effects of witnessing a derogatory comment made by an ingroup member revealed some interesting results. Firstly, when examining people's feelings towards the outgroup of immigrant's, people did not evaluate the outgroup any differently whether they read the derogatory comment or were in the control condition in which there was no comment present. It may be that the participants were not prejudiced enough towards the outgroup. The analysis revealed that most people indicated a high score on the anti-immigration scale (a low score indicates a negative attitude towards immigrants) in this study with a mean of 25.67 ($SD = 5.37$), minimum score at 15 and maximum score at 33. The low standard deviation indicates that most scores were clustered around the high mean in this sample. Participants were drawn from a sample of British university students, a rather liberal population who do not compete with immigrants in any sense for scarce resources such as jobs therefore this may not be an outgroup that they have strong negative

feelings towards. In this sense the derogatory comment did not provoke a strong reaction towards the outgroup. There was also no significant interaction of SDO on evaluations of the outgroup.

In the evaluation of the commenter results we see that there is a main effect of condition. As predicted people liked the ingroup commenter more when they do not make a prejudiced remark towards the outgroup in the control condition. There is also a main effect of SDO on evaluations of the commenter. Furthermore, there was a significant interaction of condition x SDO on evaluations of the ingroup commenter. In the experimental condition people higher in SDO have relatively more positivity towards the commenter than those low in SDO. Specifically, they like the commentor relatively more in the prejudicial condition as SDO increases.

In general, people who witness a derogatory comment evaluate the person making the comment lower, than those people who do not witness a comment. However, it would appear that people's evaluations of the commenter are moderated by their level of SDO. People high in SDO, will evaluate the commenter relatively less negatively when they make a derogatory comment about an outgroup.

Based on these findings it was determined that the study should be replicated using a different subject pool utilising a community sample rather than the traditional student sample and including an additional moderator of ingroup identification to see if this would also be an additional moderator.

Study 5

Introduction

Study 5 aimed to replicate and extend the results of Study 4 by considering the possible moderational role of ingroup identification, as well as SDO. Ingroup identification refers to the degree to which individuals define or see themselves as group members (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). High group identification increases both intergroup differentiation (Esses et al., 1998; Ellemers et al., 2002; Voci, 2006) and conformity to ingroup norms (Jetten, Postmes & McAuliffe, 2002; Tajfel & Turner, 1986). Therefore, it is possible that ingroup identification might be an additional factor in which people who highly identify with the ingroup are relatively more welcoming towards negative comments about a threatening outgroup.

Research has found that when individuals highly identify with a particular group, they are susceptible to information regarding the group's intergroup attitudes (Sechrist & Young, 2011) and can even attribute historically negative behaviour of a group as a whole (Doosje & Branscome, 2003). According to Social Identity Theory (SIT), the more people identify with a group, the more they are inclined to act on behalf of that group (Mummendey, Kessler, Klink, & Mielke, 1999; van Stekelenburg & Klandermans, 2013). Tajfel and Turner (1979) for example, demonstrated that by simply assigning people to a 'blue' or a 'red' group, through a process of social categorisation can make people feel, think and act as a group member. SIT proposes that individual's self-concept is shaped through group identification and positive social identities are established by favourably comparing the individual's ingroup against an outgroup (Shinnar, 2008).

Sechrist and Young (2011) found ingroup identification to be an important moderator of the influence of social consensus information on intergroup attitudes. By inducing participants to highly identify with their ingroup of White people, their racial attitudes

towards African Americans were more susceptible to consensus information provided by ingroup members. Individuals who highly identified with an ingroup, as compared to low identifiers, were more likely to change their attitudes toward African Americans to be more favourable or unfavourable when provided with positive or negative information.

Doosje and Branscome (2003) describe a possible mechanism for the effect of ingroup identification as a potential moderator. They argue that as ingroup identification increases, the intergroup attributional bias becomes stronger. The outgroup is seen as more homogeneous, and the ingroup and outgroup are perceived as increasingly different from one another.

Consistent with research in other European nations (Gonzales, Verkuyten, Weesie, & Poppe, 2008; Unal, 2016), research has demonstrated that intolerance towards immigrants in Britain is often found in people who strongly identify with their ingroup. When immigrants are perceived as an outgroup and a threat, people are more likely to reject European integration (Curtice, 2016; Ford & Goodwin, 2014; Lubbers & Jaspers, 2010) and ingroup identification can also influence political voting intentions such as in the June 2016 UK referendum on membership of the European Union (Swami, Barron, Weis & Furnham, 2018).

Ingroup identification also plays a crucial role in understanding the influence of ingroup users' comments. Jang and Walther (2019) conducted a web-based study in which participants viewed a mock yelp.com webpage that displayed information about a local business with four users' comments underneath. Their hypothesis examined the possibility that the higher the viewer's identity with their ingroup (male/female), the greater the ingroup comments affected their attitudes. They found that even simple, trivial categorical cues embedded in users' comments allowed viewers to identify with other users. Their findings demonstrated that ingroup identification plays a crucial role in understanding the influence of ingroup users' comments, as viewers adopted their ingroup's comments only when they

highly identified with their ingroup. Within this research ingroup identity was outcome variable. However, do existing levels of ingroup identification does that relate to how we might respond to prejudiced comments?

It is possible that participants' in the experimental condition who strongly identify with their national ingroup (British) will evaluate the outgroup less favourably and the commenter more highly than those who score low on the ingroup identification scale.

Therefore, two additional hypotheses were added for this study:

Outgroup evaluation

Hypothesis One: After reading the negative comment, participants in the negative comment condition will evaluate the outgroup less favourably than those in the no comment condition.

Hypothesis Two: Participants who are high in SDO will evaluate the outgroup more negatively after reading the derogatory comment compared to people who are low in SDO.

Hypothesis Three: Participants who have a higher ingroup identification score will evaluate the outgroup more negatively after reading the derogatory comment compared to people who are low in ingroup identification.

Evaluation of Ingroup commentor

Hypothesis Four: Participants reading a negative comment about immigrants will evaluate the commenter more negatively than those in the no comment condition.

Hypothesis Five: Participants in the who are high in SDO will evaluate the person making the negative comment condition more favourably than those low in SDO.

Hypothesis Six: Participants in the who score high in ingroup identification will evaluate the person making the negative comment condition more favourably than those score low in ingroup identification.

Method

Participants

A community sample was recruited, beyond the traditional student sample. Participants were recruited through the Prolific Academic website and paid £1 for completion of the survey. All participants completed the same measures as before. In total 212³ responded, age range 18-71 years. Data was removed from four participants who withdrew their data at the end of the study, and four participants who were not British Citizens and did not complete any of the measures. The final sample size was 204 (77 male and 125 females: 88.5% White British). Participants were randomly assigned to either an experimental condition ($n = 104$) or control condition ($n = 100$).

Procedure

The investigation was carried out through an online questionnaire using the Qualtrics software programme, participants were randomly assigned to either the experimental or control condition through the software.

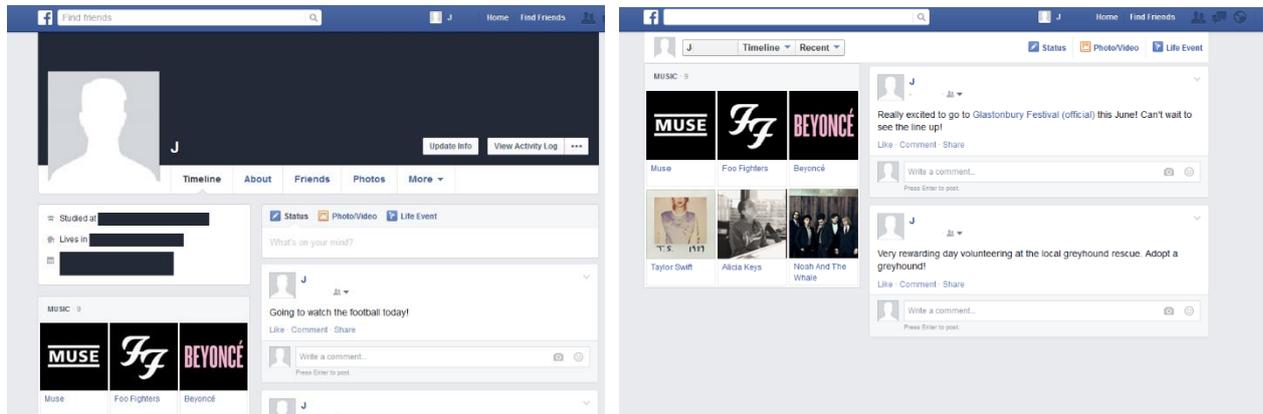
Measures

The same measures were used as before except for the additional measure of the ingroup identification scale. The first two Facebook profile pages were altered slightly to make them more general (see Figure 12) the control and experimental pages remained the same.

³ The sample size of Experiment 5 was based on a power calculation in GPower (Faul, Erdfelder, Lang, & Buchner, 2007) for an independent samples two-tailed *t-test*. An effect size *d* of .50 was used. This power calculation, based on a power of .95, resulted in a suggested sample size of 210 (105 participants in each condition).

Figure 12

Initial Imitation Facebook pages used in Study 5



Ingroup Identification Scale (Cinnirella, 1997). A subsection of this scale that measured quantitative measures of national and European identities was used. The scale contains 7 items on which participants responded on a 7-point scale (Appendix K). Example items included ‘to what extent do you feel British?’ With responses ranging from ‘*extremely British*’ – ‘*not at all British*’ and ‘to what extent do you feel strong ties with other British people?’ With responses ranging from ‘*extremely strong ties*’ – ‘*no ties at all*’. Reliability for British respondents has been found to be high in a previous study by Cinnirella (1997) ($\alpha = .96$). Reliability for this study was $\alpha = .89$.

Social Dominance Orientation Scale. Reliability for this study was high ($\alpha = .93$).

Evaluation of the commenter. This scale demonstrated high reliability ($\alpha = .96$).

Outgroup Evaluation. Reliability for this study was .93.

Data analysis

The data were analysed using the statistics program SPSS. Correlations between the predictor and the outcome variables were first examined (Table 8). For hypothesis one and

four, *t*-tests were carried out to examine the differences between conditions on the two outcome variables. A regression analysis then explored the main effect on the outcome variables. For hypotheses two, three, five and six, three-step hierarchical regressions were conducted examining the interactions.

Results

First, the correlations among all variables were examined. These are presented in Table 8 below along with descriptive statistics. Table 9 demonstrates that we find an effect of ingroup identification and SDO on both outgroup evaluation and commentor evaluation.

Table 8

Means, Standard Deviations, and Correlations with Confidence Intervals for Outgroup Evaluation, Evaluation of Commentor, SDO and Ingroup Identification Score

Variable	<i>M</i>	<i>SD</i>	1	2	3
1. Outgroup Evaluation	3.57	1.37			
2. Commenter Evaluation	4.18	1.65	.30** [.17, .42]		
3. SDO	2.58	.96	.60** [.51, .68]	.25** [.12,.37]	
4. Ingroup Identification	5.68	1.25	.32** [.19,.44]	.16* [.03,.29]	.26** [.13, .39]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively.

Values in square brackets indicate the 95% confidence interval for each correlation.

* Indicates $p < .05$. ** Indicates $p < .01$.

Outgroup Evaluation

Hypothesis one predicted that there would be an effect of condition on outgroup evaluation. An independent *t*-test was conducted to compare the evaluation scores of the outgroup for the experimental and control condition. There was no significant difference between participants' evaluations of the outgroup in the no comment condition ($M = 3.45$, $SD = 1.22$) and participants' in the negative comment, experimental condition ($M = 3.69$, $SD = 1.50$); $t(202) = 1.22$, $p = .23$.

To explore effect of SDO and ingroup identification on attitudes towards the outgroup, a regression was conducted, SDO and ingroup identification were included as predictor variables entered simultaneously with outgroup evaluation score as the criterion. The regression statistics are presented in Table 9 and demonstrates that they both have an independent effect.

Table 9

Summary of Regression Analysis for Variables Predicting Outgroup Evaluation, with 95% Confidence Levels Reported in Parentheses (unstandardised and standardised coefficients)

Variable	<i>B</i>	<i>SE B</i>	β	<i>T</i>	<i>p</i>
Constant	.12 (-.03, .27)	.08		1.61	$p = .11$
SDO	.80 (.64, .96)	.08	.56	9.79	$p < .001$
Ingroup Identification	.22 (.08, .36)	.07	.17	3.00	$p = .003$

Note. $R^2 = .39$, ($p < .001$)

These findings indicate that participants' opinions of people who are immigrants was influenced by their level of SDO and ingroup identification, $F(2, 201) = 64.55, p < .001$.

For the interaction between condition and SDO on evaluation of the outgroup, a three-step multiple regression was performed with outgroup evaluation as the dependent variable. Ingroup identification was entered at step one of the regression as a control variable. Condition and SDO centred on its respective means were entered at step two and the Condition x SDO interaction was entered into step three. Table 10 gives information about regression coefficients for the predictor variables entered into the model. The Condition x SDO interaction model was not statistically significant, $b = .20, 95\% \text{ CI} [-.11, .51], t = 1.27, p = .21$. As demonstrated in Figure 13, there was a large overall effect of SDO on both conditions and no statistical significance transition points within the observed range of the moderator.

Figure 13

SDO and Outgroup Evaluation Scores for Experimental and Control Condition

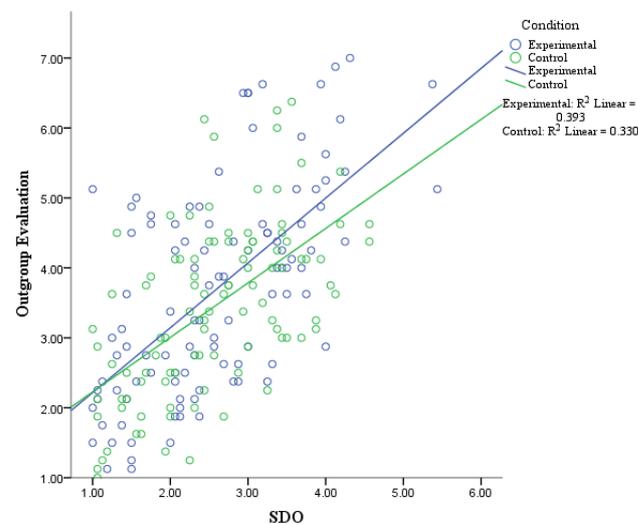


Table 10*Multiple Regression Model of Interaction Between Condition and SDO on Outgroup*

Evaluation, with 95% Confidence Levels Reported in Parentheses (unstandardised and standardised coefficients)

Variable	<i>B</i>	<i>SE B</i>	β	<i>T</i>	<i>p</i>
Step 1					
Constant	-1.88 (-2.72, -1.04)	.43		-4.42	$p < .001$
Ingroup Identification (centred)	.35 (.20, .49)	.07	.32	4.76	$p < .001$
Step 2					
Constant	-1.14 (-1.89, -.40)	.38		-3.05	$p = .003$
Ingroup identification (centred)	.20 (.07, .32)	.06	.18	3.14	$p = .002$
Condition	.26 (-.04, .56)	.15	.10	1.73	$p = .09$
SDO (centred)	.80 (.64, .96)	.08	.56	9.79	$p < .001$
Step 3					
Constant	-1.19 (-1.94, -.45)	.38		-3.16	$p = .002$
Ingroup Identification (centred)	.20 (.08, .33)	.06	.19	3.26	$p = .001$
Condition	.26 (-.03, .56)	.15	.10	1.75	$p = .08$
SDO (centred)	.68 (.44, .92)	.12	.47	5.53	$p < .001$
Condition x SDO	.20 (-.11, .52)	.16	.11	1.27	$p = .21$

Note. $R^2 = .10$ for step 1 ($p < .001$); $\Delta R^2 = .30$ ($p < .001$) for step 2; $\Delta R^2 = .005$ for step 3 ($p = .21$)

To test the interaction between condition and ingroup identification on evaluation of the outgroup, the same three-step multiple regression was performed with outgroup evaluation as the dependent variable. SDO was entered at step one of the regression as a control variable. Condition and ingroup identification centred on its respective means were entered at step two and the Condition x ingroup identification interaction was entered into step three. Table 11 gives information about regression coefficients for the predictor variables entered into the model. The Condition x ingroup identification interaction model was not statistically significant, $b = -.08$, 95% CI $[-.36, .19]$, $t = -.60$, $p = .55$ (see Figure 14).

Figure 14

Ingroup Identification and Outgroup Evaluation Scores for Experimental and Control Conditions

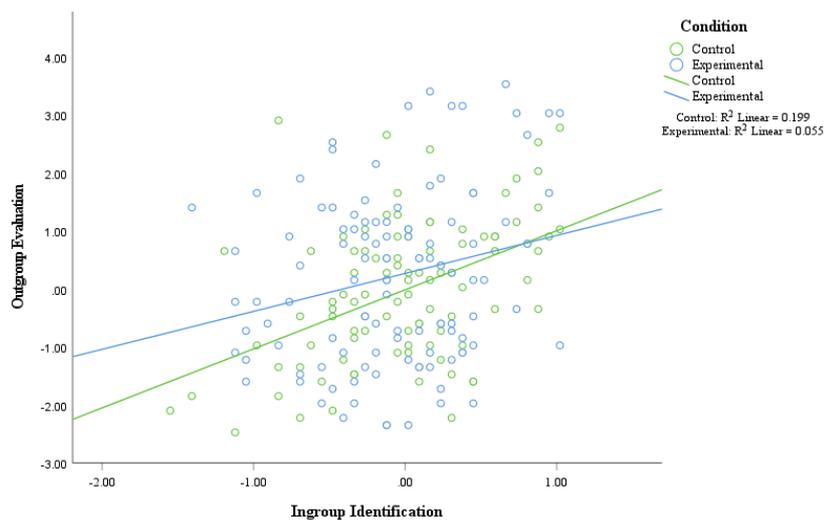


Table 11

Multiple Regression Model of Interaction Between Condition and Ingroup Identification on Outgroup Evaluation, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients)

Variable	<i>b</i>	<i>SE B</i>	<i>B</i>	<i>T</i>	<i>P</i>
Step 1					
Constant	.10 (-.05, .25)	0.08		1.33	<i>p</i> = .18
SDO (centred)	.86 (.71, 1.02)	0.08	0.60	10.75	<i>p</i> < .001
Step 2					
Constant	-1.15 (-1.89, -.40)	0.38		-3.05	<i>p</i> = .003
SDO (centred)	0.80 (.64, .96)	0.08	0.56	9.79	<i>p</i> < .000
Condition	0.26 (-0.04, .56)	0.15	0.10	1.73	<i>p</i> = .09
Group ID (centred)	0.20 (-.07, .32)	0.06	0.18	3.14	<i>p</i> = .002
Step 3					
Constant	-1.36 (-2.39, -.33)	.52		-2.61	<i>p</i> = .010
SDO (centred)	0.79 (.63, .95)	.08	0.55	9.71	<i>p</i> < .001
Condition	0.25 (-.05, .55)	0.15	0.09	1.68	<i>p</i> = .09
Group ID (centred)	0.23 (.06, .41)	0.08	0.21	2.64	<i>p</i> = .009
Condition x Group ID	-0.08 (-.36, .19)	0.14	-0.05	-0.60	<i>p</i> = .55

Note. $R^2 = .36$ for step 1 ($p < .001$); $\Delta R^2 = .04$ for step 2 ($p = .003$); $\Delta R^2 = .001$ for step 3 ($p = .55$)

Evaluation of the ingroup commenter

Hypothesis four predicted that there will be an effect of condition on the evaluation of the commenter. An independent *t*-test was conducted to compare the evaluation scores of the commenter for the experimental and control condition. In line with Study 4, results revealed that evaluations were significantly lower in the negative comment condition ($M = 3.51$, $SD = 1.05$) compared to the no comment condition ($M = 4.88$, $SD = .81$) $t(202) = -10.45$, $p < .001$ (two-tailed). The magnitude of the differences in the means (mean difference = -1.37 , 95% CI : -1.63 to -1.11) was $d = 1.46$.

In order to explore the main effect of SDO and ingroup identification on the evaluation of the commenter, a regression was performed utilising evaluation of the commenter as the criterion. The overall model was found to be significant, $F(2, 201) = 7.82$, $p < .001$. However, as shown in Table 12, the model indicated that participants' opinions of people who are immigrants was influenced by their level of SDO but not their level of ingroup identification.

Table 12

Summary of Regression Analysis for Variables Predicting Commentor Evaluation, with 95% Confidence Levels Reported in Parentheses (unstandardised and standardised coefficients)

Variable	<i>B</i>	<i>SE B</i>	β	<i>T</i>	<i>p</i>
Constant	-.67 (-.83, -.52)	.08		-8.50	$p < .001$
SDO	.27 (.10, .44)	.09	.22	3.15	$p = .002$
Ingroup Identification	.11 (-.04, .27)	.08	.11	1.49	$p = .140$

Note. $R^2 = .07$, ($p < .001$)

To test the interaction between condition and SDO on evaluation of the outgroup, a three-step multiple regression was performed with evaluation of the commentor as the dependent variable. Ingroup identification was entered at step one of the regression as a control variable. Condition (coded as 0 = control, 1= experimental) and SDO centred on its respective means were entered at step two and the Condition x SDO interaction was entered into step three. Table 13 gives information about regression coefficients for the predictor variables entered into the model. The Condition x SDO interaction model was statistically significant, $b = .42$, 95% CI [.16, .68], $t = 3.22$, $p = .001$.

Table 13

Multiple Regression Model of Interaction Between Condition and SDO on Evaluation of Commenter, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients)

Variable	b	$SE B$	B	T	P
Step 1					
Constant	-1.55 (-2.29, -.80)	.38		-4.11	$p < .001$
Ingroup Identification (centred)	.15 (.02, .29)	.07	.16	2.34	$p = .020$
Step 2					
Constant	-.29 (-.91, .33)	.32		-.92	$p = .360$
Ingroup Identification (centred)	.05 (-.05, .16)	.05	.06	1.02	$p = .311$
Condition	-1.37 (-1.62, -1.12)	.13	-.59	-10.83	$p < .001$
SDO (centred)	.29 (.16, .42)	.07	.24	4.24	$p < .001$
Step 3					
Constant	-.39 (-1.00, .22)	.31		-1.26	$p = .209$
Ingroup Identification (centred)	.07 (-.03, .17)	.05	.08	1.37	$p = .172$
Condition	-1.36 (-1.60, -1.2)	.12	-.59	-11.16	$p < .001$
SDO (centred)	.05 (-.15, .24)	.10	.04	.45	$p = .655$
Condition x SDO	.42 (.16, .68)	.13	.26	3.22	$p = .001$

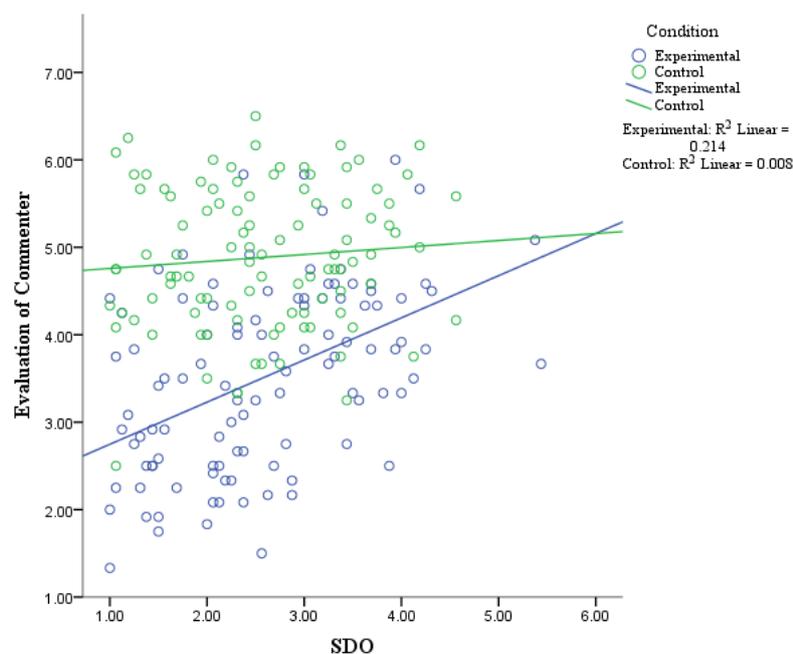
Note. $R^2 = .03$ for step 1 ($p = .02$); $\Delta R^2 = .39$ for step 2 ($p < .001$); $\Delta R^2 = .03$ for step 3 ($p = .001$)

As demonstrated in Figure 15, these findings suggest that people in the experimental condition evaluated the commenter less favourably than those in the no comment condition.

However, when participants' in the experimental condition were higher in SDO they liked the commenter more compared to those low in SDO. Therefore, the negative effect of the comment on the evaluator is relatively harsher for those lower in SDO. These are the same effects found in Study 4.

Figure 15

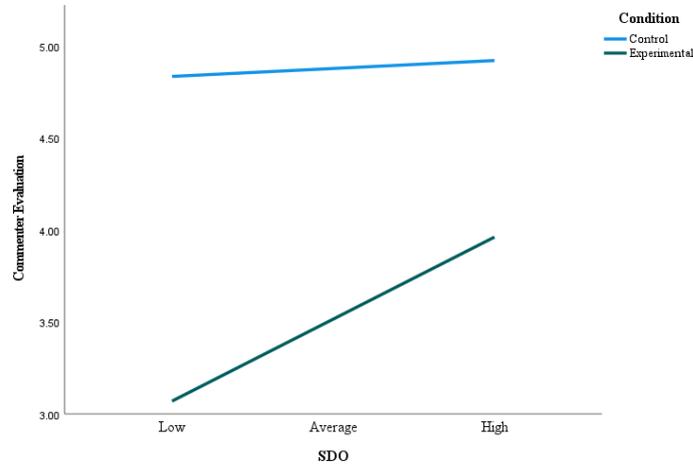
Evaluation of commenter and SDO for Experimental and Control Condition



To further probe the significant interaction, the simple slopes were examined. The effect is more specifically decomposed into simple slopes in Figure 16. This analysis revealed that in the no comment condition there is not a significant relationship between SDO and evaluation of the commenter, $b = .07$, 95% CI [-.12, .26], $t = .72$, $p = .48$. In the experimental negative comment condition, there is a significant relationship between SDO and evaluation of the commenter, $b = .46$, 95% CI [.27, .64], $t = 4.94$, $p < .001$.

Figure 16

Simple Slopes Analysis for Levels of SDO by Condition on Evaluation of the Commenter



Finally, the interaction of group ID and condition was explored following the model used previously. The evaluation of the commenter was utilised as the criterion. SDO was entered at step one as a control variable, condition and group ID on its respective means was entered at step two and the Condition x group ID interaction was entered into step three. Table 14 gives information about regression coefficients for the predictor variables entered into the model. As can be seen from Figure 17, the interaction did not reach significance, $b = .21$, 95% CI [-.03, .44], $t = 1.75$, $p = .08$.

Table 14

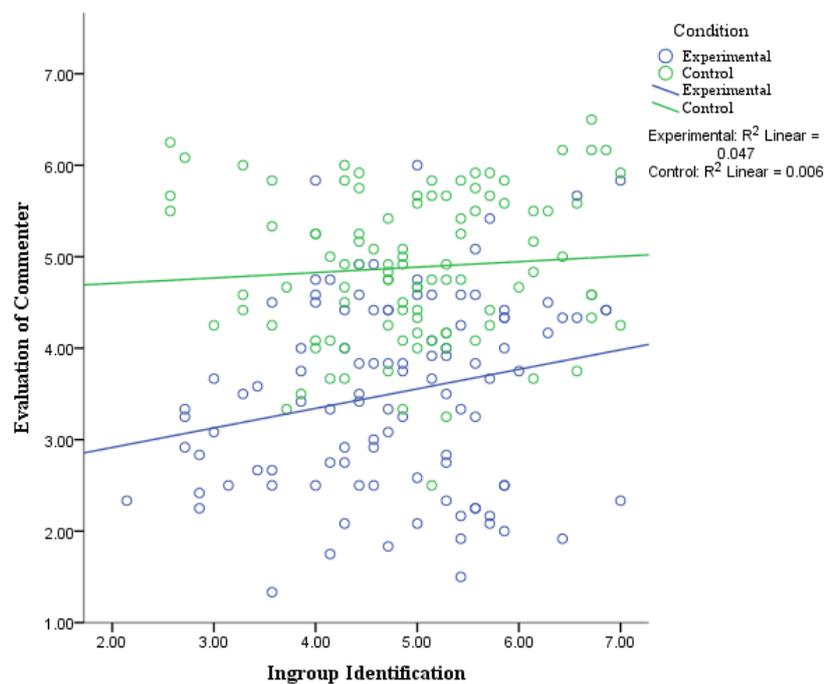
Multiple Regression Model of Predictors of Group Identification, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients)

Variable	<i>b</i>	<i>SE B</i>	<i>B</i>	<i>T</i>	<i>P</i>
Step 1					
Constant	-1.47 (-1.92, -1.02)	.23		-6.43	<i>p</i> < .001
SDO (centred)	.30 (.14, .47)	.08	.25	3.66	<i>p</i> < .001
Step 2					
Constant	-.73 (-1.12, -.34)	.20		-3.69	<i>p</i> < .001
SDO (centred)	.29 (.16, .42)	.07	.24	4.24	<i>p</i> < .001
Condition	-1.37 (-1.62, -1.12)	.13	-.58	-10.83	<i>p</i> < .001
Group ID (centred)	.13 (-.06, .18)	.06	.06	1.02	<i>p</i> = .31
Step 3					
Constant	-.75 (-1.14, -.36)	.20		-3.82	<i>p</i> < .001
SDO (centred)	.30 (.16, .43)	.07	.24	4.37	<i>p</i> < .001
Condition	-1.35 (-1.60, -1.10)	.13	-.58	-10.72	<i>p</i> < .001
Group ID (centred)	-.04 (-.21, .13)	.09	-.04	-.51	<i>p</i> = .61
Condition x Group ID	.21 (-.03, .44)	.12	.14	1.75	<i>p</i> = .08

Note. $R^2 = .06$ for step 1 ($p < .001$); $\Delta R^2 = .35$ for step 2 ($p < .001$); $\Delta R^2 = .009$ for step 3 ($p = .08$)

Figure 17

Ingroup Identification and Evaluation of Commenter Scores for Experimental and Control Conditions



Discussion

Study 5 aimed to replicate and extend the results of Study 4 by considering the possible moderational role of ingroup identification, in addition to SDO. Firstly, the analysis explored the outcome variable of evaluation of the outgroup. Hypothesis one predicted that there would be an effect of condition on outgroup evaluation. However, there was no significant difference between participants' evaluations of the outgroup in the no comment condition compared to participants' in the negative comment, experimental condition. There was however a main effect of SDO and ingroup identification on their evaluation of the outgroup score indicating that participants opinions of people who are immigrants was

influenced by their level of SDO and ingroup identification. Nevertheless, when exploring the interaction of condition on SDO and ingroup identification for hypothesis two and six it was found that neither model was statistically significant.

Next the analysis explored the evaluation of the commentor outcome variable. Hypothesis four predicted that there will be an effect of condition on the evaluation of the commentor. Results revealed that evaluations were significantly lower in the negative comment condition compared to the no comment control condition. As predicted participants reading the negative comment about immigrants evaluated the commentor more negatively than those in the control condition overall.

When looking at the main effect of SDO and ingroup identification on the evaluation of the commentor, the model indicated that participants' opinions of people who are immigrants was influenced by both their level of SDO and level ingroup identification. This was reflected within the interaction for SDO only, SDO was found to moderate evaluation of the commentor when people witnessed the derogatory comment. When participants' in the experimental condition were higher in SDO they liked the commentor more compared to those low in SDO. Therefore, the negative effect of the comment on the evaluator is relatively harsher for those lower in SDO. There was no interaction of condition and ingroup identification on evaluation of the commentor.

Chapter Summary and Conclusion

Witnessing negative comments is something that is commonplace for many people particularly within social media platforms such as Facebook, Twitter, and Reddit. Studies 4 and 5 utilised a mock-up of the social media platform Facebook to create a real-world analogue in which participants read a derogatory comment online by an ingroup member directed towards an outgroup. The primary aim within these two studies was to explore how as readers of derogatory comments we evaluate the person making the comments and how reading these comments may affect our evaluations of the target outgroup.

Study 4 found that people who witness a derogatory comment evaluated an ingroup member who made the comment lower, than those who do not witness a derogatory comment. However, people's evaluations of the commenter appear to be moderated by their level of SDO. People high in SDO, evaluated the commenter relatively less negatively than those low in SDO. These findings were replicated in Study 5.

The research mentioned in the introduction to this chapter highlighted how hearing derogatory comments from ingroup members has been found to influence people to feel less favourable towards the outgroup (e.g., Blanchard et al., 1991; Blanchard et al., 1994; Simon & Greenberg, 1996; Soral et al., 2016; Conder & Lane, 2021). Therefore, it was predicted that after reading the negative comment, people would evaluate the outgroup less favourably than those in the no comment condition.

When examining people's feelings towards the outgroup of immigrants, people did not evaluate the outgroup any differently whether they read the derogatory comment or were in the control condition in which there was no comment present. There was no effect in either study, at least within these sample groups. This was in contrast to the findings of past research specifically that of Soral et al. (2016) who found that exposure to hate speech leads

to lower evaluations of the outgroup, greater distancing and therefore increasing outgroup prejudice.

As there can be circumstances in which people high in personality traits such as SDO may simply tolerate hate speech or even use it as a tool to protect their ingroup (White & Crandall, 2017) these studies explored the possibility that SDO could be a potential moderator. In both studies, there was a main direct effect of SDO on evaluations of the outgroup. Which indicated that participants' opinions of people who are immigrants was influenced by their SDO score. However, in opposition to research findings such as those of Küpper et al. (2010) that found individuals with higher SDO are more likely to discriminate against immigrants, there was no significant interaction of condition and SDO score on outgroup evaluations in both studies.

A possible explanation of the findings for both studies on evaluations of the outgroup, could be that perhaps there was not enough people with animosity/prejudice towards the outgroup. The mean score was high on the anti-immigration scale indicating that the majority of the sample population had a positive attitude towards the outgroup of immigrants even after reading the derogatory comment by the ingroup member, this effect was present in both experiments. Additionally, as mentioned in the introduction to this chapter immigrants are an outgroup that are often portrayed negatively within the media, and it could be that people are desensitised to derogatory comments towards that outgroup, consequently the comment did not provoke a negative reaction towards the outgroup. Attitudes towards immigrants has been legitimised as free speech instead of prejudice in some instances (Wang et al., 2022).

The findings of how people evaluated the outgroup after reading a derogatory comment by an ingroup member are contrasting to how people evaluated the individual ingroup member. When exploring how people evaluated the ingroup commenter, there is a main effect of condition in both studies. In general, people who witness a derogatory

comment evaluate the person making the comment more negatively, than those people who did not witness a comment. This is as predicted and consistent with research such as Mae and Carlston (2005). Speakers who make negative remarks can be perceived as less likeable even by ingroup-members who agreed with their opinions (Simon & Greenberg, 1996; Castelli et al., 2001).

Interestingly within both studies there was a main effect of SDO on evaluation of the commenter and as predicted, people's evaluations of the commenter were moderated by their level of SDO. In the experimental condition people higher in SDO have relatively more positivity than those low in SDO. Therefore, it appears that SDO moderates the effects of derogatory comments on observers' own prejudice. These effects of SDO are in line with other studies that have found people high in SDO express higher prejudice and tolerate hate speech against minorities (e.g., Duckitt, 1992; Pratto et al., 1994). This supports the majority finding that that SDO predicts outgroup prejudice (Altemeyer, 1998, Duriez & Van Hiel, 2002; McFarland, 1998; Pratto et al., 1994).

SDO as a theoretical framework can explain why derogatory comments have been, and continue to be, used. SDO argues that discrimination is intended to reinforce and maintain existing hierarchies that people find important (Sidanius & Pratto, 1999). Groups at the top of the social hierarchy enjoy benefits that lower status groups do not. By justifying the use of racial slurs, majority group members withdraw legitimate status preventing the societal advancement of lower status groups, thereby reinforcing existing status hierarchies (Blakemore, 2015). Derogatory comments can be used to assert dominance over other racial groups (e.g., Henry et al., 2014; Kraus et al., 2011; Mullen et al., 2001). This has been found to have extreme negative impacts for individuals and groups targeted by the slur or offensive comment. For example, targets of derogatory comments experience extreme emotional reactions (Brandt & Henry, 2012) and experience dehumanisation (Haslam et al., 2011).

The findings from Study 4 indicated that the majority of the sample group evaluated the outgroup highly on the anti-immigrant's attitude scale (a low score indicating a negative attitude towards immigrants) this was not an outgroup that the sample felt any prejudice towards. There was a large general effect of positive attitudes towards the outgroup overall meaning that there was no difference between conditions even with the introduction of the derogatory comment. Therefore, Study 5 was conducted to replicate the initial study using a different subject pool which utilised a community sample rather than the traditional student sample. It also introduced an additional potential moderator of ingroup identification.

Research has found that when individuals highly identify with a particular group, they are susceptible to information regarding the group's intergroup attitudes (Sechrist & Young, 2011) it was therefore expected that people high in ingroup identification would evaluate the outgroup more negatively once they had witnessed an ingroup member making a derogatory comment about them, more than those low in ingroup identification. Furthermore, they would evaluate the commenter more favourably than those low in ingroup identification.

There was a main effect of ingroup identification on evaluations of the outgroup however there was not main effect on evaluations of the commenter. Contrary to expectations there was not an interaction of condition and ingroup identification on evaluations of the outgroup or the commenter who was an ingroup member. The results of the mean score for ingroup identification ($M = 4.89$, $SD = 1.01$) were high demonstrating that the majority of sample population highly identified with the ingroup of British people. As a possible explanation of these findings, I believe that it may be possible that the Facebook profile did not offer enough cues about their British identity for the participants to feel categorised as a member of the ingroup. Perhaps they were not considered to be someone who is prototypical of the ingroup. If the Facebook profile had belonged to an ingroup friend (extended/cross group contact) or someone with a strong level of familiarity who people regularly see posting

on social media platforms it is possible that we would have seen strong effects of evaluations on the outgroup and ingroup member. A future study could perhaps provide more cues within the Facebook profile. For example, it could contain more references to the ingroup like a British flag, a full typical ingroup name rather than just an initial as was used within this research etc. This may in turn make the ingroup member more relatable and identifiable as a prototypical ingroup member making it easier for participants to categorise them. However, it is also important to note that this might not always be the same in other population samples.

This research stream is to some extent different to the rest of the research in this thesis so far. Understanding what happens when people are the bystanders of hostility from ingroup members is an interesting question to begin to explore and this exploration is important for several reasons. Firstly, theoretically, these studies add to both the negative contact and online contact literature base on contact. Viewing prejudicial comments is something that happens frequently and is a different form of vicarious contact. Secondly, given that the derogatory comment was spoken by an ingroup member rather than an outgroup member, a viewpoint seldomly explored within the literature base, makes these two studies a unique contribution to the literature. Thirdly, this research is theoretically interesting since people observe this type of discourse habitually in daily life (Zayed & Allen, 2022). Exposure to prejudiced comments can have a significant impact on peoples own attitudes and behaviours. For example, it can influence responders to post more comments themselves and individuals can adopt the groups 'social norm' and adjust their responses (Hseuh et al., 2015).

Finally, understanding how people react to negative comments posted online can help inform policy, greater understanding the consequences of negative contact can aid in implementing interventions for prejudice reduction. Research has begun to explore ways of promoting positive contact through online methods (Amichai-Hamburger & McKenna, 2006; Walther, Hoter, Ganayem, & Shonfeld, 2015).

Limitations and Future Directions

Within these two sample groups (student and community sample through Prolific Academic recruitment) there was no significant difference between conditions on people's evaluations of the outgroup in either study. As identified above, in Study 5, although people highly identified with the ingroup of British, it appears that the Facebook profile did not provide strong enough cues about the user's British identity to be someone prototypical of the ingroup. If I was to run the study again, I would manipulate the source of the comment further and expect to see a strong effect on attitudes towards the outgroup. Future studies could also consider pre-existing attitudes and explore the evaluations of people from a more prejudiced population such as people who are on 4chan or people who are part of an 'echo chamber' online.

In addition, the following could be implemented to further the studies. 1) Research may consider what happens over time through a longitudinal study or time series analysis as what a person believes may change, specifically if repeated exposure to the comments leads to desensitisation or stronger negative attitudes towards the outgroup or individual making the comment. Bilewicz and Soral (2020) for example, argue that through a process of desensitisation, hate speech reduces people's ability to recognise the offensive character of such language. Exposure to derogatory language about immigrants and minority groups leads to political radicalisation and deteriorates intergroup relations. 2) Although the target outgroup was immigrants for these two experiments, people witness derogatory comments towards all minority groups. Therefore, future studies could explore the effects of an offensive comment when other minority or stigmatised groups such as people with disabilities or mental illness are the subject of the comment. Some prejudice and racism are overt and easily recognisable, other incidents are more subtle this may be different depending on the outgroup. 3) Another area that would benefit from further attention is to explore what

happens when people see others support the comment or comment in empathy towards the outgroup. It would be interesting to explore whether people would go as far as to call the ingroup member out on their comment or whether they would be more inclined to be a silent bystander to such comments. In line with the work of Hyers (2007) it would be expected that while many individuals would consider a response to such comments, the actual number of people who take action is far less. Hyers for example, found that while 75% of participants will consider an assertive response, only 40% will make one.

To conclude, the aim of these two studies was to change direction from the direct contact studies in Chapter 4 and explore through the vicarious theoretical framework how as readers of derogatory comments we 1) evaluate the person making the comments and 2) how reading these comments may affect our evaluations of the target outgroup. This research is theoretically interesting since people observe this type of discourse habitually in daily life.

These two studies make a unique contribution to the literature through exploration of a derogatory comment spoken by an ingroup member rather than an outgroup member, a viewpoint seldomly explored within the literature base, yet an important one. The results revealed a significant finding. Reading a derogatory comment from an ingroup member resulted in people evaluating the commenter less favourably than those in the control no comment condition. However, this effect is moderated by people's level of SDO, specifically participants in the experimental condition who were higher in SDO liked the commenter more compared to those low in SDO. Therefore, the negative effect of the comment on the evaluator is relatively harsher for those lower in SDO. This effect was present within both studies. Future studies could advance this research by exploring what happens when an ingroup member responds in empathy versus negatively to a derogatory comment from an outgroup member.

Chapter 6: The Ambiguity of Intergroup Contact Situations:**When Contact is Open to Interpretation**

Chapter Summary

The previous stream of research explored what happens when an ingroup member witnesses a derogatory comment from another ingroup member that is targeting an outgroup. Results indicated that in general we evaluate the commenter disapprovingly unless our individual personality differences have a preference for inequality and then we are more likely to view the commenter more favourably than those who have a preference for equality. However, what happens when we find ourselves in a situation where another's words or behaviour is ambiguous or unfamiliar? In these instances, how does group membership influence the interpretation of a potentially vague response, and do we rely on past experiences in our evaluations?

This next chapter contains three studies exploring the consequences of intergroup contact encounters when the situation is open to interpretation. All contact situations are open to some degree of interpretation, therefore this study sought to gain some understanding as to whether we rely on previous intergroup contact experiences when the perceived behaviour of the outgroup member is vague or open to interpretation. The initial two studies utilised a novel paradigm to explore how people interpret the behaviour of an individual within a number of different ambiguous scenarios. Results indicated that the actor's behaviour in the scenarios was evaluated more negatively when they individual was an outgroup member (Immigrant), compared to people who observed scenarios when the actor was someone from the ingroup of British. Both studies indicated that we are not guided by our pre-existing attitudes or contact experiences on evaluations of the target's behaviour within the scenario. The final experiment within this stream used an economic game to simulate an interaction that is open to interpretation. Here feelings towards the outgroup member were significantly reduced in the ambiguously negative contact condition.

Study 6

Correctly interpreting other people's behaviour is essential to functioning in the social world. There are occasions in everyday life where we find ourselves in a situation where another's words or behaviour is ambiguous or unfamiliar and open to interpretation. Past research has indicated that when a contact situation with an outgroup member is interpreted as positive then this will result in improved intergroup relations. Conversely theories such as hostile attribution bias (Nasby et al., 1980) suggest that when the behavior is ambiguous, we have a tendency to interpret others' behaviors as having hostile intent. Moreover, consistent with the *Perceived Fit Theory* (Blanz, 1999), negative expectations for intergroup contact will be salient and transfer into new contact experiences resulting in persisting negative expectations and a vicious cycle of continuing prejudice. Consequently, in an interpersonal situation when a situation is ambiguous, negative interpretation may be harmful.

Little attention has been paid to the potentially common situation when another's behaviour is vague and could be interpreted as either neutral, positive, or negative contact. In this intergroup contact situation, does group membership influence the interpretation of a potentially vague response? Moreover, do we rely on past experiences that we may have had with other members of the same outgroup to inform our decision on how to interpret the current encounter? Imagine for instance you are at a restaurant, and you have been waiting a while to be served. You call out to the waiter to serve you, but they do not even acknowledge you. Meanwhile, the waiter is laughing and chatting with a group of people at another table who you perceive to be their friends. Is the waiter deliberately ignoring you, or not? Would your response to this potentially negative situation differ depending on the ethnicity of the waiter? If we are guided by past research, we are indeed likely to interpret the situation differently depending on whether the individual is from the ingroup or outgroup. Early

research by Duncan (1976) provides a classic example of how people can interpret an “ambiguous shove” as being dependent on skin colour. In this study the White participants identified the shove as playing around when perpetrated by a White actor, however it was viewed as violent behavior when performed by a Black actor, particularly when the victim was White. The author believes that interpretation of the Black actor’s behavior was likely to be guided by the stereotypical understanding that Black people are categorised as “impulsive and given to crimes and violence” (Duncan, 1976, p. 591).

The theoretical framework within intergroup attribution literature provides a potential explanation for how people may interpret ambiguous situations. Intergroup attribution refers to the ways in which members of different social groups explain the behaviour of members of other ethnic groups as well as the outcomes and consequences of behaviour of members of their own ethnic group on an individual level (Pettigrew, 2020). As they do with the self, individuals tend to assign a higher level of internal attribution for positive behaviours and a higher level of external attribution for negative behaviours when judging in-group members while the opposite is true when they are judging outgroup members (Hewstone, 1990; Pettigrew, 1997). This ingroup favouring and outgroup derogating tendency in attributions is defined as intergroup attributional bias, also known as Ultimate Attribution Error (UAE) (Hewstone, 1990; Pettigrew, 1997). Although research is limited within this area, Hewstone (1990) conducted a systematic review of 19 studies. Empirical support for the UAE was fragmented and limited. Only two studies engaged in both ingroup favouring and outgroup derogating attributions (i.e., Rosenberg & Wolfsfield, 1977; Taylor & Jaggi, 1974). There has been little research since this review and to the best of my knowledge, the intergroup attribution literature has not investigated as to whether attributions have any association with previous intergroup attitudes or contact experiences with an outgroup.

An alternative viewpoint is that our unconscious bias can drive how we interpret an ambiguous or vague situation. Unconscious bias refers to when we make judgments based on our prior experiences or our own personal subconscious thought patterns, unaware that we are doing it (Haselton, Nettle, & Andrews, 2015). Research has shown that this is an effect of a self-serving attribution bias, one of many unconscious biases that we draw on in order to make fast decisions (Fiske & Russell, 2010). Consequently, prejudice and discrimination are inevitable by-products of the efficiency of human cognition. Importantly, we have both a positive bias towards our ingroup, and a negative bias towards an outgroup (Fiske & Russell, 2010).

More recent intergroup contact research suggests that previous experiences can shape subsequent ones. Paolini et al. (2014) refer to the perceived fit hypothesis (Blanz, 1999), predicting that negative contact will have strongest negative effects when negative experiences fit expectations based on a history of negative contact. Equally, this could lead to the expectation that a history of positive contact could buffer against the adverse consequences of negative contact (Paolini et al., 2014).

Blanz's (1999) theory is related to earlier models by Bruner (1957) and Oakes (1987) and proposes a theoretical model of factors affecting the salience of social categorisations such as male/female categorisation. Based on this model Paolini et al., (2014) explored individuals' past outgroup contact, including pre-manipulation or post-manipulation measures of individuals' histories of face-to-face contact, intergroup friendships, and indirect contact through family storytelling about the outgroup. They found a pattern of moderation that is consistent with category salience (Bruner, 1957) and a perceived fit mechanism. Valence-salience effects were stronger among individuals with limited or negative past outgroup contact. Consistent with the perceived fit paradigm effects were stronger under limited or negative contact either because these histories of past contact increase the salience

of negative contact and/or reduce the salience of positive contact (Paolini et al. 2014). Paolini et al. (2014) argue that because of the perceived fit theory, people with negative expectations for intergroup contact will experience valence-salience effects in new contact experiences; resulting in persisting negative expectations and a vicious cycle of continuing prejudice. This mechanism describes the process of assimilation, in which an ambiguous stimulus is interpreted to correspond with an already primed category (Rothbart & John, 1985). This finding is supported by Greenhoot, Tsethlikai, and Wagoner (2006) who suggest that individual differences in interpretation and recall of identical events may be explained by variations in past experience and background knowledge.

The perceived fit hypothesis receives further empirical support from a study by Harwood et al. (2017). Their study identified that perceived fit and prior contact experiences with older people can moderate the effects of an imagined contact interaction on intentions for future intergroup contact. After imagining a conversation with an older person who was represented either positively or negatively, older partners perceived as fitting the category “older people” resulted in greater intentions to communicate with older people in the future more so than a negative partner.

Scenario Interpretation

Studies 6 and 7 will explore interpretation of different scenarios. Developmental literature has briefly touched upon interpretation of scenarios within an intergroup context with children. Crystal, Killen & Ruck (2008) found that contact related to how judgements of race-based exclusion were evaluated. They presented children (10-16 years) with scenarios depicting cross-race relations in contexts of dyadic friendship (a lunch interaction where exclusion of outgroup peer occurred), parental discomfort concerning outgroup members, and peer group approval (majority group member excluding his minority group girlfriend from school dance for fear of disapproval) through the Social Reasoning about Exclusion

interview. Each of the three stories presented to the children represented a different interracial social context in which exclusion of an African American child by a European-American child occurred. The scenarios were designed so that there was ambiguity over the interpretation to provide a more indirect measure of potential race-related attribution bias. They found that children with higher levels of intergroup contact were more likely than students with low levels of intergroup contact to perceive wrongfulness in race-based exclusion. Intergroup contact also predicted children's attributions of motives in two out of three scenarios.

In a later study, McGlothlin and Killen (2010) used the Ambiguous Situations Task which uses picture cards (8) of people of different races normally White and Black transgressors, engaging in morally ambiguous interactions such as stealing money, not sharing toys, pushing someone off a swing. After viewing the picture card, participants are asked questions to ascertain their interpretation of the situation. Intergroup contact was also assessed by asking participants which group of people looked most like the people in their town. They found that European American children from homogeneous schools were more likely to use race as a reason to attribute negative motives compared to children from heterogeneous schools.

In an experiment using adults, Mellor and colleagues (2001) used six short, videotaped scenarios which contained an observable but ambiguous racist element incorporated into the scripts to determine whether situational or general knowledge of racism was evident. Their focus was predominantly on the interpretation of racism, specifically the situational knowledge of what is acceptable behaviour given the circumstances of a specific situation in Australia. They predicted that Asian people, who as a group have been subjected to racism in Australia, would rely on a general knowledge of racism to arrive at the conclusion that the various scenarios contained a racist element. Contrary to their

expectations, the Asian students, were less likely to see racism in the scenarios. White participants however, interpreted the ambiguous behaviour as racist. They concluded that a tendency of Asian people to be influenced more by their own cultural norms than by appropriate situational knowledge was an explanation for the findings.

Together these theories and findings suggest that in the present research, when participants are provided with ambiguous scenarios, they may be more likely to interpret the situation as being more negative when the perpetrator is from an outgroup as opposed to the ingroup. Furthermore, based on the findings of Paolini et al. (2014) and the perceived fit hypothesis, previous negative contact experiences will have strongest negative effects when expectations are based on a history of negative contact.

Overview of the Present Research

The aim of the first study within this stream was to provide an initial empirical test of interpretation of different ambiguous scenarios encountered in every-day situations between individual members of the ingroup and outgroup. Intent can be vague and misinterpreted and as racial biases can take many configurations, therefore it is important to explore this area. From a social cognition perspective merely assigning an individual to a group is sufficient to generate ingroup favouritism (Brewer, 1979). We have found from previous chapters within this thesis that recent indirect and direct negative interactions can adversely influence outcomes of an intergroup encounter. What happens when the perceived behaviour of the outgroup member during the interaction is unclear? It is possible that we rely on past contact experiences to guide us in determining the outcome and judgement of the outgroup member? When observed behaviour is not in line with our culturally shaped expectations and schemata, this behaviour is often perceived as inappropriate, and attributed to (negative) personal traits rather than to cultural differences (Vollhardt, 2010).

The established intergroup contact literature has also concentrated on generalisation from the individual to the group. Here within this research, I aim to reverse this process and focus on exploring the idea that generalisation from the group via past experiences and pre-existing attitudes may transpire to the individual in the current intergroup situation. Drawing mainly upon the intergroup contact and vicarious theory frameworks, I consider that when people encounter an intergroup contact scenario in which behaviours are open to interpretation, their judgment of the individual will primarily depend on their existing levels of prejudice and/or their past experiences intergroup contact. The category salience literature emphasises the importance of stereotypic fit, with outgroup behaviours that appear consistent with pre-existing attitudes leading to increased category salience (Coats, Latu, & Haydel, 2006; Reynolds, Turner, & Haslam, 2000).

Furthermore, the research by Simon and Greenberg (1996) discussed within the literature review, found that attitudes towards the targeted group depended on the individual's pre-existing attitude towards that group. Based on the research, it is predicted that people who hold existing negative attitudes or have experienced previous negative contact encounters will perceive the individual outgroup member more negatively compared to those who have experienced previous positive experience or hold existing positive attitude about the outgroup. Based on an ingroup of British and an outgroup of Immigrants the following three hypotheses were developed:

Hypothesis 1: Participants will evaluate the behaviour of the person within the contact scenario less favourably when the individual is identified as being from an outgroup rather than from the ingroup.

Hypothesis 2: People who have experienced previous negative intergroup contact will perceive the behaviour of an outgroup person more negatively than those who have experienced previous positive contact.

Hypothesis 3: People who hold existing negative attitudes will perceive the behaviour of an outgroup person more negatively than those who hold more positive attitudes towards the outgroup.

Method

Participants

The participant pool consisted of 207⁴ students from the University of East Anglia. Utilising a between-subjects design (ingroup scenario Vs outgroup scenario). Participants that indicated that they were not British, requested their data be removed or did not provide complete responses were removed from the analysis. This resulted in a final sample of 151 participants, 129 females ($M = 20.05$, $SD = 3.01$). Participants received 1 course credit for participation.

Previous Positive and Negative Contact Experiences. The same scale used in Study 3 was used to measure quantity of negative intergroup contact, and quantity of positive intergroup contact adapted from Reimer et al. (2017). Both scales yielded high reliability, negative intergroup contact ($\alpha = .84$), positive intergroup contact, ($\alpha = .93$).

Attitudes Towards the Outgroup. As in Study 3, prior attitudes toward the outgroup were measured with the General Evaluation Scale (Wright et al. 1997). All six semantic-differential items were combined into an average score of outgroup attitudes ($\alpha = .94$).

⁴ The sample size of Experiment 6 was based on a power calculation in GPower (Faul et al., 2007) for an independent samples two-tailed t -test. An effect size d of .50 was used. This power calculation, based on a power of .80, resulted in a suggested sample size of 210 (105 participants in each condition).

Scenarios ($\alpha = .83$). Participants then read seven naturalistic everyday scenarios in which the behaviour or intention behind the behaviour of the target was open to interpretation and could be attributed as either accidental, neutral, positive, or negative. These scenarios were created by the researcher based on similar research by Corning and Bucchianeri (2010). Participants were instructed to imagine themselves in the interaction in one way or another with an individual to imagine that each situation has happened or is happening to them. This is a similar approach as to that used within imagined contact studies (see Crisp et al., 2008). Two sets of scenarios were used, one where the individual was identified with a British name to represent the ingroup, and one where the individual had a foreign name as a suggestion that they were from the outgroup. Participants would view either all British names (control) or all foreign names in the scenarios (experimental). Below are examples of the seven scenarios containing foreign names which were used for the experimental condition. A between-subjects design was used where participants were randomly allocated via the Qualtrics software to scenarios about the ingroup or outgroup.

1. You are driving into work one day and just after you pull into a parking space, another car pulls up into the space to your right. As the person in the other car, a work colleague called Rayyan, gets out of their car, their car door hits your passenger side door and leaves a scratch on your car. They walk away as you get out of your car.
2. One day at work you decide to go to the cafeteria for lunch. After you purchase your lunch, you notice that the seating area is very crowded and no empty tables are available. You notice one of your co-workers, an immigrant who you think is called Mohammed sitting alone at a small table and ask if you can join them for lunch. Your co-worker says “no, sorry, I cannot”.
3. You are at a restaurant; you have been waiting a while to be served. You call out to the waiter Akif to serve you, but they don't even acknowledge you. Meanwhile, he is

laughing and chatting with a group of people at another table who you perceive to be his friends.

4. You and your friend are taking the train for a long journey. The train is busy, you spot two seats but they are not together. A nearby passenger, who appears to be an immigrant, gestures for you to take their seat which is next to the empty seat so that you can sit together. You thank them and they don't respond.
5. You are organising a collection at work for a leaving present for a colleague who has been at the company for ten years and is retiring. Everyone puts in £1.00 except for a new colleague who has only just started at the company called Zoya they put in £5.00 and say "notice that I put in £5".
6. You are about to board the bus and realise that you do not have enough cash for your ticket. A person who is an immigrant behind you offers to pay for your ticket. You insist that he doesn't but he says "no, no, I'll pay now and maybe you can do me a favour in the future"
7. You are selling some clothing online. You are asking for £20 for a vintage shirt. You get an email from Faseeh, who identifies himself as an immigrant, saying "I like the shirt very much, But you are asking too much money. I will pay you £8 for it, no more. Do we have a deal?"

Evaluation of the contact experience measure to follow each scenario. Evaluations of the process by which individuals explain the causes of behavior and events was operationalised by three questions developed by the experimenter. These included "Overall, how positive or negative do you feel about this experience" (1= *not at all* reasonable, 9 = *very reasonable*), "How do you feel towards the other person in the situation?" How positive

or negative was the other person's behaviour? (1 = *very negative*, 9 = *very positive*). The total of all scores on this scale had a reliability of $\alpha = .83$. Finally, participants were debriefed⁵.

Data Analysis

The data were analysed by using the statistics program SPSS version 28. The success of the main manipulation for hypothesis one was firstly tested using an independent *t*-test using the total overall score of the scenario measure as the test variable and the two conditions (outgroup vs ingroup) as the grouping variable. The three individual questions that formed the scenario measure were looked at individually using independent *t*-tests.

Hypotheses two and three were then explored through hierarchical regressions.

Results

First the correlations among all variables were explored these are presented in Table 15. Evaluations of the scenario are correlated with previous negative contact experiences and outgroup attitudes. There is a traditional contact effect with outgroup attitudes being positively correlated with positive contact and negatively correlated with negative contact.

Next, the means and standard deviations for each scenario were examined (Table 16) and then the means standard deviations and *t*-test for each scenario by condition were explored (Table 17).

⁵ As an exploratory measure ingroup identification (used previously) was included in the experiment as the first measure, although this was not related to the hypothesis and did not yield any significant findings. These four items proved to form a reliable scale (Cronbach's $a = .86$).

Table 15

Means, Standard Deviations, and Correlations with Confidence Intervals for Scenario Evaluation, Previous Negative and Positive Contact Experiences and Attitudes Towards the Outgroup

Variable	<i>M</i>	<i>SD</i>	1	2	3
1. Scenario Evaluation	5.00	.68			
2. Previous negative contact	1.36	.49	.17* [.04, .30]		
3. Previous positive contact	3.32	.98	-.13 [-.26, .01]	-.005 [-.14, .13]	
4. Outgroup attitudes	5.56	.99	-.16* [-.30, -.03]	-.28** [-.40, -.15]	.57** [.47, .65]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively.

Values in square brackets indicate the 95% confidence interval for each correlation.

* Indicates $p < .05$. ** indicates $p < .01$.

Table 16

Means and Standard Deviations for the Overall Score of Each Scenario

Scenario	Mean	SD
Scenario 1	7.26	1.09
Scenario 2	6.37	1.27
Scenario 3	6.29	1.25
Scenario 4	2.37	1.22
Scenario 5	4.80	1.58
Scenario 6	2.47	1.51
Scenario 7	5.45	1.18

Table 17*Means and Standard Deviations and t-test Results for Each Scenario by Condition in Study 6*

Scenario	Condition	N	Mean	SD	
Scenario 1	British version	86	7.31	0.99	$t = .74, p = .46$
	Immigrant version	88	7.19	1.22	
Scenario 2	British version	86	6.45	1.26	$t = -.35, p = .73$
	Immigrant version	88	6.52	1.20	
Scenario 3	British version	86	6.35	1.24	$t = 1.12, p = .27$
	Immigrant version	88	6.13	1.27	
Scenario 4	British version	86	2.59	1.26	$t = 3.08, p = .002$
	Immigrant version	88	2.04	1.08	
Scenario 5	British version	86	4.81	1.48	$t = 1.31, p = .19$
	Immigrant version	88	4.51	1.57	
Scenario 6	British version	86	2.84	1.62	$t = 3.08, p = .002$
	Immigrant version	88	2.13	1.43	
Scenario 7	British version	86	5.68	1.13	$t = 2.09, p = .04$
	Immigrant version	88	5.30	1.26	

Note. p (two-sided)***Evaluation of Individual in the Scenarios***

Hypothesis one considered that evaluations of the individual in the contact scenario will be higher when the individual in the scenario is identified as being from the ingroup rather than the outgroup. An independent samples t -test confirmed that the overall score for the evaluation of the individual in the scenarios was significantly reduced in the condition where the individual was identified as an outgroup member ($M = 4.84, SD = .66$) compared to the condition where the individual was suggested to be an ingroup member (British) ($M = 5.18, SD = .63$), $t(148) = 3.27, p < .001$.

As each of the attribution questions focused on different aspects on evaluation of outgroup member during the scenario, the three individual components of the attribution measure were also examined as independent outcome variables. Question one focused on overall experience of the encounter (experience), question two focused on their feelings towards the outgroup member in the situation (feelings), and question three asked participants to rate the behaviour of the outgroup member in the scenario (behaviour). Individual *t*-tests confirmed significant differences between those who observed the British individual and those that observed the Immigrant individual within each of the outcome variables, these are visualised in Table 18.

Table 18

Individual t-tests for Each of the Outcome Variables of Experiment 6, Separate Evaluation Measures and Total Score of the Measure

Item	Condition	<i>N</i>	Mean	SD	
Total score	British version	71	5.18	0.63	$t = 3.27, p < .001$
	non-British version	80	4.84	0.66	
Experience of encounter	British version	71	5.20	0.63	$t = 3.02, p = .001$
	Non-British version	80	4.86	0.70	
Feelings towards outgroup member	British version	71	5.25	0.66	$t = 3.68, p < .001$
	Non-British version	80	4.85	0.68	
Behaviour of outgroup member rating	British version	71	5.09	0.72	$t = 2.67, p = .004$
	Non-British version	80	4.79	0.68	

The second and third hypotheses predicted that people who have experienced previous negative intergroup contact or hold existing negative attitudes will attribute the

scenario more negatively than those who hold more positive attitudes/experience more positive contact towards the outgroup.

Previous contact and pre-existing attitudes

To explore the effect of previous contact with the outgroup on the evaluation of the individual outgroup member within the scenarios, a hierarchical regression was conducted with previous positive contact, previous negative contact, outgroup attitudes entered as simultaneous predictors along with the grouping variable (British = 0, Immigrant = 1) at step 1. At step 2, two interaction variables were entered simultaneously: positive contact x condition, negative contact x condition for Model A.

To explore the effect of existing attitudes on the evaluation of the individual outgroup member within the scenarios, another hierarchical regression was conducted with previous positive contact, previous negative contact, outgroup evaluation entered as simultaneous predictors along with the grouping variable (British = 0, Immigrant = 1) at step 1. At step 2, one interaction variable was entered outgroup evaluation x condition for Model B. Table 19 summarises the effect of previous contact and attitudes for model A and B.

The final regression equation for Model A $F(6,166) = 2.34, p = .03$, and Model B were statistically significant $F(5,167) = 3.00, p = .01$, however this was a result of condition. Identifying that condition rather than previous contact experiences or existing attitudes towards the outgroup had an effect on how people evaluated the individual in the scenario.

Table 19

Hierarchical Regression Coefficients for Previous Intergroup Contact and Existing Attitudes Towards the Outgroup as Predictors of Total Evaluation of the Individual Within the Scenarios

Variable	Total Scenario Score			F	R ²	ΔR ²
	B (SE)	95% CI	β			
Step 1				3.44*	.076	-
Condition	-.29 (.10)	[-.49, -.09]	-.22*			
Negative contact	.03 (.02)	[-.02, .07]	.08			
Positive contact	.00 (.01)	[-.03, .03]	-.00			
Outgroup attitudes	-.06 (.07)	[-.19, .07]	-.09			
Step 2 Model A:				2.34*	.078	.02
Condition	-.30 (.10)	[-.50, -.09]	-.22*			
Negative contact	.02 (.02)	[-.03, .07]	.07			
Positive contact	.00 (.01)	[-.03, .03]	.00			
Outgroup attitudes	-.06 (.07)	[-.19, .09]	-.09			
Negative contact x Condition	-.02(.05)	[-.12, .07]	-.04			
Positive contact x Condition	-.01 (.02)	[-.05, .03]	-.03			
Step 2 Model B:				3.0*	.82	.07
Condition	-.29 (.10)	[-.49, -.09]	-.22*			
Negative contact	.03 (.02)	[-.02, .07]	.09			
Positive contact	.00 (.01)	[-.03, .03]	.01			
Outgroup attitudes	-.06 (.07)	[-.19, .07]	-.09			
Outgroup attitudes x Condition	-.11 (.10)	[-.31, .09]	-.08			

Note. * $p < .05$

Discussion

The aim of this first study within this stream of research was to provide an initial empirical test of interpretation of different ambiguous scenarios encountered in every-day situations between individual members of the ingroup and outgroup. Additionally, this study sought to gain some understanding as to whether we rely on previous intergroup contact experiences when the perceived behaviour of the outgroup member is open to interpretation.

In line with the first hypothesis, the results indicated that there was a strong significant difference between the two conditions. Those who read scenarios that identified the individual as an outgroup member (Immigrant), evaluated the individual more negatively than those who read scenarios depicting someone from the ingroup of British. This supports the findings within the UAE literature of ingroup favouring and outgroup derogating tendency (Hewstone, 1990; Pettigrew, 1979; Rosenberg & Wolfsfield, 1977; Taylor & Jaggi, 1974).

Contrary to hypotheses two and three, pre-existing attitudes or contact experiences did not make any difference to how people evaluated the individual in the scenario within this subject pool. It was expected that in line with past research such as that of Paolini and colleagues (2014), past contact experiences will influence the degree to which present contact affects people's intergroup responses. Although it is important to note that Paolini et al. (2014) did report that their findings were not always statistically strong. Most likely due to the sample population being students there was a low number of participants who reported any negative contact with the outgroup ($M = 6.61$, $SD = 2.30$) and even less positive contact with the outgroup ($M = 3.25$, $SD = .94$), therefore this may not generalise to the wider population. It may be that with more reported past contact experiences or stronger attitudes towards the outgroup we see a stronger influence of past experiences on the present contact experience.

To conclude, the aim of the first study within this stream was to provide an initial empirical test of interpretation of different ambiguous scenarios encountered in every-day situations between individual members of the ingroup and outgroup. Intent can be vague and misinterpreted and as racial biases can take many configurations, it is important to explore this area. It was predicted that when the intergroup contact situation is open to interpretation people may rely on existing negative attitudes or past experiences of negative or positive contact encounters to inform the current situation. Contrary to predictions people's past experiences did not have any influence on the current intergroup contact situation. This may be as the sample population did not report much past contact experiences with the outgroup. In order to expand upon the results of Study 6, Study 7 takes a slightly different approach to overcome the limitation identified above. Here, participants were provided with either positive or negative information about the outgroup before they evaluated the outgroup member's behaviour within the scenarios.

Study 7

Study 6 found that the actor's behaviour in the scenarios was evaluated more negatively when the individual was an outgroup member (Immigrant), compared to people who observed scenarios when the actor was someone from the ingroup of British. There was not a significant effect of pre-existing attitudes or contact experiences on evaluations of the target's behaviour within the scenario. A possible explanation may have been the relatively low number of participants who reported negative contact within this sample population. To improve on Study 6, Study 7 takes a slightly different approach to exploring valuations of outgroup individuals in ambiguous scenarios by creating a situational context evoking positive or negative attitudes towards the outgroup.

The same procedure was followed except participants were provided with either positive or negative information about the outgroup before they evaluated the outgroup member's behaviour within the scenarios. By using this stimulus information to create a positive or negative attitude, it was anticipated that this would trigger a belief, attitude, or past experience (Weinberger, Allen, & Dillon, 1981). Weinberger et al. (1981) believe this experimental method should also negate the impact of mediational factors such as anxiety, susceptibility to social influence, which were not of primary concern within this study.

Although experimental paradigms and theoretical constructs have emerged in studies encompassing negative information across areas of psychology, sociology and business marketing, this approach has been utilised most widely in impression formation studies (Weinberger et al., 1981). Similarly, to attribution theory, these studies have used stimuli with unfavourable narratives or scenarios with both the target object being a known and/or unknown individual or group. This mechanism describes the process of assimilation, in which an ambiguous stimulus is interpreted to correspond with an already primed category

(Rothbart & John, 1985). Assimilation – contrast theory (Sherif, Sherif & Nebergall, 1965) suggests that prior experience or attitudes indicate that negative information consistent with an individual's beliefs would be integrated and that which is incompatible would be rejected. Given that individuals bring to a setting a set of predispositions or confirmation bias which affect their perceptions, this may help predict the impact of negative information.

Turkish people were chosen as the outgroup and the negative/positive information was a section of text about Türkiye and the Turkish people, used previously by Segar and Fisher (2019). This outgroup was chosen as this is a Country that participants may have little information or hold pre-existing opinions on. This helps to overcome the issue of social desirability which is high with negative contact studies (Hayward et al., 2017). The same scenarios utilised in Study 6 were presented to participants as they had high reliability score within the first study. All participants viewed the scenarios with an outgroup member identified as being Turkish by name within the text of each scenario. Participants who identified as White British were used to define a clear ingroup.

The main aim for this study was to explore the effect of negative or positive information about an outgroup on evaluations of behaviour of an outgroup member during ambiguous situations. Specifically, it is predicted that reading an article containing either negative or positive information about an outgroup will motivate participants to attribute the behaviour of an outgroup member within ambiguous scenarios differently. Replicating the earlier study, the impact of previous intergroup contact experiences on evaluation of the outgroup member within the scenario was looked at. The following hypotheses were formed:

Hypothesis 1: People who are exposed to negative, rather than positive, information about the outgroup before observing ambiguous situations, will perceive the behaviour of an individual outgroup member within the situation more negatively.

Hypothesis 2: People who have experienced previous negative intergroup contact will perceive the behaviour of an outgroup person more negatively than those who have experienced previous positive contact.

Hypothesis 3: People who hold existing negative attitudes will perceive the behaviour of an outgroup person more negatively than those who hold more positive attitudes towards the outgroup.

Method

Participants

The sample size was calculated using G Power⁶. The initial participant pool consisted of 163 students from the University of East Anglia recruited via the online system SONA. Utilising a between-subjects design (positive Vs negative article). Only the data from the majority group of British nationals was used in this study to establish a clear ingroup v's outgroup (Turkish people) for the experimental design. The data of 19 participants was removed from analysis due to a minority (non-British) nationality. There were also five participants that requested their data be removed at the end of the study. This resulted in a final sample of 137 British participants, 121 female, 15 male and 1 person preferring not to gender identify, mean age 20.50 years old, $SD = 4.29$. Participants were randomly assigned to either the positive prime ($n = 64$) or the negative prime ($n = 73$) condition. They received one course credit for participation.

⁶ The sample size of Experiment 7 was based on a power calculation in GPower (Faul et al., 2007) for an independent samples *t*-test. An effect size *d* of .50 was used. This power calculation, based on a power of .80, resulted in a suggested sample size of 128 (64 participants in each condition). A somewhat larger sample was collected due to potential exclusion of participants.

Procedure

Firstly, the same measure of previous positive ($\alpha = .94$) and negative intergroup ($\alpha = .90$) contact experiences utilised in Study 6 were implemented. Participants were then randomly allocated to either the positive (Appendix L) or negative article (Appendix M) information condition using the Qualtrics software the experiment was designed through. Participants were instructed that they were viewing an article that was freely provided to the researchers for research purposes and asked to read everything presented on the screen.

As a manipulation check, participants were asked to confirm that they read the article two participants that indicated no to this question and were removed from analysis at this point, what the article was about using a multiple-choice option of 4 options, what their current mood was and how pleasant or unpleasant they found the article (1 = very unpleasant, 2 = very pleasant) (see Appendix N). Participants were also asked if they could name the current Turkish President to identify their knowledge of the Country (all participants within the final analysis were unable to name the Turkish President Recep Erdogan). This was followed by the outgroup evaluation measure ($\alpha = .95$), the seven scenarios with Turkish names and evaluation measure ($\alpha = .83$) all used in Study 6. Finally, participants were given the option of removing their data and were debriefed.

Data Analysis

The data were analysed by using the statistics program SPSS version 28. As over half the participants had no previous negative contact with the outgroup this variable was transformed into a categorical variable with two categories (0 = no previous negative contact, 1 = some negative contact). The data for the variables for previous negative and previous positive contact was non-parametric, therefore correlations using these variables were examined through the non-parametric equivalent Spearman's rho.

For the manipulation check, an independent *t*-test using the ratings of pleasantness of the article as the test variable and condition of either positive or negative as the grouping variable was used to test the manipulation. For hypothesis one, *t*-tests were performed using the total overall score of the scenario measure as the test variable and the two conditions (positive v's negative information) as the grouping variable. As before, the three individual questions that formed the scenario measure were also looked at individually using independent *t*-tests. Finally, hypotheses two and three were then explored using hierarchical regressions.

Results

Firstly, the manipulation check question was explored. An independent samples *t*-test revealed that there was a significant difference between the two conditions (negative v's positive information article) on participants evaluation of the pleasantness of the article within the manipulation check question. Participants in the positive article condition reported significantly higher ratings of pleasantness of the information article ($M = 7.34, SD = 1.68$) compared to those in the negative article condition ($M = 2.19, SD = 1.25$), $t(135) = 20.47, p < .001$. This indicated that the manipulation worked.

Next the correlations between the outcome variables and predictor variables were examined. Table 20 shows that evaluations of the outgroup member's behaviour within the scenario evaluated via the total score on the scenario scale was positively correlated with previous negative contact and negatively correlated with previous attitudes towards the outgroup of Turkish people.

Table 20*Spearman's Rho Non-Parametric Correlations Between All Variables in Experiment 7*

Variable	1	2	3
1. Scenario Evaluation			
2. Previous Negative Contact	.21* [.04, .37]		
3. Previous Positive Contact	.15 [-.02, .32]	.41** [.25, .54]	
4. Outgroup Attitudes	-.22* [-.37, .04]	-.12 [-.29, .05]	.16 [-.01, .33]

Note. **Correlation is significant at the 0.01 level (2-tailed). *Correlation is significant at the 0.05 level (2-tailed).

Table 21*Means and Standard Deviations for the Overall Score of Each Scenario*

Item	<i>M</i>	<i>SD</i>
Scenario 1	7.51	0.95
Scenario 2	6.30	1.14
Scenario 3	6.48	1.05
Scenario 4	1.93	1.19
Scenario 5	4.71	1.57
Scenario 6	2.86	1.73
Scenario 7	5.59	1.00

The means and standard deviations for each individual scenario and *t*-test results for each scenario by condition were then examined, these are demonstrated in Table 21 and 22 respectively.

Table 22

Means and Standard Deviations and t-test Results for Each Scenario by Condition in Study 7

Scenario	Condition	N	Mean	SD	
Scenario 1	Positive	64	7.45	.93	$t = -.67, p = .50$
	Negative	73	7.56	.97	
Scenario 2	Positive	64	6.21	1.15	$t = -.87, p = .39$
	Negative	73	6.38	1.14	
Scenario 3	Positive	64	6.40	.93	$t = -.87, p = .39$
	Negative	73	6.55	1.15	
Scenario 4	Positive	64	1.81	1.05	$t = -1.17, p = .25$
	Negative	73	2.05	1.30	
Scenario 5	Positive	64	4.66	1.70	$t = -.38, p = .71$
	Negative	73	4.76	1.45	
Scenario 6	Positive	64	2.60	1.69	$t = -1.64, p = .10$
	Negative	73	3.09	1.75	
Scenario 7	Positive	64	5.67	.92	$t = .80, p = .43$
	Negative	73	5.53	1.07	

Note. *p* (two-sided)

Evaluation of Individual in the Scenarios

Hypothesis one considered that people who are exposed to negative, rather than positive, information about the outgroup before observing ambiguous situations, will attribute

the behaviour of an individual outgroup member within the situation more negatively. Table 23 demonstrates the means and standard deviations and *t*-test results for the overall scenario scale and the individual items within the scale on their own merit. Interestingly, the overall score for the evaluation of the behaviour of the individual outgroup member was higher in the negative information condition ($M = 5.13, SD = .67$) compared to the positive information condition ($M = 4.97, SD = .62$), although there was no significant overall difference between the two conditions, $t(135) = -1.44, p = .15$.

Table 23

Means, Standard Deviations and Individual t-test Results for the Total Score of the Scenario Outcome Variable Followed by the Independent Individual Items of the Scenario Scale in Experiment 7

Item	Condition	<i>N</i>	<i>M</i>	<i>SD</i>	
Total scenario evaluation	Positive	64	4.97	0.62	$t = -1.44, p = .15$
	Negative	73	5.13	0.67	
Experience of encounter	Positive	64	5.03	0.64	$t = -0.53, p = .60$
	Negative	73	5.09	0.68	
Feelings towards outgroup member	Positive	64	5.00	0.71	$t = -1.63, p = .11$
	Negative	73	5.20	0.74	
Behaviour of outgroup member rating	Positive	64	4.88	0.63	$t = -1.91, p = .60$
	Negative	73	5.10	0.71	

Previous contact and pre-existing attitudes

The second and third hypotheses predicted that people who have experienced previous negative intergroup contact or hold existing negative attitudes will attribute the scenario more negatively than those who hold more positive attitudes/experience more positive contact towards the outgroup. To explore the effect of previous contact with the outgroup on the evaluation of the individual outgroup member within the scenarios, a hierarchical regression was conducted with previous positive contact, previous negative contact and outgroup attitudes entered as simultaneous predictors along with the grouping variable (positive information article = 0, negative information article = 1) at step 1. At step 2, two interaction variables were entered simultaneously: positive contact x condition, negative contact x condition, for Model A. The final regression equation for Model A. $F(6,130) = 2.61, p = .02$ was statistically significant.

To explore the effect of existing attitudes on the evaluation of the individual outgroup member within the scenarios, another hierarchical regression was conducted with previous positive contact, previous negative contact, outgroup evaluation entered as simultaneous predictors along with the grouping variable (positive article = 0, negative article = 1) at step 1. At step 2, one interaction variable was entered outgroup evaluation x condition for Model B. The final regression equation for Model B was statistically significant $F(5,131) = 2.84, p = .02$. Table 24 summarises the effect of previous contact and existing attitudes for model A and B. There were no significant interaction effects with condition and previous contact experiences or existing attitudes.

Table 24

Hierarchical Regression Coefficients for Previous Intergroup Contact and Existing Attitudes Towards the Outgroup as Predictors of Total Evaluation of the Individual within the Scenarios

Variable	Total Scenario Score			F	R ²	ΔR ²
	B (SE)	95% CI	β			
Step 1				3.34*	.09	-
Condition	-.02 (.14)	[-.29, .25]	-.02			
Negative contact	.16 (.13)	[-.09, .41]	.12			
Positive contact	.09 (.05)	[-.02, .19]	.15			
Outgroup attitudes	-.12 (.06)	[-.24, -.01]	-.23*			
Step 2 Model A:				2.61*	.108	.02
Condition	.10 (.17)	[-.23, .44]	.08			
Negative contact	.34 (.18)	[-.01, .69]	.25			
Positive contact	.10 (.08)	[-.06, .25]	.17			
Outgroup attitudes	-.12 (.06)	[-.24, -.00]	-.23*			
Negative contact x Condition	-.34 (.24)	[-.82, .15]	-.21			
Positive contact x Condition	-.01 (.10)	[-.21, .20]	-.01			
Step 2 Model B:				2.84*	.098	.01
Condition	-.01 (.14)	[-.28, .27]	-.004			
Negative contact	.18 (.13)	[-.07, .42]	.13			
Positive contact	.08 (.05)	[-.03, .19]	.14			
Outgroup attitudes	-.06 (.09)	[-.24, .12]	-.11			
Outgroup attitudes x Condition	-.11 (.11)	[-.33, .20]	-.13			

Note. * $p < .05$

Discussion

Study 7 aimed to further the findings of Study 6 by examining whether people will rely on recent positive or negative information about the outgroup when the perceived behaviour of the outgroup member is open to interpretation. The advantage of this approach to examining negative information is the ability to maintain internal control over the experimental setting (Weinberger, Allen, & Dillon, 1981). The analysis of the manipulation check demonstrated that the manipulation worked, participants who read the positive article about Turkish people reported significantly higher ratings of pleasantness of the information article compared to those who read a negative information article condition. However, there was no significant difference on the outcome measures between those who read the negative information about the outgroup compared to those who read the positive information on how they evaluated the behaviour of the outgroup member in the scenarios.

When exploring whether previous contact experiences or existing attitudes had an effect on evaluations of the individual member with the scenario. Pre-existing attitudes towards the outgroup of Turkish people had a negative effect on evaluations of the individual within the scenario, however there was no significant interaction between the condition and evaluation of the individual within the scenario. Indicating that the recent negative or positive information about the outgroup had no influence on how people evaluated the individual within the scenario when their behaviour was open to interpretation.

It appears that the information given about the outgroup was perhaps not strong enough to influence how people evaluated the behaviour in the scenarios when it was open to interpretation. Future studies could consider the use of a stronger manipulation and then we may see an effect of condition on evaluations of the behaviour within the scenarios. Another possible change to make going forward is to use an alternative outgroup, one that people hold

more prejudiced attitudes towards. Again, as with Study 6 people did not report much previous contact experiences with this outgroup.

The next study completes the final stream of research exploring how people interpret behaviour from an outgroup member when it is open to interpretation. It also explores whether behaviour from an outgroup member that is ambiguous effects whether people will interact with the outgroup in future.

Study 8

Introduction

People interpret experiences differently therefore it can be argued that all contact situations are open to some degree of interpretation. The findings from Studies 1, 2 and 6, demonstrate that people evaluated the behaviour of an individual differently depending on whether they were a member of their ingroup or from a different social group.

This final study completes the stream of research on ambiguous intergroup contact situations through the experimental paradigm of an economic game. Economic games as a research tool were introduced in the initial empirical chapter of this thesis. That research found that a simulated negative intergroup contact encounter resulted in people not wishing to engage in future contact with the outgroup. This research aimed explore whether a direct contact encounter with an outgroup member is perceived as negative or positive based on past contact experiences/prior attitudes towards the outgroup and if the outcome prevents or promotes a person's intentions to engage in future contact with the outgroup.

Decisions made by people in real life or in a simulated situation such as taking part in an economic game during an experiment can sometimes can be as a result of a seemingly irrelevant factor (Gurevich, Kliger & Weiner, 2012) or be based on previous experiences. For

example, Gaunt (2100) reported that the more positive the attitude towards the outgroup and the more positive the past contact experiences with outgroup member, the more people were willing to engage in intergroup contact. Usually, in decision tasks such as an economic game a person repeatedly makes choices that are based on past experiences (Yechiam & Aharon, 2012).

Based on the research identified earlier in this chapter it is probable that people with bad intergroup contact experiences will interpret/attribute something different to those with positive contact experiences. For example, Morewedge (2009) investigated whether people are more likely to attribute events to external influences/external agents when events are negative rather than neutral or positive. External agency is the belief that good and positive things happen because of external influences rather than personal effort. When outcomes violate one's expectations, they are less likely to be attributed to internal causes and are more likely to be attributed to external physical or intentional causes (Kelley & Michela, 1980). Through a series of three studies using the ultimatum economic game (Güth, Schmittberger & Schwarze, 1982), negative outcomes more often led perceivers to infer the presence and influence of external influences than positive and neutral outcomes. Positive and neutral outcomes were attributed to chance.

Gurevich et al. (2012) also utilised game theory principles and found a significant link between causal attribution and economic decisions. They discovered that people make use of causal information when making economic allocation decisions. Their research employed a vignette study to test their predictions in a context involving economic decisions. Participants assumed the roles of partners in a two players team that won a trivia game. One participant had to decide how to split the reward between the two of them when the causes of winning were varied. Ranging from external, uncontrollable, unstable, external, internal, controllable and stable through the constructs of luck, help from a third party, ability, effort, game host

attitude, mood, industriousness and task difficulty. Their study suggested that people make use of causal information when making economic allocation decisions. People take into consideration the perceived causes which brought a specific allocation decision. However, they call for more research into economic decision making to explore the explanatory value of attribution theory.

Overview of the Present Research

This research aimed explore whether a direct contact encounter with an outgroup member is perceived as negative or positive based on past contact experiences/prior attitudes towards the outgroup. Additionally, this study considers if the outcome prevents or promotes a person's intentions to engage in future contact with the outgroup. As before it is considered that when faced with a situation where the other individual's behaviour is open to interpretation people may rely on past information such as previous contact experiences when evaluating the behaviour of an individual in a current intergroup contact encounter. Studies 6 and 7 did not find a significant effect of past contact experience by condition when observing an individual behaviour in an ambiguous scenario. Therefore, this study took a different direction by utilising an economic game. Using an economic game was used successfully as a means of experimentally measuring direct negative contact within Studies 1 and 2.

As this study was to explore a situation that was open to interpretation, the Ultimatum Game was selected as the most appropriate manipulation of a situation that is either negative or open to interpretation. The Ultimatum Game (Güth et al., 1982) is used mostly within the field of Economics as a bargaining behaviour game specifically to question how people react to unfair decisions. Players can often find the motives of the opponent within the game ambiguous in nature (De Cremer, van Dijk, & Pillutla, 2010).

In the game one player, the proposer, is endowed with a sum of tokens (see Figure 18 for visual representation). The proposer is tasked with splitting it with another player, the responder (who knows what the total sum is). Once the proposer communicates his decision, the responder may accept it or reject it. If the responder accepts, the tokens are split per the proposal; if the responder rejects, both players receive nothing. Both players know in advance the consequences of the responder accepting or rejecting the offer. A 50-50 split is considered the fairest offer (Handgraaf, van Dijk, & De Cremer, 2003). Lower offers are likely to be experienced as unfair and as such can be considered as a violation to the expectations people hold. The recipient may conclude some social explanation for the offer and if they are from a difference social group, they may decide that this is a reason for their behaviour.

Figure 18

Visual Illustration of the Ultimatum Game



Note. Adapted from Robson, Repetto, Gountouna & Nicodemus (2019).

Within this study there will be a negative contact encounter defined by the opponent returning zero tokens and a condition which is fairly ambiguous where the opponent will return 4 tokens. As the Ultimatum Game is typically played only once with an opponent reciprocation cannot explain the robust behavioural outcome. Rejection of unfair offers has consequently been attributed to individuals' preferences for fairness (Bolton, 1991), or a desire to punish socially unacceptable behaviour (Fehr & Schmidt, 1999). Other research has found it to be a mechanism which serves to maintain social reputation and group cooperation (Nowak, Page & Sigmund, 2000).

This study will also explore, how the interaction may predict future contact intentions with the outgroup as a whole. It is predicted that after a previous negative contact encounter people will attribute something different to those who have had a previous positive experience. Therefore, past experiences may influence interpretation of the contact encounter when the contact is more ambiguous in nature. Specifically in the condition where the opponent returns 4 tokens compared to the zero tokens condition which is likely to be defined more accurately by the participant as a negative contact encounter. The following hypotheses were developed:

Hypothesis 1: Evaluations of outgroup member will be lower when the contact situation is negative, compared to when the contact situation is neutral.

Hypothesis 2: Previous negative experiences will generally lead to an increase in the interpretation of the situation as being negative when participants are in the neutral contact condition.

Hypothesis 3: People who hold existing negative attitudes towards the outgroup will generally lead to an increase in the interpretation of the situation as being negative when the participants are in the neutral contact condition.

Hypothesis 4: After experiencing a negative intergroup contact interaction with an individual from the outgroup, it is predicted that in general future contact intentions will be lower in the negative contact condition. However, there may be an interaction adjusting for the possibility that people in the neutral contact condition may rely on previous attitudes/experiences and therefore have lower intentions to engage in contact with the outgroup in future.

Participants

Data were collected from a sample of 154⁷ undergraduate participants. As the target outgroup in this study was Chinese people and the ingroup was British people, data from participants who did not identify as British were removed. Two participants were also removed from analysis after failing to enter their name and answer the manipulation check questions within the game section indicating that the programme malfunctioned, or they did not pay attention to the manipulation. This left a final sample size for analysis of 105, which included 13 males and 92 females, aged between 18 and 34 years old ($M = 19.60$, $SD = 2.73$). One participant did not disclose their age. Participants were randomly assigned to either a negative contact condition ($n = 59$) or ambiguously neutral contact condition ($n = 46$). Participants received a course credit in exchange for their participation.

⁷ A power analysis was performed with G*Power (Faul et al., 2007). This a-priori power analysis suggested a total sample size of 101 participants for a medium effect size to yield an 80 percent power. As the sample needed to exclude participants from the outgroup in the analysis, more data was collected in anticipation of losing some data due to these criteria and providing an equal opportunity for all participants.

Method

Participants reported to the laboratory to take part in a study described as an investigation into how people from different nationalities perform in different types of economic games. They were first asked some demographic questions followed by a measure to gauge their prior feelings towards the outgroup and their previous contact with the outgroup.

Outgroup evaluation was measured with a feeling thermometer scale (Haddock et al., 1993). Participants were asked to indicate how warm (favourable), or cold (unfavourable) they felt towards Chinese people, in general, on a scale from 0 ° to 100° as a filler to disguise the outgroup other groups were included in this measure as used previously.

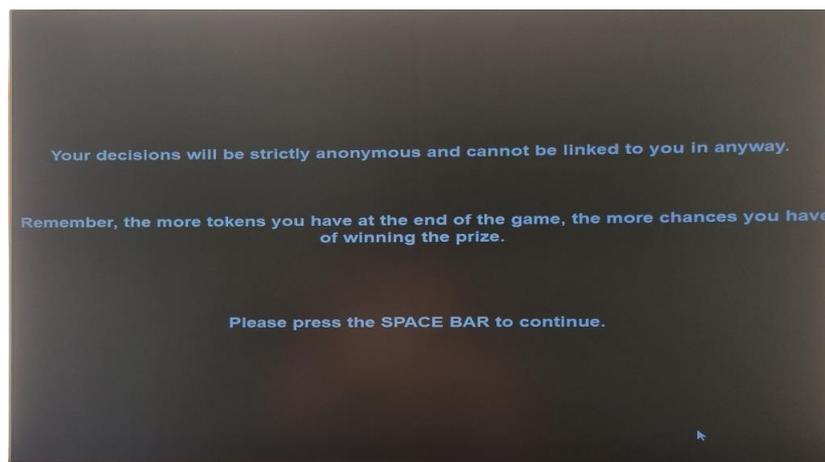
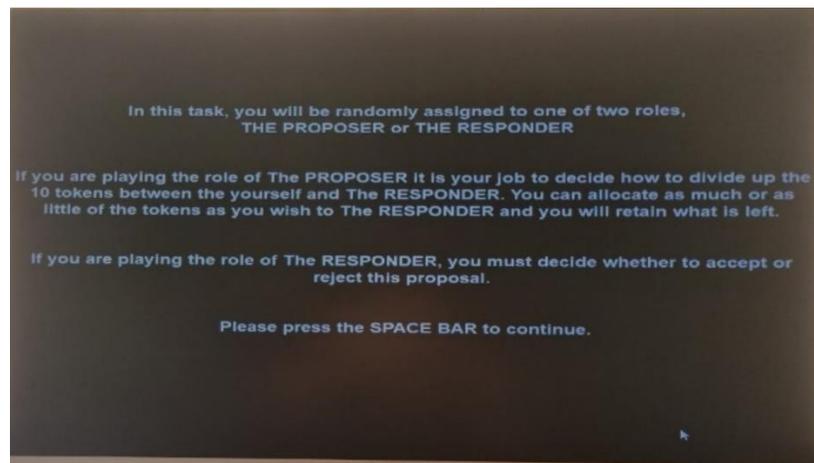
Previous contact with the outgroup was measured using a two-item measure adapted from Paolini et al. (2014). The items included “how often do you believe you have interacted with Chinese people” on a scale from 1 *never* to 7 *very often*, and “how positive or negative have your interactions with Chinese people been” on a scale from 1 *very negative* to 7 *very positive*. The score from each question were added together, a low score indicating low quality and quantity of interaction with the outgroup.

Participants then took part in the Ultimatum Game (Güth et al., 1982). In the Ultimatum Game there are two players allocated to either the role of the proposer or responder. The proposer is endowed with 10 tokens and is tasked with splitting it with the responder. Once the proposer communicates their decision, the responder may accept it or reject it. If the responder accepts, the tokens are split as per the proposal; if the responder rejects, both players receive nothing. Both players are informed prior to playing the game the consequences of the responder accepting or rejecting the offer (see Figure 19). Participants were also told at the start that each token corresponded to one entry into a lottery for a chance to win £25 – the more tokens they end up with, the more chance of winning the prize fund.

They were told that they would be playing an opponent in a different building linked via computer.

Figure 19

Screen Shot of Ultimatum Game Instructions

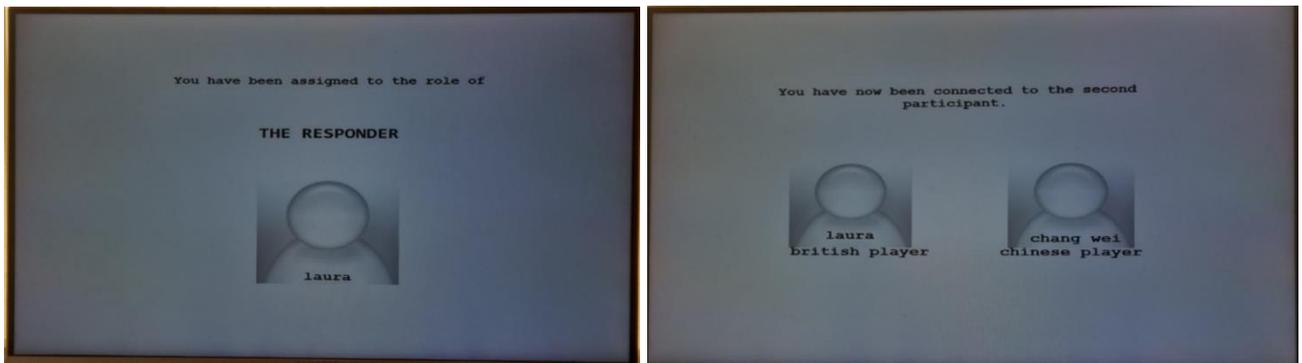


All participants were told they had been assigned to the role of the responder, with the role of the proposer allocated to their opponent named “Chang Wei” indicating their membership to the outgroup of Chinese people (Figure 20). They were also asked to input their nationality and were informed of their opponent’s nationality (Chinese). The behaviour

of their opponent was pre-programmed by the experimenter forming the manipulation of intergroup contact.

Figure 20

Screen Shot Ultimatum Game Role Allocation



In the negative contact condition, participants were told that their opponent had offered zero tokens and in the ambiguously neutral condition they were told that their opponent had offered four tokens (see Figures 21 and 22).

Figure 21

Screen Shot Negative Contact Condition Result

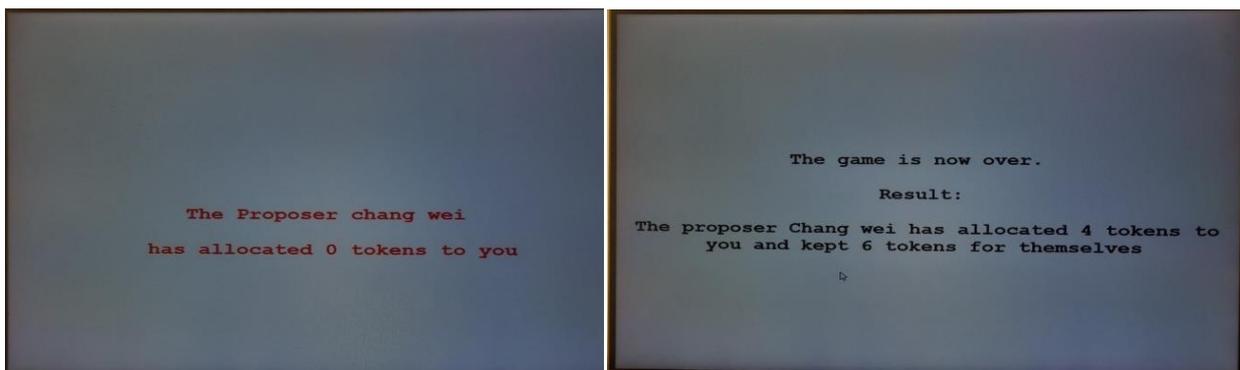
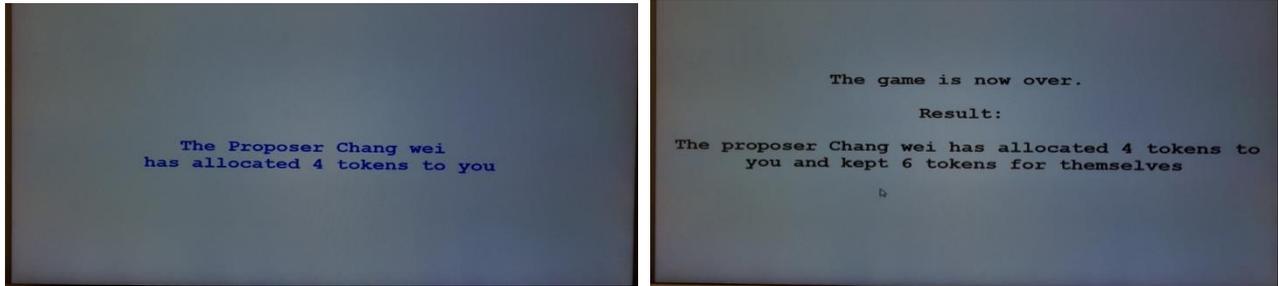


Figure 22

Ambiguous Contact Condition



Evaluations of the opponent, was operationalised by three questions developed by the experimenter. These included: “how reasonable do you think your partner was” (1= *Not at all reasonable*, 9 = *Very reasonable*), “overall how positive or negative do you feel about this experience” and how do you feel about your partner (1= *Very negative*, 9 = *Very positive*, $\alpha = .88$).

It is important to understand how this interaction may affect future behaviour towards the outgroup therefore, intentions to engage in future contact with the outgroup were measured with 4 items adapted from Asbrock et al. (2013) used in Study 1 and 2 ($\alpha = .87$).

The order of all scales was counterbalanced. Finally, participants completed the manipulation check and were thanked and debriefed.

Results

Firstly, correlations amongst all variables were explored these are presented in Table 25. Evaluation of the contact encounter was positively correlated with previous contact and future contact intentions with the outgroup.

Table 25

Means, Standard Deviations, and Correlations and for the Encounter Evaluation, Previous Contact Experiences with the Outgroup, Attitudes Towards the Outgroup and Future Contact Intentions with the Outgroup

Variable	<i>M</i>	<i>SD</i>	1	2	3
1. Encounter Evaluation	4.10	1.88			
2. Previous contact	9.50	2.34	.24*		
3. Outgroup attitudes	5.87	1.52	.19	.59**	
4. Future contact intentions	5.22	1.04	.21*	.56**	.58**

Note. * Correlation is significant at the 0.05 level (2-tailed) ** Correlation is significant at the 0.01 level (2-tailed)

Hypothesis one considered evaluations of the outgroup member will be lower when the contact situation is negative, compared to when the contact situation is neutral. An independent samples *t*-test confirmed that feelings towards the outgroup member were significantly reduced in the negative contact condition ($M = 3.08$, $SD = 1.28$) compared to the neutral condition ($M = 5.41$, $SD = 1.71$), $t(103) = 7.94$, $p < .001$, $d = 1.56$. This indicates the manipulation had the desired effect.

The second and third hypotheses predicted that individuals with previous negative contact experiences or hold existing negative attitudes will perceive the contact situation more negatively when they are in the neutral contact condition. A hierarchical regression was carried out with prior feelings towards the outgroup (outgroup evaluation), previous contact experiences with the outgroup entered as simultaneous predictors along with the condition grouping variable, (neutral = 0, negative = 1) at step 1. At step two, one interaction variable was entered previous contact x condition for Model A. The same hierarchal regression was

conducted for Model B except the interaction variable at step 2 was outgroup evaluation x condition. The final regression equation for Model A $F(4,100) = 24.90, p < .001$ and Model B $F(4,100) = 18.67, p < .001$ were statistically significant, however this was a result of condition. There was no significant interaction effect as demonstrated in Table 26.

Table 26

Hierarchical Regression Coefficients for Previous Intergroup Contact and Existing Attitudes Towards the Outgroup as Predictors of Total Evaluation of the Individual Within the Contact Situation

Variable	B (SE)	Evaluation Score		F	R ²	ΔR ²
		95% CI	β			
Step 1				24.90*	.43	-
Condition	-2.28 (.29)	[-2.85, -1.72]	-.61*			
Previous contact	.11 (.08)	[-.04, .26]	.14			
Outgroup attitudes	.01 (.01)	[-.01, .03]	.10			
Step 2 Model A:				18.51*	.43	.00
Condition	-2.28 (.29)	[-2.85, -1.71]	-.61*			
Previous contact	.11 (.08)	[-.04, .26]	.14			
Outgroup attitudes	.01 (.01)	[-.01, .03]	.10			
Previous contact x Condition	-.02 (.12)	[-.27, .22]	-.01			
Step 2 Model B:				18.67*	.43	.41
Condition	-2.28 (.29)	[-2.85, -1.72]	-.61*			
Previous contact	.11 (.08)	[-.04, .26]	.14			
Outgroup attitudes	.01 (.01)	[-.01, .03]	.10			
Outgroup attitudes x Condition	-.01 (.02)	[-.04, .02]	-.05			

Note. * $p < .001$

Hypothesis four predicted after experiencing a negative intergroup contact interaction with an individual from the outgroup, future contact intentions will be lower in the negative contact condition. However, there may be an interaction adjusting for the possibility that people in the neutral contact condition may rely on previous attitudes/experiences and therefore have lower intentions to engage in contact with the outgroup in future.

A hierarchical regression was performed to explore the effect of condition on future contact intentions, prior feelings towards the outgroup (outgroup evaluation), previous contact experiences with the outgroup entered as simultaneous predictors along with the condition grouping variable, (neutral = 0, negative = 1) at step 1. At step two, one interaction variable was entered previous contact x condition for Model A. The same hierarchical regression was conducted for Model B except the interaction variable at step 2 was outgroup evaluation x condition. The final regression equation for Model A $F(3,100) = 17.59, p < .001$ and Model B, $F(4,100) = 17.78, p < .001$ were statistically significant, however this was a result of previous contact experiences and prior attitudes towards the outgroup. There was no significant interaction effect. The results are demonstrated in Table 27.

Table 27

Hierarchical Regression Coefficients for Previous Intergroup Contact and Existing Attitudes Towards the Outgroup as Predictors of Total Evaluation of the Individual Within the Contact Situation

Variable	Evaluation Score			<i>F</i>	<i>R</i> ²	ΔR^2
	<i>B</i> (SE)	95% CI	β			
Step 1				23.63*	.41	-
Condition	-.07 (.16)	[-.38, .25]	-.03			
Previous contact	.15 (.04)	[.07, .23]	.34*			
Outgroup attitudes	.02 (.01)	[.01, .03]	.38*			
Step 2 Model A:				17.59*	.41	.00
Condition	-.07 (.16)	[-.39, .25]	-.03			
Previous contact	.15 (.04)	[.06, .23]	.33*			
Outgroup attitudes	.02 (.01)	[.01, .03]	.38*			
Previous contact x Condition	-.02 (.07)	[-.16, .11]	-.03			
Step 2 Model B:				17.78*	.42	.00
Condition	-.07 (.16)	[-.39, .25]	-.03			
Previous contact	.15 (.04)	[.07, .24]	.34*			
Outgroup attitudes	.02 (.01)	[.01, .03]	.37*			
Outgroup attitudes x Condition	.01 (.01)	[-.01, .02]	.06			

Note. * $p < .001$

Discussion

This experiment completes the stream of research on ambiguous/negative intergroup contact situations and how these interactions relate to past contact experiences. This research aimed explore whether a direct ambiguous contact encounter with an outgroup member is perceived as negative or positive based on past contact experiences/prior attitudes towards the outgroup and if the outcome prevents or promotes a person's intentions to engage in future contact with the outgroup.

In support of the first hypothesis feelings towards the outgroup member were significantly reduced in the negative contact condition compared to the ambiguously neutral condition. This indicated that the manipulation had the desired effect. Hypotheses two and three predicted that that individuals with previous negative contact experiences or hold existing negative attitudes will perceive the contact situation more negatively than those who hold more positive attitudes/experiences towards the outgroup. Contrary to much of the research identified in earlier chapters and same as earlier findings, there was no significant interaction effect.

Hypothesis four predicted after experiencing a negative intergroup contact interaction with an individual from the outgroup, future contact intentions will be lower in the negative contact condition. Furthermore, there may be an interaction adjusting for the possibility that people in the neutral contact condition may rely on previous attitudes/experiences and therefore have lower intentions to engage in contact with the outgroup in future.

Differing to the findings of Studies 1 and 2, results confirmed that there was no significant difference between the negative contact condition compared to the neutral contact condition on people's intentions to engage in future contact with the outgroup after a negative contact experience. There was also no significant interaction effect of condition and prior

attitudes/contact experiences on future contact intentions. There was a general contact effect of previous contact experiences and prior attitudes towards the outgroup on future contact intentions.

Limitations

Whilst I ensured that the participants used had not taken part in my previous studies utilising economic games, at the time of collecting data in the laboratory other colleagues were running similar studies which may have provided participants with the intention of the studies in their debrief. Approximately 40% of the participants indicated that they had taken part in similar experiments which may have had a social desirability impact on the data collected. It is possible that participants in the experimental condition guessed the experimental hypotheses and adjusted their responses in accordance with what they believed the experimenter expected of them. This of course was too many participants to exclude however if running this study again I would test using a different participant pool. This was not an artifact in studies 1 and 2 as confirmed by the responses to the feedback questions.

Additionally, while the Ultimatum Game paradigm provides a controlled setting in which to study social interactions through a one shot interaction, the paradigm also lacks some external validity (Winking & Mizer, 2013). Subsequently, it can be difficult to draw conclusion about real life experiences of intergroup contact experiences that may be open to interpretation. As the opponent in the game was a virtual player, there was no actual physical interactions where people could see each other face to face and perhaps identify certain facial or other behavioural cues about their interaction partners behaviour. Recent studies such as that of Bhogal, and colleagues (2016) have revealed that physical interactions in economic games can have different results than virtual interactions. However, studying negative intergroup contact is problematic in the real world and the economic game provides the

impression of being there in person increasing the chances of realistic participant behaviour. Additionally, Morewedge (2009) has argued that people who offer participants unfavourable splits are more likely to be identified as humans than as computers, whereas dividers who offer participants favourable splits were more likely to be identified as computers than as humans. Within this Study the outgroup proposer offered an unfavourable amount in the negative condition and an ambiguous amount rather than an equal amount in the ambiguous condition. In consideration of Morewedge's (2009) findings, it may be that the outgroup member was viewed as an actual person rather than a computer.

Future studies could consider the use of a more complex simulation, such as within a virtual reality environment which may help increase the validity and maintain experimental control (cf. Tassinari, Aulbach, & Jasinskaja-Lahti, 2022). Nevertheless, research has demonstrated that positive intergroup contact interventions can work equally as effectively within a laboratory environment with a virtual partner as they can out of the laboratory (Lee & Chen, 2022). Additionally, future research programmes might go a step further with this research and explore potential moderators such as SDO on future contact intentions after a negative contact encounter. Similar to recent research by Wang, Huang, Stathi and Vezzali (2020) who explored associations of positive and negative intergroup contact with future contact intentions and whether these are moderated with SDO. They found an association between negative contact and more negative behavioural intentions (future contact intentions) however, this was only significant among those high in SDO.

Chapter Summary and Conclusion

The principle aim of this chapter was to gain some further understanding of intergroup contact experiences and consequences when the situation is perceived as being negative or open to interpretation. The initial two studies used a novel paradigm to explore how people interpret the behaviour of an individual within a number of different ambiguous scenarios. The final study in this stream used an Ultimatum Game to simulate a negative encounter and an ambiguous encounter that was open to interpretation. Here the offer of 4 tokens within the game meant that interpretation could play a role in such situations.

The aim of Study 6 was to provide an initial empirical test of interpretation of different ambiguous scenarios encountered in every-day situations between individual members of the ingroup and outgroup. All contact situations are open to some degree of interpretation, here the situations were somewhat ambiguous in nature, therefore this study sought to gain some understanding as to whether we rely on previous intergroup contact experiences when the perceived behaviour of the outgroup member is vague or open to interpretation.

In this initial interpretation study, participants were randomly allocated to a condition where the scenarios either identified the actor as being from the ingroup of British or the outgroup of Immigrants. Results indicated that there was a strong significant difference between the two conditions. Those who read scenarios that identified the individual as an outgroup member (Immigrant), evaluated the individual more negatively than those who read scenarios depicting someone from the ingroup of British. These findings are comparable to research by Dovidio and Gaertner (2000) where they found in ambiguous situations, people may revert to race-based selection strategies. In their study White college students were asked for job hiring recommendations for Black and White applicants. When the candidates' credentials clearly qualified or disqualified them for the position (strong and weak

qualification conditions), there was no discrimination against the Black candidate. However, when candidates' qualifications for the position were less obvious and ambiguous, White participants recommended the Black candidate significantly less often than the White candidate with exactly the same credentials.

Pre-existing attitudes or contact experiences did not make any difference to how people evaluated the individual in the scenario within this subject pool. Most likely due to the sample population being students there was a low number of participants who reported any negative contact with the outgroup, therefore this may not generalise to the wider population.

Study 7 aimed to further the findings of Study 6 by examining whether people will rely on positive or negative information about the outgroup when the perceived behaviour of the outgroup member within the same scenario's used in Study 6, is open to interpretation. The analysis of the manipulation check demonstrated that the manipulation worked, participants who read the positive article about Turkish people reported significantly higher ratings of pleasantness of the information article compared to those who read a negative information article condition. However, there was no significant difference on the outcome measures between those who read the negative information about the outgroup compared to those who read the positive information on how they evaluated the behaviour of the outgroup member in the scenarios.

Pre-existing attitudes towards the outgroup of Turkish people had a negative effect on evaluations of the individual within the scenario, however there was no significant interaction between the condition and evaluation of the individual within the scenario. Indicating that the recent negative or positive information about the outgroup had no influence on how people evaluated the individual within the scenario when their behaviour was open to interpretation. It appears that the information given about the outgroup was perhaps not strong enough to

influence how people evaluated the behaviour in the scenarios when it was open to interpretation or that a transient manipulation is not enough information for individuals to rely on in interpretation of the scenario. Future studies could consider the use of a stronger longer lasting manipulation and then we may see an effect of condition on evaluations of the behaviour within the scenarios. Another possible change to make going forward is to use an alternative outgroup, one that people hold more prejudiced attitudes towards. Again, as with Study 6 people did not report much previous contact experiences with this outgroup.

Study 8 completes this stream of research ambiguous intergroup contact situations and how these interactions relate to past contact experiences. This research aimed explore whether a direct ambiguous contact encounter with an outgroup member is perceived as negative or positive based on past contact experiences/prior attitudes towards the outgroup and if the outcome prevents or promotes a person's intentions to engage in future contact with the outgroup.

Feelings towards the outgroup member were significantly reduced in the negative contact condition compared to the ambiguously neutral condition. This indicated that the manipulation had the desired effect. Contrary to much of the past research there was no significant interaction effect between past experiences and attitudes and condition. Hypothesis four predicted that after experiencing a negative intergroup contact interaction with an individual from the outgroup, participants from the experimental ambiguously negative condition will display lower intentions to engage with the outgroup in the future than participants in the control ambiguously neutral condition. Results confirmed that there was no significant difference between the negative contact condition compared to the neutral contact condition for intentions to engage with the outgroup in the future.

Limitations and Future Research

When exploring the means (Table 17 & 22) for each of the individual scenarios in Studies 6 and 7, scenarios 4, 6, and 7 had a greater difference between the means when comparing each of the conditions. There were significant differences in Study 6, however they did not reach significance within Study 7. From this it could be concluded that some scenarios were more effective than others although the overall scale was reliable, this could be an area for improvement in future studies. If I were to run this study again, I would conduct a pilot study first to gauge reactions to the scenarios first. However, availability of participants and funding meant that it was not possible on this occasion to run a pilot study.

The amount of previous contact with the outgroup that people reported was considerably low. It may be that people simply do not rely on past experiences or pre-existing attitudes to inform their decision on how to interpret the contact situation when it is ambiguous. However, to confirm this, future studies could consider the use of a stronger manipulation and then we may see an effect of condition on evaluations of the behaviour within the scenarios. Another possible change to make going forward is to use an alternative outgroup, one that people hold more prejudiced attitudes towards or find categorisation or stereotyping classification easier (Corning & Bucchaneri, 2010). Prejudice is more likely to develop and persist where groups have different or conflicting key values, others are seen as different, and their groups discriminate against others (Abrams, 2010). Groups such as African Americans and Asian people (Daniller, 2021).

A future research program could improve research in this area by having a stronger manipulation, something that would appear to be a more real-life method of contact. This could be by use of a confederate within the manipulation or a more salient stimuli where real intergroup conflict is highlighted. Alternatively, there could be a scenario where a negative

contact encounter takes place within an economic game with a person who belongs to a certain social group. This would be followed by a more ambiguous encounter with someone from that same social group. It could then be measured how people react to that situation in the context of previously having a positive or negative encounter.

Conclusion

An interpersonal situation when a situation is ambiguous, negative interpretation might be harmful. Study 6 highlighted how in ambiguous situations, people may revert to race-based selection. This is comparable to research by Dovidio and Gaertner (2000) who demonstrated how people can make a judgement on something as important as a job application by race when the situation is ambiguous. Further research is required to explore whether people rely on previous attitudes or intergroup experiences when a current situation is open to interpretation.

Chapter 7: Derogatory or Empathy? Judgements From Ingroup Members

Chapter summary

The research in this thesis so far has explored both direct and indirect negative intergroup contact interactions through a variety of experimental and correlational research methods. These include the use of economic games, scenario vignettes and negative comments through social media platforms to simulate negative intergroup contact. One of the unique approaches of this research has been the focus on the evaluation of the target individual within the contact encounter rather than the outgroup as a whole. Studies 4 and 5 specifically explored the observation of derogatory comments made by an individual ingroup member directed at an outgroup and how people evaluated the ingroup member after making these comments.

This final study focuses again on the individual within the intergroup contact encounter. Distinctive from Studies 4 and 5, within this final study, the target individual is a member of the outgroup. Here I examine evaluations of the individual through three conditions, 1) when they make a comment about the feeling unwelcome by the ingroup 2) an ingroup member then diffuses the comment with a positive empathic response comment and 3) an ingroup member responds with a negative comment in response to the outgroup member comment. Examining how members of the ingroup evaluate an ingroup member when they respond in either a positive/empathic or negative way towards an outgroup member who has been hostile towards the ingroup is interesting, seldomly explored and will therefore enhance the existing negative contact literature base.

To advance the studies in Chapter 6 and Chapter 4, I explore whether past contact experiences and future contact intentions play a part in evaluations of the individual and the outgroup respectively.

Introduction

In December 2019, the world was sadly impacted by an outbreak of a novel coronavirus SARS-CoV-2 (COVID-19) that originated in China (World Health Organization, 2021). We have already seen from the research carried out in the initial experimental chapters of this thesis that prejudice towards Chinese people prior to the epidemic was already evident. This research demonstrated that a negative interaction with a Chinese person, but not a British person, prevented people from engaging in future contact with Chinese people. Unfortunately, the spread of this horrific virus has been a catalyst for an escalation in prejudice towards Chinese people. Since the outbreak of the pandemic, Asian people have increasingly been targets of derogatory language on social media platforms (Human Rights Watch, 2020; Croucher et al., 2020; Gover, Harper, & Langton, 2020). This poses a fundamental challenge for intergroup relations.

Hateful content published online has the potential to cause harm and suffering on an individual basis and can even lead to tensions beyond the confines of a computer screen into everyday transactions (Burnap & Williams, 2016; Weber et al., 2020). One source of derogatory language towards minority groups is via the social media Facebook platform within the context of comments posted underneath online news articles. In 2020, two thirds of people in the UK were reading online news articles (Ofcom, 2020). The comments section underneath articles are widely popular both to readers and contributors (Weber, 2014). Responding to comments online involve a commitment from the reader as it enables them to represent their own views, thoughts, feelings and often users can select their own username or profile images not linked to their actual identity, which provides an opportunity for unrestricted interactions. Unfortunately, responses are often plagued with negative intent (Omernick & Sood, 2013) towards an individual and/or the social group to which they belong. In such situations negative rather than positive intergroup contact occurs, and while

positive contact has the power to reduce prejudice, negative intergroup contact has been observed to increase prejudice (see Paolini et al, 2010; Graf et al., 2014). According to Brown & Hewstone (2005) negative contact with an outgroup member can increase group membership salience, and consequently the negative effects of contact generalise more strongly to the group as a whole. While such behaviour is common in everyday life, and although online comments can function as a form of online intergroup contact, there has been little research about this issue within the social psychology field. Indeed, Dixon and McKeowan (2021) recently made a call expressing the importance for exploring online experiences of negative contact.

Within the discipline of CMC, research has primarily looked at the possibility of using online interactions through social media to reduce prejudice and improve intergroup relations rather than the impact and consequence of negative contact encounters. For example, Lev-On and Lissitsa (2015) found that online contact between Jews and Arabs in Israel could minimise the social distance that Israeli Jews maintain toward Arabs. Kim and Wojcieszak (2017) also explored positive online intergroup contact through what they defined as direct online contact (a personal comment written by an outgroup member) and extended online contact (encountering an outgroup member through the comment written by an ingroup member) using three distinct outgroups. Compared to the control, direct online contact decreased perceived threat and social distance toward gays and lesbians, but not toward undocumented immigrants. Direct online contact improved attitudes toward both outgroups through positive and negative emotions, whereas extended online contact reduced negative emotions, improving attitudes towards undocumented immigrants.

The literature of Graf et al. (2014) that I have often referred to, found that although negative contact can be more influential, it is less common in the real world than positive

contact. There are more opportunities for positive contact to take place. However, this may not be true for negative contact online (Ruesch, 2011; Kumar, Hamilton, Leskovec, Jurafsky, 2018). Ruesch (2011) argues that while virtual spaces have a considerable potential for intergroup communication and conflict resolution, conflicting groups only make use of it to a limited extent. Therefore, positive interactions improving intergroup contact are rare.

Furthermore, communities through platforms such as Reddit can interact with one another easily and this often leads to toxic interactions rather than positive ones (Kumar et al., 2018).

Furthermore, commenting on social media news sites differs from a face-to-face conversation with an acquaintance as it comes with a reduction in self-awareness and accountability, known in psychological terms as “de-individuation” (Li, 2006; Omernick & Sood, 2013). The internet offers an ideal opportunity for positive contact, promise of cooperation between all of humanity improving intergroup attitudes. Here online anonymity can reduce anxiety in interaction, allowing people to feel less worried about being judged by members of an outgroup (Amichai-Hamburger & Furnham, 2007). This is exemplified in the work undertaken by Cao and Lin (2017) who found positive text-based intergroup E-contact to have an overall positive effect on intergroup bias. Their study found Chinese university students reported more positive attitudes towards people from Hong Kong after a short interaction with a male Hong Kong confederate, compared to their attitudes before the intervention. The participants interacted with the confederate either via video or text-based E-contact and reported significantly improved attitudes towards the outgroup, this result was stronger in the text-based condition compared to the video-based condition.

Recent meta-analytical results suggest that positive online contact uses a comparable mechanism to direct positive contact for prejudice reduction (Imperato, Scneider, Caicati, Amichai-Hamburger & Mancini, 2021). This mechanism was introduced in the literature

review and follows Pettigrew and Tropp's (2006) suggestion that Allports conditions are facilitating factors that enhance the tendency for positive contact outcomes to emerge.

It is predicted in this study that responding in a more positive manner can potentially diffuse situations. In a similar research Fuochi and colleagues (2020) identified a *buffering role* considering direct contact as a moderator between mass media news and outgroup attitudes. The researchers examined the association of the combination of direct intergroup contact and mass media news with attitudes toward immigrants and gay people in Italy, hypothesising that direct intergroup contact would buffer the negative association between media news and attitudes, but only when contact was positive. They found that positive direct intergroup contact was associated with more positive attitudes toward outgroup members, whereas exposure to negative news was related to more negative attitudes. Given this outcome it is possible that choosing to respond in a more positive manner can potentially diffuse situations where something could be negatively interpreted or invite a negative response.

Despite this promising research, not all online contact provides positive outcomes and can lead to more negative outcomes. Mustafa and Poh (2019), for example failed to provide empirical support toward the beneficial effect of online contact in reducing the level of prejudice between Malaysian and Chinese undergraduate students. Participants exchanged personal information in intergroup or intragroup dyads either face-to-face or over text based instant messaging for up to three hours at a time. Prejudice against the outgroup was measured after each session. For the face-to-face group, the overall level of prejudice among the intercultural communicative partners was significantly lower as compared to those in the intra-cultural group. The effect of intercultural contact in the online contact group failed to yield significant finding.

Conversely negative responses can lead to more negative responses in an online space, watching others' negative responses can make us more negative. Instead of embracing a massive extension of our social circles online, we seem to be reverting to conflict in which online behaviour is harsher, less self-censored than in the real world (Mcloughlin, Brady & Crockett, 2021). Several studies have shown how individuals with prejudicial views towards a range of minority groups are taking to the internet to spread hateful messages (Leets, 2001; Eichhorn, 2001; Perry & Olsson, 2009; Rieger et al., 2021).

Reading user comments can result in negative emotions and increased prejudice. For example, Hsueh et al. (2015) found that user comments that were prejudiced towards Asian Americans led to increased prejudice amongst participants who were exposed to these comments compared to participants who were exposed to antiprejudice comments. Furthermore, Weber and colleagues (2020) investigated whether hate and negativity in user comments would inhibit actual prosocial behaviour through an online experiment where participants read user comments (neutral, civil-negative, hateful) about refugees. Participants were given five Euros which they could donate for a refugee aid organisation or keep for themselves. Their results demonstrated that future behavioural intentions were decreased when participants were confronted with hateful or negative user comments and subsequently donated less money.

Overview of the Present Research

This final study aimed to explore the effects of a derogatory comment posted on a social media platform by an outgroup member when it is either diffused in an empathic way or responded to in a negative way by an ingroup member. The research in this thesis so far has explored both direct and indirect negative intergroup contact interactions through a variety of experimental and correlational research methods. These include the use of

economic games, scenario vignettes and negative comments through social media platforms. One of the unique approaches of the research within this thesis has been the focus on how people evaluate the individual within the contact encounter, rather than only an evaluation the outgroup as a whole as found in the majority of intergroup contact research. Studies 4 and 5 specifically explored the observation of derogatory comments aimed at an outgroup, and how participants evaluated the ingroup member after making these comments. Study 9 correspondingly focuses on the individual within the intergroup contact encounter. Distinctive from Studies 4 and 5, the target individual is a member of the outgroup which the ingroup will be evaluating.

To further the earlier studies specifically those in Chapters 5, this final study seeks to gain some understanding on how people respond to comments posted on social media within both a positive and negative intergroup contact context. Specifically, when a member of an outgroup makes a comment exhibiting some degree of hostility or frustration toward the ingroup, and a member of the ingroup responds in either a derogatory or empathic way towards them. To the best of my knowledge no earlier test has included a direct assessment of how people evaluate ingroup members when they make an online response comment that is either negative or positive/empathic in nature.

This research positions itself within the vicarious contact framework as participants are observing contact between an ingroup and an outgroup member. Online users learn and accept certain forms of commenting behaviour by observing the comments of other users. Other theoretical frameworks can also be applied such as social influence theories and social learning theories. Social influence theory considers that individuals are highly susceptible to the influences of other people and conform to others' attitudes and behaviours (Deutsch & Gerard, 1955). The initial comment from the outgroup member that is being used within this study, may spark moral outrage which is particularly widespread with online social networks

(Brady, McLoughlin, Doan & Crockett, 2021). What will be interesting from this study is whether a positive response from an ingroup member will diffuse the situation or whether people will agree with a negative response. It is possible that negative responses may lead to more negative responses in an online space, and that watching others' negative responses can make us more negative. Alternatively, choosing to respond in a more positive manner can potentially diffuse situations where something could be negatively interpreted or invite a negative response.

The theory of social learning which states that individuals can learn by observing other individuals modelling a behaviour (Bandura, 1986) has been found to amplify moral outrage expressions (Brady et al., 2021). Thus, insulting comments generated by other users are likely to influence how discourteous the readers of these comments behave in online discussions: If others use incivility in their comments, this might be perceived as a normative standard and an appropriate thing to do. Given what the research told us from the earlier studies, SDO is likely to influence people's judgments.

Furthermore, research on negative contact suggests that while people tend to report more frequent positive contact, negative experiences of intergroup contact can have independent, detrimental effects on outgroup attitudes (e.g., Barlow et al., 2012; Dhont & Van Hiel, 2009; Graf et al., 2014; Hayward et al., 2017; Reimer et al., 2017). Past negative experiences of intergroup contact are therefore expected to influence the observations of comments posted online by outgroup members.

As also explored in Studies 4 and 5 personality factors such as SDO may determine how much people agree with negative comments directed towards an outgroup member, and their opinion of the individual making the comment. Most research on prejudice has supported the widely held conclusion that SDO predicts outgroup prejudice (Altemeyer,

1998, Duriez & Van Hiel, 2002; McFarland, 1998; McFarland & Adelson, 1996; Pratto et al., 1994). SDO is typically treated as an independent variable in social psychological research and been found to predict political and economic conservatism, nationalism, and preferences for meritocracy, among other ideologies (e.g., Pratto et al., 1994; Sidanius & Pratto, 1999). However, the underlying mechanisms of exactly how SDO works are still being explored within the literature. As people high in SDO generally have a preference for inequality within society it is hypothesised that observing a positive/empathic or negative comment from an ingroup member will moderate the effect of SDO on evaluations of the outgroup commentor. Specifically, people who are high in SDO are more likely to evaluate the ingroup commentor more favourably compared to people who are low in SDO.

Finally, it is expected that negative contact will decrease an individual's willingness to engage in subsequent intergroup contact encounters with the outgroup. This effect was demonstrated in Studies 1 and 2. People's negative expectations when interacting with outgroup members function as warning signals that lead them to perceive outgroup members as different and therefore reinforce negative expectations regarding future interactions (Mallett, Wilson, & Gilbert, 2008). For example, individuals generally expect outgroup members to share their attitudes and beliefs to a lesser extent than ingroup members (Robbins & Krueger, 2005), and to interact less positively than ingroup members (Dovidio, Saguy, West, & Gaertner, 2012; Mullen, Brown, & Smith, 1992; Mullen, Dovidio, Johnson, & Copper, 1992). More direct measures of outgroup prejudice were also found to relate to contact avoidance. Research has shown that people who are highly prejudiced against Muslims are less likely to have contact with them (Pettigrew, 2008). Research has also provided evidence for the association between SDO and willingness to engage in intergroup contact. Authoritarians were shown to be less likely to be living in areas that include outgroup residents, and among those who do live in diverse areas, authoritarians are less

likely to have positive intergroup contact (Pettigrew, 2008). Furthermore, Rosenthal and Levy (2012) found across various intergroup contexts, that individuals' SDO levels are significantly predictive of their interest in intergroup contact and with their appreciation of diversity. On this basis it is likely that observation of the ingroup commentor making a derogatory response will make individuals less likely to engage in future contact with that outgroup particularly for people higher in SDO. In line with the reasoning discussed above, the following hypotheses were formed:

Hypothesis One: People will evaluate the outgroup member more negatively when they view a response comment from an ingroup member that is negative compared to people who view a response comment from an ingroup member that is positive/empathic.

Hypothesis Two: People will evaluate the ingroup member more negatively when they view a response comment that is negative compared to a response comment that is positive/empathic.

Hypothesis Three: Participants who are in the negative comment condition and high in SDO will evaluate the ingroup commentor more favourably compared to people who are low in SDO and in the negative comment condition.

Hypothesis Four: Previous negative contact experiences will predict increased negative attitudes towards the outgroup and the outgroup commentor. This is likely to be dependent on condition.

Hypothesis Five: Participants in the negative response comment condition will have a lower opinion of the outgroup and be less likely to engage in future contact with the outgroup compared to participants in the positive response comment condition.

Study 9

Method

Participants

Due to restrictions imposed by Covid at the time of data collection, participants were recruited from two online data collection platforms. The participants consisted of 203⁸ UK Prolific Academic users and 78 undergraduate students from the UEA. Participation to the survey was restricted through the Prolific platform to users who identified as British citizens. The UEA participant system was open to participants of all ethnicities although only data from British participants retained. Participants received one University credit via SONA or £1.00 pound for their time through Prolific Academic.

This study implemented a between-subject design with three conditions described in detail in the procedure section. The target ingroup was British people and the outgroup was clearly identified through the stimuli as Chinese people. The outgroup of Chinese people was chosen as this outgroup had been utilised previously and due to the recent reports regarding an increase in prejudice towards Chinese people.

Participants who did not meet the ingroup category of White British (47), those that requested at the end of the survey for their data to not be used (7), those that did not fully complete the study (14), and those that failed the manipulation check (6) were excluded from the sample. The final sample size was 207 participants, this consisted of 79 male, 124 female, three self-identifying as other, one preferred not to answer, aged between 18 and 76 ($M = 35.05$, $SD = 15.12$) within this sample 162 participants were recruited from Prolific

⁸ The sample size was determined through a power analysis using G*Power 3.1 (Faul et al., 2007). For a one-way ANOVA, 3 groups, an effect size of $f = .20$ and a power of .80, this indicated a required sample size of 246. The sample size obtained exceeded the estimated required N to allow for unusable data given.

Academic and the remained from the UEA participant pool. All participants saw a negative comment about Britain by a Chinese commenter. Participants were randomly assigned to either observing one comment ($n = 70$), a positive comment response ($n = 68$) or a negative comment response from the ingroup member ($n = 69$).

Procedure

The experiment was programmed using the online software program Qualtrics. After providing informed consent, the investigation was introduced as a study of individuals' opinions of responses to various newspaper articles posted on social media sites. The order of all scales containing more than four items were counterbalanced.

To commence the experiment participants completed Pratto and colleagues' (1994) *Social Dominance Orientation scale* used previously in this thesis. Reliability for this study was $\alpha = .95$. This was followed by some general demographic questions including whether they were a British citizen (yes, no).

As a filler question to help with the cover story, participants were asked "how often do you read newspaper articles posted on social media sites?" They were then informed through clear instructions that they would see an example from a newspaper article shared on Facebook, that the article contained some sensitive comments posted by users of the site and that the researchers would like to gather some information on their impression of the impact of these comments.

The stimuli article was a current news article titled "Covid in Wales Racist Incidents Take Your Breath Away" published on 9th March 2021 regarding the impact of racism and increase of prejudice towards Chinese people as a result of the Covid-19 pandemic, lifted from the BBC News website on Facebook (BBC, 2021). This stimuli source was chosen because BBC News is the most used news source in England and Wales for accessing the

news about the nation, and Facebook is the most popular social media platform for news (Ofcom, 2021).

The stimuli contained a screenshot of the BBC News Facebook page with a comment posted underneath the article (see Figure 23 and 24). In order to generate an intergroup encounter, the initial comment clearly identified the commentor as being a member of the outgroup (Chinese) within the language text and by their Chinese name of “Chang Wei” and referred to people from the ingroup (British) being negative towards them. “As a Chinese person living here in the UK. I think British people are always slandering us Chinese. I don’t think I will ever feel welcome here in British society. And I feel like the UK doesn’t⁹ acknowledge this is a problem”.

Via the Qualtrics system participants were randomly assigned to one of three conditions. In condition one they only observed the first comment as described above. In condition two, below the first comment there was a second comment posted by a different user who was an ingroup member, identified by their British name of “Chris Smith” and their British identity mentioned within the text, giving an empathic response to the initial comment (Figure 25). The empathic response was “I understand where your feelings are coming from, I certainly understand how you might feel angry and frustrated right now considering all that has been in the news about anti-Chinese prejudice. All this is disgusting. We need to come together as a society and culture to be respectful to all individuals and not let the clouds of prejudice influence behaviours. I stand with you as a proud British person and I wish you nothing by the best.”

Condition 3 the second comment was also made by ingroup member “Chris Smith” and contained a negative response to the initial comment posted by an ingroup member

⁹ Intentional error to make the comment appear more realistic.

(Figure 26). The negative response read “Oh shut your whining you are just an example of such an entitled person. Your claims that British people are prejudiced and against Chinese are without any evidence. You haven’t been the victim of prejudice at all. As a proud British person, I think Chinese people¹⁰ should be grateful for the lives they have in the UK or get the hell out.”

These comments were manipulated by the researcher based on similar comments found online under articles (see Appendix O for examples found online).

Figure 23

BBC News Article Used as Stimuli First Page Viewed by Participants

The image is a screenshot of the BBC News website. At the top, there is a navigation bar with the BBC logo, a user profile for 'laura', and various menu items like Home, News, Sport, Weather, iPlayer, Sounds, CBBC, CBeebies, and a search bar. Below this is a red banner with the word 'NEWS' in white. Underneath the banner, there are links for Home, Brexit, Coronavirus, UK, World, Business, Politics, Tech, Science, Health, and Family & Education. A secondary navigation bar lists regional news for Wales, Wales Politics, Wales Business, North West, North East, Mid, South West, South East, Cymru, and Local News.

The main article is titled 'Covid in Wales: Racist incidents 'take your breath away'' by Liz Clements, dated 9 March. It features a video player showing a woman in a graduation gown standing in front of a sign that reads 'Music Cerddoriaeth'. Below the video, there is a caption: 'Jackie Yip says she has received more abuse during Covid'. The article text begins with 'Members of the Chinese community in Wales do not feel safe or welcome here anymore, a community leader has said. Shirley Au-Yeung from the Chinese in Wales Association said a rise in racist'.

On the right side of the page, there are sections for 'Top Stories' and 'Features'. The 'Top Stories' section includes: 'Summer holidays abroad 'extremely unlikely'' (35 minutes ago), 'Half of UK adults receive first Covid vaccine dose' (1 hour ago), and 'France and Poland impose new lockdown measures' (3 hours ago). The 'Features' section includes a video player for 'Learning Welsh in lockdown... around the world' and a photo of a person in a hospital bed.

¹⁰ Intentional error to make the appear comment more realistic.

Figure 24

BBC News Article Stimuli Second Page Viewed by Participants



Shirley Au-Yeung, from the Chinese in Wales Association, is concerned that coronavirus will have a lasting impact on attitudes towards the Chinese community.

She said that since moving to Wales in 2005, she always felt welcome.

However, racism during the last 12 months as a result of the pandemic has left her and others feeling less safe.

"Community members are telling me that during this pandemic they don't feel that secure anymore... they feel less welcome and don't feel safe anymore," she said.

"I'm also feeling like that, living here since 2005, I have never experienced this kind of feeling."

The Welsh Government's Deputy Minister for Equalities Jane Hutt said that the situation was "a huge concern".

"It's very disappointing to hear of incidents of racism experienced by anyone in Wales but particularly hearing reports in the Chinese community," she added.

In an effort to tackle the rise in hate crimes in Wales, the Welsh Government has launched a new TV and social media "[Hate Hurts Wales](#)" campaign.

Figure 25

Facebook Stimuli Positive/Empathic Comment Condition Viewed by Participants

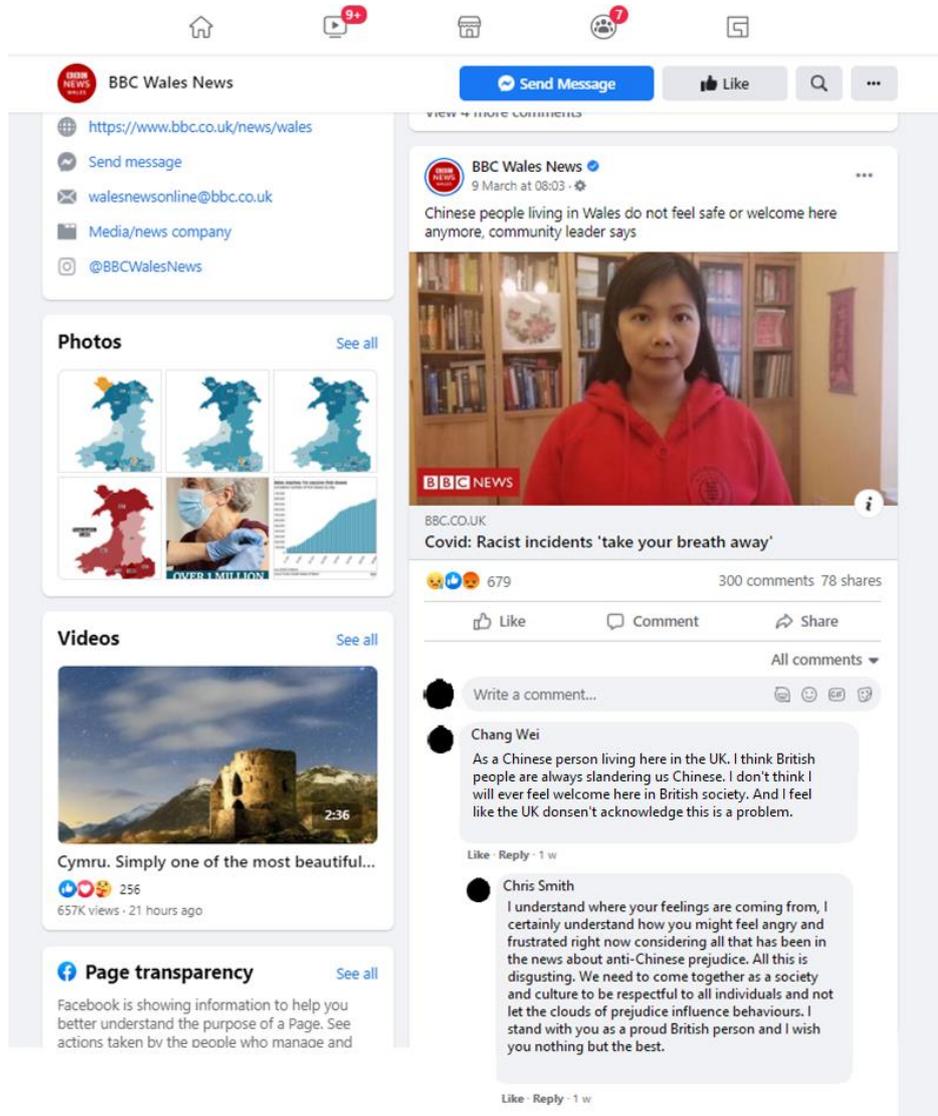
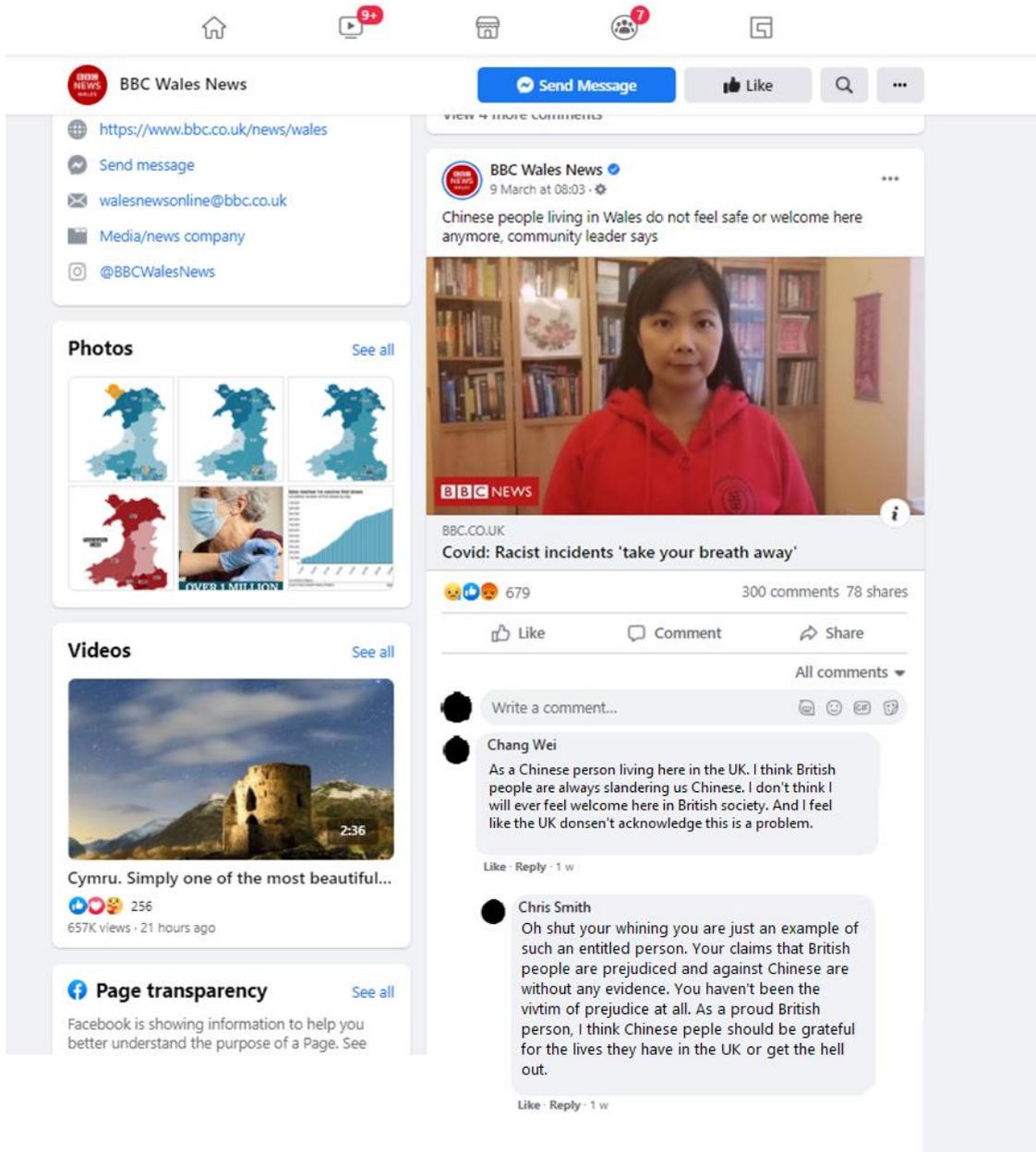


Figure 26

Facebook Stimuli Negative Comment Condition Viewed by Participants



Next a measure of attitudes towards the outgroup of Chinese people was presented to participants using the General Evaluation Scale (Wright et al., 1997) used previously. The items on the scale were scored such that higher scores indicated a more positive evaluation, with four items were reverse scored.

As a manipulation check to see if participants had paid attention to the stimuli, they were asked what news source the article was from, what the article was about and what was the name of the commenter below the article.

Next participants made an evaluation of the outgroup commenter and the ingroup commenter. These scales were created by the researcher to assess the perception of the outgroup member making the comment under the article. The items on the perception of 'Chang Wei' assessed the evaluative component (i.e., I think Chang Wei is likeable, I think Chang Wei is kind, I think Chang Wei is intelligent, overall, my opinion of Chang Wei is positive). As well as the willingness to interact (i.e., I would like to know Chang Wei, I would like to meet Chang Wei, I would like to be a friend of Chang Wei). Responses to these 11 items was based on a 7-point likert scale ranging from 1 *strongly disagree* to 7 *strongly agree*, with two items reversed scored. Higher scores indicating a higher opinion of the target individual. This scale demonstrated high reliability ($\alpha = .94$) within this experiment. The evaluation of the ingroup member was also measured based on the same scale as above except the name was replaced with Chris Smith who was the second commenter. Only participants in the positive and negative conditions saw this comment and completed this evaluation scale. Reliability for the scale was $\alpha = .98$.

Intentions to engage in future contact with the outgroup were measured with the same scale as used previously adapted from Asbrock et al. (2013) $\alpha = .87$. To measure prior intergroup contact, participants were asked how often they have interacted with Chinese

people, how frequently they have had positive/good contact experiences and how frequently they have had negative/bad experiences with Chinese people (1 = *never*, 7 = *extremely frequently*). Single-item measures of positive and negative intergroup contact are commonly used and correlate strongly with longer measures (Hayward et al., 2018). To conclude the experiment, participants were given the final opportunity to remove their data if they wished to not take part, were thanked and debriefed.

Results

The data were analysed using the statistics program SPSS version 28. First the correlations amongst all variables were examined. These are presented in Table 28 along with the means and standard deviations. As expected, evaluations of the outgroup commentor was found to be positively associated with previous positive contact, future contact intentions and outgroup evaluation and negatively associated with previous negative contact and SDO.

Evaluations of Outgroup Member

Hypothesis one considered that people will evaluate the outgroup member more negatively when they view a response comment from an ingroup member that is negative compared to people who view a response comment from an ingroup member that is positive/empathic. To confirm the effects of the manipulation on evaluations of the outgroup commentor by condition (no response to comment, positive comment response, negative comment response) a one-way between-groups analysis of variance (ANOVA) was performed. This yielded a significant effect of condition on evaluations of the outgroup commentor, $F(2, 204) = 3.84, p = .02, \eta^2 = .04$.

A Tukey post hoc test on evaluations of the outgroup commentor for all three conditions revealed that, there was a significant difference ($p = .02$) between participants who

viewed a positive/empathic response to the comment from the outgroup member ($M = 4.91$, $SD = .90$) compared to those that did not view any response to the comment ($M = 4.50$, $SD = .97$). There was no statistically significant difference ($p = .12$) between those that viewed the positive response compared to the negative response ($M = 4.6$, $SD = .84$) and the negative response compared to the no comment response ($p = .78$). These results are demonstrated in Table 29 and Figure 27.

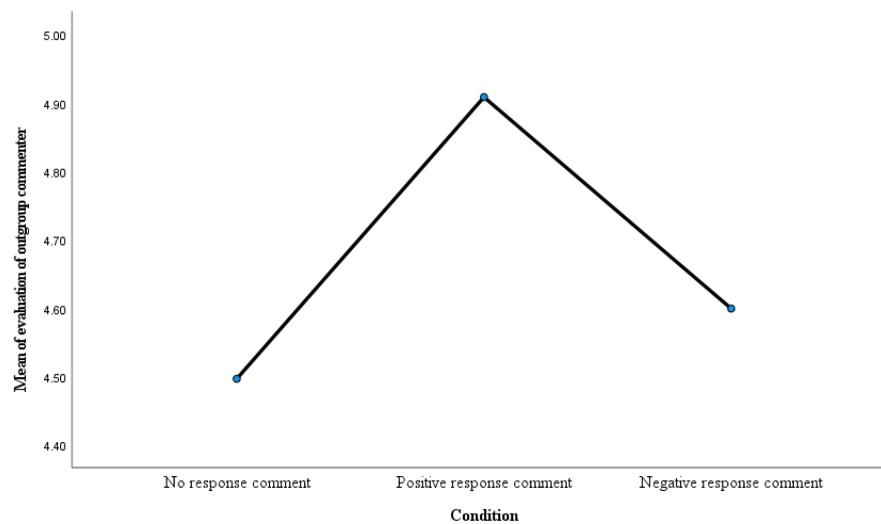
Table 28*Means, Standard Deviations and Correlations with Confidence Intervals for all Study Variables*

Variable	M (SD)	1	2	3	4	5	6
1. Outgroup commentor evaluation	4.67 (.92)	-					
2. Ingroup commentor evaluation	3.73 (1.69)	.12 [-.05, .28]	-				
3. Previous positive contact	5.01 (1.67)	.19** [.05, .31]	.12 [-.16, .18]				
4. Previous negative contact	1.65 (.92)	-.22** [-.34, -.08]	-.04 [-.21, .13]	-.11 [-.24, .03]			
5. Future contact intentions	4.71 (1.22)	.40** [.28, .51]	.11 [-.06, .27]	.40** [.28, .51]	-.26** [-.38, -.12]		
6. SDO	2.32 (1.07)	-.34** [-.46, -.22]	-.05 [-.21, .12]	-.24** [-.37, -.11]	.26** [-.46, -.22]	-.35**	
7. Outgroup evaluation	5.62 (1.07)	.49** [.38, .59]	.06 [-.11, .23]	.39** [.27, .50]	-.43** [-.46, -.22]	.52** [.41, .61]	-.38** [-.49, -.30]

Note. ** Correlation is significant at the 0.01 level (2-tailed)

Table 29*Evaluations of the Outgroup Commentor and Ingroup Commenter by Condition*

Condition		N	Mean	SD	SE	95% CI	
Outgroup commenter	No response	70	4.50	.97	.11	4.26	4.73
	Positive response	68	4.91	.90	.12	4.69	5.13
	Negative response	69	4.60	.84	.10	4.40	4.80
Ingroup commenter	Positive Response	68	5.21	.79	.10	5.01	5.40
	Negative response	69	2.27	.88	.11	2.06	2.48

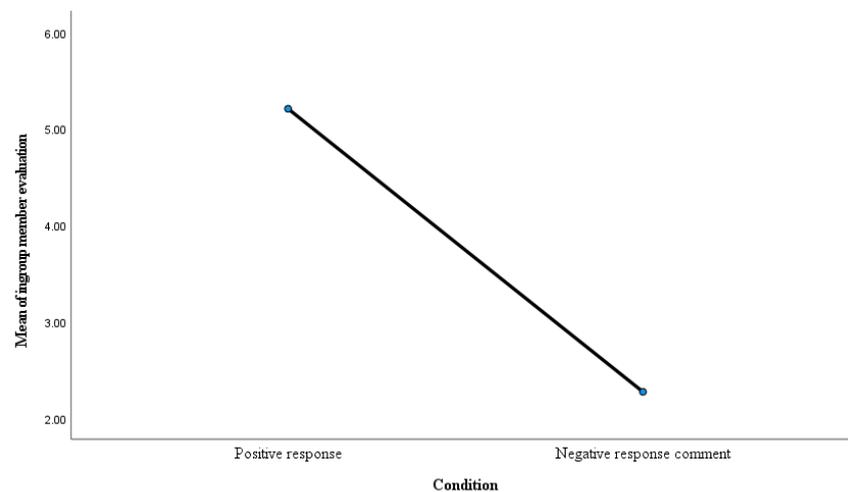
Figure 27*Mean of Evaluation of Outgroup Commenter*

Evaluations of the Ingroup Member

Hypothesis two explored how people evaluated the ingroup commenter in the negative comment condition Vs the positive comment condition (this analysis did not include the no comment condition). This yielded a significant effect, $F(1,135) = 422.37, p < .001, \eta^2 = .76$. An independent t -test confirmed that evaluations of the ingroup commenter were statistically significantly ($p < .001$) higher in the positive comment response ($M = 5.21, SD = .79$) than in the negative comment response ($M = 2.27, SD = .88$) as demonstrated in Figure 28.

Figure 28

Mean Score of Evaluations of Ingroup Commenter



Effect of SDO on Evaluations of the Ingroup Commenter

Hypothesis three predicted that participants who are in the negative comment condition and high in SDO will evaluate the ingroup commenter more favourably compared to people who are low in SDO. In order to explore the main effect of SDO on the evaluation of the ingroup commenter, a regression was performed utilising evaluation of the commenter as the criterion and SDO as the predictor. This was not significant, $F(1, 135) = .27, p = .60$.

The interaction was then tested using the same two-step multiple regression used in Chapter 5. The evaluation of the commenter was utilised as the criterion. Condition and SDO centred on its respective means were entered at step one and the Condition x SDO interaction was entered into step two. Table 30 gives information about regression coefficients for the predictor variables entered into the model. The Condition x SDO interaction was statistically significant, $F(3, 133) = 154.51, p < .001, b = .29$.

Table 30

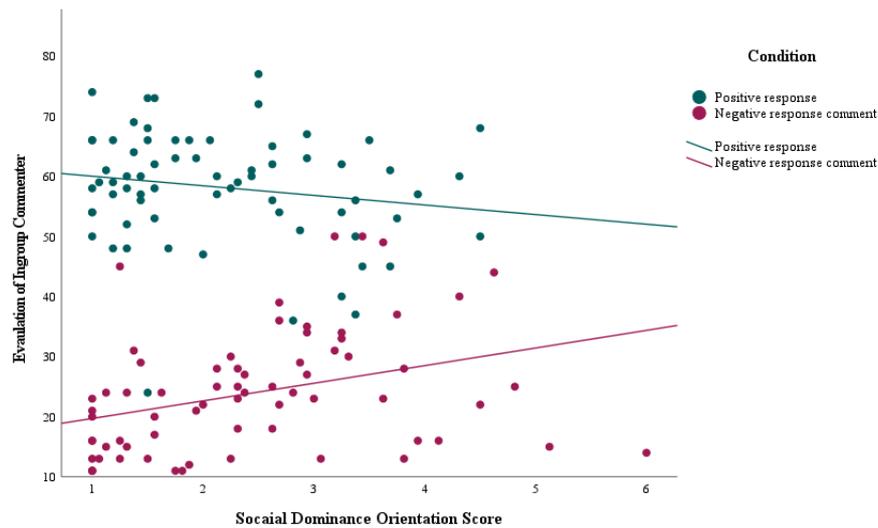
Multiple Regression Model of Predictors of Evaluation of Commenter, with 95% Confidence

Levels for b Reported in Parentheses (unstandardised and standardised coefficients)

Variable	<i>b</i>	SE B	β	<i>t</i>	<i>p</i>
Step 1					
Constant	5.51 (5.29, 5.74)	.11		48.80	$p < .001$
Condition	-1.79 (-1.97, -1.62)	.09	-.87	-20.45	$p < .001$
SDO (centred)	-.01 (-.14, .12)	.07	-.01	-.14	$p = .89$
Step 2					
Constant	5.49 (5.28, 5.71)	.11		50.41	$p < .001$
Condition	-1.79 (-1.96, -1.62)	.08	-.87	-21.20	$p < .001$
SDO (centred)	-.30 (-.51, -.09)	.11	-.19	-2.79	$p = .006$
Condition x SDO	.29 (.015, .36)	.09	.23	3.39	$p < .001$

Note. $R^2 = .76$ for step 1 ($p < .001$); $\Delta R^2 = .02$ for step 2 ($p < .001$)

To further probe the significant interaction, the simple slopes were examined. This analysis revealed that in the positive response comment condition there is not a significant relationship between SDO and evaluation of the ingroup commenter, $b = -.10$, 95% CI [-.29, .10], $t = -1.01$, $p = .31$. In the negative response comment condition, there is a significant relationship between SDO and evaluation of the ingroup commenter, $b = .25$, 95% CI [.08, .42], $t = 2.94$, $p = .004$. For those who saw the negative response condition, increased SDO lead to more positive evaluations of the commenter as demonstrated in Figure 29.

Figure 29*Evaluation of Ingroup Commenter and SDO Score*

Effect of Previous Contact Experiences on Evaluation of The Outgroup and Outgroup Commentor

Hypothesis Four predicted that previous negative contact experiences will predict increased negative attitudes towards the outgroup and the outgroup commentor. Regression analyses were conducted to examine the extent to which previous intergroup contact experiences of positive and negative contact, predicted evaluations of the outgroup and the outgroup member.

Evaluations of the outgroup

A hierarchical regression was conducted with previous positive contact, previous negative contact, entered as simultaneous predictors along with the grouping variable at step 1. At step 2, two interaction variables were entered simultaneously: positive contact x

condition, negative contact x condition. Model A demonstrated a significant relationship between previous contact experiences and evaluations of the outgroup after viewing the comment $F(3,203) = 29.16, p < .001$, explaining 30% of the variance in the model. Model B also reached significance, $F(5, 201) = 17.37, p < .001$. As Table 31 demonstrates previous positive contact and previous negative contact experiences were both associated with evaluations of the outgroup. There was no significant association of condition on evaluations of the outgroup and no interaction of previous contact experiences on evaluations of the outgroup.

Table 31

Regression Coefficients for Previous Intergroup Contact as Predictors of Evaluations of the Outgroup, with 95% Confidence Levels for b Reported in Parentheses (unstandardised and standardised coefficients)

Variable	Total evaluation of the outgroup				
	b	SE	β	t	p
Step 1					
(Constant)	5.25 (4.75, 5.75)	.25		20.64	$p < .001$
Condition	.009 (-.14, .16)	.08	.007	.112	$p = .911$
Previous negative contact	-.459 (.15, .30)	.07	-.39	-6.59	$p < .001$
Previous positive contact	.224 (-.59, -.32)	.04	.35	5.89	$p < .001$
Step 2					
Constant	5.35 (4.56, 6.14)	.40		13.25	$p < .001$
Condition	-.083 (-.66, .50)	.29	-.064	-.284	$p = .777$
Previous negative contact	-.456 (-.66, -.26)	.10	-.389	-4.44	$p < .001$
Previous positive contact	.204 (.08, .33)	.06	.316	3.21	$p = .002$
Negative contact x Condition	.000 (-.16, .16)	.08	-.001	-.005	$p = .996$
Positive contact x Condition	.019 (-.07, .11)	.05	.081	.398	$p = .691$

Note. $R^2 = .301$ for step 1 ($p < .001$); $\Delta R^2 = .001$ for step 2 ($p = .923$)

Evaluations of the outgroup member

The next regression model explored whether previous contact experiences predicted evaluations of the individual outgroup member. Model A was significant $F(3, 203) = 5.49, p = .001$, previous contact explaining 8% of the variance in evaluations of the outgroup member. Model B was also significant, $F(5, 201) = 4.54, p < .001$. Previous negative contact experiences predicted reduced evaluations of the outgroup member as shown in Table 32. There was no significant effect of condition. However, there was a significant association between previous negative contact on evaluation of the outgroup member $b = -.38, 95\% \text{ CI } [-.57, -.18], t = -3.7, p < .001$, and also a significant interaction of condition and previous negative contact experiences on evaluation of the outgroup member $b = .19, 95\% \text{ CI } [.03, .34], t = 2.41, p = .02$.

To further probe the significant interaction, the simple slopes were examined. This analysis revealed that in the no comment condition there is a significant relationship between previous negative contact and evaluation of the outgroup member, $b = -.41, 95\% \text{ CI } [-.62, -.20], t = -3.88, p < .001$. In the negative response comment condition ($b = -.05, 95\% \text{ CI } [-.27, .16], t = -.50, p = .62$) and positive response condition ($b = .05, 95\% \text{ CI } [-.25, .35], t = .34, p = .74$) there was no significant relationship between previous negative contact and evaluation of the outgroup member.

Table 32

Regression Coefficients for Previous Intergroup Contact as Predictors of Evaluations of the Outgroup Member

Variable	Total evaluation of the outgroup member				
	<i>b</i>	SE	β	<i>t</i>	<i>p</i>
Step 1					
(Constant)	-.16	.25		-.65	<i>p</i> = .52
	(-.65, .33)				
Condition	.04	.08	.04	.52	<i>p</i> = .61
	(-.11, .19)				
Previous negative contact	-.20	.07	-.20	-2.9	<i>p</i> = .004
	(-.33, -.06)				
Previous positive contact	.09	.04	.16	2.41	<i>p</i> = .02
	(.02, .16)				
Step 2					
(Constant)	.18	.39		.46	<i>p</i> = .65
	(-.59, .95)				
Condition	-.28	.29	-.25	-.98	<i>p</i> = .33
	(-.84, .28)				
Previous negative contact	-.38	.10	-.37	-3.7	<i>p</i> < .001
	(-.57, -.18)				
Previous positive contact	.09	.06	.15	1.38	<i>p</i> = .17
	(-.04, .21)				
Negative contact x condition	.19	.08	.37	2.41	<i>p</i> = .02
	(.03, .34)				
Positive contact x condition	-.001	.05	-.01	-.03	<i>p</i> = .98
	(-.09, .09)				

Note. $R^2 = .08$ for step 1 ($p = .001$); $\Delta R^2 = .03$ for step 2 ($p = .06$)

Future contact intentions

A one-way ANOVA was conducted to explore the effect on condition on both outgroup evaluation and intentions to engage in future intergroup contact. Means by condition are shown in Table 33. Results revealed no significant effect of condition on future contact intentions $F(2, 204) = 1.01, p = .37, \eta_p^2 = .01$, or outgroup evaluation $F(2, 204) = 3.04, p = .050, \eta_p^2 = .03$.

As the significance value for outgroup evaluation was equal to .050 post-hoc comparisons using the Tukey HSD were performed on this outcome variable for all three conditions. This test indicated that there was no significant difference ($p = .144$) between participants who viewed a positive/empathic response from the ingroup member ($M = 5.88, SD = .93$) compared to those who viewed a negative response from the ingroup member ($M = 5.53, SD = 1.07$). There was also no statistical difference ($p = .055$) between those that viewed the no response condition ($M = 5.46, SD = 1.11$) compared to the positive comment condition and no significant difference ($p = .905$) between the no response and negative comment condition.

A further regression analysis was run to explore the effects of SDO on future contact intentions by condition. Future contact intentions were used as the criterion and SDO as the predictor. The main effect was found to be significant $F(1, 205) = 27.71, p < .001, \eta_p^2 = .37$.

Table 33*Mean Outgroup Evaluation and Future Contact Intentions by Condition*

Variable		N	Mean	SD	SE	95% CI
Future contact	No response comment	70	4.60	1.20	.14	[4.31, 4.89]
	Positive response	68	4.88	1.18	.14	[4.59, 5.17]
	Negative response	69	4.64	1.30	.16	[4.33, 4.95]
Outgroup evaluation	No response comment	70	5.46	1.11	.13	[5.19, 5.72]
	Positive response	68	5.88	.93	.11	[5.65, 6.10]
	Negative response	69	5.53	1.14	.14	[5.26, 5.81]

To test the interaction, a two-step multiple regression was performed to explore the relationship between the predictor variables of condition (no comment, positive comment response, negative comment response), SDO, and Condition x SDO interaction, following Aiken and West (1991). The future contact intentions variable was utilised as the criterion. Condition and SDO centred on its respective means were entered at step one and the Condition x SDO interaction was entered into step two. Table 34 gives information about regression coefficients for the predictor variables entered into the model. The overall model was significant $F(1, 203) = 9.64, p < .001$, however, the Condition x SDO interaction was not statistically significant, $b = -.04, 95\% \text{ CI } [-.24, .15], t = -.43, p = .671$.

Table 34

Multiple Regression Model of Predictors of Outgroup Evaluation, with 95% Confidence

Levels Reported in Parentheses (unstandardised and standardised coefficients)

Variable	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>t</i>	<i>p</i>
Step 1					
Constant	4.81 (4.56, 5.06)	.13		37.59	$p < .001$
Condition (negative)	-.10 (-.30, .09)	.10	-.07	-1.06	$p = .292$
SDO (centred)	-.39 (-.54, -.24)	.08	-.34	-5.19	$p < .001$
Step 2					
Constant	4.82 (4.56, 5.07)	.13		37.38	$p < .001$
Condition (negative)	-.11 (-.30, .88)	.10	-.01	-1.08	$p = .281$
SDO (centred)	-.35 (-.60, -.10)	.13	-.52	-2.77	$p = .006$
Condition x SDO	-.04 (-.24, .15)	.10	-.09	-.43	$p = .671$

Note. $R^2 = .124$ for step 1 ($p < .001$); $\Delta R^2 = .001$ for step 2, ($p = .671$)

Discussion

The aim of Study 9 was to gain some understanding on how people respond to comments posted on social media within both a positive and negative intergroup contact context. Specifically, when a member of an outgroup makes a comment exhibiting some degree of hostility toward the ingroup, and a member of the ingroup responds in either a derogatory or empathic way towards them in an attempt to diffuse the comment.

Hypothesis one predicted that people will evaluate the outgroup member more negatively when they view a response comment from an ingroup member that is negative compared to people who view a response comment from an ingroup member that is

positive/empathic. In line with hypothesis one, results demonstrated that there was a significance difference between the ingroup member positive response comment and the negative response comment when comparing these two conditions. However, when examining all three conditions there was no difference between those that viewed the negative comment condition compared to those that viewed the no comment condition. People evaluated the outgroup member higher when a positive comment was posted more than when a negative comment was posted. Results therefore suggest that modelled positive behaviour made a positive difference in line with social learning theory (Bandura, 1986). The vicarious contact framework utilised within this research represents a form of indirect contact that integrates the ideas of extended contact with general principles of social learning theory (Dovidio, Love, Schellhaas & Hewstone, 2017). Observing the actions of another person, particularly someone with whom you identify with such as another ingroup member, can influence perceptions of how you should behave. Furthermore, in line with recent research into young people's online social networking, the positive outcome observed within this research can benefit an individual's health and psychological well-being (see Ellison, Steinfield & Lampe, 2007; Steinfield, Ellison, & Lampe, 2008).

When exploring how people evaluated the ingroup member after making either a negative or positive comment consistent with hypothesis two, there was a large difference between conditions with people evaluating the ingroup commenter higher when they made a positive comment compared to when they made a derogatory comment. This effect was bigger than in the outgroup member evaluations. This effect is comparable to Studies 4 and 5 where people evaluated the ingroup commenter lower in the condition where they made a derogatory comment.

Hypothesis three predicted that participants who are in the negative comment condition and high in SDO will evaluate the ingroup commenter more favourably compared

to people who are low in SDO and in the negative comment condition. There was not a significant main effect of SDO on evaluation of the commenter. However, comparable to the findings of Study 4 and 5, when examining the interaction, in the negative response comment condition there was a significant relationship between SDO and evaluation of the ingroup commenter. Therefore, those who were in the negative response condition, the higher the SDO the more positively they evaluated the commenter.

Hypothesis four explored the effect of previous contact experiences on evaluations of both the outgroup and the outgroup commenter. Firstly, the effect of previous contact experiences on the outgroup was explored. It was predicted that negative contact experiences will predict increased negative attitudes towards the outgroup. Contrary to the findings in Chapter 6, the analysis revealed a significant relationship between previous contact experiences and evaluations of the outgroup. Both previous positive and negative contact experiences were associated with overall evaluations of the outgroup. There was no significant association of condition on evaluations of the outgroup and no interaction of previous contact experiences on evaluations of the outgroup.

Secondly, when exploring whether previous contact experiences predicted evaluations on the outgroup member. Previous negative contact experiences predicted reduced evaluations of the outgroup member. When the simple slopes were explored, interestingly they revealed that in the no comment condition there was a significant relationship between previous negative contact and evaluations of the outgroup member. It appeared that when people had limited information and no response from the ingroup member to guide them they relied on past contact experiences when evaluating the individual outgroup member.

Lastly the analysis explored the impact of the manipulation on future contact intentions. Hypothesis five predicted that participants in the negative response comment

condition will have a lower opinion of the outgroup and be less likely to engage in future contact with the outgroup compared to participants in the positive response comment condition. Contrary to expectations, there was no significant relationship between condition and future contact intentions or evaluations of the outgroup in general. An exploratory analysis was conducted to see if SDO moderated these effects, however there was no significant interaction of condition and SDO on future contact intentions. A possible explanation for this maybe that the individual was individuated to an extent that the effects did not generalise to the outgroup.

Limitations and Future Directions

Despite the findings of Studies 1 and 2 that found that the negative contact behavioural manipulation was a significant predictor of future contact intentions. The current findings suggest that the expected predictor of future contact intentions was non-significant. This may be due to the limitation discussed above. Additionally, the non-replicability of this finding within this study may be due to a limitation of sample size. Although a priori power analysis in G*Power 3.1 (Faul et al., 2007) was conducted to determine the number of participants required in this study to reach power ($N = 246$), the final sample consisted of 207 participants due to exclusions. It is quite probable that the study would likely have benefitted from attaining the suitable number of participants to reach power, as determined by my priori analysis. However, the restrictions placed by Covid meant that obtaining participants was difficult at the time of data collection. In addition, also due to Covid restrictions participants were recruited from two different online data collection platforms. This study would benefit from a replication study to see if a sample size matching the suggested size from the power analysis would overcome this limitation.

The implications for this research are important given recent political history that suggests that intergroup contact is undesirable for many (Paolini et al., 2018). Paolini, Harris and Griffin (2016) within their review suggest that growing socio-psychological evidence indicates that fear and anxiety about outgroup members make dominant group members avoid intergroup contact. This perpetuates a pattern of informal group segregation which obstructs the benefits of positive intergroup contact. Here, this research has demonstrated the beneficial outcome of using online contact to diffuse a negative contact encounter and provides a mechanism to reduce the harmful effects of negative intergroup contact vicariously through a pattern of learned behaviour. Nonetheless, it would be interesting to introduce a behavioural measure in future studies. For example, a future study could include a measure in which participants were given the opportunity to like or share a post such as the one introduced in this study. This would provide examination of people's actual behavioural tendencies in addition to asking their future contact intentions.

Nevertheless, this study makes a unique contribution to the literature in three ways, 1) an individual outgroup member makes a hostile remark generally research focuses on the outgroup as a whole, 2) the derogatory comment was spoken by an ingroup member rather than an outgroup member, a viewpoint seldomly explored within the literature base and 3) a positive contact encounter was introduced where an ingroup member attempted to diffuse the situation with a positive empathic response.

Conclusion

Considering the rapid growth in internet users, the internet can be expected to play a role in future conflicts, positive or negative. Therefore, a better understanding of the online dynamics of online intergroup communication is crucial to improve strategies of conflict resolution. Although participants evaluated the ingroup member who wrote the derogatory comment lower than the ingroup member who tried to diffuse the situation with an empathic

response, frequent and repetitive exposure to hate speech can also lead to desensitisation and subsequently lower evaluations of the outgroup victim and greater distancing, thus increasing outgroup prejudice (Soral et al., 2016).

Chapter 8: General Discussion, Conclusions and Future Research Directions

Chapter Summary

This final chapter provides a summary of the work presented within this thesis. Following a brief review of the theoretical background that underlined the aims of the thesis, the main empirical findings are summarised. Potential limitations that affect the external validity of conclusions are discussed. The chapter concludes by proposing a program for future research.

Theoretical Background and Aims

Relative to positive intergroup contact, the influence of negative intergroup contact has received considerably less scientific attention. Recent research has taken important first steps to demonstrate the prejudice-enhancing potential of negative contact. The principle aim of the present research was to provide to a broader understanding of the consequences of negative intergroup contact and how people interpret contact that could be perceived as negative. Taken as a whole this thesis demonstrates various consequences of three facets of negative intergroup contact.

This journey began with exploring the effects of direct negative contact on outcomes beyond prejudice and how outgroup avoidance can generalise beyond the contacted outgroup. Next followed a selection of vicarious indirect contact effects and how as readers of derogatory comments we evaluate ingroup members making the comment. This is important given current online environments where watching others' negative responses can make us more negative and prejudicial. Instead of embracing a massive extension of our social circles online, we seem to be reverting to conflict in which online behaviour is harsher, less self-censored than in the real world (Mcloughlin, Brady & Crockett, 2021). Reading negative user comments can result in negative emotions and increased prejudice (Hsueh et al., 2015)

A stream of three studies was dedicated to exploring what happens when the contact situation is, to some degree, open to interpretation. Specifically, whether we rely on past contact experiences or previously held attitudes to influence our judgement of the current contact encounter. The final study concluded this journey by investigating the effects of a derogatory comment posted on an imitation social media platform during the Covid-19 pandemic by an outgroup member when it is either diffused in an empathic way or responded to in a negative way by an ingroup member.

The literature review began with an introduction to the primary social psychological theory underlying the research within this thesis. This research framework, based on Allport's (1954) contact hypothesis has traditionally been associated with its robust mechanism to reduce prejudice. Allport (1954) however, warned that contact was not a universal solution for prejudice and suggested that contact may actually lead to a worsening of intergroup relations under certain conditions. If an intergroup interaction is typically found to have negative effects tied to intergroup bias, it can produce heightened stress, intergroup anxiety, or lead to outgroup avoidance. The research presented in this thesis has explored the negative consequences of intergroup contact, aiding our understanding of this important construct.

As identified in the literature review, there are many areas within the intergroup contact literature that the research on negative contact and its consequences is fairly limited. The primary aim of this empirical research was to add to the current literature body within the areas of negative intergroup contact, ambiguous intergroup contact, and online intergroup contact. From reviewing the emerging research within this field, research has begun to explore the comparative effects of positive and negative contact and the generality of the positive–negative asymmetry effect. It has also begun to explore the impact of negative contact on practices such as segregation (McKeeen & Dixon, 2017). Both direct and indirect negative contact with an outgroup member has been found to worsen attitudes toward that outgroup as a whole (Barlow et al., 2012; Birtel & Crisp, 2012; Graf et al., 2014; Paolini et al., 2010). Furthermore, comparable to positive contact, the effects of negative contact have been found to generalise to other outgroups (Brylka et al., 2016; Zingora & Graf, 2019).

Considering the limited research on direct negative contact as distinct entity and the impact on outcomes beyond prejudice, Chapter 3 explored behavioural consequences of a direct negative interaction to examine the influence of negative contact on future contact intentions with the outgroup as a whole. The aim of this research was to examine the

influence of negative contact on outcomes beyond prejudice. The potential of intergroup contact to foster a more positive relationship, can only be accomplished when group members are willing to engage in contact with outgroup members. Despite the importance of understanding people's willingness to engage in intergroup contact, relatively little research attention has been directed to it (Ron, Solomon, Halperin & Saguy, 2017). The research in this chapter employed an economic game as a model for exploring whether a negative interaction with an individual outgroup member lead to a reduction in peoples willingness to engage in future contact.

Within the positive contact research, the secondary transfer effect, where positive contact with an outgroup member promotes more positive attitudes towards the primary outgroup and generalises beyond to other secondary outgroups not involved in the contact situation (Pettigrew, 2009) is well established. However, empirical research examining if the secondary transfer effect is present for negative contact situations is scarce and questions remain (Boin et al., 2021; Vezzali et al., 2021). Chapter 4 offers an insight into the negative secondary transfer literature and attempted to empirically provide some answers as to whether the secondary transfer effect is present following negative contact with a primary outgroup. Here a model of generalisation through secondary transfer effects was developed. The research within Chapter 4 aimed to further the findings in Chapter 3 and demonstrate that the influence of negative intergroup contact is not limited to the outgroup with whom the contact occurred, but can also compromise engagement with other minority groups.

As a second way of exploring the generalised consequences of negative intergroup contact participants' perceptions of contact self-efficacy were also explored. The critical role played by self-efficacy in people's behaviour was recognised in the 1980's by Bandura (1986) in his theory of social-cognitive learning. Contact self-efficacy theory specifically refers to a particular set of beliefs about one's ability to interact effectively with outgroup

members (Stathi, Crisp, & Hogg, 2011). Self-efficacy beliefs tap directly into people's intentions to engage in future contact (Stathi et al., 2011). In the present study this construct was adopted to explore whether negative contact may manifest not only in reduced intentions to engage with specific primary and secondary outgroups in the future, but may also harm individuals' general confidence in cross-group situations.

Addressing which individual differences are most receptive or hostile to positive and negative contact effects is also an important direction for research. SDO as a potential moderator of the effect of negative intergroup contact was explored initially in Chapter 5 and then once again in Chapter 7. Extensive research within the intergroup relations literature has documented the association between SDO and various forms of outgroup negativity. Individuals high in SDO generally support group-based inequality. SDO has been found to be an important moderator of negative contact effects (Dhont & Van Hiel, 2009). The research in Chapter 5 increased our theoretical understanding of SDO by contributing to both the negative contact and online contact literature base. Additionally, given that the derogatory comment was spoken by an ingroup member, rather than an outgroup member, a viewpoint seldomly explored within the literature base, makes these studies a unique contribution to the literature. Finally, this research is theoretically interesting since people observe this type of discourse habitually in daily life (Zayed & Allen, 2022).

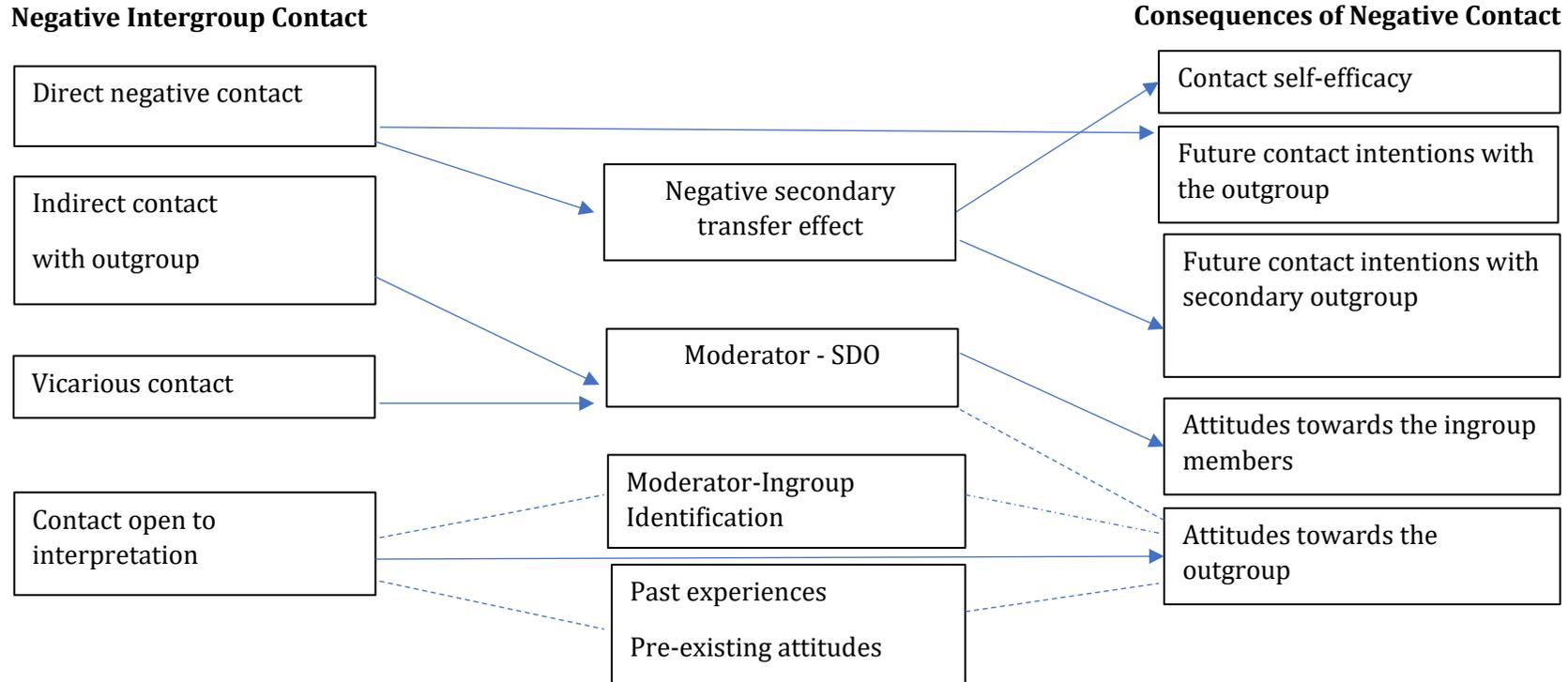
An important theoretical framework thread running through much of the research presented here is that of vicarious negative intergroup contact. Vicarious contact is defined as the observation of an interaction between an ingroup member with an outgroup member (Dovidio et al., 2011; Vezzali et al., 2014). Vicarious contact research has mainly considered parasocial relationships portrayed through the media such as films and books (Harwood et al., 2013). Here the literature on vicarious contact has been advanced through the novel

methodology operationalised in Chapters 5, 6 and 7, i.e., the observation of derogatory comments through imitation social media platforms and using novel ambiguous scenarios.

Taken as a whole this research has increased our understanding of the consequences of direct intergroup contact, and indirect negative intergroup contact through the vicarious contact framework. A negative secondary transfer effect and outcomes beyond prejudice including future contact intentions and contact self-efficacy have been supported. In addition, contact that is open to interpretation has been explored as a tertiary stream of contact research within this thesis. This has aided the advancement of the negative contact literature base in general and within several theoretical domains. Figure 30 demonstrates the theoretical frameworks and pathways towards the dependent variables and moderators used within this research. The next pages provide a summary of the empirical studies for reference. It is followed by a summary of findings of the research within this thesis.

Figure 30

Theoretical Frameworks used Within this Research



Note. The continuous lines represent effects demonstrated; the dashed lines represent explored but not supported research areas.

Summary of Empirical Studies

Study	Design type	N	Description	Outgroup	Dependent measures/Moderators	Main findings
1	Experimental Direct contact Lab study	81	Trust Game with negative experimental manipulation Ingroup Vs Outgroup	Chinese people	DV: Outgroup evaluation DV: Intentions to engage in future contact	A direct negative encounter with an outgroup member, was found to reduce intentions to engage in contact with that outgroup in the future.
2	Experimental Direct contact Lab study	149	Trust game Additional condition	Chinese people	DV: Outgroup evaluation DV: Intentions to engage in future contact	A direct negative encounter with an outgroup member, but not an ingroup member, was found to reduce intentions to engage in contact with that outgroup in the future.
3	Correlational	205	Aimed to test if effects of negative contact and future contact intentions would generalise beyond the primary contact group of Muslim immigrants to other types of immigrants for the secondary groups.	Muslim immigrants (primary) Eastern European/Black African / Indian immigrants (secondary)	DV: Intentions to engage in future contact DV: Contact self -efficacy	Negative intergroup contact is associated with lower future contact intentions not only towards the contacted outgroup, but also, indirectly, with contact intentions towards other, non-contacted groups is reported. association between negative contact and lower perceptions of contact self-efficacy.
4	Experimental Indirect contact	99	Imitation Facebook profile used where there was an article and negative comment in the experimental condition by ingroup member. SDO was used to measure prejudice level.	Immigrants	DV: Attitudes towards the ingroup commentor DV: Attitudes towards the outgroup Moderator: SDO	People who witness a derogatory comment evaluate the person making the comment lower, than those people who do not witness a comment. This is moderated by their level of SDO. People high in SDO, after witnessing a derogatory comment will evaluate the commenter relatively less negatively.

5	Experimental Indirect contact	204	Imitation Facebook profile Ingroup identification used as additional measure.	Immigrants	DV: Attitudes towards the commentor DV: Attitudes towards the outgroup. Moderator: Ingroup identification scale Moderator: SDO	Replication of Study 4. No moderation effect of ingroup identification.
6	Experimental Indirect	138	Interpretation of different scenarios encountered in every-day situations between members of the ingroup (control) and outgroup (experimental condition). Previous contact negative and positive measured to see if previous experiences have an impact.	Muslim people	DV: Evaluation measure.	Those who read scenarios that identified the individual as an outgroup member (Immigrant), evaluated the individual more negatively than those who read scenarios depicting someone from the ingroup of British. Pre-existing attitudes/contact did not make any difference to how people evaluated the individual in the scenario within this subject pool.
7	Experimental indirect	130	Interpretation of different scenarios encountered in every-day situations Participants given negative/positive information first	Turkish people	DV: Evaluation measure	No significant difference between those who read the negative info compared to those who read the positive info on how they evaluated the behaviour of the outgroup member in the scenarios. Pre- existing attitudes towards the outgroup had a negative effect on evaluations of the individual within the scenario, however there was no significant interaction between the condition and evaluation of the individual within the scenario.

8	Experimental direct	133	A test to see if previous reported negative contact experiences influenced an ambiguous contact situation using an Ultimatum Game in which participants played with an outgroup member. Included a negative contact condition of 0 tokens, ambiguous condition of 4 tokens	Chinese people	DV: Evaluation of the opponent scale. DV: Intentions for future contact	Feelings towards the outgroup member were significantly reduced in the negative contact condition compared to the ambiguously neutral condition. No significant interaction effect between past experiences and attitudes and condition. Results confirmed that there was no significant difference between the negative contact condition compared to the neutral contact condition for intentions to engage with the outgroup in the future.
9	Experimental indirect	203	News article on a social media site with a comment from a member of the outgroup with hostility about the ingroup. Three conditions 1) no comment followed, 2) empathic comment by ingroup member, 3) derogatory comment by ingroup member.	Chinese people	DV: Evaluation measure of individual Moderator: SDO	People evaluated the outgroup member higher when a positive comment was posted more than when a negative comment was posted. Those who were in the negative response condition, the higher the SDO the higher they evaluated the commenter. There was a significant relationship between previous contact experiences and evaluations of the outgroup. Both previous positive contact and previous negative contact experiences were associated with evaluations of the outgroup after the manipulation. No significant relationship between condition and future contact intentions or evaluations of the outgroup in general.

Summary of Findings

Studies 1 and 2

Studies 1 and 2 provided an initial insight into the impact of negative contact on outgroup avoidance with an experimental design. Studying negative intergroup contact in the laboratory sacrifices some external validity, but allows more confidence in drawing causal conclusions. Here, negative intergroup contact was manipulated within the context of an economic game, the Trust Game (Berg et al, 1995) in which participants ostensibly completed with a Chinese partner. The Trust Game provides an opportunity to observe interactions between different members of different groups in a setting that provides high internal validity. This simple game, also provides a novel approach to the investigation of negative contact in a controlled setting. The game has often been used as metaphors for more complicated social situations (Bracht & Feltovich, 2008) and it was considered a good choice to simulate both a negative and a neutral (control) interaction.

Findings from Study 1 demonstrated that compared to a neutral contact condition, a negative intergroup encounter where individuals discovered that their trust has been violated by an outgroup member, resulted in increased prejudice towards the outgroup and lower intentions to engage with this outgroup in the future. Study 2 ruled out a possible alternative explanation for results by confirming that these same effects did not emerge following the same non-cooperative encounter with an ingroup member. Taken as a whole, these studies provide initial evidence of the impact on negative intergroup contact on outcomes beyond standard indices of prejudice - on measures of outgroup avoidance. They also substantiate the impact and importance of negative contact research.

Study 3

Study 3 expanded upon the first two studies to demonstrate that the influence of negative intergroup contact is not limited to the outgroup with whom the contact occurred, but can also compromise engagement with other minority groups. Through this correlational research, contact with Muslim immigrants was found to be indirectly associated with reduced contact intentions towards secondary outgroups, via reductions in contact intentions towards the primary outgroup. This provides evidence of a negative secondary transfer effect, an area in which research has been scarce (Vezzali et al., 2021). In this study a new outcome variable was employed, exploring the generalisation of avoidance rather than attitudes. The generalisation of avoidance occurred as statistically significant indirect effects of negative contact with the primary group on contact intentions towards secondary outgroup, through contact intentions towards the primary group.

In line with previous results, negative contact occurred less frequently than positive contact (e.g. Barlow et al., 2012; Dhont & Van Hiel, 2009; Graf et al., 2014). Previous studies also often find negative contact to be a stronger predictor of prejudice than positive contact (Barlow et al., 2012). While the aim of this research was to broaden the understanding of the breath of negative contact effects rather than to test for positive-negative contact asymmetry effects, this comparison is possible in Study 3. In terms of outgroup attitudes, positive contact was actually a stronger predictor than negative contact, indicating a contact asymmetry in favour of positive contact. This finding is consistent with previous observations of the strength of positive contact in predicting affective outcomes (Aberson, 2015; Hayward et al., 2017). In terms of outgroup avoidance, positive contact was the stronger predictor.

Studies 4 and 5

Understanding what happens when people are the bystanders of hostility from ingroup members is an interesting question to begin to explore. Viewing prejudicial comments is something that happens frequently in daily life especially on online platforms such as Facebook, Reddit, or Twitter (Kumar et al., 2018). Therefore, the primary aim within these two studies was to explore how as readers of derogatory comments we evaluate the person making the comments and how reading these comments may affect our evaluations of the target outgroup.

Previous research demonstrates that by justifying the use of derogatory comments, majority group members withdraw legitimate status preventing the societal advancement of lower status groups, thereby reinforcing existing status hierarchies (Blakemore, 2015). This has been found to have extreme negative impacts for individuals and groups targeted by the comment. For example, targets of derogatory comments experience extreme emotional reactions (Brandt & Henry, 2012) and experience dehumanisation (Haslam et al., 2011).

In the current studies, the target outgroup for these experiments was immigrants and the ingroup was White British. It was predicted that after reading the negative comment within an imitation Facebook profile, people would evaluate the outgroup less favourably than those who saw the profile with no comment (control condition). The negative comment in the experimental condition was derogatory towards immigrants complaining about how they take our resources such as jobs and calls them criminals and terrorists. This prediction was not statistically supported within either study.

In general, most people are opposed and will dislike a person making a prejudicial comment about an outgroup, and that was found here. Nonetheless, it was thought-provoking to consider personality differences in how people evaluate an ingroup member when they make a derogatory comment. SDO was considered as a moderator of the effect of condition

(either a reading derogatory comment or not seeing a comment) on both evaluations of the outgroup as a whole and the ingroup member. In both studies, there was a main direct effect of SDO on evaluations of the outgroup, with higher SDO leading to decreased evaluations of immigrants overall. However, in opposition to research findings such as those of Küpper et al. (2010) that found individuals with higher SDO are more likely to discriminate against immigrants, there was no significant interaction of condition and SDO score on outgroup evaluation in both studies.

There was however a main effect of condition and SDO when participants evaluated the ingroup commenter. Both studies found that people who witness a derogatory comment evaluated an ingroup member who made the comment, more negatively than those who do not witness a derogatory comment. However, people's evaluations of the commenter appear to be moderated by their level of SDO. People high in SDO, evaluated the (negative) commenter relatively less negatively than those low in SDO. This supports the majority finding that that SDO predicts outgroup prejudice (Altemeyer, 1998, Duriez & Van Hiel, 2002; McFarland, 1998; McFarland & Adelson, 1996; Dhont & Van Hiel, 2009). Derogatory comments can be used to assert dominance over other racial groups (e.g., Henry et al., 2014; Kraus et al., 2011; Mullen, 2004; Mullen et al., 2001). Together these two studies have provided some understanding as to how we evaluate an ingroup member making a derogatory comment towards an outgroup, something that has received very little attention within the literature.

Studies 6 and 7

The principle aim of Chapter 6 was to gain further understanding of the consequences of negative contact when the situation is open to some degree of interpretation. How we interpret or recall any social situation is partially dependent on our own individual characterises and past experiences. This is exemplified in the work undertaken by Greenhoot,

et al. (2006). Their findings suggest that individual differences in children's (age 5 and 6 years) interpretation and recall of identical events may be partially explained by variations in past experience and background knowledge. Therefore, these studies sought to explore whether we rely on previous intergroup contact experiences when the perceived behaviour of the outgroup member is equivocal. Correctly interpreting other people's behaviour is essential to functioning in the social world therefore, a novel paradigm to experimentally explore how people interpret the behaviour of an individual within a number of different ambiguous scenarios was utilised. The scenarios consisted of seven naturalistic everyday situations in which the behaviour or intention behind the behaviour of the target was open to interpretation and could be attributed as either accidental, neutral, positive, or negative.

Results from Study 6 indicated that those who read scenarios where the individual within the scenarios was identified as an outgroup member (Immigrant) evaluated the individual's behaviour more negatively than those that read scenarios depicting someone from the ingroup of British. This supports the findings within the ultimate attribution error literature of ingroup favouring and outgroup derogating tendencies (Hewstone, 1990; Pettigrew, 1979; Rosenberg & Wolfsfield, 1977; Taylor & Jaggi, 1974). It was expected that in line with past research such as that of Paolini and colleagues (2014) past contact experiences will influence the degree to which present contact affects people's intergroup responses. Although it is important to note that Paolini et al. (2014) did report that their findings were not always statistically strong. The findings here were also not statistically strong, pre-existing attitudes or contact experiences did not make any difference to how people evaluated the individual in the scenario. This may be ascribed to the sample population being students. There was a low number of participants who reported any negative contact with the outgroup and even less positive contact with the outgroup, therefore this may not generalise to the wider population. It may be that with more reported past contact

experiences or stronger attitudes towards the outgroup we see a stronger influence of past experiences on the present contact experience.

Study 7 aimed to further the findings of Study 6 by examining whether people will rely on recent positive or negative information about the outgroup when the perceived behaviour of the outgroup member is open to interpretation. The same seven scenarios and procedure was followed except participants were provided with either positive or negative stimulus information about the outgroup before they evaluated the outgroup member's behaviour within the scenarios. By using this stimulus information to create a positive or negative attitude, it was anticipated that this would trigger a belief, attitude, or past experience (Weinberger, Allen, & Dillon, 1981). Weinberger et al. (1981) believe this experimental method should also negate the impact of mediational factors such as anxiety, susceptibility to social influence, which were not of primary concern within this study.

Results demonstrated that there was no significant overall difference between those who read the negative information compared to those who read the positive information about the outgroup. When exploring whether previous contact experiences or existing attitudes had an effect on evaluations of the individual member with the scenario, pre-existing attitudes towards the outgroup had a negative effect on evaluations of the individual within the scenario, however there was no significant interaction between the condition and evaluation of the individual within the scenario. This indicates that the recent negative or positive information about the outgroup had no influence on how people evaluated the individual within the scenario when their behaviour was open to interpretation. It appears that the information given about the outgroup was perhaps not strong enough to influence how people evaluated the behaviour in the scenarios when it was open to interpretation or that a transient manipulation is not enough information for individuals to rely on in interpretation of the scenario.

Future studies could consider the use of a stronger longer lasting manipulation and then we may see an effect of condition on evaluations of the behaviour within the scenarios. Another possible change to make going forward is to use an alternative outgroup, one that people hold more prejudiced attitudes towards. Again, as with Study 6 people did not report much previous contact experiences with this outgroup. Nevertheless, together these studies have provided an initial look at how people interpret different scenarios when they are open to interpretation.

Study 8

Study 8 experimentally completed this stream of research on ambiguous intergroup contact situations and how these interactions relate to past contact experiences. Here, negative intergroup contact and contact that may be perceived as ambiguous was manipulated within the context of an economic game in which participants ostensibly completed with a Chinese partner. Feelings towards the outgroup member were significantly reduced in the negative contact condition compared to the ambiguously neutral condition. It was predicted that those in the relatively more positive condition who received 4/10 tokens, may rely on past experiences/pre-existing attitudes to interpret the fairly ambiguous contact encounter. As found in Studies 6 and 7, previous negative contact experiences or existing negative attitudes had no influence on how people interpreted the current contact situation. Results also confirmed that there was no significant difference between the negative contact condition compared to the neutral contact condition for intentions to engage with the outgroup in the future.

Study 9

Observing comments that are written underneath news articles is commonplace within society (Hseuh et al., 2015). Often these comments have been written with hate or bad intent behind them, alternatively they can be empathetic to the news article or in response to a

comment. Exposure to prejudiced comments has been found to impact the readers own attitudes and behaviours, with people adopting the groups social norm and will adjust their own response according to the group (Hseuh et al., 2015). The aim of this final empirical experiment was to gain some understanding on how people respond to comments posted on social media within both a positive and negative intergroup contact context. Specifically, when a member of an outgroup makes a comment exhibiting some degree of hostility toward the ingroup, and this is followed by a comment from a member of the ingroup who responds in either 1) a derogatory or 2) an empathic way. The outgroup for this study was Chinese people and the ingroup British people. An online newspaper article was presented to participants downloaded from BBC News Facebook page following which there was a comment from the outgroup member which could be considered hostile in nature and then a comment from an ingroup member.

People evaluated the outgroup member more positively when a positive comment was posted from an ingroup member than when a negative comment was posted from an ingroup member. As expected, people also evaluated the ingroup commenter more positively when they made a positive comment. This demonstrated that modelled positive behaviour made a positive difference in line with social learning theory (Bandura, 1986). Additionally, it provides support to the research by Hseuh et al. (2015) that people are guided by the behaviour of others. This effect is comparable to Studies 4 and 5 where people evaluated the ingroup commenter more negatively in the condition where they made a derogatory comment. Also comparable to the findings of Studies 4 and 5 was the effect of Social Dominance Orientation. People who were in the negative response condition, the higher the SDO the higher they evaluated the commenter.

Contrary to the findings in Chapter 6, the analysis revealed a significant relationship between previous contact experiences and evaluations of the outgroup. Both previous positive contact and previous negative contact experiences were associated with evaluations of the outgroup as measured after the manipulation. There was no significant association of condition on evaluations of the outgroup and no interaction of previous contact experiences and condition on evaluations of the outgroup. Lastly the analysis explored the impact of the manipulation on future contact intentions. Differing to Studies 1 and 2, there was no significant relationship between condition and future contact intentions or evaluations of the outgroup in general.

Summary

To summarise, this research has substantiated the impact of and importance of negative contact research by advancing our understanding of the consequences of negative contact and contact that can be interpreted as negative in three ways. Firstly, in the opening stream of research in Chapters 3 and 4, initial evidence was provided within this thesis of the impact on negative intergroup contact on outcomes beyond standard indices of prejudice - on measures of outgroup avoidance. Negative contact on outgroup avoidance is not limited to the contacted outgroup but is indirectly associated with reduced intentions to engage with other, secondary outgroups. Negative contact was also associated with lower general contact self-efficacy, the belief about one's ability to interact effectively with outgroup members.

Then, within the second stream of research Chapters 5 and 7, vicarious indirect contact research was advanced through understanding of what happens when people are the bystanders of hostility from ingroup members. This is an interesting question to begin to explore and this exploration is important. Theoretically, these studies add to both the negative contact and online contact literature base on contact. Viewing prejudicial comments is

something that happens frequently especially within the online domain and is a different form of vicarious contact, considering that vicarious contact has traditionally been associated with observation of an outgroup member typically through parasocial relationships with media figures (Harwood et al.2013). Furthermore, this research is theoretically interesting since people observe this type of discourse habitually in daily life especially from ingroup members. Here, the derogatory comment was spoken by an ingroup member rather than an outgroup member, a viewpoint seldomly explored withing the literature base, makes these studies a unique contribution to the literature.

Finally, the third stream of research in Chapter 6 explored an area that little attention has been paid to - the potentially common situation when another's behaviour is vague and could be interpreted as either neutral, positive, or negative contact. This is again an important area of research to be explored especially as misunderstandings may cause problems that might inflate intergroup hostility (Nir, Nassir, Hasson, & Halperin, 2022; Newson, White & Whitehouse, 2022). There are occasions in everyday life where we find ourselves in a situation where another's words or behaviour is ambiguous or unfamiliar and open to interpretation. This research provided novel methodology as an initial empirical test of interpretation of different ambiguous scenarios encountered in every-day situations between individual members of the ingroup and outgroup. Intent can be vague and misinterpreted and as racial biases can take many configurations, therefore it is important to explore this area.

Although no significant results were found of previous intergroup contact experiences or existing attitudes held regarding the out group influencing how people interpret the contact encounter, I still consider this an area for further investigation. Research can potentially provide an understanding of how people interpret intergroup contact that is vague. Nevertheless, it can be argued that an interpersonal situation when a situation is ambiguous,

negative interpretation might be harmful. Further investigations, as suggested below, can perhaps further clarify how interpretation comes into play when evaluating an intergroup contact situation.

Together these findings suggest that negative contact is damaging not just because it increases prejudice and negative attitudes but also because it compromises future engagement with diversity. Below, I will turn to suggestions for a program of future research.

Limitations and Future Research Directions

There are some limitations to the present research that should be acknowledged. While these experiments examined the impact of negative intergroup contact across different intergroup contexts, participants were mostly drawn from a sample of British University students. As is common with such samples, there was also a gender skew in the samples and a small number of male respondents. In some studies there was a low number of participants who reported any negative contact with the outgroup, therefore this may not generalise to the wider population. It may be that with more reported past contact experiences or stronger attitudes towards the outgroup there is a stronger influence of past experiences on the present contact experience.

The generalisability of the results in studies 6, 7 and 8 is subject to certain limitations. The results did not find a significant effect of previous contact experiences or existing negative attitudes on how people interpreted the current contact situation. This is most likely due to the sample population reporting low amounts of previous contact with the outgroup and the stimulus material not being strong enough to influence how people evaluated the behaviour in the scenarios. Future studies could consider the use of a stronger manipulation such as a brief vignette and a video clip from social media or the news and then imagine themselves within the scenario as in Newson et al. (2021). Then there may be an effect of

condition on evaluations of the behaviour within the scenarios. Another possible change to make going forward is to use an alternative outgroup, one that people hold more prejudiced attitudes towards or a population with more evolved prejudices. It may be that with more reported past contact experiences or stronger attitudes towards the outgroup we see a stronger influence of past experiences on the present contact experience.

Alternatively, if we do not rely on our past experiences to guide us when the contact situation is open to interpretation, it may be that we look to the behaviours or cues from other members of the ingroup on how to respond or react within the intergroup contact situation. For example, if there is a leading comment from an ingroup member as to whether the situation was 'acceptable' or 'unacceptable' people may interpret the contact situation in line with this social cue. This line of reasoning was evident within the findings of Study 9. Here, observing a positive response from an ingroup member resulted in people evaluating the outgroup member higher, compared to those who observed a negative comment from an ingroup member. People followed the social norms of the group and demonstrated modelled positive behaviour that made a positive difference in line with social learning theory (Bandura, 1986). Future research may wish to consider how ideological news sources can lead people to interpret stimuli as either good or bad.

Most of the contact literature has been conducted via the use of cross-sectional methods (Pettigrew & Tropp, 2006). For example, in their meta-analysis of intergroup contact literature Pettigrew and Tropp (2006) found that over 70 percent of the positive contact studies included were classified as survey or field research. Indeed, I have used correlational research methods and relied on people's historical recollections within some of my studies. The method has been criticised for its limitations such as recall bias, social desirability, acquiescent and extreme responding (Keil, Koschate & Levine, 2020). The time gap between the event and actual data recording means that information on the immediate

experience and situational context of individual contact remains somewhat limited (Keil et al., 2020). Although valid these methods often rely on self-report of historical contact events, especially within the negative contact literature. A growing body of evidence supports the theory that people are quite inaccurate in recalling past affective experiences (Colombo et al., 2020). Recall of past events may be biased by general attitudes and other later experiences. For example, *confirmation bias* (Wason, 1960) which is our tendency to seek and interpret memories in a way that confirms our prior hypotheses or personal beliefs. Alternatively, we remember the most recently presented information know as a *recency effect*.

One of the underlying assumptions of this research is what one person may view as an intergroup encounter that is very negative, another individual could view or recall the same situation from memory as being neutral. Nevertheless, Hewstone and Swart (2011) provided evidence for the validity of self-reports in assessing quantity and quality of intergroup contact. This is important since it weakens critiques and supports the validity of results based on self-reports. Furthermore, the research within this thesis has attempted to address the limitations highlighted in intergroup contact literature by answering the call by Pettigrew & Tropp (2011) for future intergroup contact research to use a mix of different methods. By using a variety of correlational and experimental methods I have answered this call and advanced the literature on negative contact through a variety of methods some of which are novel.

A natural progression of this work is for a future research program to expand upon these methods and explore the use of web-based platforms. Contrary to laboratory-based experiments that mainly look at interactions between two group distinct groups to elicit interactions and intergroup conflict web-based platforms have thousands of communities that could potentially interact. Actual contact could be measured through one of the self-reporting app tools or increasingly popular Ecological Momentary Assessments (EMA) that are

becoming available, these are being increasingly used for research especially with young adults and can be used to report contact interactions when they happen (for a review of this method see Heron, Everhart, McHale & Smith, 2017) and can be examined longitudinally.

Another area that would benefit from further attention within the online comment studies, is to explore what happens when people see others support the comment or comment in empathy towards the outgroup as an extension of my final study. It would be interesting to investigate whether people would go as far as to call the ingroup member out on their comment or whether they would be more inclined to be a silent bystander to such comments. A potential research hypothesis would be; if people saw such behaviour modelled previously, would they be more likely to intervene as a bystander. Based on research by Nesdale and Todd (2000) it is predicted that this type of response will influence assertive bystander intentions in the same way that intergroup contact impacts attitudes, by reducing ethnocentrism. In line with the work of Hyers (2007) it would be expected that while many individuals would consider a response to such comments, the actual number of people who take action is far less. Hyers for example, found that while 75% of participants considered an assertive response, only 40% made one.

It will be important for future research to replicate the effects found here within more representative samples. Replication could also be sought in more conflictual intergroup context. In some studies evaluation of the outgroup was fairly positive, with negative contact serving to reduce this positivity in the direction of the midpoint of the scale. This is likely driven to some extent by social desirability and self-presentational concerns, however, it will be also important to explore what this might mean for the flow-on behavioural consequences of negative contact and whether it translates to a reduction in positive intergroup behaviours (e.g. helping behaviours) versus an increase in harmful intergroup behaviours (e.g. verbal or physical confrontations). Future research could also implement a delay between the

experimental manipulation and the dependent measures to confirm how long-lasting effects are. Whilst much intergroup contact experiments are conducted within a single setting, some longitudinal evidence shows that contact is associated with an improvement in explicit outgroup attitudes. Recent research by Vezzali and colleagues (2022) demonstrated within high school students that the longevity of contact effect were positively associated with explicit positive attitudes and negatively associated with explicit negative attitudes over a timeframe of three years. These effects were demonstrated with quantity of contact rather than quality of contact.

While experimental research is primarily a viable option for the analysis of short-term effects of intergroup contact. It is possible that intervention effects will be stronger with repeated exposure. This can be measured using EMA as considered above or a method such as the Contact Logger introduced by Keil and colleagues (2020). The Contact Logger application that enables participants to record of interpersonal and intergroup encounters, in public and private spaces collecting repeated and near-time self-assessments of individuals' behaviors and experiences and this can be monitored over time. This could be particularly important for studies examining vicarious contact online, comments can be examined to aid a greter understanding of desentisation of deorgatory comments or aid understand as to how that may change our attitudes overtime. For example, derogatory comments have been found to have longer-term negative impacts on targets of a derogatory slur attributable to the comment bringing negative perceptions and stereotypes to mind both in observers of the slur and individuals targeted by the slur (Jeshion, 2013; Merskin, 2010).

Additionally, following on from the positive findings in Study 9, contact logging could be explored with prejudice towards a group such as people who are ani-trans to see how it would develop and propagate in real time and how that effects attitudes over time. This would be particularly interesting line of research given the ani-trans coverage and

opposition towards that community within women's competitive sports and the increasing number of anti-trans bills (23 currently) passed in America over the past few years (Kinney, Pearson & Ralston Aoki, 2022; Trans Legislation Tracker, 2023).

I would encourage future research to explore contact self-efficacy as a further variable dependent on previous contact experience. Little previous contact research has explored this construct, yet it is recognised as an important regulator of human behaviour (Bandura, 1986). Contact self-efficacy, is a measure that directly taps into confidence about future interactions, and predicts approaching contact behaviour (Stathi et al., 2011). An association between both types of contact and perceptions of contact self-efficacy was observed within Study 3. While I report encouraging evidence that positive intergroup contact is associated with higher levels of confidence in one's ability to interact effectively in future envisaged intergroup encounters, negative contact is negatively associated with efficacy beliefs. Moreover, because contact self-efficacy was measured at a higher level of categorisation (tapping efficacy regarding contact with immigrants, in general) findings suggest that reductions in confidence that result from negative contact are not restricted to one particular outgroup.

It is important to note that evidence of the influence of negative intergroup contact does not dispute the merits of positive intergroup contact, but rather invites a full understanding of intergroup contact effects. Here, I provide evidence of the impact on negative intergroup contact on outcomes beyond standard indices of prejudice - principally on measures of outgroup avoidance, but also on measures of contact self-efficacy. These studies substantiate the impact of and importance of negative contact research. It will be important for future research to continue to investigate this lesser understood type of contact in order to understand the full range of its attitudinal and behavioural consequences.

Summary of Practical Implications

The practical implications for research to aid the understanding of the consequences of negative intergroup contact to inform policy changes is vital given what is currently happening in political world current affairs, especially in America at this present time. I began this thesis discussing a background to the history of prejudice and how over fifty years ago it was acceptable and legal to express discrimination. Earlier this month (April 2023), White representatives in Mississippi approved a bill to create a new district that includes all the majority white neighbourhoods in Jackson, a capital city that is 83 percent Black. This includes creating a criminal justice system for the district, overseen by an all-white power base (Wagster Pettus, 2023). It has been described as Jim Crow being resurrected and the bill has been compared the bill to Mississippi's 1890 Constitution, which was drafted explicitly to "exclude the Negro" from voting through sinister methods of Black disenfranchisement (Wagster Pettus, 2023).

While the focus on positive contact research has been a positive development to improve intergroup relations, from identifying the consequences of negative contact research within this thesis it suggests that there is a clear need for greater awareness of the potential for negative intergroup contact research. Political events and everyday exchanges even vicariously through online platforms, signify why policy change is of utmost importance. The research in this thesis can help inform policies akin to the Commission on Race and Ethnic Disparities Report (2021). A unique perspective that this research has explored is how people from the ingroup evaluate the ingroup commentor (Studies 4, 5 and 9). Most research has looked at the impact of contact on attitudes towards the outgroup and not considered how harmful it may actually be to read derogatory comments from an ingroup member. Using an online platform through the world wide web attracts a larger audience and provides ease of access to enable the spreading of hate and radicalisation (Brown, 2018).

Racial slurs, are thought of as the defining feature of a hate crime (Saucier, Hockett, & Wallenberg, 2008). Individuals targeted by slurs or who have experienced discrimination direct or indirectly, these have been found to lead to more lasting negative health outcomes, such as increased heartrate and blood pressure (Krieger & Sidney, 1996; Schneider et al., 2000; Forde et al., 2020). Additionally, racial discrimination is associated with greater likelihood of engaging in negative health behaviours (e.g., smoking, alcohol dependence; Ladrine & Klonoff, 1996; Taylor & Jackson, 1990; Williams, Neighbors, & Jackson, 2003; Mays, Cochran, & Barnes, 2007). Study 9 further demonstrated that there is a potential through social learning to diffuse comments that appear hostile appear by a response from an ingroup member in an empathic way. This provides a potential pathway to reducing prejudice within online environments. This would be particularly useful in informing policy on prejudice towards groups against anti-trans people especially given the current political climate regarding women's competitive sports and the 23 anti-trans bills passed in America (Kinney, Pearson & Ralston Aoki, 2022; Trans Legislation Tracker, 2023).

Conclusion

This thesis aimed to broaden our understanding of the consequences of negative intergroup contact. That objective has been achieved through nine interesting studies exploring negative contact through a variety of methodology, some of these are novel in nature. Not only has this research advanced our understanding of negative contact in general, it has advanced out theoretical knowledge in vicarious contact research, our understanding of SDO as a potential moderator of negative contact effects has been increased, understanding of negative secondary transfer effect have been progressed and outcomes beyond prejudice have been furthered.

This work contributes to the existing literature base by considering past contact experiences, present contact experiences and willingness to engage in future intergroup

contact. Importantly, I have found evidence for significant effects on direct negative contact inhibiting individuals willingness to engage in future contact closing the door to other potential opportunities. My research has provided strong support for the importance of negative contact as a vital component of the broader research surrounding intergroup contact.

Across the first three studies it is demonstrated that negative intergroup contact is associated not just with increased prejudice, with reduced intentions to engage in further outgroup outreach. The next two studies found that SDO moderates evaluations of an ingroup member when they make a derogatory comments. This work demonstrates that derogatory comments have the potential to be damaging to those that observe them. The next stream of research explored what happens when the contact situation is open to interpretation. Contrary to expectations, participants generally were not guided by pre-existing attitudes or contact experiences when evaluating the target's behaviour or the outgroup as a whole. Nevertheless, these studies provide initial evidence that in an interpersonal situation when a situation is ambiguous, negative interpretation might be harmful. Finding strategies that can break this negative spiral of negative interactions and pattern of segregation will represent an important challenge for future intergroup contact research.

The beneficial effects of numerous positive intergroup encounters may be counteracted by the relatively infrequent but powerful effects of negative intergroup encounters. As Paolini and colleagues (2010) point out, this type of argument should not be taken as a justification for intergroup segregation, and it does not challenge any of the research that demonstrates the beneficial effects of positive intergroup contact (Pettigrew & Tropp, 2006). Instead, this work highlights an important caveat to the contact hypothesis that I hope will contribute toward more focused and effective approaches toward prejudice reduction.

References

- Aberson, C. L. (2015). Positive intergroup contact, negative intergroup contact, and threat as predictors of cognitive and affective dimensions of prejudice. *Group Processes & Intergroup Relations*, 18(6), 743-760. <https://doi.org/10.1177/1368430214556699>
- Al Ramiah, A., & Hewstone, M. (2013). Intergroup contact as a tool for reducing, resolving, and preventing intergroup conflict: Evidence, limitations, and potential. *American Psychologist*, 68(7), 527-542. <https://doi.org/10.1037/a0032603>
- Alexander, L., & Tredoux, C. (2010). The spaces between us: A spatial analysis of informal segregation at a South African university. *Journal of Social Issues*, 66(2), 367-386. <https://doi.org/10.1111/j.1540-4560.2010.01650.x>
- Allport, G. W. (1954). *The Nature of Prejudice*. London: Addison-Wesley.
- Aron, A., Melinat, E., Aron, E. N., Vallone, R., & Bator, R. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, 23, 363–377. <https://doi.org/10.1177/0146167297234003>
- Asbrock, F., Gutenbrunner, L., & Wagner, U. (2013). Unwilling, but not unaffected—Imagined contact effects for authoritarians and social dominators. *European Journal of Social Psychology*, 43(5), 404-412. <https://doi.org/10.1002/ejsp.1956>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hill, Inc.
- Barlow, F. K., Paolini, S., Pedersen, A., Hornsey, M. J., Radke, H. R., Harwood, J., ... & Sibley, C. G. (2012). The contact caveat negative contact predicts increased prejudice more than positive contact predicts reduced prejudice. *Personality and Social Psychology Bulletin*, 38(12), 1629-1643. <https://doi.org/10.1177/0146167212457953>

- BBC News (2017, February). 'Record hate crimes' after EU referendum. Retrieved from:
<http://www.bbc.co.uk/news/uk-38976087>
- Bekhuis, H., Ruiter, S., & Coenders, M. (2013). Xenophobia among youngsters: The effect of inter-ethnic contact. *European Sociological Review*, 29(2), 229-242.
<https://doi.org/10.1093/esr/jcr057>
- Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. *Games and Economic Behavior*, 10(1), 122-142. <https://doi.org/10.1006/game.1995.1027>
- Braddock, J. H. (1980). The perpetuation of segregation across levels of education: A behavioral assessment of the contact-hypothesis. *Sociology of Education*, 178-186.
<https://doi.org/10.2307/2112412>
- Braddock, J. H., & McPartland, J. M. (1989). Social-psychological processes that perpetuate racial segregation: The relationship between school and employment desegregation. *Journal of Black Studies*, 19(3), 267-289.
<https://doi.org/10.1177/002193478901900301>
- Brown, R., & Hewstone, M. (2005). An integrative theory of intergroup contact. *Advances in Experimental Social Psychology*, 37, 255-343. [https://doi.org/10.1016/S0065-2601\(05\)37005-5](https://doi.org/10.1016/S0065-2601(05)37005-5)
- Brylka, A., Jasinskaja-Lahti, I., & Mähönen, T. A. (2016). The majority influence on interminority attitudes: The secondary transfer effect of positive and negative contact. *International Journal of Intercultural Relations*, 50, 76-88.
<https://doi.org/10.1016/j.ijintrel.2015.12.007>
- Butz, D.A., & Plant, E.A. (2006). Perceiving outgroup members as unresponsive: Implications for approach-related emotions, intentions, and behavior. *Journal of Personality and Social Psychology*, 91, 1066-1079. <https://doi.org/10.1037/0022-3514.91.6.1066>
- De Dreu, C. K., Greer, L. L., Van Kleef, G. A., Shalvi, S., & Handgraaf, M. J. (2011). Oxytocin promotes human ethnocentrism. *Proceedings of the National Academy of*

Sciences in the United States of America, 108(4), 1262-1266.

<https://doi.org/10.1073/pnas.1015316108>

- Dhont, K., & Van Hiel, A. (2009). We must not be enemies: Interracial contact and the reduction of prejudice among authoritarians. *Personality and Individual Differences*, 46(2), 172–177. <https://doi.org/10.1016/j.paid.2008.09.022>
- Dixon, J., & Durrheim, K. (2003). Contact and the ecology of racial division: Some varieties of informal segregation. *British Journal of Social Psychology*, 42(1), 1-23. <https://doi.org/10.1348/014466603763276090>
- Dixon, J., Durrheim, K., Tredoux, C. G., Tropp, L. R., Clack, B., Eaton, L., & Quayle, M. (2010). Challenging the stubborn core of opposition to equality: Racial contact and policy attitudes. *Political Psychology*, 31(6), 831-855. <https://doi.org/10.1111/j.1467-9221.2010.00792.x>
- Dixon, J., Levine, M., Reicher, S., & Durrheim, K. (2012). Beyond prejudice: Are negative evaluations the problem and is getting us to like one another more the solution? *Behavioral and Brain Sciences*, 35(06), 411-425. doi: 10.1017/S0140525X11002214
- Drury, L., Abrams, D., Swift, H., Lamont, R.A., Gerocova, K. (2017). Can caring create prejudice? An investigation of positive and negative intergenerational contact in care settings and the generalization of blatant and subtle age prejudice to other older people. *Journal of Community & Applied Social Psychology*, 27; 65-82. <https://doi.org/10.1002/casp.2294>
- 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(3), 229-256. <https://doi.org/10.1002/ejsp.194>

- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*, 1149-116. <https://doi.org/10.3758/BRM.41.4.1149>.
- Fiske, S. T., Cuddy, A. J., 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*(6), 878-902. <https://doi.org/10.1037/0022-3514.82.6.878>
- 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*(4), 708-724. <https://doi.org/10.1037/0022-3514.78.4.708>
- Graf, S., & Paolini, S. (2017). Investigating Positive and negative intergroup contact: Rectifying a long standing positivity bias in the literature. In L. Vezzali & S. Stathi (Eds.), *Intergroup contact theory: Recent developments and future directions* (pp. 92-113). London: Routledge
- Graf, S., Paolini, S., & Rubin, M. (2014). Negative intergroup contact is more influential, but positive intergroup contact is more common: Assessing contact prominence and contact prevalence in five Central European countries. *European Journal of Social Psychology*, *44*(6), 536-547. <https://doi.org/10.1002/ejsp.2052>
- 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*(6), 1105. <https://doi.org/10.1037/0022-3514.65.6.1105>
- Harwood, J., Paolini, S., Joyce, N., Rubin, M., & Arroyo, A. (2011). Secondary transfer effects from imagined contact: Group similarity affects the generalization gradient. *British Journal of Social Psychology*, *50*(1), 180-189. <https://doi.org/10.1348/014466610X524263>

- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.
- Hayward, L. E., Tropp, L. R., Hornsey, M. J., & Barlow, F. K. (2017). Toward a comprehensive understanding of intergroup contact: Descriptions and mediators of positive and negative contact among majority and minority groups. *Personality and Social Psychology Bulletin*, *43*(3), 347-364.
<https://doi.org/10.1177/0146167216685291>
- Hewstone, M. (2015). Consequences of diversity for social cohesion and prejudice: The missing dimension of intergroup contact. *Journal of Social Issues*, *71*(2), 417-438.
<https://doi.org/10.1111/josi.12120>
- Lolliot, S., Schmid, K., Hewstone, M., Al Ramiah, A., Tausch, N., & Swart, H. (2013). Generalized effects of intergroup contact. In G. Hodson & M. Hewstone (Eds.), *Advances in intergroup contact* (pp.81-112). London: Psychology Press
- Husnu, S., & Crisp, R. J. (2010). Elaboration enhances the imagined contact effect. *Journal of Experimental Social Psychology*, *46*(6), 943-950.
<https://doi.org/10.1016/j.jesp.2010.05.014>
- McKeown, S., & Dixon, J. (2017). The “contact hypothesis”: Critical reflections and future directions. *Social and Personality Psychology Compass*, *11*(1), 1-13.
<https://doi.org/10.1111/spc3.12295>
- Meleady, R. Seger, C.R. & Vermue, M. (2017). Examining the role of positive and negative intergroup contact and anti-immigrant prejudice in Brexit. *British Journal of Social Psychology*, *56*(4), 799-808. <https://doi.org/10.1111/bjso.12203>
- Morewedge, C. K. (2009). Negativity bias in attribution of external agency. *Journal of Experimental Psychology: General*, *138*(4), 535–545.
<https://doi.org/10.1037/a0016796>
- Page-Gould E, Mendoza-Denton R, Tropp LR (2008). With a little help from my cross-group friend: Reducing anxiety in intergroup contexts through cross-group friendship.

Journal of Personality and Social Psychology, 95, 1080–1094.

<https://doi.org/10.1037/0022-3514.95.5.1080>.

Paolini, S., Harwood, J., & Rubin, M. (2010). Negative intergroup contact makes group memberships salient: explaining why intergroup conflict endures. *Personality and Social Psychology Bulletin*, 36(12), 1723–1738. doi:10.1177/0146167210388667

Pettigrew, T. F. (2008). Future directions for intergroup contact theory and research. *International Journal of Intercultural Relations*, 32(3), 187-199.

<https://doi.org/10.1016/j.ijintrel.2007.12.002>

Pettigrew, T. F. (2009). Secondary transfer effect of contact: Do intergroup contact effects spread to noncontacted outgroups? *Social Psychology*, 40(2), 55-65.

<https://doi.org/10.1027/1864-9335.40.2.55>

Pettigrew, T. F., & Hewstone, M. (2017). The single factor fallacy: Implications of missing critical variables from an analysis of intergroup contact theory. *Social Issues and Policy Review*, 11(1), 8-37. <https://doi.org/10.1111/sipr.12026>

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751-783.

<https://doi.org/10.1037/0022-3514.90.5.751>

Pettigrew, T. F., & Tropp, L. R. (2011). *When groups meet: The dynamics of intergroup contact*. New York: Psychology Press.

Plant, E.A., & Devine, P.G. (2003). The antecedents and implications of interracial anxiety. *Personality and Social Psychology Bulletin*, 29, 790-801.

<https://doi.org/10.1177/0146167203029006011>

Reimer, N. K., Becker, J. C., Benz, A., Christ, O., Dhont, K., Klocke, U., ... & Hewstone, M. (2017). Intergroup contact and social change: Implications of negative and positive contact for collective action in advantaged and disadvantaged groups. *Personality and*

Social Psychology Bulletin, 43(1), 121-136.

<https://doi.org/10.1177/0146167216676478>

- Stark, T. H., Flache, A., & Veenstra, R. (2013). Generalization of positive and negative attitudes toward individuals to outgroup attitudes. *Personality and Social Psychology Bulletin*, 39(5), 608-622. <https://doi.org/10.1177/0146167213480890>
- Stathi, S., Crisp, R. J., & Hogg, M. A. (2011). Imagining intergroup contact enables member-to-group generalization. *Group Dynamics: Theory, Research, and Practice*, 15(3), 275-284. <https://doi.org/10.1037/a0023752>
- Tausch, N., Hewstone, M., Kenworthy, J. B., Psaltis, C., Schmid, K., Popan, J. R., ... & Hughes, J. (2010). Secondary transfer effects of intergroup contact: Alternative accounts and underlying processes. *Journal of Personality and Social Psychology*, 99(2), 282. <https://doi.org/10.1037/a0018553>
- Techakesari, P., Barlow, F. K., Hornsey, M. J., Sung, B., Thai, M., & Chak, J. L. (2015). An investigation of positive and negative contact as predictors of intergroup attitudes in the United States, Hong Kong, and Thailand. *Journal of Cross-Cultural Psychology*, 46(3), 454-468. <https://doi.org/10.1177/0022022115570313>
- Todd, A. R., Bodenhausen, G. V., & Galinsky, A. D. (2012). Perspective taking combats the denial of intergroup discrimination. *Journal of Experimental Social Psychology*, 48(3), 738-745. <https://doi.org/10.1016/j.jesp.2011.12.011>
- Tredoux, C. G., & Dixon, J. A. (2009). Mapping the multiple contexts of racial isolation: The case of Long Street, Cape Town. *Urban Studies*, 46(4), 761-777. <https://doi.org/10.1177/0042098009102128>
- Tredoux, C., Dixon, J., Underwood, S., Nunez, D., & Finchilescu, G. (2005). Preserving spatial and temporal dimensions in observational data of segregation. *South African Journal of Psychology*, 35(3), 412-432. <https://doi.org/10.1177/008124630503500302>

- Tropp, L. R. (2003). The psychological impact of prejudice: Implications for intergroup contact. *Group Processes and Intergroup Relations*, 6, 131-149.
<https://doi.org/10.1177/1368430203006002001>
- Van Laar, C., Levin, S., Sinclair, S., & Sidanius, J. (2005). The effect of university roommate contact on ethnic attitudes and behavior. *Journal of Experimental Social Psychology*, 41(4), 329-345. <https://doi.org/10.1016/j.jesp.2004.08.002>
- Vezzali, L. & Giovannini, D. (2012). Secondary transfer effects of intergroup contact: The role of intergroup attitudes, intergroup anxiety and perspective taking. *Journal of Community and Applied Social Psychology*, 22, 125-144.
<https://doi.org/10.1002/casp.1103>
- Visintin, E. P., Green, E. G., Pereira, A., & Miteva, P. (2017). How positive and negative contact relate to attitudes towards Roma: Comparing majority and high-status minority perspectives. *Journal of Community & Applied Social Psychology*, 27(3), 240-252. <https://doi.org/10.1002/casp.2309>
- Visintin, E. P., Voci, A., Pagotto, L., & Hewstone, M. (2016). Direct, extended, and mass-mediated contact with immigrants in Italy: their associations with emotions, prejudice, and humanity perceptions. *Journal of Applied Social Psychology*.
<https://doi.org/10.1111/jasp.12423>
- 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(1), 73–90. <https://doi.org/10.1037/0022-3514.73.1.73>
- Yechiam E, Aharon I. (2012). Experience-based decisions and brain activity: three new gaps and partial answers. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2011.00390>
- Zayed, Y. & Allen, G. (2022). *Hate Crime Statistics*. (House of Commons Library Briefing Paper 8357). <https://researchbriefings.files.parliament.uk/documents/CBP-8537/CBP-8537.pdf>

Zingora, T. & Graf, S. (2019). Marry who you love: Intergroup contact with gay people and another stigmatized minority is related to voting on the restriction of gay rights through threat. *Journal of Applied Social Psychology, 49*(11), 684–703.

<https://doi.org/10.1111/jasp.12627>

Zhou, S., Page-Gould, E., Aron, A., Moyer, A., & Hewstone, M. (2019). The Extended Contact Hypothesis: A Meta-Analysis on 20 Years of Research. *Personality and Social Psychology Review, 23*(2), 132–160. <https://doi.org/10.1177/1088868318762647>

Appendices

Appendix A: Submitted Manuscript

Running Head: NEGATIVE CONTACT AND OUTGROUP AVOIDANCE

When contact goes wrong: Negative intergroup contact

promotes generalized outgroup avoidance

Rose Meleady

Laura Forder

School of Psychology, University of East Anglia, UK.

Abstract

This paper broadens our understanding of the consequences of negative intergroup contact. Study 1 reports cross-sectional evidence that negative contact with European immigrants in Britain is not only associated with increased prejudice, but also the avoidance of future contact with this group. Study 2A and 2B provided an experimental replication in a different intergroup context. A negative encounter with an outgroup member, but not an ingroup member, was found to reduce intentions to engage in contact with the outgroup in the future. Study 3 went on to demonstrate that the effect of negative contact on outgroup avoidance is not limited to the contacted outgroup, but is indirectly associated with reduced intentions to engage with other, secondary outgroups – an effect we refer to as an ‘*avoidance generalization effect*’. Negative contact was also associated with lower general contact self-efficacy. Together, findings suggest that negative contact is damaging not just because it increases prejudice but also because it compromises future engagement with diversity.

KEYWORDS: intergroup contact, negative contact, prejudice, outgroup avoidance, secondary transfer effect

When contact goes wrong: Negative intergroup contact promotes generalized outgroup avoidance

According to the Intergroup Contact Theory (Allport, 1954) prejudice between members of different groups can be reduced by encouraging positive interaction between them. This idea is supported by a wealth of research, including an extensive meta-analysis (Pettigrew & Tropp, 2006). The contact effect replicates across different implementations, participant populations and bases for group membership (Al Ramiah & Hewstone, 2013; Brown & Hewstone, 2005). It is strengthened by certain ‘optimal’ conditions (e.g. equal status, cooperative norms, common goals and institutional support), but remains even in their absence (Pettigrew & Tropp, 2006). While the beneficial effects of positive intergroup contact are now well established, we know less about the other side of the coin – what happens when contact goes wrong? This paper seeks to broaden our emerging understanding of the consequences of negative intergroup contact. Employing both cross-sectional and experimental designs we examine the impact of negative contact on outcomes associated with the avoidance of further cross-group interaction. We suggest that negative contact may be dangerous not only because it increases prejudice, but because it leads to the avoidance of future contact with the contacted outgroup as well as other, secondary outgroups.

Negative Intergroup Contact

In much of the existing literature the word ‘contact’ has been treated as synonymous with ‘*positive contact*’ or ‘*intergroup friendship*’ (Barlow et al., 2012). The emphasis on intergroup contact as a strategy to improve intergroup relations has understandably meant that research has focused on investigating the consequences of positive interactions across group lines (Pettigrew, 2008). Of course, in natural settings, intergroup contact is not always positive, but may be unpleasant or unfriendly. While the former can reduce prejudice, the

latter may be expected to increase it. In their meta-analysis of over 500 contact studies, Pettigrew and Tropp (2006) observed that less than 5% considered the effect of negatively-toned contact and its potential to disrupt the beneficial effects of positive contact.

An emerging body of research now addresses this gap in the literature. Barlow and colleagues (2012) were the first to simultaneously examine the effect of positive and negative contact on prejudice. As expected, positive contact was found to be negatively associated with prejudice, however this relationship was comparably weaker when negative contact was included in the analysis. In fact, negative contact was found to be more strongly associated with increased prejudice than positive contact was with its reduction. Graf, Paolini, and Rubin (2014) subsequently replicated these results when examining contact experiences across several European societies. The authors found that while people generally report less frequent negative contact than positive contact, negative contact emerged as a more robust and reliable predictor of prejudice (see also Dhont & Van Hiel, 2009). This effect has been referred to a '*positive-negative valence asymmetry effect*' (Barlow et al., 2012, see also Paolini, Harwood & Rubin, 2010).

Other findings suggest to a more nuanced picture with the magnitude of negative contact effects depending on the methodological approach (e.g. Bekhuis, Ruiters, & Coenders, 2013; Stark, Flache, & Veenstra, 2013) and the outcome under consideration (e.g., Aberson, 2015, Hayward et al., 2017). Aberson (2015) for instance, found that positive and negative contact were similarly predictive of affective dimensions of prejudice, while negative contact was particularly important in explaining the cognitive dimensions of prejudice, such as stereotyping. Research has also explored the processes driving the effect of negative intergroup contact on prejudice. While some studies find negative contact to work via the same mediational pathways as positive intergroup contact, confirming or enhancing

intergroup anxiety and perceptions of threat, and reducing empathy towards the outgroup (e.g. Aberson, 2015; Techakesari et al., 2015; Visintin, Voci, Pagotto, & Hewstone, 2016), others argues that additional processes (e.g. intergroup anger) may also be important in explaining negative contact effects (e.g. Barlow et al., 2012; Hayward, Tropp, Hornsey, & Barlow, 2017; Visintin, Green, Pereira, & Miteva, 2017).

Examining the Broader Consequences of Negative Contact

The present research aimed to examine the influence of negative contact on outcomes beyond prejudice. Research on negative intergroup contact is still in its infancy and most of the work to date has employed measures of prejudice / outgroup evaluation as the principle outcome variable. In recent years however, scholars have emphasized the need to enlarge the pool of outcomes assessed in intergroup contact research to more fully capture its influencing beyond simply improving individuals' feelings towards others (e.g. Dixon, Levine, Reicher, Durrheim, 2012; Pettigrew & Tropp, 2011; McKeown & Dixon, 2017).

A particularly important area for attention is the impact of negative contact on what McKeown and Dixon (2017) refer to as "*informal practices of social segregation*" (p.3). A growing body of observational research that maps patterns of intergroup contact in social settings (e.g. classrooms and lecture theatres, nightclubs, canteens) demonstrates that even in the absence of structural barriers, individuals often voluntarily eschew intergroup encounters (e.g. Alexander & Tredoux, 2010; Dixon & Durrheim, 2003; Tredoux & Dixon, 2009; Tredoux, Dixon, Underwood, Nunez, & Finchilescu, 2005). As McKeown and Dixon (2017) note, factors leading to such practices are likely to include individuals' past experience of intergroup contact. Some evidence suggests that positive contact in one context at a given point in time tends to increase the likelihood that individuals will open themselves up to contact in other contexts and at other times (Braddock, 1980; Braddock, & McParland, 1989).

On the other hand, we may expect that negative contact experiences work in the opposite direction, creating a negative cycle of avoidance.

Some initial evidence supports this suggest. In their cross-sectional investigation, Barlow and colleagues (2012) found that while positive contact experience predicted intentions to interact again with the outgroup in the future, frequency of negative contact experience predicted greater prejudice and greater avoidance of the outgroup. Hayward and colleagues (2017) also provide some experimental evidence in a study that employed contact vignettes that described a contact scenario with a member of a fictional ethnic outgroup ('Broneans'). Participants who imagined a negative intergroup encounter subsequently rated themselves as less willing to engage in future contact with this group compared to both a positive and neutral contact condition. Other research also demonstrates how negative expectancies about interracial interactions can lead to a desire to avoid interacting with outgroup members (e.g., Plant & Butz, 2006; Plant & Devine, 2003; Tropp, 2003). Importantly, if negative contact not only increases prejudice, but also reduces individuals' willingness to interact again with the outgroup in the future then there is little chance of reconciliation or resolution between groups

The present research sought to add to the literature exploring how prior negative contact experiences may contribute to motivation to avoid the outgroup, and to extend these findings by examining whether avoidance may spread even beyond the encountered outgroup.

Previous research has suggested that the attitudinal benefits of positive intergroup contact may extend beyond the encountered outgroup, to other outgroups not directly involved in the contact experience – an effect known as a '*Secondary Transfer Effect*' (Pettigrew, 2009).

Evidence of secondary transfer effects has been found in a range of intergroup contexts (for review see Lolliot et al., 2013). Pettigrew (2009) for instance, demonstrated that German

citizens' contact with foreigners produced secondary reductions in prejudice towards homosexuals and homeless people. Similarly, contact between Catholics and Protestants in Northern Ireland has been shown to improve attitudes not just towards the religious outgroup, but also towards racial minority groups (Tausch et al., 2010).

The secondary transfer effects of intergroup contact occur via a process of '*attitude generalization*' in which intergroup contact improves attitudes towards the primary outgroup, and these more positive attitudes then generalize to similar, secondary outgroups (Pettigrew, 2009; Tausch et al., 2010). Some emerging research has suggested that such attitude generalization effects may also occur for negative contact encounters (Brylka, Jasinskaja-Lahti, & Mähönen, 2016; Harwood, Paolini, Joyce, Rubin & Arroyo, 2011). In the present research we adopted a new outcome variable and aimed to explore whether such generalization effects may exist not just for attitudes, but also for outgroup avoidance. The effect of negative contact on outgroup avoidance may be expected to generalize beyond the contacted outgroup to increase avoidance with other, secondary outgroups. – a process we refer to as an '*avoidance generalization effect*'. The emergence of such effects would suggest that negative contact is dangerous not just because it discourages future engagement with the outgroup with whom the encounter occurred, but because it encourages a more general retreat from contact.

The Present Research

Recent advancements in intergroup contact theory have highlighted the importance of recognising positive and negative contact experiences as related but separate dimensions of intergroup contact. While the relationship between negative contact and prejudice is now fairly well-established, less attention has been devoted to other outcomes of negative contact. In the present research we focus on the impact of negative contact on the avoidance of future

intergroup encounters. Some emerging results suggest that negative contact may be damaging not just because it increases prejudice, but because it reduces the inclination to interact with members of the outgroup again in the future (Barlow et al., 2012; Hayward et al., 2017). We sought to replicate and extend these results. Study 1 involved an initial cross-sectional examination of the association between negative contact and outgroup avoidance. Study 2A and 2B sought to increase confidence in causal conclusions by providing the first experimental test of the impact of negative contact on outgroup avoidance in real-world intergroup context. Finally, in Study 3 we examined whether negative intergroup contact may extend even beyond the encountered outgroup to reduce intentions to engage in contact with other, secondary outgroup.

Study 1

Study 1 aimed to provide evidence of a cross-sectional association between negative intergroup contact and outgroup avoidance within a timely and important intergroup context. In June 2016, the British Government held a referendum to decide whether Britain should remain within, or leave the European Union (EU). Turnout was high with more than 30 million people voting. Of this, a majority voted to leave the EU. Debate surrounding the referendum focused heavily on immigration, and anti-immigrant attitudes were believed to play an important role in voting decisions (Meleady, Seger, & Vermue, 2017). In this study, we examined British participants' experience of negative intergroup contact with EU immigrants and its association with prejudice and outgroup avoidance. Data was collected in January 2017, six months after the referendum. EU migration was still a very prominent topic at this time with the country experiencing a spike in racially motivated hate crimes following the referendum (BBC News, 2017).

Participants

Data was collected from a sample of 139 participants recruited from a UK University which included 128 females and 11 males, aged between 18 and 58. The sample size was determined on the basis of an a priori power analysis using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) which specified a minimum required sample of 108 to achieve 90% power to detect small-to-medium effects within a multiple regression analysis with two predictors (negative contact and positive contact). Due to the nature of the research question the study was only available to British respondents. Participants received partial course credit in exchange for their participation. No exclusions were made¹.

Method

The study was described as a survey on current events. Quantity of negative intergroup contact, and quantity of positive intergroup contact were measured as two independent dimensions with measures adapted from Reimer et al., (2017). To measure negative intergroup contact, participants indicated how often they had had a variety of negative experiences with EU immigrants (from 1 = *never* to 5 = *very often*), specifically: *being verbally abused, intimidated, threatened with harm, ridiculed, and made to feel unwelcome* ($\alpha = .87$). We clarified that by 'EU immigrant' we meant someone who has come to live in Britain from another country within the EU. The order of all scales was counterbalanced across participants. To measure positive intergroup contact, participants indicated how often they had positive experiences with EU immigrants, including: *being supported, helped, complimented, befriended, and made to feel welcome* ($\alpha = .92$).

Outgroup evaluation was measured with the General Evaluation Scale (Wright, Aron, McLaughlin-Vope, & Ropp, 1997). Participants indicated their feelings towards EU immigrants, in general, on six bipolar scales (1- 7; *warm-cold**, *negative-positive*, *friendly-hostile**, *suspicious-trusting*, *respect-contempt**, *admiration-disgust**). Items marked with an

asterisk were reverse scored, such that a higher score always indicated more positive outgroup evaluation ($\alpha = .93$).

Outgroup avoidance was measured with two scales adapted from Barlow et al., (2012). These were *active avoidance*, measuring the desire to avoid face-to-face interactions with EU immigrants, and *issue avoidance*, measuring the avoidance of sensitive intergroup topics in discussions with EU immigrants. To measure active avoidance, participants indicated their agreement with three statements: “I would rather spend my lunch time alone than sit with a group of EU immigrants”, “I would be comfortable being asked to work in a group which included EU immigrants*” and “I would rather listen to a lecture on the EU referendum than speak to an EU immigrant on my course”. Answers were coded such that higher scores indicated greater avoidance (from 1 = *strongly disagree* to 7 = *strongly agree*) Together, the items formed a reliable scale ($\alpha = .70$). Issue avoidance was also measured with three items on the same scale; “I would avoid talking about access to public services (e.g. housing, welfare benefits) with EU immigrants”, “I would be comfortable talking about immigration laws with EU immigrants*”, and “I would go out of my way to avoid talking about the EU referendum with EU immigrants* ($\alpha = .79$).

Finally, as more of an exploratory variable, we also examined how positive and negative contact may predict the recognition of intergroup discrimination. Participants were asked to indicate the extent to which they believed EU immigrants experience discrimination *from the police, in the workforce, from fellow employees, from teachers and educators, in the form of racially motivated glaring, and in the form of racial slurs* (from 1 = *never*, to 6 = *very often*; Todd, Bodenhausen, & Galinsky, 2012). For ease of interpretation all items were reversed scored such that higher scores corresponded to greater denial of discrimination ($\alpha = .79$).

Results and Discussion

Descriptive statistics for, and bivariate correlations between all variables are reported in Table 1². A paired samples *t*-test indicated that people experienced more positive intergroup contact with EU immigrants more frequently ($M = 3.41, SD = 0.89$) than negative intergroup contact ($M = 1.67, SD = 0.76$), $t(139) = 15.29, p < .001, d = 1.30$.

[insert Table 1 here]

Next, we conducted a series of regressions to allow us to examine the independent effect of negative contact while controlling for positive contact experience. Table 2 displayed the model statistics and coefficients testing the independent predictive power of negative and positive contact on all dependent variables.

[insert Table 2 here]

Together, negative and positive contact accounted for a significant amount of variance in outgroup evaluation. Both types of contact also had significant independent effects on this variable. As can be seen, the more negative contact participants reported with EU immigrants the lower their evaluations were of this group ($\beta = -.31, p < .001$). The more positive contact they reported, the higher their evaluation of the group ($\beta = .43, p < .001$).

The model also accounted for a significant amount of variance in both types of outgroup avoidance. Negative contact was positively associated with both active ($\beta = .30, p < .001$), and issue avoidance ($\beta = .22, p = .005$), while positive contact was negatively associated with both active ($\beta = -.22, p = .008$) and issue avoidance ($\beta = -.42, p < .001$).

Finally, although the overall model only reached marginal significance for denial of discrimination, interestingly, we find that while there is no association with positive contact ($\beta = -.01, p = .938$), the more negative contact participants reported having with EU immigrants, the more they denied that this group were targets of discrimination ($\beta = .20, p = .027$).

Study 1 aimed to provide initial evidence of an association between negative intergroup contact and outgroup avoidance. Results replicate the findings of Barlow et al., (2012) in a new intergroup context. In data collected shortly after the EU referendum in Britain we find that individuals' experience of negative contact with EU immigrants is not only associated with increased prejudice, but also with a reluctance to engage in future interactions with this group whether this be the active avoidance of face-to-face contact with immigrants, or the avoidance of sensitive intergroup topics in discussions with them. Interestingly, negative intergroup contact was also found to be uniquely associated with denial of discrimination. The more negative contact individuals had experienced with EU immigrants, the less likely they were to recognise instances of discrimination against this group. Taken together, findings suggest that following negative intergroup contact, individuals may close themselves off to future intergroup encounters and to the reality of the inequality of intergroup relations.

Study 2

Study 1 provides cross-sectional evidence that negative contact experiences may encourage people to close themselves off to future outgroup contact. The data is however, cross-sectional and thus we cannot determine causal relationships between contact and outgroup avoidance. Hayward and colleagues (2017) provide some initial experimental evidence for the impact of negative intergroup contact on outgroup avoidance. However, this

study was limited to an imagined, scenario-based paradigm that described a contact experience with a fictional outgroup. In two studies – Study 2A and Study 2B - we sought to replicate this effect in a real intergroup context. We experimentally manipulated negative contact experience within the context of an economic game. Economic games allow us to model a situation of *interdependence* between decision-makers such that the choices of both parties determine the distribution of valued resources. In this case, participants believed they were playing an economic game with an outgroup member, and responses were pre-programmed to allow us to experimentally manipulate a non-cooperative intergroup encounter.

Study 2A

Participants

Data was collected from a sample of 92 undergraduate participants from a UK university. Because of the experimental paradigm was novel, effect sizes could be estimated in advance. We aimed to collect data until we reached a target sample size of 100 participants, or until the end of the semester, whichever came first. The target outgroup in this study was Chinese people and data from 7 participants has to be removed because they identified as South Asian or mixed ethnicity. Following exclusions, the final sample size for analysis was 81 which included 9 males and 72 females, aged between 18 and 50 years old. Participants were randomly assigned to either the negative outgroup contact condition ($n = 41$) or a neutral contact control condition ($n = 40$). A power analysis indicates that this sample size yields reasonable power (.60) for detecting a medium effect size ($d = .50$) in pairwise comparisons.

Method

Participants reported to the laboratory to take part in a study on decision-making. Participants first completed a Trust Game (Berg, Dickhaut, & McCabe, 1995) with another person who was ostensibly taking part in the study in the next cubicle. In the Trust Game there are two roles, Player A and Player B. Player A is the decision maker. They are allocated 10 tokens and can choose whether to send any number of these tokens to Player B. Any tokens sent to Player B are tripled by the experimenter and Player B can then decide whether to return any number of tokens to Player A. The best joint outcome is obtained if Player A sends a large proportion of their endowment to Player B so the overall number available to two parties increases, and Player B then splits the proceeds equally. Participants were told that each token corresponds to one entry into a lottery for two chances to win £25— the more tokens they end with, the more chance of winning the money.

All participants were told that they had been assigned to the role of Player A. Player B was identified by the name 'Chang Wei' signalling their membership in the outgroup (for similar procedure see De Dreu, Greer, Van Kleef, Shalvi, & Handgraaf, 2011). The participants made their investment decision and the behaviour of Player B was pre-programmed by the experimenter forming the manipulation of intergroup contact. In the negative contact condition, participants were told that Chang Wei had chosen to return 0 tokens – constituting a non-cooperative response. In the neutral contact condition no choice feedback was provided - participants were asked to complete the remaining questionnaires while they waited for Chang Wei to make their decision.

Following the manipulation, participants completed the dependent measures. The dependent measures assessed attitudes towards the outgroup as a whole and a cover story was provided that concerned a partnership the University has formed with an international education agency which had led to an increase in the number of applications from Chinese

people. Outgroup evaluation was measured with a feeling thermometer scale (Haddock, Zanna, & Esses, 1993). Participants were asked to indicate how warm (favorable), or cold (unfavorable) they felt towards Chinese people, in general, on a scale from 0 ° to 100 °. Intentions to engage in future contact with the outgroup were measured with 4 items adapted from Asbrock, Gutenbrunner and Wagner (2013) including “If the opportunity arises, I would probably start a conversation with a Chinese person” and “In the future, I will deliberately approach Chinese people to get in touch” (from 1 = *don't agree at all*, to 7 = *completely agree*, $\alpha = .81$). A number of filler items assessing general political attitudes were also included to help mask our hypotheses. Two participants were chosen at random to receive the lottery payment when data collection was complete.

Results and Discussion

We were not interested in the amount of tokens participants chose to send to Player B *per se*, but rather the effect of Player B's alleged non-cooperation on attitudes towards the outgroup, and intentions to interact with members of that group again in the future. Two further participants had to be removed from the analysis at this point because they chose to send zero tokens to Player B and so a return of 0 tokens from this person would not constitute a negative encounter.

An independent samples *t*-test confirmed that attitudes towards Chinese people were significantly reduced in the negative contact condition ($M = 67.29$, $SD = 21.33$) compared to the neutral contact condition ($M = 76.31$, $SD = 16.83$), $t(77) = 2.08$, $p = .041$, $d = .47^3$. As the number of tokens participants chose to send to Player B influences the extremity of Player B's non-cooperative response, and could also potentially be considered as an indication of existing prejudice towards the outgroup, we also conducted an ANCOVA controlling for the number of tokens sent in the Trust Game. This analysis revealed that the covariate was not

significantly related to evaluation of the outgroup ($p = .53$) but that the effect of condition remained when accounting for this variable, $F(1, 76) = 4.05, p = .048, \eta^2 = .05$.

A second set of analyses was then performed with future contact intentions as the dependent variable. Results confirmed that intentions to engage with the outgroup in the future were significantly reduced in the negative contact condition ($M = 4.68, SD = 1.09$), compared to the neutral contact condition ($M = 5.31, SD = 0.94$), $t(79) = 2.81, p = .006, d = .63$. Again, when including the number of tokens the participant sent to Player B in the Trust Game as a covariate, the effect of contact condition remained, $F(1, 78) = 7.95, p = .006, \eta^2 = .09$. There was no significant effect of the covariate on contact intentions, $p = .79$.

The results of Study 2A provide experimental evidence of the ability of a negative intergroup contact encounter to harm individuals' attitudes towards the outgroup, and intentions to engage with members of that group again in the future. A potential alternative explanation for results could be that participants' responses in the negative contact condition were not a result of the negative intergroup encounter *per se*, but instead reflect a general negative response to having been victim to a trust violation. To address this potential concern we conducted a second study in which we introduced a third condition where participants also received feedback that Player B had returned 0 tokens in the Trust Game but this person was not identified as an outgroup member. If the effect is specific to negative intergroup contact, we should find outgroup attitudes and future contact intentions are impaired only when the non-cooperative partner belongs to the target outgroup.

Study 2B

Participants

Data was collected from a sample of 158 undergraduate participants. As in Study 1, the recruitment aim was 50 participants per cell. The target outgroup was again Chinese people. Data from 9 participants were removed because they identified as South Asian, or mixed ethnicity. The final sample included 123 females and 25 males (one participant did not report their gender), aged between 18-50 years. Participants were randomly assigned to either the negative outgroup contact condition ($n = 46$), negative ingroup contact condition ($n = 52$) or neutral outgroup contact control ($n = 51$).

Methods

The experiment followed the same procedure as Study 2A except for the inclusion of a third condition where participants were the recipient of the same non-cooperative response in the Trust Game but from an ingroup member rather than outgroup member. To do this we varied the name of Player B. They were identified by a typical British name – ‘Chris’ – rather than by a Chinese name. This condition was designed to recreate the same uncooperative encounter, but without the important intergroup component. Outgroup evaluation and intentions to engage in future outgroup contact ($\alpha = .79$) were measured with the same items as in Study 2A.

Results and Discussion

Before the analysis the data of two participants who sent zero tokens were removed. Univariate ANCOVAs were conducted to explore the effect on condition on both outgroup evaluation and intentions to engage in future intergroup contact, controlling for the number of tokens sent to Player B in the Trust Game. Means by condition are shown in Table 3⁴. Results revealed no significant effect of the covariate on outgroup evaluation ($p = .537$). The effect of condition was, however, significant $F(2, 133) = 3.74, p = .026, \eta^2 = .05$. Pairwise comparisons with a bonferroni adjustment revealed that outgroup evaluation was

significantly lower in the negative outgroup contact condition than in the negative ingroup contact condition $p = .048$, and marginally significantly lower than in the neutral contact condition, $p = .072$. There was no difference in outgroup evaluation between the negative ingroup contact condition and the neutral outgroup contact condition, $p = .999$. An a priori test comparing the negative outgroup contact condition with the combined neutral contact and negative ingroup contact conditions was significant, $t(133), = 2.72, p=.007$

[insert Table 3 here]

A significant effect of condition on future contact intentions was also observed, $F(2, 145) = 3.43, p = .035, \eta^2 = .05$. Again, there was no significant effect of the covariate ($p = .586$). The pattern of results was the same whereby contact intentions were lower in the negative outgroup contact condition compared to the negative ingroup contact condition, $p = .045$, and the neutral contact control condition, though this latter pairwise comparison did not reach statistical significance, $p = .156$. There was no difference in contact intentions between the negative ingroup contact condition and the neutral outgroup contact condition, $p = .100$. Again, a priori test comparing the negative outgroup contact condition to the combined neutral contact and negative ingroup contact condition was significant, $t(145), = 2.56, p=.012$.

Replicating the pattern of results in Study 2A, Study 2B demonstrated that a negative, non-cooperative encounter with an outgroup member increases prejudice towards the outgroup and lowers intentions to engage with members of that group in the future.

Importantly, Study 2B was able to confirm that effects are not simply a result of being the recipient of a non-cooperative return within the economic game, by demonstrating that effects only emerge when the non-cooperative partner belonged to the outgroup category – someone named ‘Chang Wei’ and not someone named ‘Chris’.

Study 3

In Study 3 we went on to examine how the impact of negative contact may generalize even beyond the contacted outgroup. Previous research has demonstrated that the attitudinal benefits of positive contact with outgroup members can generalize to the outgroup as a whole, and from here, to other secondary outgroups (e.g. Pettigrew, 2009; Tausch et al., 2010). In Study 3 we examined whether a similar process may exist for the generalization of outgroup avoidance. Specifically, if outgroup avoidance generalizes, the impaired contact intentions that result from negative contact with one group should result in impaired contact intentions towards other outgroups. If this is the case, contact intentions towards the encountered group should mediate the relationship between contact and secondary outgroup contact intentions.

As a second way of exploring the generalized consequences of negative intergroup contact we also measured participants' perceptions of contact self-efficacy in Study 3. Self-efficacy refers to an individual's belief in their ability to successfully perform a specific behaviour (Bandura, 1986). Contact self-efficacy specifically refers to a particular set of beliefs about one's ability to interact effectively with outgroup members (Stathi, Crisp, & Hogg, 2011). As yet, little intergroup contact research has focused on such efficacy beliefs. In the present study we adopted this construct to explore whether negative contact may manifest not only in reduced intentions to engage with specific primary and secondary outgroups in the future, but may also harm individuals' general confidence in cross-group situations.

Participants

Data was collected from a sample of 205 undergraduate participants, which included 182 females and 24 males, aged between 18 and 58. Because we measured attitudes towards a number of ethnic minority immigrant groups in Study 3, the study was only available to White British respondents. No exclusions were made. This sample size was sufficient to provide considerable power (.80) for detecting small to medium mediated effects using bias- corrected bootstrapped estimates (Fritz & MacKinnon, 2007).

Methods

The primary outgroup target in Study 3 was Muslim immigrants. The measures tapped prior contact with this group, and anticipated future approach towards them. Negative intergroup contact ($\alpha = .88$) and positive intergroup contact ($\alpha = .89$) with Muslim immigrants was measured with the same items used in Study 1 (Reimer et al., 2017). Attitudes towards the Muslim immigrants were measured with the General Evaluation Scale as used in Study 1 (Wright et al., 1997, $\alpha = .94$). Future contact intentions were measured with the same scale as used in Study 2A and 2B (Asbrock et al., 2013, $\alpha = .88$).

To examine how the effect of negative contact may generalize beyond the contacted group, we then also measured contact intentions towards a number of other immigrant groups specifically: *Eastern European immigrants*, *Indian immigrants* and *Black African immigrants*. To avoid shared method variance we used alternative measurement items to those used to measure contact intentions towards the primary group (see Tausch et al., 2010). Specifically, participants reported their intentions to engage with each of the secondary groups in the future on a single item, for example “How much do you intend to interact with Eastern European immigrants in the future” (from 1 = *not at all* to 7 = *very much*, Husnu & Crisp, 2010). Importantly, we also measured and controlled for participants’ prior contact with each secondary group (see Tausch et al., 2010). Both positive and negative contact with

each of the secondary groups was measured with two single items adapted from Barlow et al., (2012), for example: “On average, how frequently do you have positive/good contact with Eastern European immigrants”, “On average, how frequently do you have negative/bad contact with Eastern European immigrants” (from 1 = *never* to 7 = *extremely frequently*).

Finally, contact self-efficacy was measured with a scale adapted from Stathi et al., (2011). This measure was conceptualised as another test of the generalization potential of negative contact because it was not restricted to any particular group but instead assessed efficacy beliefs regarding contact with ‘immigrants’ in general. Participants rated their agreement with six items including “I would be worried that I might not handle myself well in social gatherings with immigrants*”, “I would feel confident talking with immigrants”, “I would feel I have common topics of conversation with an immigrant” (1 = *strongly disagree* to 7 = *strongly agree*, $\alpha = .80$).

Results and Discussion

The correlations amongst all variables are presented in Table 4 with means and standard deviations⁵. A paired samples *t*-test indicated that people reported more positive contact with Muslim immigrants ($M = 2.92$, $SD = 0.97$) than negative contact ($M = 1.47$, $SD = 0.69$), $t(205) = 16.94$, $p < .001$, $d = 1.18$.

[insert Table 4 here]

A series of regressions were then conducted to examine the unique effect of negative and positive contact with Muslim immigrants on the dependent variables (see Table 5). Together, negative and positive intergroup contact experience explained a significant amount of variance in outgroup evaluation. As expected, negative contact with Muslim immigrants was associated with lower evaluation of this group ($\beta = -.43$, $p < .001$) while positive contact was associated with higher outgroup evaluation ($\beta = .47$, $p < .001$). Contact experiences also

explained a significant amount of variance in future contact intentions. The more negative contact experience individuals had with Muslim immigrants, the lower their intentions to engage with this group again in the future ($\beta = -.24, p < .001$). Positive contact, meanwhile, was positively associated with future contact intentions ($\beta = .42, p < .001$). Negative and positive contact with Muslim immigrants also explained a significant amount of variance in perceptions of contact self-efficacy. As expected, negative contact experience was associated with lower contact self-efficacy ($\beta = -.30, p < .001$), while positive contact was associated with higher contact self-efficacy ($\beta = .37, p < .001$).

[insert Table 5 here]

The generalization of contact effects to secondary outgroups was then investigated by examining the indirect path from negative and positive contact with Muslim immigrants to contact intentions towards secondary outgroups *through* contact intentions towards the primary outgroup. The examination of the indirect path constitutes the most appropriate test of the secondary transfer effect because it specifically tests the generalization process in which negative contact promotes avoidance of the contacted group, which then spreads to other, non-contacted groups (for similar procedure see Harwood et al., 2011). The analysis was conducted using bootstrapped tests of the indirect path (based on 5,000 bootstrapped resamples), with effects calculated using Hayes (2013) PROCESS macro (Model 4).

Analyses were conducted separately for negative contact and positive contact. Within each mediational model, negative contact [positive contact] with the primary outgroup represented the independent variable, contact intentions towards the primary outgroup was the mediator, and contact intentions towards the secondary outgroups was the dependent variable. Negative contact with the secondary outgroup [positive contact with the secondary outgroup] was

included as a covariate. Separate models were tested for each of the three secondary groups (6 models in total).

Total, direct and indirect effects are shown in Table 6. Results showed that, when controlling for secondary outgroup contact, there was no significant total or direct effect of negative contact with Muslim immigrants on contact intentions towards any of the secondary groups. Instead, significant indirect effects emerged in every case. Negative contact was indirectly associated with lower contact intentions towards Eastern European immigrants, Indian immigrants and Black African immigrants via reduced contact intentions towards the primary group. Meanwhile positive contact was indirectly associated with higher contact intentions towards each secondary outgroup via increased contact intentions towards the primary group.

[insert Table 6 here]

A further series of models were then tested using an adaptation to the PROCESS macro which allows for multiple predictor variables (Hayes, 2013). In doing so, we are able to confirm the whether the indirect effects of negative contact persist when controlling for positive contact, and vice versa. In each model, negative and positive contact with Muslim immigrants were entered simultaneously as independent variables, contact intentions towards Muslim immigrants was the mediator, and contact intentions towards the secondary outgroup was the dependent variable. Positive and negative contact with the secondary outgroup was included as covariates. Again, separate analyses were performed for each of the three secondary groups (3 models in total). As can be seen in Table 6, the same pattern of indirect effects replicate with this method of analysis.

In Study 3 we report the first evidence of an '*avoidance generalization effect*' whereby negative intergroup contact is associated with lower future contact intentions not

only towards the contacted outgroup, but also, indirectly, with contact intentions towards other, non-contacted groups. We did not find evidence of an overall association between negative contact with Muslim immigrant and avoidance of other immigrant groups after controlling for contact with the secondary group. Rather, our results point to the emergence of an indirect effect, such that contact with Muslim immigrants is associated with lower intentions to engage with secondary outgroups via reductions in contact intentions towards the primary group.

Evidence was also found for an association between negative contact and lower perceptions of contact self-efficacy. This measure was conceptualised as another test of the generalized effects of the intergroup contact because it was not restricted to any particular group, but instead assessed efficacy beliefs regarding interactions with immigrants in general. While positive contact with Muslim immigrants was associated with increased confidence in one's ability to interact effectively with immigrants, in general, negative contact was associated with lower perceived self-efficacy. Together, findings highlight the dangers of negative intergroup contact and demonstrate the extent to which the effect of negative intergroup contact extend beyond the encountered group to secondary outgroups as well as to more general beliefs about one's preparedness for intercultural contact.

General Discussion

Relative to positive intergroup contact, the influence of negative intergroup contact has received considerably less scientific attention. Recent research has taken important first steps to demonstrate the prejudice-enhancing potential of negative contact. The present research now aimed to provide to a broader understanding of the consequences of negative contact focusing in particular on what McKeown and Dixon (2017) referred to as *informal practices of social segregation*. Hewstone (2015) recently referred to segregation as the

“enemy of intergroup contact” (p. 432). In our view, it is not simply the case that segregation impedes the opportunity for intergroup contact, but that the quality of individuals’ prior contact experiences determine their willingness to take advantage of opportunities for interaction across group lines. Across three studies we demonstrate that negative intergroup contact is associated not just with increased prejudice, with reduced intentions to engage in further outgroup outreach.

Study 1 was a cross-sectional study conducted in the aftermath of Britain’s decision to leave the EU by referendum in 2016. While negative contact is the primary focus of this investigation, we measured both positive and negative contact experience with EU immigrants as simultaneous predictor variables. Results suggest that while positive contact can act as a reward system and fuel interest in further contact with the outgroup, negative contact with EU immigrants is associated with outgroup avoidance. Effects emerged across two different operationalizations of outgroup avoidance – active avoidance and issue avoidance. Negative contact was also uniquely associated with the denial of discrimination experienced by this group. Study 2 provided a conceptual replication on the impact of negative contacts on outgroup avoidance with an experimental design. Studying negative intergroup contact in the laboratory sacrifices some external validity, but allows more confidence in drawing causal conclusions. Negative intergroup contact was manipulated within the context of an economic game which participants ostensibly completed with a Chinese partner. Compared to a neutral contact condition, a negative intergroup encounter where individuals discovered that their trust has been violated by an outgroup member resulted in increased prejudice and lower intentions to engage with this outgroup in the future. A follow-up study ruled out a possible alternative explanation for results by confirming that these same effects did not emerge following the same non-cooperative encounter with an ingroup member.

Study 3 went on to demonstrate that the influence of negative intergroup contact is not limited to the outgroup with whom the contact occurred, but can also compromise engagement with other minority groups. Contact with Muslim immigrants was found to be indirectly associated with reduced contact intentions towards secondary outgroups, via reductions in contact intentions towards the primary outgroup. The fact that we did not find a direct association between primary outgroup contact and secondary outgroup intentions (after controlling for secondary outgroup contact) does not undermine the validity of our results. Indeed, this pattern of indirect effects in the absence of direct effects is not uncommon in the literature on the secondary transfer effects of intergroup contact (e.g. Brylka et al., 2016; Drury, Abrams, Swift, Lamont, Gerocova, 2017; Harwood et al., 2011; Vezzali & Giovanni, 2012). In this study we employed a new outcome variable, exploring the generalization of avoidance rather than attitudes. The generalization of avoidance occurred as statistically significant indirect effects of negative contact with the primary group on contact intentions towards secondary outgroup, through contact intentions towards the primary group. We refer to this process as an '*avoidance generalization effect*'. Finding strategies that can break this negative spiral will represent an important challenge for future intergroup contact research.

We also observed an association between both types of contact and perceptions of contact self-efficacy. Little previous contact research has explored this construct, yet it is recognized as an important regulator of human behaviour (Bandura, 1986). We would encourage future research to explore contact self-efficacy as a further variable dependent on previous contact experience. While we report encouraging evidence that positive intergroup contact is associated with higher levels of confidence in one's ability to interact effectively in future envisaged intergroup encounters, negative contact is negatively associated with efficacy beliefs. Moreover, because contact self-efficacy was measured at a higher level of categorization (tapping efficacy regarding contact with immigrants, in general) findings

suggest that reductions in confidence the result from negative contact are not restricted to one particular outgroup.

In line with previous results we found that negative contact occurred less frequently than positive contact (e.g. Barlow et al., 2012; Dhont & Van Hiel, 2009; Graf et al., 2014). Previous studies also often find negative contact to be a stronger predictor of prejudice than positive contact. While the aim of our paper was to broaden the understanding of the breath of negative contact effects rather than to test for positive-negative contact asymmetry effects, this comparison is possible in Study 1 and 3⁶. In terms of outgroup attitudes, positive contact was actually a stronger predictor than negative contact in both cases, indicating a contact asymmetry in favour of positive contact. This finding is consistent with previous observations of the strength of positive contact in predicting affective outcomes (Aberson, 2015; Hayward et al., 2017). In terms of outgroup avoidance there was no consistent pattern in the relative magnitude of positive and negative contact effects. In Study 1, negative contact was the stronger predictor while in Study 3, positive contact was the stronger predictor. This finding may relate to the different measurement instruments used in these two studies. In Study 1, the measures used assessed participants avoidance of the outgroup (both in terms of face-to-face interaction, and the avoidance of sensitive intergroup topics), whereas the contact intentions items used throughout the rest of the investigation assessed individuals' intention to approach outgroup members. This finding warrants further attention and suggests that negative contact may potentially represent a stronger predictor of avoidance tendencies, while positive contact is a stronger predictor of approach tendencies. More generally, findings add to growing appreciation of the caveats and nuances of the positive-negative contact asymmetry effects (see Pettigrew & Hewstone, 2017).

Interestingly, we found negative contact to be uniquely associated with a measure of denial of discrimination included in Study 1. This is an important outcome for consideration in light of a recent arguments that for contact to promote social change, it must not only improve majority group members' attitudes towards disadvantaged groups, but also increase support for policies aimed at redressing inequality (e.g. Dixon et al., 2012, 2010; McKeown & Dixon, 2017). In the present case, we did not find evidence that positive intergroup contact increased recognition of intergroup discrimination. Perhaps more troubling, is the finding that negative contact was associated with the denial of the discrimination. This finding is likely to have implications for individuals' willingness collective action on behalf of the disadvantaged group, as well as their acceptance of structural change that arises from the disadvantaged group's own collective action (although see Reimer et al., 2017 who did not find perceived discrimination to explain the relationship between negative contact and collective action tendencies).

Limitations

There are some limitations to the present research that should be acknowledged. First, the secondary outgroups under consideration in Study 3 were all high in similarity to the focal outgroup (Muslim immigrants) in that they represented three further immigrant groups (Eastern European immigrants, Black African immigrants and Indian immigrants). It will be important for future research to explore whether effects extend to more dissimilar groups, or groups stigmatised on different underlying dimensions (e.g. Fiske, Cuddy, Glick, & Xu, 2002). It is likely that a stimulus generalization gradient exists whereby transfer effects are larger for more similar groups and smaller for less similar groups (Harwood et al., 2011). Moreover, evidence of the generalized consequences of negative intergroup contact relies on cross-sectional data and so it is not possible to make firm conclusions regarding causality.

Previous research has provided evidence of the attitudinal secondary transfer effects with both longitudinal (e.g. Eller & Abrams, 2004; Pettigrew, 2009; Tausch et al., 2010; Van Laar, Levin, Sinclair, & Sidanius, 2005) and experimental data (e.g. Galinsky & Moskowitz, 2000; Harwood et al., 2011), and we interpreted our findings accordingly. Nevertheless, we invite further research examining the generalization of outgroup avoidance using longitudinal or experimental designs.

We do provide experimental evidence of the influence on negative contact on contact intentions towards the primary outgroup within Study 2A and 2B. Some effects did fall short of statistical significance in these experiments. We do not believe this poses a serious problem as we replicate the same basic pattern of results across four studies. Nevertheless, future investigations may benefit from employing more powerful manipulations of negative contact. We chose to manipulate negative contact within the context of an economic game because it allowed us to model a situation of interdependence between individuals where the non-cooperation of an outgroup member has real implications for the provision of valued resources. The particular economic game we chose involved a ‘one-shot’ uncooperative signal from an outgroup member, and did not include the opportunity any further interaction with that person. Future studies may consider using iterated games where participants make several cooperative or competitive choices over repeated trials, or tasks that involve face-to-face contact manipulations such as Paolini’s and colleagues manipulation of outgroup confederates’ non-verbal behaviour (Paolini, Harwood, & Rubin, 2010).

Finally, while we examined the impact of negative intergroup contact across three different intergroup contexts, participants were always drawn from a sample of British University students. As is common with such samples, there was also a gender skew in our sample and a small number of male respondents. It will be important for future research to

replicate these effects within more representative samples. Replication sought also be sought in more conflictual intergroup context. In all studies reported in the present investigation evaluation of the outgroup was fairly positive, with negative contact serving to reduce this positivity in the direction of the midpoint of the scale. This is likely driven to some extent by social desirability and self-presentational concerns, however, it will be also important to explore what this might mean for the flow-on behavioural consequences of negative contact and whether it translates to a reduction in positive intergroup behaviours (e.g. helping behaviours) versus an increase in harmful intergroup behaviours (e.g. verbal or physical confrontations).

Conclusions

It is important to note that evidence of the influence of negative intergroup contact does not dispute the merits of positive intergroup contact, but rather invites a full understanding of intergroup contact effects. Here, we provide evidence of the impact on negative intergroup contact on outcomes beyond standard indices of prejudice - principally on measures of outgroup avoidance, but also on measures of contact self-efficacy and the denial of intergroup discrimination. These studies substantiate the impact of and importance of negative contact research. It will be important for future research to continue to investigate this lesser understood type of contact in order to understand the full range of its attitudinal and behavioural consequences.

References

- Aberson, C. L. (2015). Positive intergroup contact, negative intergroup contact, and threat as predictors of cognitive and affective dimensions of prejudice. *Group Processes & Intergroup Relations*, *18*(6), 743-760. doi:10.1177/1368430214556699
- Al Ramiah, A., & Hewstone, M. (2013). Intergroup contact as a tool for reducing, resolving, and preventing intergroup conflict: Evidence, limitations, and potential. *American Psychologist*, *68*(7), 527-542. doi:10.1037/a0032603
- Alexander, L., & Tredoux, C. (2010). The spaces between us: A spatial analysis of informal segregation at a South African university. *Journal of Social Issues*, *66*(2), 367-386. doi:10.1111/j.1540-4560.2010.01650.x
- Allport, G. W. (1954). *The Nature of Prejudice*. London: Addison-Wesley.
- Aron, A., Melinat, E., Aron, E. N., Vallone, R., & Bator, R. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, *23*, 363–377. doi:10.1177/0146167297234003
- Asbrock, F., Gutenbrunner, L., & Wagner, U. (2013). Unwilling, but not unaffected—Imagined contact effects for authoritarians and social dominators. *European Journal of Social Psychology*, *43*(5), 404-412. doi:10.1002/ejsp.1956
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hill, Inc.
- Barlow, F. K., Paolini, S., Pedersen, A., Hornsey, M. J., Radke, H. R., Harwood, J., ... & Sibley, C. G. (2012). The contact caveat negative contact predicts increased prejudice more than positive contact predicts reduced prejudice. *Personality and Social Psychology Bulletin*, *38*(12), 1629-1643. doi:10.1177/0146167212457953

- BBC News (2017, February). 'Record hate crimes' after EU referendum. Retrieved from:
<http://www.bbc.co.uk/news/uk-38976087>
- Bekhuis, H., Ruiters, S., & Coenders, M. (2013). Xenophobia among youngsters: The effect of inter-ethnic contact. *European Sociological Review*, 29(2), 229-242.
doi:10.1093/esr/jcr057
- Berg, J., Dickhaut, J., & McCabe, K. (1995). Trust, reciprocity, and social history. *Games and Economic Behavior*, 10(1), 122-142. doi:10.1006/game.1995.1027
- Braddock, J. H. (1980). The perpetuation of segregation across levels of education: A behavioral assessment of the contact-hypothesis. *Sociology of Education*, 178-186.
doi:10.2307/2112412
- Braddock, J. H., & McPartland, J. M. (1989). Social-psychological processes that perpetuate racial segregation: The relationship between school and employment desegregation. *Journal of Black Studies*, 19(3), 267-289. doi:10.1177/002193478901900301
- Brown, R., & Hewstone, M. (2005). An integrative theory of intergroup contact. *Advances in Experimental Social Psychology*, 37, 255-343. doi:10.1016/S0065-2601(05)37005-5
- Brylka, A., Jasinskaja-Lahti, I., & Mähönen, T. A. (2016). The majority influence on interminority attitudes: The secondary transfer effect of positive and negative contact. *International Journal of Intercultural Relations*, 50, 76-88.
doi:10.1016/j.ijintrel.2015.12.007
- Butz, D.A., & Plant, E.A. (2006). Perceiving outgroup members as unresponsive: Implications for approach-related emotions, intentions, and behavior. *Journal of Personality and Social Psychology*, 91, 1066-1079. doi: 10.1037/0022-3514.91.6.1066
- De Dreu, C. K., Greer, L. L., Van Kleef, G. A., Shalvi, S., & Handgraaf, M. J. (2011). Oxytocin promotes human ethnocentrism. *Proceedings of the National Academy of*

Sciences in the United States of America, 108(4), 1262-1266. doi:

10.1073/pnas.1015316108

- Dhont, K., & Van Hiel, A. (2009). We must not be enemies: Interracial contact and the reduction of prejudice among authoritarians. *Personality and Individual Differences*, 46(2), 172–177. doi:10.1016/j.paid.2008.09.022
- Dixon, J., & Durrheim, K. (2003). Contact and the ecology of racial division: Some varieties of informal segregation. *British Journal of Social Psychology*, 42(1), 1-23. doi:10.1348/014466603763276090
- Dixon, J., Durrheim, K., Tredoux, C. G., Tropp, L. R., Clack, B., Eaton, L., & Quayle, M. (2010). Challenging the stubborn core of opposition to equality: Racial contact and policy attitudes. *Political Psychology*, 31(6), 831-855. doi: 10.1111/j.1467-9221.2010.00792.x
- Dixon, J., Levine, M., Reicher, S., & Durrheim, K. (2012). Beyond prejudice: Are negative evaluations the problem and is getting us to like one another more the solution? *Behavioral and Brain Sciences*, 35(06), 411-425. doi: 10.1017/S0140525X11002214
- Drury, L., Abrams, D., Swift, H., Lamont, R.A., Gerocova, K. (2017). Can caring create prejudice? An investigation of positive and negative intergenerational contact in care settings and the generalization of blatant and subtle age prejudice to other older people. *Journal of Community & Applied Social Psychology*, 27; 65-82. doi: 10.1002/casp.2294
- 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(3), 229-256. doi:10.1002/ejsp.194

- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*, 1149-116. doi: 10.3758/BRM.41.4.1149.
- Fiske, S. T., Cuddy, A. J., 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*(6), 878-902. doi:10.1037/0022-3514.82.6.878
- 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*(4), 708-724. doi:10.1037/0022-3514.78.4.708
- Graf, S., & Paolini, S. (2017). Investigating Positive and negative intergroup contact: Rectifying a long standing positivity bias in the literature. In L. Vezzali & S. Stathi (Eds.), *Intergroup contact theory: Recent developments and future directions* (pp. 92-113). London: Routledge
- Graf, S., Paolini, S., & Rubin, M. (2014). Negative intergroup contact is more influential, but positive intergroup contact is more common: Assessing contact prominence and contact prevalence in five Central European countries. *European Journal of Social Psychology, 44*(6), 536-547. doi:10.1002/ejsp.2052
- 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*(6), 1105. doi:10.1037/0022-3514.65.6.1105
- Harwood, J., Paolini, S., Joyce, N., Rubin, M., & Arroyo, A. (2011). Secondary transfer effects from imagined contact: Group similarity affects the generalization gradient. *British Journal of Social Psychology, 50*(1), 180-189. doi:10.1348/014466610X524263

- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York: Guilford Press.
- Hayward, L. E., Tropp, L. R., Hornsey, M. J., & Barlow, F. K. (2017). Toward a comprehensive understanding of intergroup contact: Descriptions and mediators of positive and negative contact among majority and minority groups. *Personality and Social Psychology Bulletin*, *43*(3), 347-364. doi:10.1177/0146167216685291
- Hewstone, M. (2015). Consequences of diversity for social cohesion and prejudice: The missing dimension of intergroup contact. *Journal of Social Issues*, *71*(2), 417-438. doi:10.1111/josi.12120
- Lolliot, S., Schmid, K., Hewstone, M., Al Ramiah, A., Tausch, N., & Swart, H. (2013). Generalized effects of intergroup contact. In G. Hodson & M. Hewstone (Eds.), *Advances in intergroup contact* (pp.81-112). London: Psychology Press
- Husnu, S., & Crisp, R. J. (2010). Elaboration enhances the imagined contact effect. *Journal of Experimental Social Psychology*, *46*(6), 943-950. doi:10.1016/j.jesp.2010.05.014
- McKeown, S., & Dixon, J. (2017). The “contact hypothesis”: Critical reflections and future directions. *Social and Personality Psychology Compass*, *11*(1), 1-13, doi:10.1111/spc3.12295
- Meleady, R. Seger, C.R. & Vermue, M. (2017). Examining the role of positive and negative intergroup contact and anti-immigrant prejudice in Brexit. *British Journal of Social Psychology*. Advance online publication. doi: 10.1111/bjso.12203
- Page-Gould E, Mendoza-Denton R, Tropp LR (2008). With a little help from my cross-group friend: Reducing anxiety in intergroup contexts through cross-group friendship. *Journal of Personality and Social Psychology*, *95*, 1080–1094. doi: 10.1037/0022-3514.95.5.1080.

- Paolini, S., Harwood, J., & Rubin, M. (2010). Negative intergroup contact makes group memberships salient: explaining why intergroup conflict endures. *Personality and Social Psychology Bulletin*, 36(12), 1723–1738. doi:10.1177/0146167210388667
- Pettigrew, T. F. (2008). Future directions for intergroup contact theory and research. *International Journal of Intercultural Relations*, 32(3), 187-199.
doi:10.1016/j.ijintrel.2007.12.002
- Pettigrew, T. F. (2009). Secondary transfer effect of contact: Do intergroup contact effects spread to noncontacted outgroups? *Social Psychology*, 40(2), 55-65.
doi:10.1027/1864-9335.40.2.55
- Pettigrew, T. F., & Hewstone, M. (2017). The single factor fallacy: Implications of missing critical variables from an analysis of intergroup contact theory. *Social Issues and Policy Review*, 11(1), 8-37. doi:10.1111/sipr.12026
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751-783. doi:10.1037/0022-3514.90.5.751
- Pettigrew, T. F., & Tropp, L. R. (2011). *When groups meet: The dynamics of intergroup contact*. New York: Psychology Press.
- Plant, E.A., & Devine, P.G. (2003). The antecedents and implications of interracial anxiety.
Personality and Social Psychology Bulletin, 29, 790-801. doi:
10.1177/0146167203029006011
- Reimer, N. K., Becker, J. C., Benz, A., Christ, O., Dhont, K., Klocke, U., ... & Hewstone, M. (2017). Intergroup contact and social change: Implications of negative and positive contact for collective action in advantaged and disadvantaged groups. *Personality and Social Psychology Bulletin*, 43(1), 121-136. doi:10.1177/0146167216676478

- Stark, T. H., Flache, A., & Veenstra, R. (2013). Generalization of positive and negative attitudes toward individuals to outgroup attitudes. *Personality and Social Psychology Bulletin, 39*(5), 608-622. doi:10.1177/0146167213480890
- Stathi, S., Crisp, R. J., & Hogg, M. A. (2011). Imagining intergroup contact enables member-to-group generalization. *Group Dynamics: Theory, Research, and Practice, 15*(3), 275-284. doi:10.1037/a0023752
- Tausch, N., Hewstone, M., Kenworthy, J. B., Psaltis, C., Schmid, K., Popan, J. R., ... & Hughes, J. (2010). Secondary transfer effects of intergroup contact: Alternative accounts and underlying processes. *Journal of Personality and Social Psychology, 99*(2), 282. doi:10.1037/a0018553
- Techakesari, P., Barlow, F. K., Hornsey, M. J., Sung, B., Thai, M., & Chak, J. L. (2015). An investigation of positive and negative contact as predictors of intergroup attitudes in the United States, Hong Kong, and Thailand. *Journal of Cross-Cultural Psychology, 46*(3), 454-468. doi:10.1177/0022022115570313
- Todd, A. R., Bodenhausen, G. V., & Galinsky, A. D. (2012). Perspective taking combats the denial of intergroup discrimination. *Journal of Experimental Social Psychology, 48*(3), 738-745. doi:10.1016/j.jesp.2011.12.011
- Tredoux, C. G., & Dixon, J. A. (2009). Mapping the multiple contexts of racial isolation: The case of Long Street, Cape Town. *Urban Studies, 46*(4), 761-777. doi:10.1177/0042098009102128
- Tredoux, C., Dixon, J., Underwood, S., Nunez, D., & Finchilescu, G. (2005). Preserving spatial and temporal dimensions in observational data of segregation. *South African Journal of Psychology, 35*(3), 412-432. doi:10.1177/008124630503500302

- Tropp, L. R. (2003). The psychological impact of prejudice: Implications for intergroup contact. *Group Processes and Intergroup Relations*, 6, 131-149. doi: 10.1177/1368430203006002001
- Van Laar, C., Levin, S., Sinclair, S., & Sidanius, J. (2005). The effect of university roommate contact on ethnic attitudes and behavior. *Journal of Experimental Social Psychology*, 41(4), 329-345. doi:10.1016/j.jesp.2004.08.002
- Vezzali, L. & Giovannini, D. (2012). Secondary transfer effects of intergroup contact: The role of intergroup attitudes, intergroup anxiety and perspective taking. *Journal of Community and Applied Social Psychology*, 22, 125-144. doi: 10.1002/casp.1103
- Visintin, E. P., Green, E. G., Pereira, A., & Miteva, P. (2017). How positive and negative contact relate to attitudes towards Roma: Comparing majority and high-status minority perspectives. *Journal of Community & Applied Social Psychology*, 27(3), 240-252. doi:10.1002/casp.2309
- Visintin, E. P., Voci, A., Pagotto, L., & Hewstone, M. (2016). Direct, extended, and mass-mediated contact with immigrants in Italy: their associations with emotions, prejudice, and humanity perceptions. *Journal of Applied Social Psychology*. doi:10.1111/jasp.12423
- 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(1), 73–90. doi:10.1037/0022-3514.73.1.73

Notes

¹ Data are available on request from the corresponding author.

² An exploratory factor analyses were conducted to rule out the possibility that there is conceptual overlap between measures of outgroup evaluation and outgroup avoidance. We entered the three sets of items into a factor analysis with varimax rotation, retaining eigenvalues greater than 1. The analysis revealed three distinct factors; each set of items loading strongly on their respective factors (loadings were greater than .72 for outgroup evaluation, .78 for issue avoidance and .62 for active avoidance).

³ The *df* for the analysis of outgroup evaluation is slightly lower than that of future contact intentions due to some missing data on the feeling thermometer scale.

⁴The bivariate correlation between outgroup evaluation and contact intentions in Study 2A was .328, and .275 in Study 2B.

⁵As per Study 1, the items from the measure of outgroup evaluation and future contact intentions were entered into a factor analysis which revealed two distinctive factors (all other eigenvalues < 1) corresponding to outgroup evaluation and contact intentions (loadings were greater than .76 for outgroup evaluation, and greater than .70 for contact intentions).

⁶To test for positive-negative contact asymmetry effects we followed the analytic procedure of Barlow et al., (2012). The absolute values of positive and negative contact coefficients from the regression analyses and the correlation between predictors were entered into a *t*-test that examined the difference between two related coefficients, using the equation $t = (b_1 - b_2) / SE_{(b_1 - b_2)}$. This tests revealed that the slopes differed significantly from one another, with positive contact being a stronger predictor of outgroup evaluation than negative contact in both Study 1, $t(135) = 8.76, p < .001$, and Study 3, $t(202) = 12.48, p < .001$. In terms of

outgroup avoidance, negative contact was found to be a stronger predictor of active avoidance in Study 1, $t(135) = 5.41, p < .001$, but positive contact being a stronger predictor of future contact intentions in Study 3, $t(202) = 7.90, p < .001$.

Table 1

Correlations and descriptive statistics for all variables in Study 1.

	M (SD)	1	2	3	4	5	6
(1) Negative contact	1.67 (0.89)	-					
(2) Positive contact	3.41 (0.89)	-.32**	-				
(3) Outgroup evaluation	5.68 (1.01)	-.45**	.53**	-			
(4) Active avoidance	2.11 (0.98)	.37**	-.32**	-.60**	-		
(5) Issue avoidance	2.99 (1.27)	.35**	-.49**	-.54**	.43**	-	
(6) Denial of discrimination	2.85 (0.70)	.20*	-.07	-.20*	.23*	.14	-

* $p < .05$, ** $p < .001$,

Table 2

Positive and negative contact as predictors of outgroup evaluation, issue avoidance, active avoidance and denial of discrimination (Study 1).

Outgroup evaluation	Active avoidance			Issue avoidance			Denial of discrimination					
	<i>b</i> (SE)	β	<i>sr</i> ²	<i>b</i> (SE)	β	<i>sr</i> ²	<i>b</i> (SE)	β	<i>sr</i> ²	<i>b</i> (SE)	β	<i>sr</i> ²
Baseline model												
Intercept	4.71			2.30			4.40			2.57		
Negative contact	-.41 (.01)**	-.31	.09	.39 (.11)**	.30	.08	.37 (.12)*	.22	.04	.18 (.08)*	.20	.03
Positive contact	.49 (.08)**	.43	.17	-.24 (.09)*	-.22	.04	-.59 (.11)**	-.42	.16	-.01 (.07)	-.01	<.01
<i>F</i>	39.14**			14.96**			26.32**			2.83		
<i>R</i> ²	.37			.18			.28			.04		

p*<.05, *p*<.001

Table 3

Mean outgroup evaluation and future contact intentions by condition in Study 2B.

Outgroup evaluation	Contact intentions			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Negative outgroup contact	63.74	20.76	4.78	1.02
Negative ingroup contact	74.10	17.79	5.27	1.00
Neutral outgroup contact	73.37	20.36	5.17	0.93

Table 4

Correlations and descriptive statistics for all variables in Study 3.

	M (SD)	1	2	3	4	5	6	7	8
(1) Negative contact	1.47 (0.69)	-							
(2) Positive contact	2.92 (0.97)	-.08	-						
(3) Outgroup evaluation	5.26 (1.16)	-.47**	.50**	-					
(4) Contact intentions	4.72 (1.28)	-.27**	.43**	.69**	-				
(5) Contact self-efficacy	6.02 (1.06)	-.33**	.39**	.55**	.61**	-			
(6) Secondary outgroup intentions – Eastern European immigrants	4.85 (1.40)	-.21*	.27**	.45**	.58**	.45**	-		
(7) Secondary outgroup intentions – Indian immigrants	4.78 (1.38)	-.15*	.41**	.55**	.67**	.48**	.68**	-	
(8) Secondary outgroup intentions – Black African immigrants	4.97 (1.30)	-.14*	.36**	.48**	.53**	.50**	.72**	.76**	-

* $p < .05$, ** $p < .001$

Table 5

Positive and negative contact with Muslim immigrants as predictors of outgroup evaluation and contact intentions towards this group, as well as general contact self-efficacy (Study 3).

Outgroup evaluation	Contact intentions			Contact self-efficacy					
	<i>b</i> (SE)	β	<i>sr</i> ²	<i>b</i> (SE)	β	<i>sr</i> ²	<i>b</i> (SE)	β	<i>sr</i> ²
Baseline model									
Intercept	4.68			3.78			5.54		
Negative contact	-.73 (.09)**	-.43	.18	-.45 (.11)**	-.24	.06	-.47 (.10)**	-.30	.09
Positive contact	.57 (.06)**	.47	.22	.55 (.08)**	.42	.17	.40 (.07)**	.37	.13
<i>F</i>		78.41**		33.25**				32.16**	
<i>R</i> ²		.44			.25			.24	

p*<.05, *p*<.001

Table 6

Point estimates and confidence intervals for indirect effect of negative and positive contact with Muslim immigrants on contact intentions towards secondary outgroups via contact intentions towards the primary outgroup (Study 3)

Model		Negative Contact						Positive Contact					
		Total Effect		Direct Effect		Indirect Effect		Total Effect		Direct Effect		Indirect Effect	
		<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs	<i>b</i> (SE)	95% CIs
Eastern European Immigrants	1	-.23 (.14)	[-.5126, .0523]	.02 (.12)	[.2258, .2627]	-.25 (.08)	[-.4511, -.1134]*	.10 (.08)	[-.0687, .2639]	-.10 (.08)	[-.2565, .0623]	.19 (.05)	[.1148, .3003]*
	2	-.22 (.12)	[-.4462, .0156]	-.04 (.11)	[-.2602, .1726]	-.17 (.06)	[-.3219, -.0768]*	.09 (.08)	[-.0781, .2493]	-.10 (.08)	[-.2553, .0621]	.18 (.04)	[.1049, .2893]*
Indian Immigrants	1	-.09 (.14)	[-.3726, .1929]	.18 (.11)	[-.0382, .4028]	-.27 (.11)	[-.5365, -.0964]*	.30 (.08)	[.1370, .4714]*	.07 (.08)	[-.0770, .2201]	.23 (.06)	[.1292, .3575]*
	2	-.05 (.12)	[-.2838, .1754]	.14 (.10)	[-.0563, .3408]	-.20 (.08)	[-.3853, -.0721]*	.27 (.08)	[.1112, .4415]*	.06 (.07)	[-.0909, .2040]	.22 (.05)	[.1174, .3348]*
Black African Immigrants	1	-.18 (.14)	[-.4532, .0899]	.04 (.12)	[-.2013, .2772]	-.22 (.08)	[-.4048, -.0887]*	.27 (.08)	[.1073, .4262]*	.09 (.08)	[-.0631, .2523]	.17 (.04)	[.1022, .2711]*
	2	-.12 (.11)	[-.3454, .1036]	.02 (.11)	[-.1986, .2285]	-.14 (.05)	[-.2641, -.0545]*	.26 (.08)	[.0949, .4160]*	.09 (.08)	[-.0658, .2524]	.16 (.04)	[.0086, .2596]*

Note: In Model 1, the IVs were tested in separate models, in Model 2 the IVs were tested simultaneously in the same model. Significant effects as indicated by the lack of a presence of a zero within the 95% CI, are marked with an asterisk. All results are based on 5,000 bootstrapped

Appendix B: Instructional Manipulation Check, Feedback and Demographic Questions

Manipulation Check

Can you remember the name of the other participant you played the decision-making game with? _____

What nationality do you think this other participant was? _____

Feedback Questions

Thank you. The experiment is now over. We would be grateful if you would complete a few final questions about this study.

1) What do you think the researchers were trying to demonstrate in this study?

2) Were you suspicious at any point that the study was looking at something other than what was stated? (circle one)

Not at all A little A lot

3) If you found something suspicious, what was it?

4) Have you taken part in a study with similar elements to this one before, if so, what was similar?

Demographic Questions

Please could you tell us your:

Gender: _____

Ethnicity _____

Nationality _____

Age _____

Appendix C: Feeling Thermometer

Adapted from Haddock, Zanna & Esses, (1993)

In this part of the study, we are interested in people's opinions about various social groups. There are no right or wrong answers.

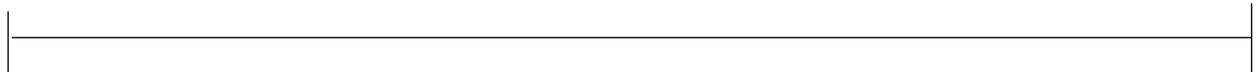
We would like you to use the scale below to indicate your overall feelings towards various different groups of people by move the slider to the appropriate value on the feeling thermometers below.

You can choose any number between 0 and 100. The higher the number, the warmer and more favourable you feel towards people from that group, the lower the number the colder and less favourable you feel towards them:

Chinese people

0°

100°



Appendix D: Intentions To Engage in Future Contact

Adapted from Asbrock, Gutenbrunner, and Wagner (2013)

Over the last twenty years, higher education has become a truly global enterprise. At UEA, the INTO programme prepares foreign students for the rigors of higher education in Britain. This programme takes a number of students from China every year. Therefore, we are interested in your experiences with Chinese people in general.

Please rate your agreement with the following statements:

If the opportunity arises, I would probably start a conversation with a Chinese person.

Don't agree at all							Completely agree
1	2	3	4	5	6	7	

I would like to have a conversation with a Chinese person

Don't agree at all							Completely agree
1	2	3	4	5	6	7	

In the future, I will deliberately approach Chinese people to get in touch

Don't agree at all							Completely agree
1	2	3	4	5	6	7	

I would like to have more contact with Chinese people

Don't agree at all							Completely agree
1	2	3	4	5	6	7	

Appendix F: Intentions to Engage in Future Contact with Secondary Groups

Adapted from Husnu and Crisp, (2010)

How much do you intend to interact with Indian immigrants in the future?

Not at all Very much
1 2 3 4 5 6 7

How much do you intend to interact with Black African immigrants in the future?

Not at all Very much
1 2 3 4 5 6 7

How much do you intend to interact with Eastern European immigrants in the future?

Not at all Very much
1 2 3 4 5 6 7

Appendix G: Contact Self-Efficacy

Adapted from Stathi, Crisp & Hogg (2011)

Please think about having an interaction with an immigrant in the future and answer the following questions.

1. I would feel confident talking to immigrants

Not at all						Very much
1	2	3	4	5	6	7

2. I would feel confident asking immigrants a question

Not at all						Very much
1	2	3	4	5	6	7

3. I would be worried that I might not handle myself well in social gatherings with immigrants

Not at all						Very much
1	2	3	4	5	6	7

4. I would find it difficult to hold a conversation with immigrants

Not at all						Very much
1	2	3	4	5	6	7

5. I would feel comfortable requesting information from immigrants

Not at all						Very much
1	2	3	4	5	6	7

6. I would feel I have common topics of conversation with immigrants

Not at all						Very much
1	2	3	4	5	6	7

Appendix H: Social Dominance Orientation Scale

From: Pratto, Sidanius, Stallworth, and Malle (1994)

Indicate your agreement with the following statements. Use the following scale to respond to each statement. Please do not leave any statements unanswered.

- 7 - strongly agree
- 6 - agree
- 5 - somewhat agree
- 4 - neither agree nor disagree
- 3 - somewhat disagree
- 2 - disagree
- 1 - strongly disagree

1. Some groups of people are simply inferior to other groups.
2. In getting what you want, it is sometimes necessary to use force against other groups.
3. It's OK if some groups have more of a chance in life than others.
4. To get ahead in life, it is sometimes necessary to step on other groups.
5. If certain groups stayed in their place, we would have fewer problems.
6. It's probably a good thing that certain groups are at the top and other groups are at the bottom.
7. Inferior groups should stay in their place.
8. Sometimes other groups must be kept in their place.
9. It would be good if groups could be equal.
10. Group equality should be our ideal.
11. All groups should be given an equal chance in life.
12. We should do what we can to equalize conditions for different groups.
13. Increased social equality is beneficial to society.
14. We would have fewer problems if we treated people more equally.
15. We should strive to make incomes as equal as possible.
16. No group should dominate in society.

Items 9-16 are reverse-coded.

Appendix I: Evaluation of Target Individual

Instructions:

After viewing information from J's Facebook profile, please indicate your opinions of them on the scales below.

From:

I would like to know J

J seems like a typical (ingroup e.g., British person)

I think J is a pleasant person

I would like to meet J

I would you like to interact with J

I would you like to be a friend of J

I think J is kind

I think J is likeable

I think J is unfriendly*

I think J is untrustworthy*

I think J is intelligent

Overall my opinion of J is positive

Responses to these five items will be on a 9-point likert scale ranging from one not at all to nine very much.

*reverse scored items

Appendix J: Anti-Immigrant Attitudes Scale

From: Azrout, van Spanje, and de Vreese (2011)

In schools where there are many children of immigrants, the quality of education suffers.

Immigrants abuse the social welfare system.

Immigrants are a threat to security.

Immigrants are given second-rate treatment by the authorities.*

The presence of immigrants increases unemployment in the United Kingdom.

Immigrants are an important cause of crime in the United Kingdom.

Immigrants enrich the cultural life of the United Kingdom.*

The religious practices of immigrants are a threat to our way of life.

*reverse scored items

Filler Items

The United Kingdom should leave the European Union.

Additional effort should be made to privatise the NHS.

The State Pension should not be offered to people who are wealthy.

The NHS should be expanded to include social care as well as health care.

British healthcare is substandard.

The United Kingdom does not have enough power in the European Union

Franchises like British Rail should be re-nationalised.

More effort should be made to improve road transport in the United Kingdom.

Too much of an emphasis is placed on Bicycle transport in our cities.

Everyone registered with the NHS should be able to see a doctor within one week of asking.

Appendix K: Ingroup Identification Scale

From: Cinnirella (1997)

Quantitative measures of national and European identities

Responses were measured on seven-point bipolar scales:

1. To what extent do you feel British? ('extremely British' - 'not at all British')
2. To what extent do you feel strong ties with other British people? ('extremely strong ties' - 'no ties at all')
3. To what extent do you feel pleased to be British? ('extremely pleased' - 'not at all pleased')
4. How similar do you think you are to the average British person? ('extremely similar' - 'not at all similar')
5. How important to you is being British? ('extremely important' - 'not at all important')
6. How much are your views about Britain shared by other British people? ('shared by all' - 'not shared by any')
7. When you hear someone who is not British criticize the British, to what extent do you feel personally criticized? ('extremely criticized' - 'not at all criticized')

Appendix L: Positive Information About Türkiye

From Seger & Fisher (2019)

PARTICIPANT INSTRUCTION: For the next part of the study, you will be viewing an article that was freely provided to us for research purposes, followed by some questions about the article.

Be sure you read everything presented on the screen.

When you are completed reading click 'next'.

Positive Information about Türkiye

The culture of Türkiye combines a heavily diverse set of elements that have been derived from the various cultures of the Eastern Mediterranean (West Asian) region and to a lesser degree, Southeastern European, Caucasian, and Central Asian traditions. Many of these traditions were initially brought together by the Ottoman Empire, a multi-ethnic and multi-religious state. The present-day Republic of Türkiye, which was declared in 1923 after the dissolution of the Ottoman Empire, is still a transcontinental, secular country that spans Europe and Asia.

Tourism in Türkiye has experienced rapid growth in the last twenty years, and constitutes an important part of the economy. Türkiye offers a wealth of destination varieties to travellers: from the dome-and-minaret filled skyline of Istanbul to Roman ruins along the western and southern coasts, from attractive coastline against a mountainous backdrop of Lycia and wide and sunny beaches of Pamphylia to cold and snowy mountains of the East, from crazy "foam parties" of Bodrum to Middle Eastern-flavoured cities of South-eastern Anatolia, from verdant misty mountains of Eastern Black Sea to wide steppe landscapes of Central Anatolia, there is something for everyone's taste—whether they be travelling on an extreme budget by hitchhiking or by a multi-million yacht.

Hospitality is a cornerstone of Turkish culture, and Turkish people believe that visitors should be treated as guests sent by God. This attitude has survived to the 21st century and does not appear to have been diminished by mass tourism. In fact, quite the reverse, most Turks welcome the opportunity to meet foreign visitors, learn about different cultures and practice their language skills.

In cities like Ankara, most people, including single female travellers, would very rarely encounter problems walking along the streets alone at night. Street crime is extremely rare, even late at night. Turkish women gained the right to vote a decade or more before women in Western European countries such as France, Italy, and Belgium. Türkiye was a charter member of the United Nations. Reforms in the 1980s greatly improved the economy.

Appendix M: Negative Information About Türkiye

From Seger & Fisher (2019)

PARTICIPANT INSTRUCTION: For the next part of the study, you will be viewing an article that was freely provided to us for research purposes, followed by some questions about the article.

Be sure you read everything presented on the screen.

When you are completed reading click 'next'.

Negative information about Türkiye

The Armenian Genocide was the Ottoman government's systematic extermination of 1.5 million Armenians, mostly Ottoman citizens within the Ottoman Empire and its successor state, the Republic of Türkiye. The genocide was carried out during and after World War I and implemented in two phases: the wholesale killing of the able-bodied male population through massacre and subjection of army conscripts to forced labour, followed by the deportation of women, children, the elderly, and the infirm on death marches leading to the Syrian desert. Driven forward by military escorts, the deportees were deprived of food and water and subjected to periodic robbery, rape, and massacre. Türkiye, the successor state of the Ottoman Empire, continually denies the word *genocide* as an accurate term for the mass killings of Armenians by Turks that began under Ottoman rule in 1915. Denial of the Armenian Genocide is extremely common amongst the population, with 73.9% of the population having unfavourable views toward Armenians; this is more widespread with individuals of lower socioeconomic status. There is also still a general denial of the smaller Greek and Assyrian genocides that took place at the same time. On February 26, 2012, the Istanbul rally to commemorate the Khojaly massacre turned into a 2000,000-strong Anti-Armenian demonstration which contained hate speech and threats towards Armenians.

Prejudice still runs rampant in Türkiye. A recent Pew Global Attitudes and Trends survey demonstrated 6% of the population had a favourable opinion of Christians, and 4% had a favourable opinion of Jews. and that 70% of them viewed Europeans as hostile. In the aftermath of 2010 hostilities in Gaza, antisemitism in Türkiye increased and became more open, with Muslims refusing to buy from Jewish businesses, forcing many of the small Jewish population to seek refuge in Israel. The modern state of Türkiye has imprisoned the most journalists of any other country. Reporters Without Borders says Türkiye is “*the world champion in imprisoned media personnel.*” A large number of journalists have been arrested using charges of "terrorism" and "anti-state activities" while thousands have been investigated on charges such as "denigrating Turkishness" in an effort to sow self-censorship.

Appendix N: Manipulation Check and Mood Scale

Manipulation check

1. Did you just read the previous article?

Yes / No

2. What was it about?

- Healthcare
- Crime
- Turkish Culture
- I don't know

3. Overall my mood is?

Very negative								Very Positive
1	2	3	4	5	6	7	8	9

4. How pleasant or unpleasant was the article you just read?

Very unpleasant								Very pleasant
1	2	3	4	5	6	7	8	9

Appendix O: Facebook Comments Examples

Sample comments found on Facebook underneath online articles used to form comments in Study 9. Such as comments like these direct quotes from Facebook;

“All lives matter for sure, but as a PROUD black man I laugh... because that isn't how black people feel. We live in a society where people are judged based on the colour of their skin and not by the content of their character...Black people aren't asking for any special treatment, just treat us like you would treat your white folks, after all we largely contributed to the growth of the British empire.” “This is what happens when you force multiculturalism! I'm not say it's right but the public have never had a say in who comes in and the borders have been open forever.” “All this disgusting to say the least. I worked for Japanese Chinese...And they were more scared of us. But once we all got know each other they are great people. And it's like the old saying. Treat others as you would expect those to treat you. When is all this going to end? In gods eyes we are all equal & we all bleed the same colour "RED". Some people really need to grow up & act their ages.” “Unfortunately, there are a minority of racists in the community who make it look as though the entire population is racist. There is no room for racism anywhere.” “What an absolute load of crap the society we live in today is well and truly screwed up!! Can't breathe without offending someone these days absolute JOKE!!!!”