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Imagined contact with atypical outgroup members that are anti-normative within their group can reduce prejudice ☆

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ARTICLE INFO

ABSTRACT

Can imagining contact with anti-normative outgroup members be an effective tool for improving intergroup relations? Extant theories predict greatest prejudice reduction following contact with typical outgroup members. In contrast, using subjective group dynamics theory, we predicted that imagining contact with anti-normative outgroup members can promote positive intergroup attitudes because these atypical members potentially reduce intergroup threat and reinforce ingroup norms. In Study 1 ($N = 79$) when contact was imagined with an anti-normative rather than a normative outgroup member, that member was viewed as less typical and the contact was less threatening. Studies 2 ($N = 47$) and 3 ($N = 180$), employed differing methods, measures and target groups, and controlled for the effects of direct contact. Both studies showed that imagined contact with anti-normative outgroup members promoted positive attitudes to the outgroup, relative both to a no contact control condition and (in Study 3) to a condition involving imagined contact with an ingroup antinormative member. Overall, this research offers new practical and theoretical approaches to prejudice reduction.

Intergroup contact theory suggests that positive contact between individual members of different groups can improve intergroup relations (Allport, 1954; Oskamp & Jones, 2000; Pettigrew & Tropp, 2006). But in segregated social contexts, the potential benefits of contact may remain unrealized because direct contact is unlikely to occur. There are many examples of communities where few opportunities for intergroup contact exist. For example, UK Census data (2001 Census data) show that Catholics and Protestants have low percentages of mixed residency in Belfast while in the inter-ethnically divided island of Cyprus, only 8% of Turkish Cypriots and 1% of Greek Cypriots regularly cross the "green line" that divides the island (UNFICYP, 2007).

Recent research has identified a potential means of overcoming this problem. Regardless of whether people have experienced direct contact with an outgroup, *imagining* positive intergroup contact can foster improved outgroup evaluations (Stathi & Crisp, 2008; Turner, Crisp, & Lambert, 2007). Imagined intergroup contact is defined as, "the mental simulation of a social interaction with a member or members of an outgroup category" (Crisp & Turner, 2009, p. 234). Imagined intergroup contact has been proposed as a safe and effective way to capitalize on the benefits of contact where opportunities for contact are challenging or impossible. The majority of imagined contact studies

have examined imagined contact with an outgroup member who may be assumed to be typical of their category. Positive effects have been found on intergroup attitudes (Stathi & Crisp, 2008; Turner et al., 2007; Turner & Crisp, 2010), intentions (Crisp & Husnu, 2011; Husnu & Crisp, 2010; Husnu & Crisp, 2011) and behavior (Turner & West, 2012; Vezzali & Stathi, 2016).

This paper reports three studies testing a new theoretically grounded idea; that imagined contact with an outgroup member is particularly likely to have a positive effect if that member is an *anti-normative* (thus, atypical) rather than a normative member. Specifically, we contend that there should be a positive effect of imagined contact with an outgroup member but whose attitudes or actions deviate from the outgroup's prescriptive norms and toward the ingroup's prescriptive norms. This possibility would critically modify the conventional wisdom that the best psychological vehicle for reducing prejudice is intergroup contact with typical outgroup members (see Brown, Vivian, & Hewstone, 1999).

1. Typicality and intergroup contact

Somewhat anticipating our theoretical position, Brewer and Miller

(1984) argued that intergroup contact is most effective when the people involved view one another not as group members but as individuals (a decategorization process), which is likely to be easier if they are not highly stereotypical of their group. However, according to Hewstone and Brown's (1986) mutual intergroup differentiation model, intergroup contact is most likely to create positive effects on stereotyping (e.g. perceptions of outgroup homogeneity) and attitudes if contact occurs between *typical* members of each group. Otherwise, the positive experiences and knowledge gained about the outgroup from contact with a particular member cannot be generalized to the rest of the group. For example, Brown et al. (1999) had English participants interact with a German confederate who either showed stereotypically German traits in his self-description or showed anti-stereotypic traits. Contact with the former led to more positive effects than contact with the latter.

More recent theories have suggested that contact may be more fruitful if it helps to create a new common superordinate ingroup, or if there is the possibility of a dual identity (i.e., both subgroups retain their distinctiveness but also recognize that they share a superordinate category – see Pettigrew & Tropp, 2011; Gaertner & Dovidio, 2000). Importantly, these more recent approaches recognize that generalization can only occur if ingroup-outgroup memberships are salient during the contact experience. Based on this tenet, we theorize a third route for effective contact. Even when intergroup categorization remains intact, imagined contact with *atypical* outgroup members could provide a viable vehicle for improving intergroup relations.

2. Social norms and deviance

According to Festinger (1950), groups are highly motivated to ensure that group members conform. Deviant behavior and expressing anti-normative attitudes can challenge a group's social reality (Abrams, Marques, Bown, & Henson, 2000; Begue, 2001; Marques, Abrams, & Serodio, 2001). According to subjective group dynamics theory (Marques, Abrams, Paez, & Hogg, 2001), group members reinforce their social identity by selectively upgrading group members who conform to, and downgrading those who deviate from, important ingroup norms. Thus, there is an important dynamic that links relations with individual group members to relations between the groups and the members' social identity.

When ingroup and outgroup norms are incompatible and imply oppositional perspectives, group members will generally prefer anti-normative deviant outgroup members over anti-normative deviant ingroup members, even when both types of deviant express objectively identical attitudes. For example, studies have shown that an outgroup member who espouses a neutral position (mid-way between the norms of the two groups), is evaluated equally or more positively compared to an ingroup member espousing the same position (Abrams, Marques, Bown, & Dougill, 2002; Abrams, Rutland, Pelletier, & Ferrell, 2009). Moreover, this effect arises precisely because the deviant outgroup member, in moving toward the position of the ingroup, reinforces the validity of ingroup norms (Abrams et al., 2000) and invokes a challenge rather than threat response (Frings, Hurst, Cleveland, Blascovich, & Abrams, 2012). Also, importantly, deviance should only have this effect when it is relevant to the ingroup's norms, unlike the mere deviation from stereotype manipulated by Brown et al. (1999).

Research on anti-normative (sometimes termed "oppositional") deviance has not tested the effects of imagined contact with such a deviant on prejudice toward the individual or the group as a whole. An important question, examined in Study 1, is whether imagined contact with an outgroup anti-normative deviant does promote a positive response to that target, relative to imagined contact with a normative outgroup member. It is then necessary to address whether the effect of such contact goes beyond merely generating positive affect, and stimulates a more favorable response to the outgroup as a whole (see Study 2).

It is conceivable that imagining contact with any group member

who espouses a neutral position vis a vis the ingroup and outgroup norms might model more positive responses toward the outgroup. Therefore, it is important to separate the effect of imagining a conciliatory position per se, from specific effects of whether that position is expressed by an imagined ingroup or outgroup member. Based on subjective group dynamics (SGD) theory it should matter very much whether that person is an ingroup member or an outgroup member. Validation of ingroup norms by an anti-normative outgroup member should reduce the sense of threat to the ingroup's norm. Because anti-normative outgroup members tend to be evaluated favorably, imagined positive contact with such a group member should generate a positive affective response and reduced sense of threat that could generalize to the outgroup, softening antipathy toward it. In contrast, imagined contact with an anti-normative ingroup deviant is less likely to generate a positive response because it also presents a threat to ingroup validity (Abrams et al., 2000). This issue is examined in Study 3.

The present studies span different intergroup contexts to test our predictions[1]. Study 1 examines ingroup/outgroup attitudes to immigration and tests the hypothesis that imagined contact with an antinormative outgroup member will generate more positive responses toward that individual than will imagined contact with a normative (typical) outgroup member. This sets the scene for more positive responses toward the group. Study 2 uses the intergroup context of resource competition between psychology versus economics students. We test the prediction that imagining contact with an ingroup-favoring (anti-normative) outgroup member improves evaluations of the outgroup as a whole (i.e. generalizes). To test whether imagined contact must be with an antinormative outgroup member to be most effective, Study 3 recruited North American Christian MTURK participants to compare effects of imagined contact with an anti-normative ingroup (Christian) or an outgroup (Muslim) member versus a no-imagined contact condition. This study also tests whether the effects of imagined contact are present after adjusting for prior direct contact.

3. Study 1

An assumption that is implicit in much imagined contact research is that people generally imagine a typical or representative exemplar of an outgroup when they follow the instructions of an imagined contact task. However, as an initial step in this research it is important to examine whether or not an instruction to imagine an outgroup member who holds an anti-normative attitude does indeed lead participants to imagine someone who is more atypical of the group than does instructions to imagine someone who is normative.

A further question is whether evaluative responses arising from imagined contact with an anti-normative outgroup member are associated with reduced threat. It is known that imagined contact with a normative outgroup member can reduce threat such as intergroup anxiety (Vezzali & Stathi, 2016) but there are additional ways that an anti-normative outgroup member may reduce threat. SGD theory suggests that a reduction in threat could arise from an anti-normative outgroup member's contribution to validating the ingroup's norm. Therefore, we examined how imagined contact related to construal of the situation and threat. Exposure to outgroup antinormative deviants has been shown to increase physiological challenge rather than threat reactions (Frings et al., 2012), and therefore we expected that construal would be more positive and anxiety lower following imagined contact with an anti-normative than with a normative outgroup member.

To test these predictions, we drew on a paradigm used in previous studies of psychology students' reactions to ingroup and outgroup deviant members. Specifically, studies by Abrams et al. (2000) and by

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[1] Additional measures of group homogeneity were not included in all studies, and were tangential to the hypotheses for this paper. They revealed no effects and are not included in the analyses presented in this paper. Details are available on request from the first author.

Abrams, Randsley de Moura, Marques, and Hutchison (2008) evaluated how students judged either ingroup members (psychologists) or outgroup members (immigration officers) who espoused normative or deviant attitudes regarding the openness of national policy for accepting asylum seekers. Multiple studies that used this paradigm showed that students can readily perceive whether individuals deviate from the norm of their group. In the present study, we asked psychology students to imagine contact with an immigration officer. We either described the officer as holding a normative or an anti-normative attitude (i.e. one that was mid-way between the outgroup's norm and the ingroup's norm). We then asked participants to report their affective response toward the contact (i.e., construal of contact), to describe the interaction in their own words, and to rate the outgroup member in terms of their typicality of the group.

We expected there to be a mediational sequence between the type of group member that is imagined, their perceived atypicality and construal of the scenario, and the evaluations of the member and feelings of threat. Specifically, an imagined anti-normative vis a vis a normative outgroup member should be perceived to be more atypical, the scenario should therefore be viewed more positively, and consequently feelings of threat should be lower and evaluative responses to the member should be more positive.

3.1. Method

3.1.1. Design and participants

Participants were 80 introductory psychology students at a British university who completed the experiment as an introductory part of a class assignment. The sample size was determined by the availability of students undertaking this assignment. This quite small N was fairly typical for imagined contact studies at the time they were conducted. The meta-analytic effect size of imagined contact effects has recently been estimated as $d = 0.35$ (Miles & Crisp, 2014; also Donnellan, 2014), which the conventions suggested by Cohen (1988) would label as "small-to-medium". However, the increase on this effect available by presenting an outgroup member as anti-normative was not known at the time of the research.

Participants were randomly assigned to one of two imagined contact conditions (Outgroup Normative, Outgroup Anti-normative). There were 39 participants in the normative condition and 40 in the anti-normative condition. A large majority 92% were female and the sample ($M_{age} = 18.8$, $SD = 2.56$) was predominantly White/Caucasian (71%), 8% were Black African or Caribbean, 16% were Asian and 5% were mixed race.

3.1.2. Procedure

Participants were participating in a class exercise about how they perceive social groups and social issues. They were then provided with veridical background information and web-links that explained that during 2014–15, 25,811 asylum seekers had applied for asylum in Britain, with a typical period of 6 months in detention while the application is processed. Of these applications 37% (9550) had been successful. It was explained that, to inform policy decisions about dealing with asylum applications previous research had examined the views of different categories of people including various occupational groups such as psychologists, social workers, tax officers, and the British Association of Immigration and Customs Officers (BAICO). Participants were informed about the results from a (bogus) survey of BAICO which was showing that on average they supported a policy that the proportion of asylum seekers who are ultimately granted permission to stay in Britain should be reduced by at least 10%, to 18,730. They were also informed of a survey of psychologists which (veridically) concluded that psychologists recommended that level of admissions for asylum seekers set by the present Government should immediately increase by 30% to 33,554. Participants were then asked to: "Please take a minute to imagine yourself meeting and having a conversation with a

Customs and Immigration Officer (member of BAICO) who you have never met before. While imagining this think specifically of when (e.g. next Thursday) and where (e.g. coffee shop) this conversation might occur." Participants were provided with information about the target's position vis a vis the outgroup norm. No other information was provided about the target.

In the normative contact condition participants were told: "Like most members of BAICO this person believes that asylum policy should be more closed and the proportion who are granted asylum should be reduced by about 10%."

In the anti-normative contact condition participants were told: "Unlike most members of BAICO this person believes that asylum policy should be more open and the proportion who are granted asylum should be increased by about 10%."

The instructions in both conditions concluded: "Imagine that the conversation involves having a relaxed, positive and comfortable discussion where you find out some interesting things about this person."

Following these instructions, participants were instructed to describe the person and interaction that they imagined. Participants then completed dependent measures and suspicion probes before being debriefed. No participants correctly reported the objective of the study. Checks revealed no multivariate outliers. Remaining measures in the session related to an unrelated demonstration of social projection effects.

3.1.2.1. Imagination construal.
Participants were asked to respond to the following two items generated by the researchers: How would you mainly describe the scene and interaction? (1 = *friendly* to 7 = *hostile*) (1 = *pleasant* to 7 = *unpleasant*). Higher scores represented more negative construal. Cronbach's alpha for the composite score indicated acceptable reliability ($\alpha = 0.90$).

3.1.2.2. Perceived target atypicality.
Participants were asked to respond to two items generated by the researchers and indicated, using 7 point bipolar scales, their impressions of the individual they imagined relative to customs and immigration officers in general: 1 = *very typical* to 7 = *very unusual*; 1 = *very representative* to 7 = *very unrepresentative*. Higher scores represented more atypicality. Cronbach's alpha for the composite score indicated acceptable reliability ($\alpha = 0.70$).

3.1.2.3. Perceived target threat.
Participants were asked to respond to two items generated by the researchers and indicate using 7-point bipolar scales whether the person they imagined was '*someone who makes me feel unsafe* (1)/*safe* (7)' and '*someone whose group poses a threat* (1)/*no threat* (7)'. The mean response to these two items was reversed to provide an index of threat with acceptable reliability ($\alpha = 0.83$), where higher scores represented more threat.

3.1.2.4. Target evaluations.
In order to measure attitudes toward the target individual, participants were asked to respond to three items adapted from Wright, Aron, McLaughlin-Volpe, and Ropp's (1997) General Evaluation scale. Participants rated how they felt toward the target individual using 7 point bipolar scales: *unfavorable* (1)/*favorable* (7); *negative* (1)/*positive* (7); and *cold* (1)/*warm* (7). Higher scores represented more positive attitudes. Cronbach's alpha for the composite score indicated acceptable reliability ($\alpha = 0.97$).

3.2. Results and discussion

Data were initially analyzed using MANOVA. This revealed a significant multivariate effect of condition, $F (4, 75) = 20.99$, $p < .001$, $\eta_p^2 = 0.53$, and significant univariate effects on all four measures.

3.2.1. Imagination construal

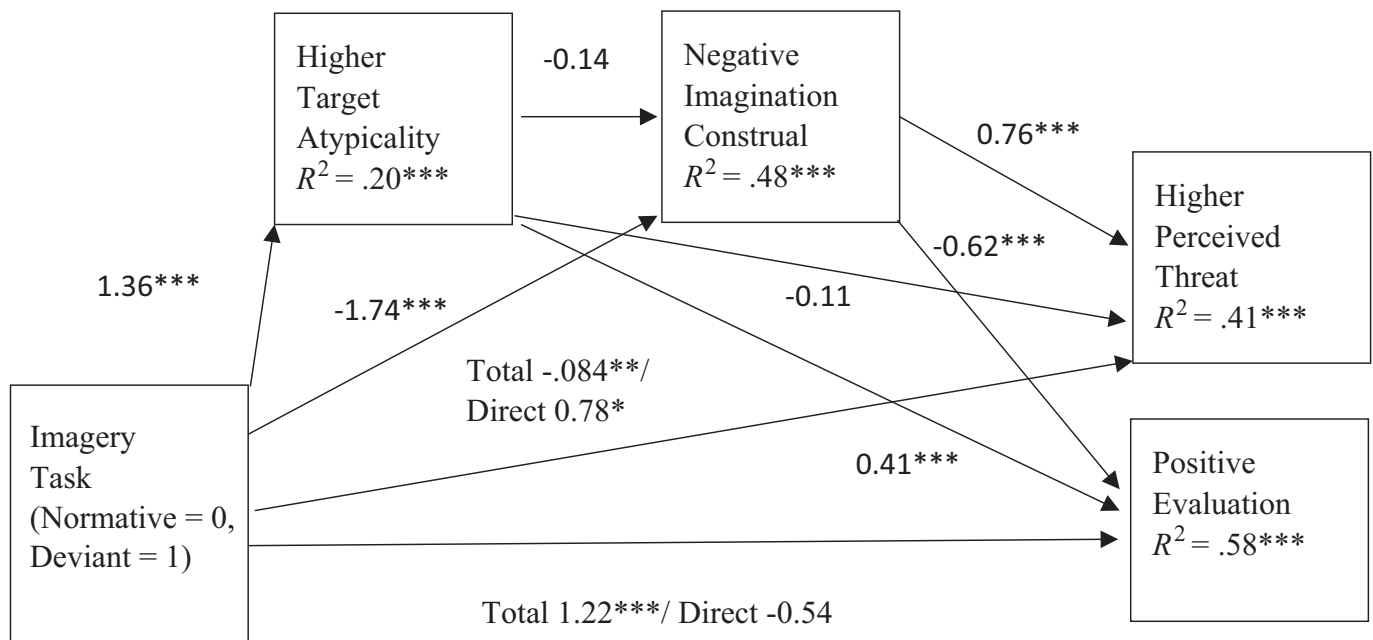Participants in the normative condition construed contact with the

Fig. 1. Study 1, coefficients for tests of serial indirect effects of imagery task on perceived threat and target evaluation via perceived target atypicality and imagination construal. Note: * $p < .05$; ** $p < .01$; *** $p < .001$.

outgroup member less positively ($M = 3.74$, $SD = 1.31$) than those in the anti-normative condition ($M = 1.81$, $SD = 0.69$), $F(1,78) = 74.11$, $p < .001$, $\eta_p^2 = 0.466$.

3.2.2. Target atypicality

Participants in the normative condition imagined the outgroup member to be significantly less atypical, ($M = 3.10$, $SD = 1.18$) than did those in the anti-normative condition ($M = 4.46$, $SD = 1.54$), $F(1, 78) = 19.73$, $p < .001$, $\eta_p^2 = 0.202$.

3.2.3. Perceived threat

Participants in the normative condition construed contact with the outgroup member and the members group to be more threatening ($M = 3.14$, $SD = 1.34$) than those in the anti-normative condition ($M = 1.40$, $SD = 0.82$), $F(1, 78) = 7.20$, $p = .009$, $\eta_p^2 = 0.085$.

3.2.4. Target evaluations

Participants in the normative condition evaluated the outgroup member less favorably ($M = 4.43$, $SD = 1.18$) than those in the anti-normative condition ($M = 5.64$, $SD = 1.45$), $F(1, 78) = 16.97$, $p < .001$, $\eta_p^2 = 0.179$.

3.2.5. Mediation analysis

Perceptions of target atypicality were significantly correlated with both perceptions of threat ($r = -0.31$, $p < .005$) and target evaluations ($r = 0.61$, $p < .001$). All three variables were significantly correlated with construal (respective r's $= -0.42$, 0.61, -0.67, $ps < .001$). We expected that perceptions of atypicality and the associated construal of the imagined interaction, which theoretically precede the formation of positive attitudes toward the outgroup member, should mediate the impact of imagined contact on perceived threat and favorability. Because the latter variables were highly correlated ($r = -0.78$, $p < .001$) we treated them as parallel dependent variables. To test these hypotheses, we used PROCESS model 6 for serial mediation with 5000 bootstraps (Hayes, 2012) (see Fig. 1).

With threat as the dependent variable there was a significant overall model, $R^2 = 0.41$, $F(3, 76) = 17.82$, $p < .001$. The total effect of condition was significant and negative, -0.84, $SE = 0.31$, $t = 2.68$, $p = .009$, $95CI [-1.46/-0.22]$. When both target atypicality and

construal were in the model the direct effect of condition remained significant and positive, 0.78, $SE = 0.36$, $t = 2.18$, $p = .03$, $95CI [0.07/1.49]$.

Serial mediation tests whether each of the two mediators plays a single mediating role, and then whether there is serial mediation in the specified sequence. The single indirect effect via atypicality was non-significant, $b = -0.015$, $SE = 0.17$, $95CI [-0.46/0.20]$. The single indirect effect via construal was significant, $b = -1.30$, $SE = 0.29$, $95CI [-2.02/-0.81]$. The serial mediation via atypicality and then construal was also significant, $b = -0.14$, $SE = 0.08$, $95CI [-0.36/-0.02]$. Participants who imagined an anti-normative outgroup member perceived that member to be more atypical than did those who imagined a normative outgroup member. Participants who imagined the member as being more atypical construed the scenario more positively, and they reported a lower sense of threat. Notably, the single indirect pathway via construal was significantly larger than the serial pathway (contrast = 1.18, $SE = 0.34$, $95CI [0.51/1.87]$) and than the single pathway via atypicality (contrast = 1.18, SE = 0.32, $95CI [0.62/1.91]$). Thus, the evidence suggests that construal is the proximal mediator. This suggests that target normativeness affects threat solely via its contribution to construal of the imagined contact as a positive or negative experience.

With evaluations as the dependent variable there was a significant overall model, $R^2 = 0.58$, $F(3, 76) = 36.08$, $p < .001$. The total effect of condition was significant and positive, $b = 0.1.22$, $SE = 0.30$, $t = 4.12$, $p < .001$, $95CI [0.63/1.80$. When both target atypicality and construal were in the model the direct effect of condition was marginal and negative, $b = -0.54$, $SE = 0.30$, $t = -1.81$, $p = .07$, $95CI [-1.14/0.06]$.

The single indirect effect via atypicality was significant, $b = 0.56$, $SE = 0.17$, $95CI [0.28/0.95]$. The single indirect effect via construal was significant, $b = 1.09$, $SE = 0.26$, $95CI [0.65/1.68]$. The serial mediation via atypicality and then construal was also significant, $b = 0.12$, $SE = 0.06$, $95CI [0.02/0.29]$. Participants who imagined an anti-normative outgroup member perceived that member to be more atypical than did those who imagined a normative outgroup member. Participants who imagined the member as being more atypical construed the scenario more positively, and they were more favorable toward that member. Unlike the findings for threat, the single indirect

pathway via typicality was significantly larger than the serial pathway (contrast = 0.44, *SE* = 0.16, *95CI* [0.18/0.81]), whereas the single indirect pathway via construal was not. This suggests that target normativeness affects favorability primarily via its contribution to perceived target atypicality.

These findings confirm our initial expectations about the possible mechanism through which imagined contact with an atypical group member can promote positive intergroup attitudes. First, they confirm that when imagining contact with a member who expresses a normative attitude, participants are likely to imagine a fairly typical member of an outgroup and that when asked to imagine an anti-normative member they perceive that person to be atypical. Second, the data show that imagined contact with an anti-normative member is likely to be construed more positively. Third, consistent with SGD theory, a more positive construal of the contact is associated with a lowered sense of threat, and more positive construals and greater perceived atypicality are associated with more favorable evaluations of the outgroup member, consistent with the idea that overall threat to ingroup validity is lower from antinormative than from normative outgroup members (c.f. Pinto, Marques, Levine, & Abrams, 2010).

4. Study 2

According to the mutual intergroup differentiation model, even if contact with an atypical (deviant) outgroup member is pleasant, it should not generalize to affect attitudes toward the outgroup (Hewstone & Brown, 1986). Previous literature applied the mutual intergroup differentiation model to the imagined contact paradigm, while investigating whether salience of group memberships during imagined contact is necessary for positive attitudes to generalize toward the outgroup. Pagotto, Visintin, De Iorio, and Voci (2013) manipulated interpersonal versus intergroup features of imagined contact and found that, unlike participants who were assigned to a control condition or imagined an interpersonal interaction, those who imagined a conversation with an outgroup member while focusing on intergroup differences reported more positive attitudes toward the outgroup in general. In another experiment, manipulating category salience via typicality of the outgroup member, Stathi, Crisp, and Hogg (2011) found that, when the imagined interaction involved an outgroup member who was typical rather than atypical, imagining contact was maximally effective at achieving generalization.

Arguably, then, the findings of Study 1 could be attributable to a negative impact of imagined contact with a normative outgroup member rather than the positive impact of contact with an anti-normative group member. Moreover, the positive effect may not extend to the whole outgroup. Therefore, Study 2 was designed to establish whether positive imagined contact with an anti-normative outgroup member can have positive impact on evaluations of the outgroup as a whole when compared with a no contact control condition. The findings would be consistent with mutual intergroup differentiation model if evaluations are unaffected by imagined contact. If imagined contact leads to more favorable evaluation, this would be consistent both with prior evidence that anti-normative outgroup members generally reduce threat and contribute to validating the ingroup identity more than do normative outgroup members (Abrams et al., 2000; Frings et al., 2012; Marques, Abrams, Paez, & Hogg, 2001), and with interpretation from Study 1 that imagined contact with an anti-normative outgroup member can reduce threat.

Finally, it is conceivable that imagined contact may only work because it instigates memories of prior contact, and that there is no distinctive effect of imagined contact. To examine and rule out this possibility Study 2 included measures of the frequency and quality of direct prior contact with outgroup members. If the mechanisms proposed by SGD theory are correct, imagined contact with an antinormative outgroup member should still allow a more positive construal, reduce threat, and therefore improve outgroup evaluations.

4.1. Method

4.1.1. Design and participants

Forty-seven psychology students from a UK university were randomly allocated to one of two conditions (Control vs. Deviant Contact). The sample included 36 female and 11 male participants aged between 18 and 33 (M = 20.06, SD = 2.83) years old. The target outgroup was School of Economics students. Participants received course credit for taking part in the research. Data were collected as a part of the first author's doctoral research between 2009 and 2013 and followed sample size conventions discussed in Study 1, which found conventionally large-sized effects on evaluation (see Birtel & Crisp, 2012 experiments 1 (N: 38) and 2 (N: 36, or Stathi et al., 2011, experiments 1 (N: 32) 2 (N: 30) and 3 (N: 28)).

4.1.2. Procedure

Participants were told that the study aimed to investigate attitudes toward the School of Economics in the context of a hypothetical funding offered by the Faculty of Social Sciences. They were asked to complete demographic information (age, gender, nationality, ethnicity, religion, year of study) and checks on their perceptions of ingroup and outgroup norms. They then completed the imagined contact task and completed dependent measures. In order to be sure of avoiding demand effects, and because we wanted to focus on the intergroup prejudice outcome Study 2 did not assess other intervening variables between imagined contact and prejudice.

4.1.2.1. Norm check. In order to identify ingroup and outgroup norms, participants were asked to indicate their opinion about a hypothetical scenario about University funding: "Every year the Faculty of Social Sciences offers a special funding opportunity to two separate Schools at the University of Kent. This year Psychology and Economics have been elected for funding and both Schools really want to get more money to support their students. The amount of funds each School receives must be justified to the Faculty."

Following these instructions, two measures checked the norms of the groups. Participants were asked; "Which of the following statements do you think best describes the main priority of most Psychology students when they consider how these funds should be allocated by the Faculty?" 1. School of Psychology should receive at least three quarters (75%) of the funding because Psychology studies require a lot of fieldwork; 2. School of Psychology should receive at least two thirds (67%) of the funding because Psychology studies require a lot of fieldwork. After that, it would be acceptable to consider funding the School of Economics; 3. Both Schools should receive equal amounts (50%) of funding; 4. School of Economics should receive at least two thirds (67%) of the funding because Economic studies require expensive laboratory equipment. After that, it would be acceptable to consider funding the School of Psychology; 5. School of Economics should receive at least three quarters (75%) of the funding because Economics studies require expensive laboratory equipment. The question was repeated but referred to the priority of Economics students.

4.1.2.2. Imagined contact task. Imagined contact research has tested various control conditions, including non-relevant positive interaction (Stathi & Crisp, 2008), neutral contact (Turner et al., 2007, Study 1), outgroup priming (Turner et al., 2007, Study 2) and no contact control scenes (Stathi & Crisp, 2008, Study 3). The benefits of imagined positive contact have been demonstrated against all of these control conditions. In the present research, we used the standard no contact control scene (Stathi & Crisp, 2008), and the imagined contact based on those in Turner and Crisp (2010) but with an additional sentence depicting the anti-normative opinion of the target. In both conditions participants were instructed to describe what they had just imagined in as much detail as possible then completed dependent measures before being thanked and debriefed. The control and deviant imagination

instructions were as follows:

4.1.2.3. Control task. "Please take a minute to imagine you are walking in the outdoors. Try to imagine aspects of the scene around you (e.g. is it a beach, a forest, are there trees, hills, what's on the horizon)".

4.1.2.4. Deviant contact. "Please take a minute to imagine yourself meeting and having a conversation with an Economics student you haven't met before. Imagine that the conversation takes place next week while you are sitting at a café on campus. It involves having a relaxed, positive and comfortable discussion where you find out some interesting things about this person. For example, unlike most Economics students, this person strongly supports that the School of Psychology should receive the majority of funding offered by the Faculty of Social Sciences".

4.1.3. Measures
4.1.3.1. Frequency of prior contact. Four items measuring how frequently group members interact with each other was adapted from Husnu and Crisp (2010): "How many School of Economics students do you know?" (1, *none*, to 7, *a great many*), "In everyday life, how frequently do you interact with School of Economics students?" (1, *never*, to 7, *very frequently*), "In everyday life, how much contact do you have with School of Economics students?" (1, *none at all*, to 7, *a lot*), "In everyday life, how often do you encounter School of Economics students?" (1, *never*, to 7, *very frequently*). High scores indicated higher frequency of contact with the outgroup. A composite frequency of prior contact score was created by the mean of these items ($\alpha = 0.94$).

4.1.3.2. Quality of prior contact. Contact quality was measured by asking participants to respond to the following five items adapted from previous contact research of Voci and Hewstone (2003): "How would you characterize the contact you have with School of Economics students?" (1 = *superficial*, to 7 = *deep*) (1 = *natural*, to 7 = *forced*) (1 = *unpleasant*, to 7 = *pleasant*) (1 = *competitive*, to 7 = *cooperative*) (1 = *intimate*, to 7 = *distant*). Relevant items were recoded such that higher scores represented higher quality of contact.

The 5 quality of prior contact items were subjected to principal components analysis (PCA) using SPSS. There were two components with eigenvalues exceeding 1, explaining 53.08% and 20.68% of the variance respectively. An inspection of the screeplot (Cattell, 1966) revealed a clear break after the first component, and Parallel Analysis showed only one component with eigenvalue exceeding the corresponding criterion values for a randomly generated data matrix of similar size (5 variables × 50 respondents - 50 respondents was the minimum number required to run parallel analysis). Therefore, a composite contact quality score was created by the mean of these five items ($\alpha = 0.78$).

4.1.3.3. Outgroup evaluation (outgroup prejudice). Attitudes toward the outgroup were measured using six items adapted from Wright et al.'s (1997) General Evaluation scale: "Using the scales below, please describe how you feel about the School of Economics students in general. (1 = *cold*, to 9 = *warm*) (1 = *positive*, to 9 = *negative*) (1 = *friendly*, to 9 = *hostile*) (1 = *suspicious*, to 9 = *trusting*) (1 = *respectful*, to 9 = *contempt*) (1 = *admiration*, to 9 = *disgust*)". Higher scores represented more positive attitudes toward members of the outgroup. A composite outgroup evaluation score was created from the mean of these items ($\alpha = 0.90$).

4.2. Results and discussion

4.2.1. Norm check
Participants perceived the ingroup norm ($M = 2.45$, $SD = 0.72$) to be significantly more favorable toward the ingroup than the outgroup

norm ($M = 3.30$, $SD = 0.98$), $t(46) = 4.17$, $p < .0001$. This confirms that there was a clear oppositional norm in place in this intergroup context. Psychology students believed that each group would favor its own members in recommending allocation of resources.

4.2.2. Frequency and quality of prior contact
Frequency and quality of contact were significantly and positively correlated with each other, $r(n = 47) = 0.49$, $p < .001$.

4.2.3. Outgroup evaluation (outgroup prejudice)
Lower prejudice (a more positive score) was significantly associated with higher quality of prior contact, $r = 0.42$, $p = .003$ but not with frequency of contact, $r = 0.020$, $p = .893$. To test the unique effects of imagined contact, data we initially conducted an ANCOVA including frequency and quality of prior contact as covariates, imagination task as the independent variable, and outgroup evaluation (prejudice) as the dependent variable. As expected from the correlational evidence, frequency of prior contact was not significantly associated with the dependent variable ($F(1, 43) = 0.75$, $p = .39$) but there was a significant multivariate effect of quality of prior contact, $F(1, 43) = 9.53$, $p = .004$, $\eta_p^2 = 0.181$, which was therefore retained in the ANCOVA. Note however, that the results do not differ when no covariate is included.

The ANCOVA revealed a significant effect of Imagination Task, $F(1, 43) = 12.14$, $p = .001$, $\eta_p^2 = 0.220$. Participants who imagined contact with an antinormative outgroup member expressed significantly more positive hence less prejudiced attitudes toward the outgroup ($M = 7.09$, $SD = 1.29$) than those in the control condition, ($M = 5.75$, $SD = 1.08$).

This evidence provides a different picture than those in previous applications of mutual intergroup differentiation model to the imagined contact paradigm (summarized earlier) where contact efficacy was higher following imagined contact with a typical than an atypical outgroup member. However, the atypical outgroup member was depicted purely in terms of noncompliance with outgroup norms rather than relative endorsement of ingroup norms, (Stathi et al., 2011, Experiment 3). Key differences are that atypicality in the present research is specifically anti-normative and the dependent measure is group evaluation rather than contact efficacy. Thus, the present finding is consistent with the expected impact of reinforcement of ingroup validity that should emanate from encountering an antinormative outgroup member (Abrams et al., 2000), whereas it is inconsistent with the mutual intergroup differentiation model's assumption that prejudice would be unaffected by such a member because the positive response to the individual would not generalize to the group as a whole. Moreover, although direct high quality contact with (presumably) a variety of outgroup members was associated with lower prejudice, as might be expected, the effect of imagined contact was not affected by participants' prior contact, showing that there is a distinctive contribution of imagined contact.

5. Study 3

Studies 1 & 2 showed that imagined contact with an anti-normative outgroup member may be sufficient to improve evaluations of that individual and of the group as a whole. However, there are several limitations to address. We had access to limited numbers of participants which restricted statistical power. These quite small Ns were also fairly typical for imagined contact studies at the time they were conducted. A recent meta-analysis estimated the effect size of the difference between evaluations of norm violating and norm consistent ingroup targets at $\gamma = -0.47$ – a conventionally "large" effect size (Bettancourt et al., 2016), consistent with the large effects found in our previous 2 studies. To increase statistical power, for Study 3 we conservatively assumed that there should be a medium effect size when comparing two independent groups. A 3-group design requires an N of 159 for 0.80

power to detect a medium effect (Faul, Erdfelder, Buchner, & Lang, 2009), and that N gives over 99% power to detect a large sized effect.

A further consideration for increasing confidence in generalizability is whether the effect extends to different cultural contexts and types of participants (in this case, beyond Europe and beyond university students to a sample with greater age and occupational diversity). Therefore, Study 3 recruited North American MTURK participants and focused on Christian/Muslim intergroup relations.

As in Study 2, Study 3 sought to establish whether effects of direct and imagined contact were distinguishable. In particular, given the implied relevance of threat in Study 1, we included a measure of intergroup anxiety (one form of threat identified in Stephan & Stephan's, 2000, integrated threat theory). Based on intergroup contact research we hypothesized that intergroup anxiety would affect prejudice and that it may partially mediate the effects of direct contact (see Abrams & Eller, 2017). However, given the hypothesis that imagined contact with an anti-normative outgroup member should affect prejudice over and above the influences of prior direct intergroup contact it also seemed possible that it does so independently of intergroup anxiety. In Study 1, the threat and evaluation measures were highly related (and linked directly to the target individual, not the group) so it was not feasible to test a mediational route between them. We returned to the data to check whether the effect of condition on evaluation persisted even when threat was included as a covariate and found that it did so. Therefore, in Study 3 we wanted to clarify whether the direct contact-intergroup-anxiety route to prejudice reduction was distinguishable from the imagined contact-construal-prejudice reduction route.

A limitation of the previous studies was that participants were asked to imagine a very strongly anti-normative outgroup member. While ensuring this member was therefore atypical, the manipulation may also have simply reinforced the ingroup norm and made participants feel more favorable per se. In addition, Study 2 may have implied some potential direct material benefit to the ingroup from the outgroup member's preferences. We therefore wanted to establish that it is not the absolute position espoused by the imagined group member, but rather its meaning in the context of the intergroup differences that critically affects the outcome of imagined contact. If the effect is just due to attitude reinforcement, it should not matter whether an ingroup or an outgroup member expresses the antinorm attitude, whereas if it is due to group validation, the effect should be stronger when an outgroup member expresses the antinorm attitude.

To rule out the possibility that effects of imagined contact are driven solely by objective differences in the targets' positivity toward the ingroup and outgroup, Study 3 followed the methods in Abrams et al. (2000, 2009), wherein ingroup and outgroup anti-normative deviant positions were identical. We tested whether American Christian participants would express different levels of prejudice in either a control condition (without imagined contact), or when they imagined contact with a devout but anti-normative target who was either Christian or Muslim. We measured construal of the imagined situation, intergroup anxiety and outgroup prejudice. After these measures, we checked on perceptions of the group norms and identification as a Christian.

We predicted that imagined contact with an anti-normative outgroup member should be construed more positively than imagined contact with an anti-normative ingroup member because an ingroup deviant poses a greater threat to ingroup validity. The mutual intergroup differentiation model offers no predictions that the construals would differ.

We also predict that, relative to the control condition that merely stimulates positive construal but without relevance to the intergroup relationships, imagined contact with an anti-normative outgroup member should reduce outgroup threat to ingroup validity and thus reduce antipathy to the outgroup. Imagined contact with an anti-normative ingroup member is less likely to affect prejudice because, although it models ingroup validation of outgroup norms, it does nothing to reduce, and may increase threat to the ingroup norm.

5.1. Method

To prepare for Study 3 we first established the anti-normative profiles by pretesting beliefs with a sample of 29 MTURK workers to examine their perceptions of normative behaviors of Muslims and Christians in America. There was high consensus that Christians and Muslims, respectively would a) attend church/mosque at least weekly and b) regard the Bible/Quran as more authoritative than alternative religious texts or teachings.

5.1.1. Design and participants

A prespecified sample size of 180 US citizens, randomly assigned to condition, was sampled on Amazon's MTURK. Participants were not explicitly made aware of the selection criterion. They were first asked to report their demographics (age, gender, religion, and place of residence). Only those who reported that they were over the age of 19, US citizens and Christian were enabled to continue to participate.

Participants were randomly assigned to one of three conditions (Imagination Task: Control, Ingroup anti-normative, Outgroup anti-normative). Four respondents had missing data and they were deleted from the analysis leaving 61 participants in the control condition, 58 in the ingroup condition and 57 in the outgroup condition. Of these, 64% were female and the sample (M_{age} = 37.33, SD = 13.25) was predominantly White/Caucasian (76.3%), 11.9% were African American, and 6.2% were Hispanic. The remaining participants were distributed between Asian, Native American, and Other.

5.1.2. Procedure

Participants completed the imagination task as follows:

5.1.2.1. Control. Please take a minute to imagine you are walking in the outdoors. Try to imagine aspects of the scene around you (e.g. is it a beach, a forest, are there trees, hills, what's on the horizon?).

5.1.2.2. Ingroup/[Outgroup] conditions. Please take a minute to imagine yourself meeting and having a conversation with a Christian/[Muslim] person who you have never met before. While imagining this think specifically of when (e.g. next Thursday) and where (e.g. coffee shop) this conversation might occur. Imagine that the conversation involves having a relaxed, positive and comfortable discussion where you find out some interesting things about this person. For example, despite being a lifelong Christian/[Muslim], unlike most Christians/[Muslims], this person does not believe it is important to go to church/*Mosque* and has attended only once in the last year. This person also believes that the teachings of Islam in the Quran/[Christianity in the Bible] are as true as the teachings of Christianity in the Bible/[Islam in the Quran].

Following these instructions, to reinforce the effects of the imagery task, all participants were instructed to describe what they had just imagined in as much detail as possible. Participants then completed dependent measures and suspicion probes before being debriefed. No participants correctly reported the objective of the study. Checks revealed no multivariate outliers.

5.1.2.3. Imagination construal. Participants were asked to respond to the following two items: How would you mainly describe the scene/interaction? (1 = *friendly* to 7 = *hostile*) (1 = *pleasant* to 7 = *unpleasant*). Items were recoded such that higher scores represented more positive construal. (For the averaged score Cronbach's α = 0.91).

5.1.2.4. Outgroup evaluation (outgroup prejudice). Outgroup evaluation was measured using the six items from Wright et al. (1997), adapted for "how you feel about Muslims in general". The 9 point bipolar scales were: *cold/warm*; *positive/negative*; *friendly/hostile*; *suspicious/trusting*; *respectful/contempt*; and *admiration/disgust*. After reversal of relevant items a composite outgroup evaluation score was created by the mean

of these items ($\alpha = 0.95$) in which a higher score reflects more positive outgroup evaluation.

5.1.2.5. Intergroup anxiety. Participants were asked: "If you were to meet a Muslim person in the future, how do you think you would feel?" followed by 10 items from the scale by Stephan and Stephan (1985). Participants reported how awkward, suspicious, embarrassed, defensive, anxious, happy (reversed), comfortable (reversed), self-conscious, confident (reversed) and careful they would feel on a 7-point Likert-scale ($1 = not\ at\ all$, $7 = very\ much$). Items were recoded such that higher scores represented higher intergroup anxiety. A composite intergroup anxiety score was created by the mean of these items ($\alpha = 0.89$).

5.1.2.6. Norm check. Participants were then asked; "How do you think most Christians" would answer each of the questions: "I would follow the teachings of the Bible", "I would follow the teachings of the Quran", "I would follow the teachings of Buddhism". They were also asked the same three questions but relating to 'most Muslims'. These were responded to using a 7 point scale from $1 = strongly\ disagree$ to $7 = strongly\ agree$.

We also asked participants to, "Think of the opinions that most Christians/Muslims hold about how often they should attend their Church/Mosque; please show where you think most Christians'/Muslims' opinion would be." Response options were from *never* (1) through *at least 2–3 times a week* (7).

5.1.2.7. Christian identification. Participants were asked how much they agreed or disagreed with the statements, "I am pleased to think of myself as Christian," "I am proud of being Christian," and "Being Christian is important to me" on 5 point scales from $1 = strongly\ disagree$ to $5 = strongly\ agree$. A composite identity score was created by the mean of these items ($\alpha = 0.94$).

5.1.2.8. Prior contact. At the end of the survey, we included two measures of prior contact. These were 'how much contact have you previously had with Muslim people?' ($1 = none$, $2 = very\ little$, $3 = some$, $4 = a\ lot$, $5 = a\ great\ deal$) and, 'how would you describe this contact?' ($1 = very\ superficial$, $7 = very\ deep$). As both showed very similar correlations with other variables, and in order to simplify the analysis, we combined these items by multiplying them and then dividing by 5 to create a weighted 7 point scale index of contact quality (from none to a lot with depth). Both items were correlated with this index to the same extent ($r = 0.84$), and results are not changed if we only use the quality score as a covariate (as in Study 2).

5.2. Results

5.2.1. Norm check

Consistent with pilot work, participants assumed that Christians follow the Bible ($M = 6.10$, $SD = 0.954$) and not the Quran ($M = 1.84$, $SD = 1.23$), and that Muslims show the opposite behavior ($M = 2.37$, $SD = 1.73$; $M = 6.21$, $SD = 1.23$). They believed that Christians would endorse attending church at least once a month ($M = 5.11$, $SD = 1.22$), and Muslims would endorse attending Mosque at least once a month ($M = 5.61$, $SD = 1.67$). Thus, participants clearly understood the norms of each group.

5.2.2. Prior contact, anxiety and prejudice

Prior contact was significantly negatively associated both with intergroup anxiety, r ($n = 180$) $= -0.37$, $p < .001$ and prejudice, $r = -0.29$, $p < .001$. Neither variable was correlated with identification as Christian ($rs < 0.09$). Prior contact was also unrelated to construal positivity ($r = 0.04$).

We first evaluated the direct contact-anxiety-prejudice hypothesis using PROCESS (Model 4). Consistent with this hypothesis the total

effect of contact on prejudice was significant, $R^2 = 0.07$, $b = -0.34$, $SE = 0.12$, $t = 2.85$, $p < .01$, $95CI\ [-0.58/-0.10]$. However, the direct effect was non-significant, ($b = 0.01$, $SE = 0.092$, $t = -0.05$, $p = .96$, $95CI\ [-0.18/0.19]$), whereas the indirect effect via intergroup anxiety was significant ($b = -0.35$, $SE = 0.09$, $95CI\ [-0.55/-0.19]$).

5.3. Effects of imagined contact

To test the unique effects of imagined contact, data were initially analyzed using MANCOVA with prior contact, intergroup anxiety and Christian identification as covariates, imagination task as the independent variable, and construal and prejudice as dependent variables. Because of missing data on the covariates the N was reduced to 173.

Christian identification was not significantly associated with any of the dependent variables (Fs $(1,167) < 1.06$, $ps > .30$) and was subsequently dropped from the analyses. However, there were marginal or significant multivariate effects of both prior contact, F $(2, 167) = 2.50$, $p = .087$, $\eta_p^2 = 0.029$ and intergroup anxiety, F $(2, 167) = 88.03$, $p < .001$, $\eta_p^2 = 0.513$, and significant univariate effects of both. Therefore, prior contact and intergroup anxiety were retained in the ANCOVAs (with an N of 173). Note, however, that the results do not differ when no covariates are included (and $N = 177$).

5.3.1. Imagination construal

The ANCOVA on construal revealed a significant effect of Imagination Task, F $(2, 168) = 8.98$, $p < .001$, $\eta_p^2 = 0.097$. Compared with construals in the ingroup condition, ($M = 2.18$, $SD = 1.43$) construals were significantly more positive in the control condition ($M = 1.40$, $SD = 0.82$, $p < .001$), and the outgroup condition, ($M = 1.67$, $SD = 0.90$, $p = .007$), Construal was equally positive in the control and outgroup conditions ($p = .15$).

5.3.2. Outgroup evaluation

The ANCOVA revealed a significant effect of Imagination Task, F $(2, 168) = 4.55$, $p = .012$, $\eta_p^2 = 0.051$. Participants who imagined outgroup contact were significantly less prejudiced ($M = 4.26$, $SD = 1.86$) than those in the control condition, ($M = 5.00$, $SD = 1.84$, $p = .004$) and those who imagined ingroup contact ($M = 4.81$, $SD = 2.19$, $p = .033$). The ingroup and control conditions did not differ ($p = .46$).

5.3.3. Intergroup anxiety

An ANCOVA on intergroup anxiety revealed a significant effect for the covariate (prior contact, F $(1, 169) = 25.29$, $p < .001$, $\eta_p^2 = 0.130$), but not for Imagination Task, F $(2, 169) = 0.18$, $p = .889$, $\eta_p^2 = 0.001$. Anxiety was quite low, but not at floor level across conditions (control condition $M = 3.24$, $SD = 1.20$, ingroup condition $M = 2.99$, $SD = 1.33$, outgroup condition $M = 2.99$, $SD = 1.13$).

To summarize, participants who imagined interacting with an outgroup deviant construed the situation equally favorably as those who had imagined a pleasant scene whereas those who imagined contact with an ingroup deviant construed it as a less positive experience. The imagination tasks did not significantly affect intergroup anxiety (which was related to past direct contact). However, they did affect prejudice, which was lower in the outgroup condition than either the control or ingroup conditions.

Finally, we assumed that after accounting for effects of direct contact and intergroup anxiety, differences in prejudice between the ingroup and outgroup condition should be mediated by differences in construal in those two conditions. We used PROCESS (Model 4) to evaluate this hypothesis. The overall model was highly significant, $R^2 = 0.57$, F $(4, 108) = 36,21$, $p < .001$. As shown in Fig. 2, the total effect of condition on prejudice was significant, $b = -0.54$, $SE = 0.26$, $t = -2.08$, $p = .04$, $95CI\ [-1.06/-0.03]$. There were significant effects of both condition and intergroup anxiety on construal. The direct effect of condition on prejudice was nonsignificant, $b = -0.40$,
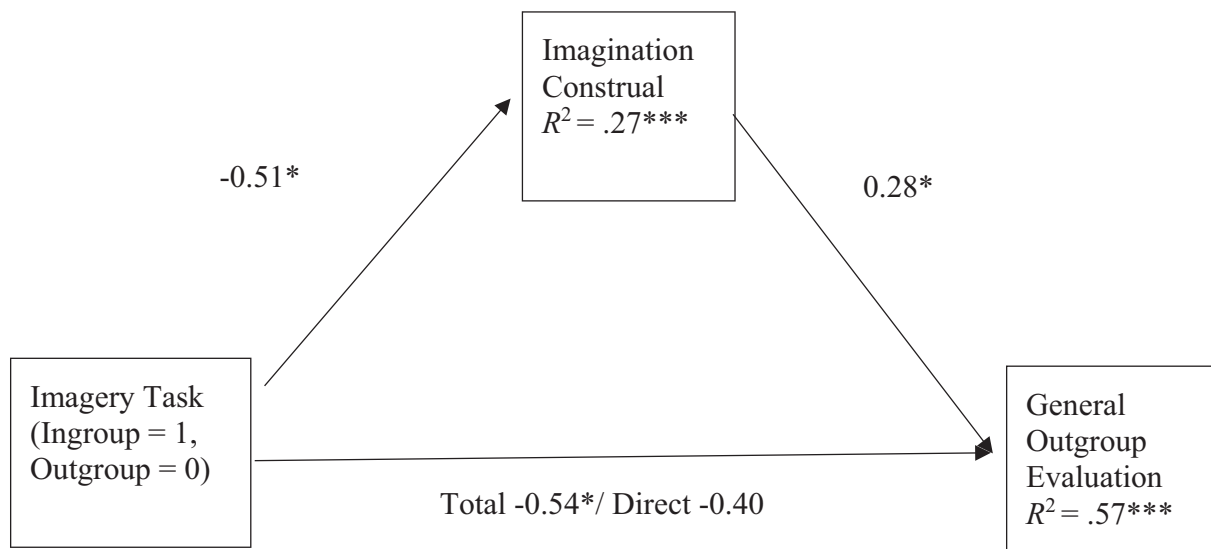
Fig. 2. Study3, coefficients for effect of imagined contact with antinormative ingroup vs antinormative outgroup members on general outgroup evaluation via construal. Note: Direct contact quality and intergroup anxiety are included as covariates in the mediator and dependent variable. * $p < .05$; ** $p < .01$; *** $p < .001$.

$SE = 0.26$, $t = -1.53$, $p = .13$, $95CI$ $[-0.92/0.12]$, but the indirect effect of condition via construal was significant, $b = -0.14$, $SE = 0.08$, $95CI$ $[-0.36/-0.03]$. To check that the indirect effect was not in fact a result of the anxiety-prejudice link we re-ran the analysis using anxiety as the mediator and construal and contact as the covariates. This revealed that there was no indirect effect of condition via anxiety $b = 0.19$, $SE = 0.22$, $95CI$ $[-0.24/0.62]$.

6. General discussion

In this paper, we proposed that imagined contact with anti-normative outgroup members can be a vehicle for promoting positive intergroup relations. We examined this question in three different contexts involving intergroup competition or conflict. The types of intergroup relationships across the 3 studies included attitudinal opponents, different academic disciplines, and different religions. We now review the findings and then consider the extent to which this body of evidence supports SGD theory vis a vis alternative theories.

Study 1, involving psychologists' and immigration officers' views on asylum, confirmed that when simply asked to imagine contact with a normative outgroup member or an antinormative member, psychology students imagined the normative customs officer to be a fairly typical member and the anti-normative member as atypical. The contact was construed more favorably when it involved an anti-normative outgroup member and, consistent with SGD theory, greater perceived atypicality and more favorable construal were associated with more positive evaluations of the member and construal also affected participants' sense of threat in the event of actually meeting the member.

Study 2 was designed to test the basic prediction that imagined contact with an anti-normative outgroup member would improve evaluations of the outgroup as a whole and to test whether this effect would arise even after accounting for prior direct contact experiences. Psychology students were asked either to imagine a pleasant scene involving no contact (control) or a positive interaction with an anti-normative outgroup member (an Economics student who supported preferential treatment for the School of Psychology). In line with SGD theory, participants who imagined contact with an anti-normative outgroup member showed more favorable attitudes toward the outgroup as a whole. In line with imagined contact theory, this effect occurred independently of the prejudice reducing effects of direct contact.

In Study 3, we manipulated ingroup and outgroup deviance to ensure that both types of deviant expressed identical attitudes about

important intergroup differences, showing similar acceptance of the teachings of both the Bible and the Quran. Study 3 also further clarified the distinctive effects of imagined contact. Consistent with SGD theory's normative account, imagined contact with an anti-normative outgroup member reduced prejudice more than did imagined contact with an anti-normative ingroup member and the control condition. Interestingly, although the imagined situation was construed similarly positively in the outgroup and control conditions, their meaning was clearly different. Even though both imagined situations conjured up pleasant imagery, it only reduced prejudice if it was relevant to the intergroup context. Moreover, comparing the ingroup and outgroup conditions, even though both involved pleasant interpersonal interaction, that interaction was construed more positively when it involved the anti-normative outgroup member. This would not be anticipated by the family of consistency theories, including similarity attraction theory (Byrne, 1971), but it is consistent with SGD theory's assumption that the comparative frame of reference would mean that the anti-normative outgroup member would be more reinforcing for ingroup validity.

Study 3 also helped to distinguish the route through which imagined contact with an atypical outgroup member can reduce prejudice. Even though prior contact showed the usual effects (reduced prejudice, mediated by reduced anxiety), there was a distinctive effect and route from imagined contact with an anti-normative outgroup member. Specifically, even after accounting for direct contact and intergroup anxiety, imagined contact reduced prejudice via its effects on construal.

These findings contrast with the conventional wisdom that the target of intergroup contact must be a typical member of the outgroup in order to promote positive attitude change, as concluded in various key textbooks and authoritative reviews (e.g. Brown & Hewstone, 2005; Fiske, Gilbert, & Lindzey, 2010, p. 1097; Giles, 2012, p 338; Hodson & Hewstone, 2013, p 69; Whitley & Kite, 2009 p 563). Our findings also have a number of theoretical implications, derived from combining intergroup contact theories with subjective group dynamics theory, and they have important implications for strategies to improve intergroup relations.

6.1. Intergroup contact – typical member or exception to the rule?

Prior research has shown that contact with a typical outgroup member has more positive effects on outgroup attitudes than does contact with an atypical member (Wilder, 1984; Brown et al., 1999). However, the contact in those situations was innocuous in the sense

that it did not involve any focus on issues where the two groups have competing values or norms. Rather, the 'typical' outgroup members showed stereotype consistent traits (such as being a serious and hard-working German in Brown et al.'s study) which had few implications for the ingroup. Understandably, then, a positive encounter with a typical member created more scope for generalization of positive feelings toward the outgroup as a whole.

Decategorization (Brewer & Miller, 1984) and recategorization (Gaertner & Dovidio, 2000) approaches to intergroup contact suggest that prejudice is reduced either by overriding or diffusing intergroup categorization, respectively. The present findings do not fit well with either approach because we found prejudice reduction occurred even though participants clearly recognized the distinct norms of the ingroup and outgroup. In these studies, the deviant individual is still typical in the sense that they are unquestionably a full member of the group (a customs officer in Study 1, an economics student in Study 2, a devout Muslim in Study 3). However, the anti-normative member is also an exception to the rule because they are willing to contemplate support for the distinctive norm of an opposing group. It is this combination, which we believe can be particularly powerful for promoting change in intergroup relations.

Moreover, the results do not necessarily lend themselves to a potential interpretation in terms of empathy (Batson et al., 1997), which might be a vehicle through which imagined contact has effects. Empathy is easier with ingroup than outgroup members. Yet Study 3 showed that highlighting common ground between the groups via an anti-normative ingroup member was not sufficient to promote positive intergroup attitudes. Instead, the present studies highlight that subjective validity of the ingroup may be an important avenue through which imagined intergroup contact can have positive effects.

The findings are consistent with, and extend, research conducted on value violation theories of prejudice (Biernat, Vescio, & Theno, 1996; Crandall & Eshleman, 2003; Maxwell, Dowe, & Shields, 2013; Rokeach, 1960). Value-violation theories of prejudice posit that an important trigger of overt prejudice among groups is perceived differences between ingroup and outgroup values. By implication, reducing value threats could attenuate prejudices, and this is consistent with SGD theory's tenet that people strive to sustain ingroup validity through their intragroup as well as intergroup relations. Importantly, findings in this paper demonstrate that it is not necessary that the whole outgroup is portrayed as embracing ingroup values. Indeed, participants recognized that the anti-normative outgroup member was an *atypical* member of the outgroup and that the outgroup did indeed hold contrasting values (see Study 1). Nonetheless, across the studies a picture emerges that imagining contact with an anti-normative (atypical) outgroup member generates a positive situational construal that can also promote more positive responses to the outgroup as whole.

6.2. Subjective group dynamics – the importance of oppositional deviance

A great deal of research has demonstrated that group members react especially strongly toward others who oppose the norms of their own group (Abrams et al., 2009). In particular, those who show disloyalty toward the ingroup are liable to be derogated whereas those who show disloyalty within the outgroup are liable to be praised (e.g. Abrams et al., 2000, 2002; but see Travaglino, Abrams, Randsley de Moura, Marques, & Pinto, 2014). Moreover, such effects are stronger when the deviant is a full member of the group (Pinto, Marques, Levine, & Abrams, 2016) and when the group is less, rather than more homogeneous (Marques, Abrams, & Serodio, 2001). Differentiation between normative and deviant group members serves the function of sustaining ingroup identity by validating ingroup norms (Abrams et al., 2009; Marques, Abrams, Paez, & Martinez-Taboada, 1998). The present research is consistent with these prior findings in showing that imagined contact with an anti-normative ('oppositionally deviant') outgroup member has a positive impact on prejudice.

6.3. Strengths, limitations and issues for future research

A strength of the present studies is that they tested the effects of imagined contact across diverse settings, with multiple groups and in relation to a range of different outcome variables. This diversity helps to mitigate the possibility that the positive effects of imagined contact with an outgroup deviant are attributable to any other variable across the studies. A positive effect occurred regardless of whether imagined contact with an anti-normative outgroup member was compared with a no contact control, or contact with an anti-normative ingroup member. Positive effects have been demonstrated in two different countries (UK, USA). A positive effect was found in academic (Psychology vs. Economics), and inter-religion (Christian/Muslim) intergroup contexts. Positive outcomes were observed on, imagination construal and prejudice. Therefore, the results converge and provide confidence that imagined contact with an anti-normative outgroup member can have a particularly positive effect on intergroup relations. Studies 2 and 3 show that this effect occurs even when prior intergroup contact is accounted for.

It could be argued that anti-normative outgroup members are rare and that imagining them may create false hopes or prospects of intergroup harmony. It is also the case that individuals who try to espouse antinormative positions are very likely to be the target of criticism or even rejection within their own group – a difficult, lonely and perhaps dangerous position (cf. Abrams et al., 2000; Frings et al., 2012). Despite these obstacles there are reasons to be less pessimistic – after all, most groups tend to want to dominate the center ground and this implies that they include individuals who do and can have values or priorities that overlap with those of other groups. For example, finding individuals who are credible members of their ingroup but are open to seeing part of the other group's side is an important part of Kelman's (e.g., 2005) problem-solving approach to conflict resolution. Moreover, the goal of imagined contact is to encourage openness to actual contact and the possibility of discovering a more positive route for intergroup relations. Recent research indicates that 'hope' should be seen as an essential asset, rather than a liability, in the case of intractable conflicts (cf. Halperin, Porat, & Wohl, 2013; Ioannou, Hewstone, & Al Ramiah, 2015).

7. Conclusions

The three studies reported in this paper show that imagined contact with an anti-normative outgroup member can reduce prejudice. Although prior research shows that intergroup contact has most positive effects if the outgroup member is typical (e.g. Brown et al., 1999), this has been operationalized as meaning only that the person is stereotypically consistent. Yet, the present research shows that when groups are in direct conflict or comparison, imagined contact with a normative outgroup member does not have as strong an effect as imagined contact with an outgroup member who adopts an oppositionally deviant stance, and is thus highly atypical. This latter type of contact seems to create a psychological connection that can improve intergroup relations (cf. Brannon & Walton, 2013).

This body of work therefore supports an important revision to a widely accepted conclusion from extant research on intergroup contact, i.e. that the most effective form of contact is with typical outgroup members. It also adds a new and feature makes use of the unique and distinctive capacity to systematically vary the content of intergroup contact within imagined contact scenarios. By drawing on a different perspective, that of subjective group dynamics theory, and focusing on the implications of ingroup norm validation, the research has revealed a new approach in which imagined contact with clearly anti-normative, outgroup members can play a powerful role. Strikingly, the evidence in this paper opens possibilities for using a novel strategy for promoting intergroup harmony. This strategy would not focus merely on finding ingroup exemplars and role models to promote positive attitudes to

outgroups, but also would identify *outgroup* exemplars with something positive to offer to ingroup identity. Correspondingly, where there is scope to build positive intergroup relations, those seeking ways to approach outgroups for dialog or cooperation may find the task easier if they are able to draw outgroup members' attention to real or potential ingroup members who help to validate or reinforce some important outgroup norms.

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