Imagined intergroup contact promotes cooperation through outgroup trust

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Abstract

The present research aims to investigate whether salience of memberships during imagined contact is necessary for producing generalized positive attitudes toward the outgroup and promoting intergroup cooperation. After a warm-up task that involved reciprocal self-disclosure during the imagined interaction with an outgroup member, we manipulated interpersonal versus intergroup features of imagined contact. Results indicated that participants who imagined a conversation with a Muslim focusing on intergroup differences subsequently reported more positive attitudes and cooperative intentions toward Muslim immigrants compared to either participants who imagined the interaction at the interpersonal level or participants in a control condition. Moreover, these effects were found to be mediated by outgroup trust. These findings attest to the strength of interventions based on imagined intergroup contact and suggest a possible implementation of the technique.

Imagined intergroup contact is a recently developed strategy for improving intergroup relations that consists in "the mental simulation of a social interaction with a member or members of an outgroup category" (Crisp & Turner, 2009, p. 234). This technique has great potential of application, because it can be implemented even when direct contact is not attainable. Imagined contact has been shown to influence a wide array of outcomes: both explicit (Turner, Crisp, & Lambert, 2007) and implicit (Turner & Crisp, 2010) outgroup attitudes, projection of positive self-traits to outgroups (Stathi & Crisp, 2008), enhanced future

contact intentions (Crisp & Husnu, 2011; Husnu & Crisp, 2010a, 2010b), more positive nonverbal behaviour (Turner & West, 2011), reduced stereotype threat (Abrams et al., 2008), and stereotype change (Brambilla, Ravenna, & Hewstone, 2012).

In this study, we aimed to examine how an imagined interaction with an outgroup member

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should be structured to be maximally effective at achieving its beneficial effects. Specifically, we manipulated interpersonal versus intergroup focus of the imagined interaction to investigate whether group salience is necessary for producing generalized positive attitudes toward the outgroup and promoting cooperative intentions.

There is extensive evidence (see Brown & Hewstone, 2005) that the effects of direct contact are more likely to generalize from encountered outgroup members to the entire outgroup when category membership is salient during contact. Research in the imagined contact field has also demonstrated the importance of maintaining the salience of group membership. Stathi, Crisp, and Hogg (2011) showed that imagined contact with an outgroup member was more effective in enhancing social self-efficacy when participants were instructed to focus on the outgroup involved in the imagined interaction, rather than on the individual conversation partner (Experiment 2), and when the typicality of the imagined outgrouper was high (vs. low; Experiment 3). However, as acknowledged by the authors, in these studies there was no control condition. In addition, Stathi et al. assessed the impact of imagined contact only on social self-efficacy, which is not a direct measure of attitudes or intentions toward the outgroup. Finally, recent theorizations (Brown & Hewstone, 2005; Pettigrew, 1998) and empirical evidence (Ensari & Miller, 2002) emphasize that the optimal contact situation should include interactions characterized by a combination of personalization (e.g., self-disclosure) and salience of group memberships or typicality. This combination has not yet been applied to imagined contact.

In the current work, we extend the findings by Stathi et al. (2011), and more broadly the existing literature on imagined contact, in three important ways. First, we compared interpersonal and intergroup imagined interactions with a control condition to test if the effects of an interpersonal interaction are somehow better than no imagined interaction, but less strong than those of an intergroup interaction. Second, we manipulated

intergroup aspects of contact with a procedure that more closely resembles the concept of group membership salience. Third, we considered as criterion variables, besides outgroup attitudes, behavioural intentions adapting Tajfel's matrices (e.g., Tajfel, Billig, Bundy, & Flament, 1971). Building on Ensari and Miller's (2002) findings, we introduced a first warm-up task where participants in the experimental conditions were invited to imagine an interaction at the interpersonal level, in order to assure a positive contact characterized by reciprocal self-disclosure. After this task, participants received the intergroup or interpersonal manipulation. We hypothesized that intergroup aspects would favour generalization and, thus, ameliorate outgroup attitudes and promote cooperative intentions.

Additionally, we examined the role of intergroup anxiety and outgroup trust as mediators of the imagined contact effects. As suggested by Crisp, Husnu, Meleady, Stathi, and Turner (2010) in their review, there are multiple mediational routes through which imagined contact can exert its impact on attitudes and behavioural tendencies. Indeed, previous research has established evidence for the mediational role of anxiety in the relation between imagined contact and outgroup attitudes (Husnu & Crisp, 2010a; Turner et al., 2007), and approach tendencies toward the outgroup (Turner, West, & Christie, in press). Outgroup trust has also been found to mediate the relationship between imagined contact and positive behavioural intentions and attributions of uniquely human emotions to the outgroup (Vezzali, Capozza, Stathi, & Giovannini, 2012), and between imagined contact and outgroup approach and avoidance tendencies (Turner et al., in press). Trust is particularly relevant as it implies positive expectations about others' intentions and behaviours, and has been shown to lead to cooperation between members of different groups (e.g., Ferrin, Bligh, & Kohles, 2008; Kramer & Carnevale, 2001). Thus, we expected anxiety to mediate the effects of imagined intergroup contact on outgroup attitudes, while trust should be a stronger mediator, accounting for the effects on both attitudes and cooperative intentions.

Method

Participants

Fifty-nine non-Muslim Italian adults (30 female and 29 male), aged between 21 and 60 years, voluntarily agreed to take part in the research. Half of them were undergraduate students ($n = 29$, mean age = 25.17, $SD = 2.93$), while the other half were full-time workers ($n = 32$; mean age = 35.37, $SD = 11.49$). Participants were randomly allocated to one of three conditions: interpersonal imagined contact, intergroup imagined contact, control.

Procedure

Participants were provided with the booklet containing the instructions for the imagery task and the questionnaire, and were conducted through the procedure individually. Participants in the interpersonal and intergroup imagined contact conditions were instructed to perform an imagery task that consisted in two phases, each lasting for 2 minutes. In the first phase, they were asked to imagine being in a train and meeting a Muslim stranger for the first time. Female participants were asked to imagine interacting with a woman (Habìba) and male participants with a man (Mohammed). Drawing upon Hunsu and Crisp (2010a), instructions included a few suggestions about the topics of the imagined conversation, such as sharing personal experiences, expectations, and dreams for the future. This first phase was used as a warm-up task and, being at an interpersonal level, it aimed to promote a perception of reciprocal self-disclosure. In the second phase, the manipulation was introduced: participants were instructed to imagine carrying on the conversation with the Muslim immigrant either at the interpersonal level or at the intergroup level. Participants in the *interpersonal* condition were given the following instruction: "Now imagine that you go on talking and that you and Mohammed/Habìba tell each other how you spent your last holidays and how you would like to plan the next one. You continue talking about your interests and hobbies, favourite books, sports you practice, friends, music and TV programs you

like." Participants in the *intergroup* condition were given the following instruction: "Now imagine that you go on talking and that you and Mohammed/Habìba express your opinion about maintaining your own values, and religious and cultural traditions, and about the importance that these issues have in your lives. He/she explains you that he/she has Arab origins and does not want to give up to his/her traditions and Islamic norms, especially now that he/she has moved to Italy. You confront each other on this topic and on the meaning it has for you."

Participants in the *control* condition were asked to imagine being in a train and thinking about a holiday they would like to plan. This scenario, which is similar to the standard no-contact control scene used in previous research, was intended to assure a positive toned imagery experience, as in the other conditions (see Stathi et al., 2011; Turner et al., 2007).

Dependent measures

Manipulation checks. Following the imagery task, participants in the two experimental conditions were asked "to which extent did you imagine the Muslim immigrant with his/her specific personal characteristics, not referred to his/her membership?" and "to which extent did you focus on the differences between your cultures?" (0 = *not at all*, 4 = *very much*). They were also asked to rate how positive the imagined interaction was (0 = *not at all*, 4 = *very much*).

Outgroup attitudes were measured with a feeling thermometer. Participants were asked to express their attitudes toward Muslim immigrants in Italy on a scale ranging from 0 = *extremely cold* to 100 = *extremely warm*. To assess *behavioural intentions* we adapted the matrices originally used in the minimal group paradigm (e.g., Tajfel et al., 1971). Participants were told that their hometown municipality had recently approved a financial plan to help families living in the city, and they were then given the opportunity to allocate points, equivalent to amounts of money, to Italian (ingroup) and Muslim immigrants' (outgroup)

families. They had to make a choice on four different matrices that allowed us to calculate pull scores for the cooperative strategy MJP (maximum joint profit) and the discriminative strategy MD (maximum differentiation in favour of ingroup). Two types of matrices were used: Type A matrices provided differentiation between the cooperative choice MJP versus ingroup favouritism MD + MIP (maximum ingroup profit), and Type B matrices provided differentiation between the discriminative choice MD versus MIP + MJP. Both types of matrices were presented in two versions: one where strategies were together in the same column and one where strategies lay in opposed columns. Choices on matrices where the strategies were together were scored from 0 to 6, with absence of strategies as 6. Choices on matrices where the strategies were opposed were scored from 0 to 6, with MJP or MD as 6. The strength of a distribution strategy was calculated, for each type of matrix (A or B; see Appendix), by subtracting from the score in which the strategies were opposed the score in which the strategies were together (see Bourhis, Sachdev, & Gagnon, 1994, for more details). Scores could range between −6 and +6, with +6 indicating maximum influence of the strategy, and −6 no influence.

Two potential mediators were considered: intergroup anxiety and trust. Following Stephan and Stephan (1985) original work, we measured *intergroup anxiety* by asking participants to report how they would feel if they were the only Italian among a group of unknown Muslim immigrants. Participants had to indicate the extent to which they would feel cautious, troubled, awkward, relaxed (reversed) (0 = *not at all*, 4 = *very much*; α = .71). To assess *trust*, we asked participants to report how often they felt trust, positive expectations, and suspect (reversed) towards Muslim immigrants (0 = *never*, 4 = *very often*; α = .73; Voci, 2006).

Results

Manipulation checks

To check the effectiveness of the manipulation, we conducted a 2 (instruction: interpersonal vs.

intergroup; between subjects) x 2 (focus: interpersonal vs. intergroup; within subjects) ANOVA on participants' responses to the items regarding their attentional focus during the imagery task. As expected, the interaction was significant, $F(1, 37) = 21.76$, $p < .001$. Confirming the effectiveness of the manipulation, participants in the interpersonal imagined contact condition reported having focused more on interpersonal characteristics of the encountered individual ($M = 2.50$) than on intergroup differences ($M = 1.25$), $t(19) = 4.63$, $p < .001$, while participants in the intergroup imagined contact condition reported having focused more on intergroup characteristics ($M = 2.42$) than on interpersonal ones ($M = 1.63$), $t(18) = 2.28$, $p = .035$. Between conditions comparisons further indicated that the mean score of the interpersonal item was higher for participants who imagined contact at the interpersonal level than for those who imagined it at the intergroup level, $t(37) = 2.77$, $p = .009$. Conversely, the mean score of the intergroup item was higher for participants assigned to the intergroup imagined contact condition than for those in the interpersonal condition, $t(37) = 4.03$, $p < .001$.

We also analyzed responses to the positivity item to check whether participants imagined a positively toned scenario, and whether the type of instruction influenced perceived positivity. Results showed that for both the interpersonal ($M = 2.85$) and the intergroup conditions ($M = 2.68$) scores were significantly higher than the midpoint of the scale (2), $t(19) = 4.68$, $p < .001$, and $t(18) = 3.37$, $p = .003$, respectively. Most importantly, these two scores were not different from each other, $t(37) = .61$, $p = .55$, indicating that the level of categorization implied in the instruction did not affected the positivity of the imagined interaction.

Effects of imagined contact on dependent variables

To examine the effects of the imagery manipulation, a one-way ANOVA was applied to all the dependent variables. Table 1 shows the mean scores in each condition. Additional tests indicated

Table 1. Effects of the manipulation on dependent variables: Means and standard deviations in each condition

	Condition					
	Interpersonal imagined contact		Intergroup imagined contact		Control	
	M	SD	M	SD	M	SD
Outgroup attitude	57.89$_a$	18.80	70.53$_{(b)}$	17.47	59.00$_a$	11.65
MJP	.80$_{ab}$	2.02	1.53$_a$	2.86	−.15$_b$	.67
MD	1.05$_a$	2.06	.00$_a$	.75	.25$_a$	1.97
Intergroup anxiety	1.59$_a$	.80	1.50$_a$	.68	1.43$_a$	.48
Trust	2.10$_a$	.80	2.61$_b$	.55	2.10$_a$	.36

Note: In the same line, means with different subscript are different at $p < .05$; if subscripts are in parentheses at $p < .10$. Bonferroni correction was applied to all post hoc comparisons.

that sample characteristics (students vs. full-time workers; male vs. female participants) did not have any effect on the dependent variables, neither alone nor in interaction with the manipulation. Thus, these factors will not be considered in the following analyses.

As expected, the manipulation affected the warmth expressed on the feeling thermometer, $F(2, 56) = 3.58$, $p = .034$. Post hoc comparisons showed that participants who imagined contact at the intergroup level reported more positive attitudes toward the outgroup compared to those in the interpersonal imagined contact ($p = .06$) and in the control ($p = .09$) conditions, although both differences were marginally significant. There was no difference between the interpersonal imagined contact condition and the control condition. Moreover, the manipulation affected the choice of the cooperative strategy MJP, $F(2, 56) = 3.33$, $p = .043$. Participants in the intergroup imagined contact condition chose MJP more than those in the control condition, while participants in the interpersonal imagined contact chose MJP to the same extent than those in the other two conditions. The effect on the discriminative strategy MD was not significant, $F(2, 56) = 2.01$, $p = .143$. Furthermore, contrary to our expectations, the manipulation did not affect intergroup anxiety, $F(2, 56) < 1$, $p = .74$. Differently, and consistent with our predictions, the effect of the manipulation on trust was significant, $F(2, 56) = 4.79$,

$p = .012$: participants in the intergroup imagined condition expressed significantly more trust than those in the other two conditions.

To summarize, results indicated that participants who imagined carrying on a conversation with a Muslim focusing on intergroup differences subsequently reported more trust, positive attitudes, and helping intentions toward Muslims immigrants in general than either participants who imagined keeping the interaction at the interpersonal level or participants in the control condition.

Mediation analyses

To test for the presence of mediated effects, we ran a series of regression analyses in which we considered as predictor a contrast representing the effectiveness of the intergroup imagined contact condition (the codes were −1 for interpersonal imagined contact and control conditions, +2 for the intergroup imagined contact condition) and, as criterions, the dependent variables for which we found significant results in the ANOVAs (trust, attitude, MJP strategy). We then applied the three-step procedure recommended by Baron and Kenny (1986). We found that (a) the contrast predicted both outgroup attitudes, $\beta = .34$, $p = .009$, and MJP, $\beta = .27$, $p = .041$; (b) the contrast also predicted trust, $\beta = .38$, $p = .003$; (c) when the predictor and the mediator were entered simultaneously, trust predicted both

outgroup attitudes, β = .63, *p* < .001, and MJP, β = .26, *p* = .06, while the paths between the contrast and attitudes, β = .10, *p* = .38, and between the contrast and MJP, β = .17, *p* = .22, became nonsignificant. Results of the bootstrapping procedure (Preacher & Hayes, 2008), using 1,000 resamples, showed that the indirect effect of intergroup imagined contact through the mediation of trust was significant both on outgroup attitudes (1.042; 5.339) and on MJP (.008; .413), as zero was not included in the 95% confidence interval.

Discussion

The present research built on the integration of the imagined contact literature and the intergroup contact model (Brown & Hewstone, 2005) to analyze the conditions under which imagined contact is maximally effective in promoting more positive outgroup attitudes and increasing cooperative behaviours. We expected that the benefits of imagined contact would generalize from individual members to the outgroup as a whole when a certain level of group salience is present during the imagery task. We found evidence that instructing participants to imagine meeting an outgroup member and having a conversation that focused on intergroup issues was more effective in eliciting trust, promoting positive attitudes, and intentions to cooperate with the outgroup, compared not only to a control condition, but also to instructing participants to imagine meeting an outgroup member and keeping the interaction at the interpersonal level. These results corroborate and extend those by Stathi et al. (2011), as (a) we clarified the direction of the effects, thanks to the inclusion of a baseline condition, and (b) we provided evidence for the beneficial effects of intergroup-focused imagined contact also on generalized attitudes and cooperative intentions toward the outgroup. In addition, we found little or no difference between interpersonal imagined interaction condition and control condition on any outcome variable. It is noteworthy that the instructions that we used were quite different from those used in previous studies: the interpersonal condition asked participants to focus on idiosyncratic characteristics of interaction partner, while the intergroup condition on issues related to group memberships. These findings have important implications for future imagined contact research and practical interventions, as they suggest that an excessive emphasis on interpersonal aspects does not allow the generalization of contact effects (see Scarberry, Ratcliff, Lord, Lanicek, & Desforges, 1997), while the inclusion of topics related to group membership favours it.

Moreover, we showed that the effects of imagining intergroup contact on outgroup attitudes and cooperative intentions were mediated by outgroup trust. Considering that trust is difficult to engender (e.g., Rothbar & Park, 1986; Worchel, Cooper, & Goethals, 1991), this finding, together with those by Turner et al. (in press) and Vezzali, Capozza, Stathi, et al. (2012), corroborate the efficacy of the imagined contact paradigm and point to another potential benefit, that is preparing for intergroup cooperation through the development of trust. Indeed, coherently with the view of intergroup emotions as antecedents of behavioural tendencies (e.g., Mackie & Smith, 2002), outgroup trust not only ameliorated outgroup attitude, but also led to willingness to cooperate with the outgroup.

Unexpectedly, we found no significant effect of imagined contact on intergroup anxiety. While previous research assessed anxiety with *one* outgroup member, we used a different measure, closer to the original proposal by Stephan and Stephan (1985), that asked participants to imagine being the only one among a *group of* outgroup members. This situation is likely to be considered very stressful by participants and thus it is possible that only one imagined contact interaction is not sufficient to reduce this form of anxiety. Moreover, we found no effect on the choice of the MD strategy; it is possible that a positive imagined encounter enhances positive cooperative intentions, but is not enough to decrease competitive choices. Future research should test if repeated imagined contact experiences can reduce levels of anxiety felt when anticipating an encounter with outgroup members and can diminish the choice of competitive strategies.

Previous research showed that imagined contact can elicit imagined self-disclosure to an outgroup member (Vezzali, Capozza, Giovannini, & Stathi, 2012). In our study, instead, we used a warm-up task where we instructed participants to imagine a contact situation of reciprocal disclosure with an outgroup member. In line with Ensari and Miller (2002), we found that the co-occurrence of self-disclosure and group salience led to better outgroup attitudes and more willingness to cooperate with the outgroup. We acknowledge, though, that we did not include any measure to check whether participants actually imagined reciprocal self-disclosure. Future research will need to replicate these results in a full experimental design, namely using also a warm-up task that does not involve self-disclosure, to verify if the effects we found are due to the combination of self-disclosure and group salience, as suggested by Ensari and Miller, or if self-disclosure is not necessary.

As a concluding remark, the present research attests to the effectiveness of imagined intergroup contact even for nonstudent adults. Indeed, with the exception of one study that employed a sample of elderly people (Abrams et al., 2008), and two that involved children as participants (Vezzali, Capozza, Giovannini, et al., 2012; Vezzali, Capozza, Stathi, et al., 2012), all published studies used undergraduate students as participants. This could have raised some doubts about the generalizability and the external validity of interventions based on imagined contact. Thus, our findings provide broader support for the potential and the applicability of this technique, which can be useful not only for improving intergroup attitudes, but also for promoting trust and cooperation.

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Appendix

Type A matrices

Ingroup	MD+	16	15	14	13	12	11	10	MJP
Outgroup	MIP	7	9	11	13	15	17	19	

Outgroup		16	15	14	13	12	11	10	MJP+
Ingroup		7	9	11	13	15	17	19	MD+MIP

Type B matrices

Ingroup	MD	10	11	12	13	14	15	16	MIP+
Outgroup		7	9	11	13	15	17	19	MJP

Outgroup		10	11	12	13	14	15	16	MD+
Ingroup		7	9	11	13	15	17	19	MIP+MJP