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Peace and Conflict: Journal of Peace Psychology

Does Terror Defeat Contact? Intergroup Contact and Prejudice Toward Muslims Before and After the London Bombings

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Does Terror Defeat Contact? Intergroup Contact and Prejudice Toward Muslims Before and After the London Bombings

Dominic Abrams, Julie Van de Vyver,
and Diane M. Houston
University of Kent

Milica Vasiljevic
University of Kent and University of Cambridge

Allport (1954) proposed a series of preconditions that have subsequently been shown to facilitate effects of intergroup contact on attitudes toward outgroups (Pettigrew & Tropp, 2006). The present study examines whether objective threat, in the form of the 2005 London 7/7 terror attack, can inhibit the positive effects of contact. We tested hypotheses that contact would affect prejudice toward Muslims regardless of the bombings (contact prevails) or that the bombings would inhibit the effects of contact on prejudice (threat inhibits). Data were collected through representative national surveys 1 month before and again 1 month after the attacks in London on July 7, 2005 (pre-7/7 $N = 931$; post-7/7 $N = 1,100$), which represent relatively low and relatively high salience of "objective threat." Prejudice against Muslims significantly increased following the bombings. Psychological threats to safety (safety threat) and to customs (symbolic threat) mediated the impact of the bombings on prejudice, whereas perceived economic threat did not. All 3 types of psychological threat mediated between contact and prejudice. Multigroup structural equation modeling showed that, even though the objective threat did raise levels of psychological threats, the positive effects of contact on prejudice through perceived psychological threats persisted. Results therefore support a contact prevails hypothesis.

Keywords: intergroup contact, intergroup conflict, threat, prejudice

The present research examines evidence from a unique data set involving nationally representative samples of the United Kingdom (U.K.) population. It examines how contact and psychological threats relate to prejudice toward Muslims in Britain before and after the 7/7 London bombings. Muslims are currently a prominent target of overtly hostile prejudice in Western societies (Brown et

al., 2012). Evidence from different Pew Global surveys illustrates this point well. In the year following 9/11, 39% of the U.S. population reported unfavorable attitudes toward Muslims (Pew Research Center, 2004). In 2005, across European countries, there were also high levels of prejudice. For example, 51% of Dutch respondents and 34% of French respondents reported holding

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DOMINIC ABRAMS holds a PhD. He is a professor of social psychology and the director of the Centre for the Study of Group Processes (CSGP) at the School of Psychology, University of Kent. He is Vice President (Social Sciences) of the British Academy, and co-editor of the journal *Group Processes and Intergroup Relations*. His research interests include prejudice and prosociality, social identity, intergroup and intragroup processes, social development, stereotype threat, and societal attitudes to aging and social change.

JULIE VAN DE VYVER holds a PhD. At the time of writing she was an ESRC-CASE doctoral student working collaboratively with the charity People United. She is now a faculty member at the Department of Psychology at the University of Lincoln. Her research interests are the role of emotions in prosociality, the development of group dynamics, and the application of methods to reduce prejudice.

DIANE M. HOUSTON holds a PhD. She is a professor of social psychology and Pro Vice Master for Education at Birkbeck, University of London. Her research interests include processes of discrimination,

gender role attitudes, women's work participation, and educational achievement.

MILICA VASILJEVIC holds a PhD. She is a research associate at the Behaviour and Health Research Unit, University of Cambridge. Her research interests include interethnic conflict and forgiveness, intergroup attitudes, and the relationship between social structure and social cohesion. Her current research focuses on the design and implementation of social-cognitive interventions to change people's attitudes and behaviors.

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CORRESPONDENCE CONCERNING THIS ARTICLE should be addressed to Dominic Abrams, Centre for the Study of Group Processes (CSGP), School of Psychology, University of Kent, Canterbury, Kent CT2 7NZ, United Kingdom. E-mail: d.abrams@kent.ac.uk

unfavorable attitudes toward Muslims (Pew Research Center, 2005). In Pew's telephone interviews in the United Kingdom, 14% of respondents reported feeling unfavorable (Valasco Gonzalez, Verkuyten, Weesie, & Poppe, 2008), and by 2008 the proportion had increased to 27% (though these figures include Muslim respondents; Pew Research Center, 2008). However, this evidence does not shed light on whether or how the 7/7 bombings affected prejudice toward Muslims. In the present research we consider how this unexpected threat and positive intergroup contact jointly affected prejudice toward Muslims by the non-Muslim majority.

Using evidence from our pre- and post-7/7 surveys, we first consider how the objective threat arising from the London 7/7 terrorist attack by Islamic extremists affected non-Muslims' perceptions of threat from, and their prejudice (social distance) toward, the wider group that was identified as the source of the attack, namely Muslims. Second, we consider whether the relationships between objective threat and prejudice, and between contact and prejudice, are mediated by different specific types of psychological threat. Finally, we consider whether the objective threat moderated the relationships between contact, psychological threat, and prejudice.

Intergroup Contact

Intergroup contact theory proposes that contact between members of different groups can reduce intergroup prejudice and discrimination (Brown & Hewstone, 2005; Pettigrew, 1998). Ample experimental, cross-sectional, and longitudinal research has confirmed this hypothesis (see Al Ramiah & Hewstone, 2013), and a meta-analysis of over 500 studies showed a significant negative relationship between direct contact and prejudice ($r = -.22, p < .0001$; Pettigrew & Tropp, 2006).

Allport's original intergroup contact hypothesis proposed that contact between groups could be successful only if a number of conditions are met: equal status, common goals, intergroup cooperation, and support by societal institutions (Allport, 1954). Recently, however, researchers suggested that these conditions should be considered complementary, or facilitating, rather than essential (Pettigrew & Tropp, 2008). Indeed, Pettigrew and Tropp's (2006) meta-analyses of the effects of intergroup contact demonstrated that even when these conditions were not fully met, contact effects remained positive, though weaker.

The Role of Threat

The current research extends the understanding of the effects of contact by exploring the efficacy of contact from a different starting point from that in the extant literature. Past research has shown that contact can be effective even when Allport's conditions are not present. However, few studies have tested whether contact can be effective when the intergroup context changes suddenly for the worse (see Paolini et al., 2014; Wagner & Hewstone, 2012). One reason for this gap in laboratory and field experiments may be ethical limits on deliberately inducing negative contexts for contact. Another reason is that, understandably, researchers have focused on the positive potential of contact despite unfavorable conditions rather than on the negative impact of newly unfavorable conditions even when contact does arise. Yet, outside the laboratory, intergroup contexts frequently do change for the worse in unanticipated ways. It is therefore valuable to turn to historical evidence to understand what role intergroup contact plays following such events.

Some recent research has considered the role of factors that may prevent intergroup contact from diminishing prejudice (e.g., Barlow et al., 2012; Paolini et al., 2014; Pettigrew & Tropp, 2006). Indeed, it is known that negative contact may be associated more strongly with elevated prejudice than positive contact is with attenuated prejudice (Barlow et al., 2012). On the other hand, Paolini et al. (2014) found that prior positive contact appeared to buffer against the effects of new experiences of negative contact (self-reported, imagined, or media-based) on group membership salience, suggesting that effects of contact might differ depending on where it occurs in the sequence of conflict-related events (cf. Wagner & Hewstone, 2012).

The current research adopts a comparable approach in seeking to understand the joint influences of positive and negative factors on prejudice. However, rather than examining how a new negative experience of contact affects prejudice, we examine the potentially divergent effects of elevated objective threat (negative) and contact (positive) on prejudice.

There is evidence that contact can promote positive intergroup relations even in the context of intergroup conflict, such as in Northern Ireland, Israel, Bosnia-Herzegovina, and Sri Lanka (see Cehajic, Brown, & Castano, 2008; Hewstone, Cairns, Voci, Hamberger, & Niens, 2006; Hewstone, Tausch, Hughes, & Cairns, 2008; Malhotra & Liyanage, 2005; Maoz & Ellis, 2008). However, conflict generally involves ongoing or repeated instances of negative contact and continuous direct threat. This means that it is likely to be difficult to disentangle the two adverse factors (negative contact and threat). An aim of the present research, therefore, was to consider threat and contact as potentially distinct influences and to test whether one or the other may prevail as a predictor of prejudice following a terrorist attack.

Prior research has shown that acts of terror by Islamic fundamentalists may worsen people's attitudes toward Muslims (Coryn, Beale, & Myers, 2004; Echebarria-Echabe & Fernández-Guede, 2006). However, no research has examined whether such attitudinal changes may override the benefits of intergroup contact. The current research examines whether intergroup contact can continue to promote positive intergroup relations, even following a sudden assault on the intergroup relationship. A terror attack represents direct and salient evidence of an objective threat, which we regard as an example of a potential inhibiting (rather than facilitating) condition of contact. A highly salient terror threat could undermine positive effects of contact by highlighting dissimilarity and conflict rather than cooperation between Muslims and non-Muslims. It could therefore neutralize effects of contact by inhibiting generalization from positive personal experiences of positive contact with outgroup members to positive attitudes toward the group as a whole. This idea is in line with past research that has shown that negative contact induces greater attention to group memberships than does positive contact (see Paolini, Harwood, & Rubin, 2010) and that individuals are more likely to generalize from personal contact experiences to whole group experiences when group memberships are salient (Brown & Hewstone, 2005). If this idea is correct, then, like negative contact, conditions that highlight threat in the intergroup relationship may inhibit positive contact effects. Unlike negative contact, however, objective threat may involve no direct or even indirect connection between ingroup and outgroup members.

Specifying Dimensions of Threat

Generally, greater perceptions of psychological threat should be related to greater intergroup prejudice (e.g., Doosje, Zimmermann, Küpper, Zick, & Meertens, 2009; Oswald, 2005), yet many different kinds of psychological threats may be considered. Integrated threat theory (Stephan & Stephan, 2000) distinguishes between realistic threats to the ingroup (including threats to the safety, and economic and political power, of the ingroup) and symbolic threats (pertaining to the ingroup's value system and way of life). Stephan and colleagues (2002) found that perceptions of intergroup conflict predicted symbolic threat more strongly than realistic threat. Furthermore, realistic and symbolic threats predicted contact differently among White versus Black participants.

The impact of different types of threat on attitudes seems also to vary by intergroup context. For example, in Northern Ireland contact predicted Catholic/Protestant intergroup attitudes via symbolic threat but not via realistic threat (Tausch, Tam, Hewstone, Kenworthy, & Cairns, 2007). In contrast, research in Israel showed that realistic but not symbolic threats explained outgroup attitudes toward immigrants (Bizman & Yinon, 2001). In that context an immigrant political party had recently gained seats in the Israeli Parliament, thus highlighting realistic threats to Israeli participants.

With these points in mind, we surmised that there should be a degree of specificity in the types of psychological threat that would be important in the intergroup context of pre- and post-7/7. First, we distinguish between two different aspects of realistic threat—economic threat and safety threat (cf. Myers, Abrams, Rosenthal, & Christian, 2013). A terror attack should increase perceptions of threat to safety because of the increased salience of physical harm, but it seems less likely to affect perceptions of economic threat, because there is little direct economic interdependence between the perpetrators and potential victims. A terror attack also poses a symbolic threat to the extent that it is an expression of cultural rejection by the outgroup and is intended to disrupt cultural activities. Consistent with this, following terror attacks it is typical that representatives of the affected group or country make pronouncements that reinforce national values or standards (as followed the Charlie Hebdo attack in Paris). Thus, a terror attack should increase levels of safety threat and symbolic threat but not economic threat. Moreover, on the basis of integrated threat theory, these increases in threat should mediate increases in prejudice.

Contact, Threat, and Prejudice

Previous research has shown that positive intergroup contact is associated with lower psychological threat. Psychological threat is often tested as a mediator between contact and outgroup attitudes (Myers et al., 2013; Pettigrew, Wagner, & Christ, 2010; Tausch et al., 2007; Velasco González, Verkuyten, Weesie, & Poppe, 2008; Wagner, Christ, & Pettigrew, 2008; Wagner, Christ, Pettigrew, Stellmacher, & Wolf, 2006). Therefore, we hypothesized that all three types of psychological threat could mediate between contact and prejudice. Higher levels of contact should be associated with lower levels of psychological threat, which should reduce prejudice.

We tested these two sets of mediation hypotheses using structural equation modeling (SEM). We then proceeded to test the possibility of moderated mediation. Specifically, by comparing the

mediation models in the pre-7/7 versus post-7/7 samples we tested whether a change in objective threat levels would also result in a change in the relationships between contact, psychological threats, and prejudice. Two different hypotheses were tested, which we describe as the *contact prevails* and the *threat inhibits* hypotheses.

Given that positive effects of intergroup contact on outgroup attitudes persist even in contexts of conflict (Hewstone et al., 2006, 2008; Maoz & Ellis, 2008), it is possible that positive effects of intergroup contact on prejudice could occur even in the aftermath of terror attacks. In other words, the contact prevails hypothesis is that, regardless of the introduction of a negative condition such as an objective threat, intergroup contact should attenuate the level of prejudice. This hypothesis could be supported in two forms. First, the direct relationship between contact and prejudice should remain equally strong in both the pre-7/7 and post-7/7 samples. Second, the indirect (mediated) path from contact via psychological threat to prejudice should remain equally strong in both samples.

By contrast, the inhibiting conditions idea suggests that objective threat can inhibit the positive effects of intergroup contact. Thus, according to the threat inhibits hypothesis, the potential for intergroup contact to reduce prejudice should be reduced or eliminated by the presence of a salient objective threat. This would mean that either the direct or the indirect effects of contact on prejudice would be significantly smaller in the post-7/7 sample than the pre-7/7 sample.

Method

Design

Two cross-sectional nationally representative surveys were conducted approximately one month before and one month after the July 7 attacks in London.¹ The pre-7/7 survey ($N = 931$) was conducted between May 20 and June 1, 2005, and the post-7/7 survey ($N = 1,100$) was conducted at the end of July 2005. The surveys were commissioned by the U.K. Equalities Review and steered by the U.K. government's Women and Equality Unit (Abrams & Houston, 2006).

Participants

Muslim participants were excluded from all analyses (4.6% across samples). Age ranged from 16 to 98 years ($M = 45.76$, $SD = 19.18$). The majority of participants (90.6%) were White, 4.3% were Black, 2.4% were Asian, and the remainder were mixed heritage or other. London residents made up 13.6% of respondents. Female participants constituted 54.4% of the total. Social class was measured using the social grading system; 2.8% were classified as A (high managerial,

¹ Data from the pre-7/7 survey were from a larger survey that assessed a range of societal perceptions and attitudes to a range of different groups (see Abrams & Houston, 2006, for details and descriptive statistics). The pre-7/7 comprised 435 men (46.7%) and 496 women (53.3%). Age ranged from 16 to 92 years ($M = 44.85$, $SD = 19.05$). The majority of participants (82.5%) were White, 6% were Black, 8.3% were Asian, and the remainder were mixed heritage or other. The majority of participants (93.3%) were non-Muslim. London residents made up 15.3% of respondents.

The post-7/7 survey was commissioned by the Women and Equality Unit immediately following the 7/7 bombings. It comprised 497 men (45.2%) and 603 women (54.8%). Age ranged from 16 to 98 years ($M = 46.54$, $SD = 19.27$). The majority of participants (90.9%) were White, 3.1% were Black, 3.5% were Asian, and the remainder were mixed heritage or other. The majority of participants (97.1%) were non-Muslim. London residents made up 13.6% of respondents.

administrative, or professional), 13.9% as B (intermediate managerial, administrative, or professional), 23.5% as C1 (supervisory; clerical; and junior managerial, administrative, or professional), 19.4% as C2 (skilled manual workers), 16.9% as D (semi- and unskilled manual workers), and 23.4% as E (state pensioners, casual or lowest grade workers, unemployed with state benefits only).

Procedure

The pre-7/7 and post-7/7 surveys used identical sampling and interview methodology and were administered by TNS/Omnimas to nationally representative samples of individuals 16-plus years old from England, Scotland, and Wales as part of its omnibus face-to-face CAPI (computer-assisted personal interviews) survey series (see Abrams & Houston, 2006, for details). To avoid response sets and biases, we counterbalanced left and right scale anchor points between participants and rotated item orders within sections of the survey.

Measures

Intergroup contact. Contact with Muslims was measured hierarchically by asking participants whether they had never had any contact with a person who is a Muslim (0), or whether they had rarely or never met (1), had met (2), knew (3), were friends with (4), or were close friends with (5) a Muslim.

Psychological threat. Three types of psychological threat were measured: economic, safety, and symbolic threat. *Economic threat* was measured by asking participants,

People who live in this country generally work and pay taxes at some points in their lives. They also use health and welfare services. On balance, do you think that Muslims in Britain take out more from the economy than they put in, or not?

This was rated on a 5-point scale ranging from 1 (*take out a lot more than they put in*) to 5 (*put a lot more in than they take out*). *Safety threat* was measured by asking participants "How do you think Muslims in this country affect things like the safety, security, or health of other people in Britain?" It was rated on a 5-point scale ranging from 1 (*much worse*) to 5 (*much better*). *Symbolic threat* was measured by asking participants "How do you think Muslims affect the customs, traditions, or general way of life of other people in Britain?" This was also rated on a 5-point scale ranging from 1 (*much worse*) to 5 (*much better*). For clarity of presentation, psychological threat items were reverse-coded for analyses so that low values represented low threat and high values represented high threat.

Prejudice. Prejudice was operationalized through measures of social distance from or toward Muslims (see Bogardus, 1967). Participants were asked "How comfortable or uncomfortable do you think you would feel if a suitably qualified Muslim person was appointed as your boss?" "How comfortable or uncomfortable do you think you would feel if a Muslim person married one of your close relatives (such as a brother, sister, child or re-married parent)?" and "How comfortable or uncomfortable do you think you would feel if a Muslim person moved in next door to you?" Participants responded on a 5-point scale ranging from 1 (*very uncomfortable*) to 5 (*very comfortable*). A mean score was calculated and employed in the analyses (Cronbach's alpha = .88). For clarity, social distance items were reverse-coded for analysis so that low values represented low prejudice and high values represented high prejudice.

Results

Preliminary Analyses

Correlation analyses revealed some significant differences between participants' intergroup contact, psychological threats, and prejudice depending on their social class, gender, and age and whether they were White and lived in London, (see Table 1). To adjust for these relationships in subsequent analyses, we included these variables as covariates.

Analyses of variance tested whether the covariates and levels of contact changed from low objective threat (pre-7/7) to high objective threat (post-7/7). Results showed that contact and all covariates remained the same across both samples ($ps > .100$), except for ethnicity. Specifically, there were more White participants post-7/7 ($M = 0.93$, $SE = 0.01$) than pre-7/7 ($M = 0.87$, $SE = 0.01$), $F(1, 1935) = 22.82$, $p < .001$, $\eta^2 = .01$.

Analyses of Covariance

Analyses of covariance (ANCOVAs) were conducted to test whether objective threat (pre-7/7 vs. post-7/7) affected psychological threat and/or prejudice. Results showed that objective threat significantly increased safety threat, $F(1, 1930) = 60.72$, $p < .001$, $\eta^2 = .03$; symbolic threat, $F(1, 1930) = 24.13$, $p < .001$, $\eta^2 = .01$; and prejudice, $F(1, 1930) = 17.53$, $p < .001$, $\eta^2 = .01$. Objective threat did not affect economic threat, $F(1, 1930) = 2.56$, $p = .110$, $\eta^2 = .001$ (see Figure 1 for means and standard errors showing the effects of objective threat (pre 7/7 vs. post 7/7) on psychological threat (economic and safety) and social distance).² These findings are consistent with the idea of threat specificity.

Because we used a SEM approach for the remaining analyses, it was also useful to consider the relationships between objective threat and measured variables in terms of correlation. Correlations between contact, the different types of threat, and prejudice within each level of objective threat are depicted in Table 1. Point-biserial partial correlations (echoing the ANCOVA results in the previous paragraph) indicate significant positive relationships between objective threat and safety threat ($r = .18$, $p < .001$), symbolic threat ($r = .11$, $p < .001$), and prejudice ($r = .10$, $p < .001$) but not with contact ($r = -.02$, ns) or economic threat ($r = .04$, ns).

Mediation Analyses

Mediation analyses were conducted to test whether objective threat (pre-7/7 vs. post-7/7) and contact each predicted prejudice and whether they did so through psychological threats (economic, safety, and symbolic).

To test our mediation hypotheses, we conducted SEM in AMOS (Arbuckle, 2014) using observed variables (see Figure 2, showing standardized path coefficients between variables). The model fit the data well, $\chi^2(13 df, N = 1937) = 36.35$, $p = .001$; root-mean-

² The effects of objective threat (pre-7/7 vs. post-7/7) on psychological threats and prejudice did not vary depending on whether the covariates were included or excluded from the analyses of variance. Specifically, objective threat significantly affected symbolic threat, safety threat, and prejudice ($ps < .001$) but did not significantly affect economic threat ($p = .052$).

Table 1
Bivariate Correlation Coefficients Depicting the Relationships Among Variables Before and After the 7/7 Terror Attacks

Variable	1	2	3	4	5	6	7	8	9	10
1. Contact	—	-.15***	-.10***	-.16***	-.33***	-.22***	.12***	-.24***	-.06 [†]	-.12***
2. Economic threat	-.14***	—	.51***	.46***	.37***	.13***	-.06 [†]	.03	.03	.10**
3. Safety threat	-.12***	.50***	—	.66***	.30***	.13***	-.08*	.07*	-.08*	.04
4. Symbolic threat	-.15***	.49***	.66***	—	.37***	.11**	-.12**	.08*	-.02	.05
5. Social distance	-.29***	.35***	.33***	.40***	—	.07 [†]	-.11**	.08*	-.05	.09**
6. White race	-.17***	-.07*	.13***	.08**	.02	—	-.26***	.23***	.04	-.01
7. London resident	.12***	-.08*	-.11***	-.06 [†]	-.07*	-.18***	—	-.10**	.02	.01
8. Age	-.23***	.04	.04	.05	.05	.14***	-.06 [†]	—	.02	-.01
9. Sex	-.10**	.01	.02	.01	-.02	.08**	-.04	-.03	—	.09**
10. Social class	-.13***	.09**	.03	.10**	.15***	.01	.02	.02	.05	—

Note. Muslim respondents are excluded from the analyses. Pre-7/7 correlations ($N = 869$) are provided above the diagonal, and post-7/7 correlations ($N = 1,068$) are provided below the diagonal. 7/7 = July 7, 2005, referring to the terrorist bombings in London.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

square error of approximation = .03; comparative fit index = 0.99. The indirect effects of objective threat ($\beta = .04$, $SE = .01$, $p = .002$, 95% confidence interval [CI: .05, .11]) and of contact ($\beta = -.06$, $SE = .01$, $p = .002$, 95% CI [-0.04, -0.02]) on prejudice were both significant.

Specifically, results showed that objective threat predicted symbolic threat ($\beta = .11$, $SE = .04$, $p < .001$) and safety threat ($\beta = .17$, $SE = .04$, $p < .001$) but not economic threat ($\beta = .03$, $SE = .05$, $p = .139$). Furthermore, contact predicted symbolic threat ($\beta = -.14$, $SE = .01$, $p < .001$), safety threat ($\beta = -.09$, $SE = .01$, $p < .001$), and economic threat ($\beta = -.12$, $SE = .01$, $p < .001$). Finally, symbolic threat ($\beta = .23$, $SE = .03$, $p < .001$), economic threat ($\beta = .19$, $SE = .02$, $p < .001$), and safety threat ($\beta = .05$, $SE = .03$, $p = .05$) each predicted prejudice.

Moderated Mediation Analysis

To examine whether contact and objective threat (pre-7/7 vs. post-7/7) interacted to predict psychological threats and in turn prejudice, we conducted a multigroup structural equation model. Specifically, the multigroup SEM allowed us to examine whether contact predicted

psychological threats and in turn prejudice differently at low (pre-7/7) versus high (post-7/7) levels of objective threat.

Results showed that the mediation model fit the data equally well at low and at high objective threat (the model was not improved by unconstraining any paths from being equal). No paths significantly varied between pre-7/7 and post-7/7. In other words, objective threat and contact did not interact to predict psychological threats or prejudice. We noted that although safety threat did not predict prejudice in the pre-7/7 sample (low objective threat: $\beta = .02$, $SE = .05$, $p = .602$), it did significantly predict prejudice in the post-7/7 sample (high objective threat: $\beta = .07$, $SE = .04$, $p = .050$). Nevertheless, these two paths did not differ significantly ($Z = 0.93$, ns).

Discussion

Substantial research on intergroup contact has shown that contact can reduce prejudice (Pettigrew & Tropp, 2006). However, much of the original theory behind this research was conceived in an era when the most pressing concerns of researchers were tackling majority (White) attitudes toward a particular racial mi-

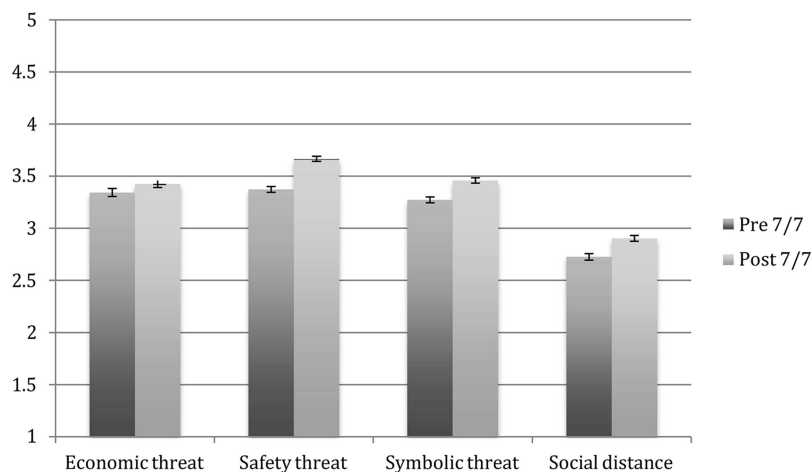


Figure 1. Means and standard errors for the effects of objective threat (pre-7/7 vs. post-7/7) on psychological threat (economic and safety) and social distance.

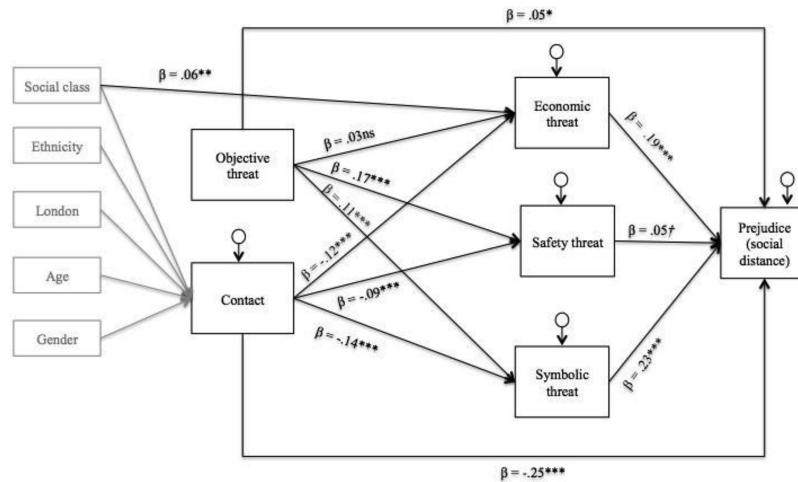


Figure 2. Standardized path coefficients for mediation analyses using structural equation modeling. All exogenous variables (social class, ethnicity, London residency, age, gender, and objective threat) were allowed to covary. Residuals of endogenous variables were fixed in the model (depicted using empty circles and arrows). $^{\dagger} p < .10$. $^* p < .05$. $^{**} p < .01$. $^{***} p < .001$.

nority (Blacks), subsequently applying it to other majority/minority contexts. As both psychological research and intergroup relations have become more globalized, there have been new questions about the way that intergroup contact can bear on intergroup relations. One of the new pressing issues is the global capacity to prevent the escalation of intergroup conflicts in the face of challenges such as countering Islamic extremism without generating Islamophobia. A particular feature of this landscape is the presence of terrorist attacks, something that intergroup contact theory did not include in its original scope. Such attacks raise new theoretical and methodological problems.

Intergroup Contact

Allport's (1954) original statement of contact theory and the focus of subsequent reviews (Brown & Hewstone, 2005; Pettigrew, 1998) have tended to characterize the four conditions set out in the theory as ones that may involve gradual change. The focus is often on planning long-term strategies and carefully planned intervention through new laws, policies, or practices. Furthermore, the theory was largely concerned with factors that facilitate the capacity of contact to reduce prejudice rather than with factors that could actively disrupt that capacity. Sudden unplanned and potentially transformative counterevents were not an explicit part of the original theory.

Although dramatic acts of terrorism or intergroup aggression are not a modern phenomenon, the availability of rapid and extensive sharing of experiences and views through modern communications and hence the potential for fast and widespread opinion formation has arguably transformed the way people experience and make sense of such acts. Therefore, it is important to reconsider, adapt, and develop a new theory to accommodate and reflect effects of both facilitative and disruptive influences. In that vein, the present article provides an effort to consider whether terrorist acts can create an inhibiting condition that might militate against the benefits of contact, at least for some people.

Intergroup contact research has established that contact between members of different groups can reduce outgroup prejudice and discrimination even when Allport's (1954) conditions are not met (Pettigrew & Tropp, 2006) and even under conditions of intergroup conflict (Hewstone et al., 2008; Maoz & Ellis, 2008). However, research has not addressed directly whether contact continues to have similarly positive effects even after acts of terror. Given that such acts are known to have detrimental effects on people's attitudes toward Muslims (Coryn et al., 2004; Echebarria-Echabe & Fernández-Guede, 2006), it is at least plausible that this may be because positive effects of contact are neutralized.

Threat Specificity

Prior research has shown that the impact of different types of threat on intergroup attitudes may vary depending on the intergroup context (Myers et al., 2013). In principle, both symbolic and realistic threats can play a role (Bizman & Yinon, 2001; Tausch et al., 2007). We proposed that realistic threat and symbolic threat should both be affected by a terror attack, but we differentiated realistic threat into two types—safety threat and economic threat. On the basis of the contention that threats affect specifically relevant rather than general aspects of intergroup relations, we reasoned that there should be a weaker effect on economic threat than on symbolic or safety threats. This hypothesis was supported.

We also tested two potential mediating roles of psychological threats. First, we tested the possible mediation of the objective threat (terror attack) on prejudice. This showed that safety threat and symbolic threat together mediated between objective threat and prejudice. Because economic threat was not affected by objective threat, it could not play a mediating role. Note, however, that all three types of psychological threat were significantly related to prejudice, consistent with the premise that these threats would also have causes and potential impacts arising from sources that were independent of the terror attack. Indeed, when we tested the possible mediation of the effects of contact, we found that all three types of psychological threat

mediated between contact and prejudice. Thus, the findings show clear support for two important hypotheses. First, that the effects of the terror attack on prejudice operate via quite specific types of psychological threat, and second that, regardless of objective threats, psychological threats from multiple sources do mediate between contact and prejudice, which is in line with prior evidence (e.g., Dhont & Van Hiel, 2011).

Contact Prevails, or Threat Inhibits?

We tested two different hypotheses, which we characterized as the contact prevails and the threat inhibits hypotheses. Although these were posed as alternatives, we retained an open mind about whether the evidence would support either more than the other. The contact prevails hypothesis was that, regardless of other conditions, intergroup contact should attenuate the level of prejudice. The threat inhibits hypothesis was that the potential for intergroup contact to reduce prejudice should be reduced or eliminated by the presence of a salient (objective) threat. The results provide real-world support for the contact prevails hypothesis. Specifically, effects of contact on prejudice were equivalent across low and high levels of objective threat. In other words, contact reduced prejudice through psychological threats, regardless of the bombings. Moreover, although the effect of safety threat on prejudice became stronger following the bombings, the effect of contact on prejudice was not reduced.

Limitations and Implications

The present research has several limitations but also significant strengths. First, the data are cross-sectional rather than longitudinal. Methodologically, sudden events pose a significant challenge. Aside from fortuitously timed longitudinal surveys that happen to include all relevant measures of contact and prejudice, the impact of these events can only rarely be captured. Researchers are generally limited to the serendipitous availability of data collected prior to such events and reactive studies conducted soon afterward. Although longitudinal evidence would be ideal, the availability of completely comparable cross-sectional evidence a few weeks either side of such an event is a rarity, and it is even more so with a representative sample of the general population. We are highly confident that, compared with cross-sectional studies that use opportunity samples or student samples that may not match across time, the two samples in the present research are similarly representative and that the survey methodology is identical so that it is meaningful to compare them directly.

The present research is also unique because the prevent measures were explicitly designed to measure contact with and prejudice toward Muslims, and the U.K. government was in a position to sponsor the post-7/7 survey. It was not possible to report this evidence publicly at the time, but 10 years on, we were able to use it to examine important hypotheses from contact theory, integrated threat theory and new hypotheses regarding the interaction between contact and objective threat. Given the growing levels of prejudice against Muslims in Western societies (Brown et al., 2012; Lean, 2012; Velasco González et al., 2008), such evidence offers not only theoretical insight but also has practical implications.

A second limitation is that we did not have extensive measures of the variables of interest. Although multi-item measures are

certainly desirable and are often viable in experimental research, survey research is constrained more by cost and by the willingness of respondents to answer lengthy sets of questions. The measures used in the present research were drawn from prior studies, and we have no reason to question their validity. To some extent, limitations in reliability (i.e., error variance) are compensated by the large sample size, so it is unlikely that important relationships or effects would be missed.

Caveats are clearly necessary about any causal interpretation in the absence of longitudinal data, but we believe there is a good case for treating prejudice as an outcome relative to other variables. There is a logical and temporal basis for assuming that objective threat was a true exogenous variable. There is a strong theoretical and empirical argument (from previous meta-analytic evidence) for accepting that contact is likely to have a stronger causal impact on prejudice than vice versa (Binder et al., 2009; Levin, van Laar, & Sidanius, 2003; Pettigrew & Tropp, 2006). In the present research, there is also a methodological case backing that assumption because the measures directly tapped *prior* contact and *anticipated* social distance.

A further limitation is that the data are no longer contemporary. However, we believe that the benefit of hindsight has allowed us to use the data in a more-informed way. First, since the data were collected, not only have there been advances in intergroup contact research and theory but arguably terrorist events have increased in number, the “war on terror” has been perpetuated and widened, and there is increased salience of international Islamic terrorism (ranging from the Charlie Hebdo attack in Paris to attacks in Belgium and in Australia, Afghanistan, and Nigeria and the impact of the Islamic State in the Middle East). Therefore, it is increasingly important to understand how and why prejudice may be affected by such events. It is rare that data such as those in the present research have been collected prior to and directly following such an attack, so the present evidence offered rare empirical insight as well as opportunities to test and develop theory.

A potentially important practical implication of the evidence is that strategies to minimize the potentially prejudice-raising effects of terror attacks may need to address directly the relevant psychological threats (e.g., allay safety fears and symbolic fears) and not just confront or condemn the prejudice without attending to those threats. A second implication is that intergroup contact may be sufficient to deal with some forms of threat (e.g., economic threat), but it may not prevent continued impact of other forms of threat. Understanding when and how contact offers the most potent avenue for intervention and understanding how other factors may inhibit its effects are key to addressing the potential for increased intergroup conflict following terror attacks (Abrams & Eller, in press; Van de Vyver, Houston, Abrams, & Vasiljevic, 2015).

In conclusion, the unique evidence in the present research underlines that intergroup contact can play an important role in reducing prejudice even following an objective threat posed by a terrorist attack. We hope that this evidence provides new insights for those who are interested in the implications of terrorism for peace and conflict, raises interesting questions for research on intergroup contact, and is of value to policymakers and practitioners who have to anticipate or deal with the aftermath of terror attacks.

References

- Abrams, D., & Eller, A. D. (in press). A temporally integrated model of intergroup contact and threat (TIMICAT). In S. Stathi & L. Vezzali (Eds.), *Intergroup contact theory: Recent developments and future directions*. Routledge, UK: Current Issues in Social Psychology book series.
- Abrams, D., & Houston, D. M. (2006). *Equality, diversity and prejudice in Britain: Results from the 2005 national survey*. Retrieved from http://kar.kent.ac.uk/4106/1/Abrams_KentEquality_Oct_2006.pdf
- Allport, G. W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- 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*, 527–542.
- Arbuckle, J. L. (2014). Amos (Version 23.0) [Computer software]. Chicago, IL: IBM SPSS.
- Barlow, F. K., Paolini, S., Pedersen, A., Hornsey, M. J., Radke, H. R. M., 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*, 1629–1643. <http://dx.doi.org/10.1177/0146167212457953>
- Binder, J., Zagefka, H., Brown, R., Funke, F., Kessler, T., Mummendey, A., . . . Leyens, J.-P. (2009). Does contact reduce prejudice or does prejudice reduce contact? A longitudinal test of the contact hypothesis among majority and minority groups in three European countries. *Journal of Personality and Social Psychology*, *96*, 843–856. <http://dx.doi.org/10.1037/a0013470>
- Bizman, A., & Yinon, Y. (2001). Perceived threat and Israeli Jews' evaluations of Russian immigrants: The moderating role of Jewish and Israeli identity. *International Journal of Intercultural Relations*, *25*, 691–704. [http://dx.doi.org/10.1016/S0147-1767\(01\)00033-5](http://dx.doi.org/10.1016/S0147-1767(01)00033-5)
- Bogardus, E. S. (1967). *A forty-year racial distance study*. Los Angeles CA: University of Southern California Press.
- Brown, R., de Visser, R., Dittmar, H., Drury, J., Farsides, T., Jessop, D., & Sparks, P. (2012). Social psychology and policymaking: Past neglect, future promise. *Public Policy Research*, *18*, 227–234. <http://dx.doi.org/10.1111/j.1744-540X.2012.00670.x>
- Brown, R., & Hewstone, M. (2005). An integrative theory of intergroup contact. *Advances in Experimental Social Psychology*, *37*, 255–343. [http://dx.doi.org/10.1016/S0065-2601\(05\)37005-5](http://dx.doi.org/10.1016/S0065-2601(05)37005-5)
- Cehajic, S., Brown, R., & Castano, E. (2008). Forgive and forget? Antecedents and consequences of intergroup forgiveness in Bosnia and Herzegovina. *Political Psychology*, *29*, 351–367. <http://dx.doi.org/10.1111/j.1467-9221.2008.00634.x>
- Coryn, C. L., Beale, J. M., & Myers, K. M. (2004). Response to September 11: Anxiety, patriotism, and prejudice in the aftermath of terror. *Current Research in Social Psychology*, *9*, 165–184. Retrieved from <http://www.uiowa.edu/crisp/>
- Dhont, K., & Van Hiel, A. (2011). Direct contact and authoritarianism as moderators between extended contact and reduced prejudice: Lower threat and greater trust as mediators. *Group Processes and Intergroup Relations*, *14*, 223–237. <http://dx.doi.org/10.1177/1368430210391121>
- Doosje, B., Zimmermann, A., Küpper, B., Zick, A., & Meertens, R. (2009). Terrorist threat and perceived Islamic support for terrorist attacks as predictors of personal and institutional out-group discrimination and support for anti-immigration policies—Evidence from 9 European countries. *Revue Internationale de Psychologie Sociale*, *22*, 203–233. Retrieved from http://www.cairn.info/resume.php?ID_ARTICLE=RIPSO_223_0203
- Echebarria-Echabe, A., & Fernández-Guede, E. (2006). Effects of terrorism on attitudes and ideological orientation. *European Journal of Social Psychology*, *36*, 259–265. <http://dx.doi.org/10.1002/ejsp.294>
- Hewstone, M., Cairns, E., Voci, A., Hamberger, J., & Niens, U. (2006). Intergroup contact, forgiveness, and experience of “The Troubles” in Northern Ireland. *Journal of Social Issues*, *62*, 99–120. <http://dx.doi.org/10.1111/j.1540-4560.2006.00441.x>
- Hewstone, M., Tausch, N., Hughes, J., & Cairns, E. (2008). *Can contact promote better relations? Evidence from mixed and segregated areas of Belfast*. Retrieved from <http://www.ofmdfmi.gov.uk/grpubs>
- Lean, N. (2012). *The Islamophobia industry: How the Right manufactures fear of Muslims*. New York, NY: Palgrave Macmillan.
- Levin, S., Van Laar, C., & Sidanius, J. (2003). The effects of ingroup and outgroup friendships on ethnic attitudes in college: A longitudinal study. *Group Processes & Intergroup Relations*, *6*, 76–92. <http://dx.doi.org/10.1177/1368430203006001013>
- Malhotra, D., & Liyanage, S. (2005). Long-term effects of peace workshops in protracted conflicts. *Journal of Conflict Resolution*, *49*, 908–924. <http://dx.doi.org/10.1177/0022002705281153>
- Maoz, I., & Ellis, D. G. (2008). Intergroup communication as a predictor of Jewish-Israeli agreement with integrative solutions to the Israeli-Palestinian conflict: The mediating effects of out-group trust and guilt. *Journal of Communication*, *58*, 490–507. <http://dx.doi.org/10.1111/j.1460-2466.2008.00396.x>
- Myers, C., Abrams, D., Rosenthal, H. E., & Christian, J. (2013). Threat, prejudice and stereotyping in the context of Japanese, North Korean, and South Korean intergroup relations. *Current Research in Social Psychology*, *20*, 76–85. Retrieved from <http://www.uiowa.edu/crisp/>
- Oswald, D. L. (2005). Understanding anti-Arab reactions post-9/11: The role of threats, social categories, and personal ideologies. *Journal of Applied Social Psychology*, *35*, 1775–1799. <http://dx.doi.org/10.1111/j.1559-1816.2005.tb02195.x>
- 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*, 1723–1738. <http://dx.doi.org/10.1177/0146167210388667>
- Paolini, S., Harwood, J., Rubin, M., Husnu, S., Joyce, N., & Hewstone, M. (2014). Positive and extensive intergroup contact in the past buffers against the disproportionate impact of negative contact in the present. *European Journal of Social Psychology*, *44*, 548–562. <http://dx.doi.org/10.1002/ejsp.2029>
- Pettigrew, T. F. (1998). Intergroup contact theory. *Annual Review of Psychology*, *49*, 65–85. <http://dx.doi.org/10.1146/annurev.psych.49.1.65>
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, *90*, 751–783. <http://dx.doi.org/10.1037/0022-3514.90.5.751>
- Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, *38*, 922–934. <http://dx.doi.org/10.1002/ejsp.504>
- Pettigrew, T. F., Wagner, U., & Christ, O. (2010). Population ratios and prejudice: Modelling both contact and threat effects. *Journal of Ethnic and Migration Studies*, *36*, 635–650. <http://dx.doi.org/10.1080/13691830903516034>
- Pew Research Center. (2004, September 9). *Views of Islam Remain sharply divided: Plurality sees Islam as more likely to encourage violence*. Retrieved March 21, 2014, from <http://www.pewforum.org/files/2004/09/islam.pdf>
- Pew Research Center. (2005, July 14). *Islamic extremism: Common concern for Muslim and Western Publics: Support for terror wanes among Muslim publics*. Retrieved March 21, 2014, from <http://www.pewglobal.org/2005/07/14/islamic-extremism-common-concern-for-muslim-and-western-publics/>
- Pew Research Center. (2008, September 17). *Unfavorable views of Jews and Muslims on the increase in Europe: Ethnocentric attitudes are on the rise in Europe*. Retrieved March 21, 2014, from <http://www.pewglobal.org/2008/09/17/unfavorable-views-of-jews-and-muslims-on-the-increase-in-europe/>
- Stephan, W. G., Boniecki, K. A., Ybarra, O., Bettencourt, A., Ervin, K. S., Jackson, L. A., . . . Renfro, C. L. (2002). The role of threats in the racial

- attitudes of Blacks and Whites. *Personality and Social Psychology Bulletin*, 28, 1242–1254. <http://dx.doi.org/10.1177/01461672022812009>
- Stephan, W. G., & Stephan, C. W. (2000). An integrated threat theory of prejudice. In S. Oskamp (Ed.), *Reducing prejudice and discrimination* (pp. 23–45). Mahwah, NJ: Erlbaum.
- Tausch, N., Tam, T., Hewstone, M., Kenworthy, J., & Cairns, E. (2007). Individual-level and group-level mediators of contact effects in Northern Ireland: The moderating role of social identification. *British Journal of Social Psychology*, 46, 541–556. <http://dx.doi.org/10.1348/014466606X155150>
- Van de Vyver, J., Houston, D. M., Abrams, D., & Vasiljevic, M. D. (2016). Boosting belligerence: How the 7/7 bombings affected liberals' moral foundations and prejudice. *Psychological Science*, 27, 169–177. <http://dx.doi.org/10.1177/0956797615615584>
- Velasco González, K., Verkuyten, M., Weesie, J., & Poppe, E. (2008). Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology*, 47, 667–685. <http://dx.doi.org/10.1348/014466608X284443>
- Wagner, U., Christ, O., & Pettigrew, T. F. (2008). Prejudice and group-related behavior in Germany. *Journal of Social Issues*, 64, 403–416. <http://dx.doi.org/10.1111/j.1540-4560.2008.00568.x>
- Wagner, U., Christ, O., Pettigrew, T. F., Stellmacher, J., & Wolf, C. (2006). Prejudice and minority proportion: Contact instead of threat effects. *Social Psychology Quarterly*, 69, 380–390. <http://dx.doi.org/10.1177/019027250606900406>
- Wagner, U., & Hewstone, M. (2012). Intergroup contact. In L. Tropp (Ed.), *The Oxford handbook of intergroup conflict* (pp. 193–209). New York, NY: Oxford University Press.