

## RESEARCH ARTICLE

# Solidarity across group lines: Secondary transfer effect of intergroup contact, perceived moral distance, and collective action

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## Abstract

We tested, in three studies, whether the generalization of contact effects from primary to secondary outgroups—the secondary transfer effect (STE)—occurs for collective action. The results supported a serial mediation model: contact with advantaged group members (Italians: Study 1,  $N = 146$ , 121 females,  $M_{\text{age}} = 28.31$  years; Study 3,  $N = 406$ , 239 females,  $M_{\text{age}} = 36.35$ ; British people, Study 2,  $N = 160$ , 113 females,  $M_{\text{age}} = 32.31$ ) was associated with lower perceived moral distance toward primary outgroups, which in turn was associated with more positive attitudes and greater collective action intentions toward primary outgroups, and lower perceived moral distance toward secondary outgroups. Lower perceived moral distance toward secondary outgroups and stronger collective action intentions toward the primary outgroup were associated with higher collective action intentions toward secondary outgroups (results were inconsistent for attitudes). We discuss the findings with a focus on how a consideration of perceived moral distance extends current theorizing, and the relevance of generalized prejudice for the STE.

## KEYWORDS

collective action, intergroup contact, intergroup relations, morality perceptions, secondary transfer effect

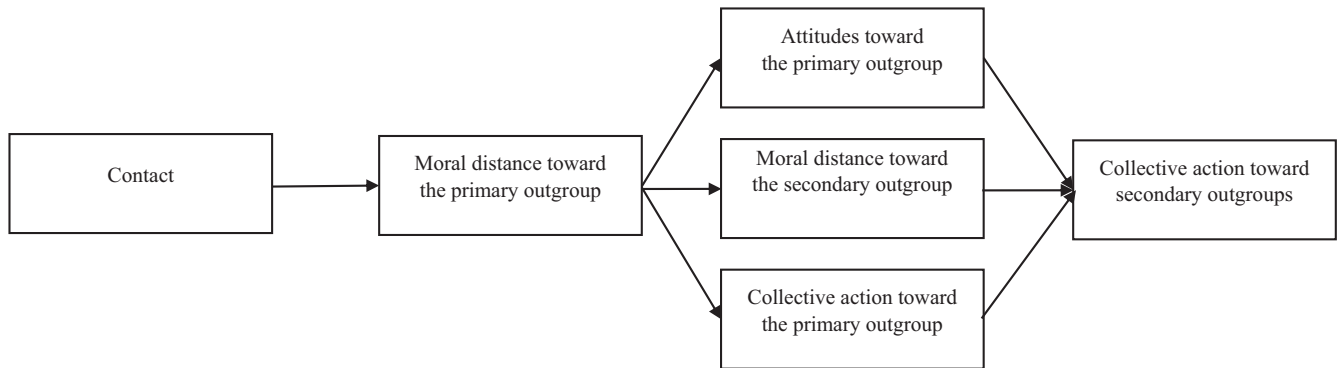
## 1 | INTRODUCTION

Research has shown that the effects of intergroup contact, a popular prejudice-reduction strategy, are not limited to the outgroup one has contact with (primary outgroup). Instead, they often generalize to outgroups uninvolved in the contact situation (secondary outgroups). Pettigrew (2009) referred to this type of generalization as the “secondary transfer effect” (STE). Although research on the STE is rapidly growing (for a review, see Vezzali et al., 2021), it has to date neglected

whether and how the STE might inform another field that is attracting the interest of scholars—the relationship between contact and collective action (Hassler et al., 2021). Research on contact and collective action has been equivocal about whether contact promotes or inhibits collective action (Saguy et al., 2017) and recently has focused on the examination of advantaged groups, with the aim of understanding whether and how contact fosters advantaged group members’ intentions to engage in collective action on the behalf of the disadvantaged group (Vezzali & Stathi, 2021, Chapter 7).

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**FIGURE 1** Theoretical tested model

The present set of studies merges these two fields of contact research, investigating whether the STE also operates for collective action. Specifically, we aim to investigate whether advantaged group members' contact with a primary disadvantaged outgroup is associated with greater collective action toward multiple disadvantaged secondary outgroups. We also, for the first time, test the mediating role of perceived moral distance (Pacilli et al., 2016) in understanding this relationship. This focus builds directly on emerging research investigating the role of morality in explaining contact effects (Brambilla et al., 2013), and is based on the view that using contact to lower perceived moral distance may foster the desire to engage in actions to achieve equality for disadvantaged groups. Specifically, we tested whether lower perceived moral distance toward the primary outgroup (acting as a proximal mediator of contact) is associated with more positive attitudes and support for collective action toward the primary outgroup; especially if it is associated with lower perceived moral distance toward secondary outgroups (distal mediators of contact), which in turn should be associated with greater collective action intentions toward secondary outgroups. This proposed serial mediation model (see Figure 1) is tested in three cross-sectional studies; two conducted in Italy and one in the United Kingdom, with Italians and British people as advantaged groups and immigrants and Eastern Europeans, as disadvantaged groups serving as primary outgroups, respectively. To ensure that our findings are not unique to particular groups we considered a variety of secondary outgroups, similar or dissimilar to the primary outgroup. We also adopted a number of often ignored but nonetheless important controls in our design to provide confidence that any results are a function of the STE (cf. Vezzali et al., 2021). In this way, we aimed to examine whether there is evidence for a STE of contact when collective action is considered.

### 1.1 | The secondary transfer effect

Pettigrew (1998) identified three types of intergroup contact generalizations: across situations, to the outgroup as a whole, and to uninvolved outgroups. The latter, central to the STE (Pettigrew, 2009), is arguably one of the most difficult to achieve and yet it is crucial; if contact effects do not generalize to secondary outgroups, the soci-

etal relevance of prejudice-reduction strategies based on contact is severely reduced. This is especially important given that social reality consists of multiple groups.

Although research on the STE is somewhat limited in comparison to traditional direct contact research, there is sufficient evidence showing that it is a real phenomenon (Boin et al., 2021; Lollot et al., 2013; Vezzali et al., 2021). The first solid evidence for the STE was provided by Tausch et al. (2010). The authors conducted three correlational studies and one longitudinal study, spanning three intergroup contexts (Northern Ireland, Cyprus, the United States) with a total sample of over 4,000 participants, all providing evidence for generalization of contact effects to secondary outgroups. In these studies contact with the secondary outgroup was statistically controlled for to exclude the possibility that effects are driven by more positive outgroup attitudes displayed by individuals who have more contact with secondary outgroups. As such, we also include this control in our studies. Further evidence for the STE comes from a recent review by Vezzali et al. (2021) (see also Vezzali & Stathi, 2021, Chapter 6), who identified 43 studies that have examined the STE, providing experimental (Jasinskaja-Lahti et al., 2021), correlational (Schmid et al., 2013), and longitudinal evidence (Mähönen & Jasinskaja-Lahti, 2016) for its existence. This evidence also extends to indirect forms of contact (De Carvalho-Freitas & Stathi, 2017) and applies to child samples (Vezzali et al., 2018).

Research that has tried to explain the relationship between the STE and outcomes such as attitudes toward a secondary outgroup has established evidence for a variety of mediators of this relationship. These include, for instance, intergroup emotions like anxiety, empathy, and trust (Vezzali & Giovannini, 2012; Žeželj et al., 2020), and ingroup identification (Pettigrew, 2009). Amongst these studies, attitude generalization has emerged as the main process driving the STE: in Vezzali et al.'s (2021) review, almost half of the studies testing the STE found that attitudes toward the primary outgroup were a mediating mechanism, while tests of other mediators were much less consistent. Specifically, this research shows that the STE often occurs indirectly so that contact with the primary outgroup is associated with more positive attitudes toward the primary outgroup, which is, in turn, associated with improved attitudes toward the secondary outgroup(s) (Pettigrew, 2009; Schulz & Taylor, 2018; Tausch et al., 2010).

In the present studies, we aim to test a novel underlying mechanism that may be especially relevant for the STE: perceived moral distance. We also include attitudes toward the primary outgroup as a mediator in our model (see Figure 1). Acting like a control variable, this enables us to explore whether our novel mediators (that is perceived moral distance and collective action, see next sections) emerge over and above attitudes, thereby providing a robust test of our hypotheses. Before presenting the rationale for predicting mediation effects by perceived moral distance as our main mediator, we review research on contact and collective action.

## 1.2 | Intergroup contact and collective action

Research examining contact and collective action initially focused on disadvantaged groups, showing that contact may have a sedative effect on collective action (Dixon et al., 2007; Tropp et al., 2012), but recent research has turned its attention to advantaged groups. This is under the premise that it is advantaged groups that hold the power and are arguably consequently in a better position to promote or inhibit intergroup equality (Sidanius & Pratto, 1999). Identifying the conditions under which contact can promote advantaged group members' intentions to engage in collective action on the behalf of the disadvantaged group is therefore crucial (Louis et al., 2019; Radke et al., 2020; Vezzali & Stathi, 2021, Chapter 7).

Early work suggests that contact effects may be stronger for prejudice reduction than for the mobilization of the advantaged group to defend the interests of disadvantaged groups (Jackman & Crane, 1986). For example, the principle-implementation gap refers precisely to the finding that contact does not automatically translate into collective action (Dixon et al., 2017). There is a growing literature showing, however, that contact, especially in some conditions (Vezzali, Andrighetto et al., 2017), can indeed promote advantaged group members' collective action aiming to increase social equality as well as the support for social policies benefitting the disadvantaged group (Di Bernardo et al., 2021; Hassler et al., 2020; Kauff et al., 2016; Meleady & Vermue, 2019; Reimer et al., 2017, Studies 1b and 2b; Tropp et al., 2021). For instance, Selvanathan and colleagues (2018), across three studies, found a positive association between White participants' contact with Black participants and intentions to engage in collective action behaviour (like attending demonstrations) to improve the position of the disadvantaged Black group, with effects mediated by greater empathy toward Black people and stronger anger against injustice.

The primary aim of the present research is to test whether the STE also operates for collective action as an outcome. In other words, we wish to examine whether contact with a primary outgroup not only relates to greater intentions to act for social equality toward that outgroup, but also toward secondary outgroups uninvolved in the contact situation. We believe that this is an important extension because finding that contact promotes broad support for social equality, beyond the boundaries of the relationship with the primary outgroup, would open up a new body of research to explore the potential added ben-

efits of intergroup contact theory. Currently, as far as we are aware, preliminary support for this hypothesis is provided by two studies. In a correlational study, Cernat (2019) found that, among two disadvantaged groups (Hungarian and Roma minorities in Romania), contact with the Romanian majority was associated with lower support for policies benefitting the other disadvantaged group. This study, however, focused on disadvantaged groups only, and did not examine mediators of the STE. A further correlational study by Schulz and Taylor (2018) found that contact between two relatively advantaged, equal-status groups (Catholics and Protestants in Northern Ireland) was associated with greater support for Syrian resettlement in Northern Ireland; this association was sequentially mediated by higher perspective taking and in turn more positive attitudes toward the primary outgroup. Together, these studies offer some initial support for our hypotheses. In the present research, we extend these findings by examining whether the STE extends to collective action as a generalized phenomenon that applies to several secondary outgroups and by testing novel mediators, in addition to attitudes toward the primary outgroup. A first new novel mediator that we examine is collective action toward the primary outgroup (see Figure 1). We argue that this would serve a similar function that attitudes toward the primary outgroup have generally occupied in STE research. That is, as we use collective action toward the secondary outgroup as our outcome variable, we posit that collective action toward the primary outgroup as a conceptually similar construct will play a mediating role between contact with the primary outgroup and collective action toward secondary outgroups. In the next section, we provide the rationale for the main mediator that we believe may be especially relevant to the STE of collective action: perceived moral distance.

## 1.3 | Morality and moral distance

In the last decade, the issue of morality has acquired a central role in social psychological research on intergroup relations (Ellemers et al., 2019; Pagliaro, 2012). Across a range of studies conducted with different populations (e.g., students, natural groups) and using different methodologies, researchers have consistently shown that morality (vs. competence and vs. sociability) plays a leading role in forming impressions about unknown targets, in evaluations of oneself and ingroups, and in regulating group processes (for reviews, see Brambilla & Leach, 2014; Ellemers, 2017; Ellemers et al., 2013). Individuals consider it important to perceive themselves as moral (Pagliaro et al., 2016) and, with this aim, they believe that it is important to belong to groups considered as moral (Leach et al., 2007).

Morality also plays a fundamental role in *regulating intergroup relations* (Brambilla et al., 2013; Pacilli et al., 2016; Vezzali et al., 2020). To the extent that morality is a crucial driver of the individual's definition in terms of group belongingness, we can speculate that it is also pivotal for affirming characteristics that individuals should possess (Ellemers et al., 2013). Further, insofar as outgroup members are attributed morality (for instance, as a function of contact, see below) it can be argued that they can in some way assimilate to ingroup members by

entering their circle of morality, therefore motivating an improvement in outgroup attitudes.

Research on intergroup contact has surprisingly overlooked the role that morality can play in driving the effects of contact, although there are some exceptions. For example, Vezzali, Brambilla et al. (2017) found that heterosexuals' contact with homosexuals was associated with greater intentions to engage in contact with homosexuals via higher moral purity (which is a relevant moral dimension) attributed to outgroup members. Two further studies have investigated the role of morality perceptions in the STE. In one study, Vezzali et al. (2020) examined contact amongst advantaged (Italians) and disadvantaged (immigrants) group members. They found that among both groups' contact effects generalized to more positive attitudes and greater intentions to have contact with the secondary outgroup (individuals with disability), via morality toward both primary and secondary outgroup (for the disadvantaged outgroup, this finding emerged for extended contact, an indirect form of contact; White et al., 2021). In another study, Jasinskaja-Lahti et al. (2021) considered the moral licensing effect, related to the concept of moral credentials (Monin & Miller, 2001): individuals who acquire moral credentials with a first moral act are more likely to show subsequent "immoral" behaviour. The authors found that acquiring moral credentials by hiring a member of the primary outgroup led majority members (Finns) to display more negative attitudes toward the secondary outgroup (immigrants with African or Russian origins; the two groups were counterbalanced, presented as either the primary or the secondary outgroup depending on condition). In other words, the STE was blocked by moral licensing. These studies demonstrate the relevance of morality perceptions when considering intergroup contact and the STE.

In contrast with intergroup contact research, morality is a key aspect investigated in collective action research. For example, Van Zomeren and colleagues (2012) proposed and found that the violation of moral convictions, which are strong and absolute stances on moral issues, can motivate individuals to actively change their situation. Consistently, there is evidence that moral convictions serve as distal antecedents of collective action (e.g., van Zomeren et al., 2012; for reviews, see Radke et al., 2020; Van Zomeren et al., 2018). There is also evidence that moral foundations can foster collective action: individualizing and binding moral foundations are associated with collective action (directed both at supporting or instead opposing the outgroup); and, these associations are mediated by moral exclusion (Hadarics & Kende, 2018; see also Milesi & Alberici, 2018).

To date, only two studies have tested morality as a mediator of contact effects on collective action. Brambilla and colleagues (2013) (see also Vezzali, Brambilla et al., 2017) conducted a pioneering cross-sectional study testing morality as a mediator of contact. They found that contact between Italians and immigrants was associated with greater perceptions amongst Italians that immigrants are moral, and in turn stronger intentions to engage in action to support the immigrant group. Cocco et al. (2022) investigated morality and collective action intentions in an advantaged group sample (Italians) and found that contact was indirectly associated with greater intentions to engage in collective action on the behalf of the disadvantaged group (immigrants)

via greater one-group perceptions and, in turn, stronger attribution of morality traits to the outgroup.

## 1.4 | Moral distance

Our research aims to extend these studies by testing the mediating effect of perceived moral distance on the relationship between contact and collective action. We focus specifically on perceived moral distance as a comparative evaluation of the ingroup and the outgroup, in terms of (dis)similarity in moral traits characterizing ingroup and outgroup members. This contrasts with other components of morality, which are arguably not comparative in nature. For example, it contrasts with moral convictions, which refer to specific issues that may be under debate between the ingroup and the outgroup (e.g., the (im)morality of a particular policy). It also differs from moral foundations, which represent the basis by which individuals judge a moral issue, and from attribution of morality to the outgroup, which refers to attributing specific moral traits to outgroup members. Perceived moral distance, however, enables us to examine a comparative dimension, which is essential given that social comparison is the basis for the regulation of intergroup relations (Tajfel & Turner, 1979).

The construct of moral distance is different from more general constructs relating to dissimilarity between groups, like, for instance, perceptions of cultural distance. This idea is grounded in the literature that showed on the one hand that morality is more important than other central evaluative dimensions (e.g., competence and sociability) when people judge their ingroup in comparison to outgroups (e.g., Leach et al., 2007; for reviews: Ellemers, 2017; Ellemers et al., 2013). On the other hand, evidence already exists showing that *perceived moral distance* between the ingroup and the outgroup shapes intergroup relations in the realm of political attitudes. For instance, Pacilli et al. (2016) reported that the relation between ingroup identification and outgroup animistic dehumanization was mediated by perceived moral distance between the two groups: thus, when it comes to distinguish the ingroup from the outgroup, people do not focus on generic differences between the two groups (although these may also be relevant); rather they *primarily* consider moral differences. Indeed, as stated above, according to social identity theory (Tajfel & Turner, 1979), group members may pursue intergroup distinctiveness on any possible evaluative dimension. This effect seems to be particularly strong when considering intergroup differences in terms of morality (Ellemers, 2017; Ellemers et al., 2013). If this is the case, then perceived moral distance may be important for intergroup contact dynamics: on the one hand, people strive to differentiate their ingroup from the relevant outgroup in terms of moral evaluations, and this strengthens intergroup conflict. On the other hand, if prejudice is rooted in this exaggerated perception of moral distance between the two groups, then prejudice reduction via contact might work by reducing the perception of such moral differences.

Insights on the relevance of perceived moral distance for collective action is provided by dehumanization research. For example, there is evidence that the dehumanization of disadvantaged groups is

associated with less support for policies and actions that may restore social equality as well as more support for aggressive policies that can increase the status differential (Esses et al., 2008; Kteily & Bruneau, 2017; Sumnall et al., 2021). Literature on (de)humanization considers the attribution of morality to ingroups and outgroups as a key condition for being viewed as human and thereby being granted human rights; in contrast, being dehumanized (and therefore deprived of human rights) is argued to be a result of being excluded by the circle of morality generally reserved to ingroup members (Bandura, 1999; Opatow, 1990, 1995). In this sense, what is important is not attribution of morality per se, but the extent to which the outgroup is perceived as morally similar to the ingroup. We therefore believe that the comparative nature of the construct of moral distance is especially suited to the study of collective action as predicted by contact, which is why we focused on this rather than on more general perceptions of group (dis)similarities. Acknowledging that ingroup and outgroup members are morally similar would allow outgroup members to enter the circle of ingroup morality, this way extending to them the benefits reserved to ingroup members who possess such moral traits. Such benefits include the attributions of human rights, like deserving the same treatment reserved to the ingroup. In other words, increased similarity between the morality of the ingroup and the outgroup would grant disadvantaged groups the same rights as the advantaged ingroup, fostering intentions to act to achieve intergroup equality (that is, collective action).

Although the concept of perceived moral distance might be considered to overlap somewhat with moral exclusion (Opatow, 1990), the two concepts are not equivalent. Whereas moral exclusion refers to the phenomenon according to which “individuals or groups are perceived as outside the boundary in which moral values, rules, and considerations of fairness apply” (Opatow, 1990, p. 1), perceived moral distance refers to the fact that individuals consider their own group as different in terms of moral features, for example, honesty, trustworthiness—with regards to the outgroup of comparison (Pacilli et al., 2016). Perceived moral distance, therefore, could be understood as an antecedent of moral exclusion: once you consider the ingroup and the outgroup as morally different, you can exclude the outgroup from the boundaries of equal moral treatment. In other words, in the context of the present research, contact may foster the perception of moral similarity between ingroup and outgroup, which in turn may be associated with greater engagement in collective action to achieve intergroup social equality, whilst failing to achieve moral similarity may result in moral exclusion.

We argue that lowering perceived moral distance with the primary outgroup, and in turn toward secondary outgroups, represents a key step in granting secondary outgroups the “moral right” to enjoy social equality, thus promoting willingness to engage in collective action for providing such equality. In the first study, we explored perceived moral distance toward the primary outgroup as a mediator of contact, testing whether it mediated the relationship between contact with a primary outgroup and attitudes toward the primary outgroup and collective action in support of it. As can be seen in Figure 1, perceived morality toward the primary outgroup is expected to mediate the associations of contact with the primary outgroup with attitudes toward, and collec-

tive action in support of, the primary outgroup. In this study we also test whether attitudes and collective action toward the primary outgroup (predicted by moral distance toward the primary outgroup) mediate the associations of contact with the primary outgroup with collective action toward secondary outgroups.

In the second and third studies, we tested perceived moral distance toward the secondary outgroup in addition to collective action and attitudes toward the primary outgroup as mediators of the STE. Specifically, as can be seen in Figure 1, perceived moral distance toward the secondary outgroup is expected to be predicted by perceived moral distance toward the primary outgroup (in turn predicted by contact), and in turn be associated with collective action toward secondary outgroups. This test largely rests on the construct of deprovincialization as proposed by Pettigrew (1998). According to Pettigrew, contact allows individuals to deprovincialize from their ingroup, to understand that outgroups may have other lifestyles and customs or traditions and should not be evaluated negatively because of these differences. Importantly, once individuals are deprovincialized, they should be more open toward a wide series of outgroups and not only toward the outgroup instigating the change. In the context of our study, understanding that the outgroup is morally similar (as assessed by reduction in perceived moral distance) represents a form of deprovincialization, that might allow other outgroups (i.e., secondary outgroups) also to be perceived as morally similar (in turn predicting greater willingness to engage in actions for social equality).

## 2 | THE PRESENT RESEARCH

We conducted three studies in Italy and the United Kingdom among advantaged group members (Italian and British people) to test whether collective action is also an outcome of the STE, promoting generalized allyship with different disadvantaged groups. Specifically, we tested whether contact with a primary outgroup (immigrants and Eastern European immigrants in Italy and the United Kingdom, respectively) is associated with greater collective action intentions toward secondary outgroups. To provide a strict test of this hypothesis, we selected a broad range of secondary outgroups: Roma people, gay and lesbian people, obese people, individuals with disability, and refugees. We focused our research in the United Kingdom and in Italy, where the researchers are based, partly due to convenience but also because they are arguably comparable contexts—both are in Western Europe with growing levels of ethnic diversity and heightened ethnic tensions (Devine, 2018). Although the United Kingdom has higher levels of ethnic diversity than Italy, 19% of resident population identified as ethnic minorities in the 2011 United Kingdom census (ONS, 2015) compared with 8.18% of the resident population estimated to be of immigrant background in Italy (Italian Institute of Statistics, 2022). The focus on these two contexts enabled us to test our model more robustly to ensure that findings were not context specific and, therefore, more generalizable.

We tested a serial mediation model, with contact as the independent variable and collective action intentions as the dependent

variable. As shown in Figure 1, we considered perceived moral distance toward the primary outgroup as a proximal mediator of contact: it should link contact with attitudes and collective action toward the primary outgroup and with perceived moral distance toward secondary outgroups. We also considered perceived moral distance toward the secondary outgroup (our main mediator), collective action toward the primary outgroup, and attitudes toward the primary outgroup as distal mediators of contact: as shown in Figure 1, they should be predicted by perceived moral distance toward the primary outgroup (predicted by contact) and in turn predict collective action toward secondary outgroups. In line with the larger collective action literature, we focused on collective action intentions, that is willingness to engage in collective action behaviour on the behalf of disadvantaged groups (Di Bernardo et al., 2021; Reimer et al., 2017; Selvanathan et al., 2018).

In Study 1 (conducted in Italy), we tested perceived moral distance toward the primary outgroup as a mediator of the associations of contact with the primary outgroup with attitudes and collective action toward the primary outgroup, to provide the first test of perceived moral distance as a contact mediator, and of the possibility that contact effects extend to collective action toward secondary outgroups. Studies 2 and 3 (conducted in United Kingdom and Italy, respectively), built on the first study, replicating and extending results by considering perceived moral distance toward secondary outgroups as a further mediator. In both Studies 1 and 2, hypotheses were tested by using path analysis with observed variables. In the third study, we aimed to replicate findings from the first two studies with a larger sample and by using a path model with latent variables.

Most studies on the STE suffer from two methodological problems. The first is that the STE may depend on the fact that individuals with more contact with the primary outgroup may also have more contact with the secondary outgroup. Including contact with the secondary outgroup as a control variable would help to rule out this explanation. Less than half of the studies included in Vezzali et al.'s (2021) review of STE research, however, included this control. The second is that the STE effect may be inflated by using similar measures to assess attitudes toward the primary and the secondary outgroups, resulting in shared method variance. Using different measures to assess conceptually similar constructs may help in reducing this issue. In the review of STE research by Vezzali et al. (2021), only one third of the studies adopted this control. To provide a realistic test of our hypotheses, we therefore used controls for contact with the secondary outgroups (all three studies) and adopted different measures to assess collective action toward primary and secondary outgroups in two (first and third) of our three studies.

### 3 | STUDY 1

Study 1 was conducted in Italy. We used Italians as participants and immigrants as the primary outgroup; secondary outgroups were gay and lesbian people, individuals with disability, Roma people, and obese

people. Perceived moral distance toward the primary outgroup was tested as a mediator between quantity or quality of contact with the primary outgroup and collective action intentions toward the primary outgroup. Collective action intentions and attitudes toward the primary outgroup were tested as mediators of the association between quantity or quality of contact toward the primary outgroup and collective action intentions toward secondary outgroups. On an exploratory basis, we allowed associations between perceived moral distance toward the primary outgroup and collective action intentions toward secondary outgroups—that is, we included the direct effects in the model from perceived moral distance toward the primary outgroup and collective action intentions toward secondary outgroups.

Being aware that the nature of the study could have implied a substantial loss of participants (due to the number of outgroups involved), we decided to fix data collection to about 200 participants to obtain at least 150 respondents for running a structural equation model with 13 observed variables. Using the Monte Carlo method, we estimated power by simulating the hypothesized model (10,000 resamples) by assuming medium effect sizes based on previous studies on the critical variables (e.g., Di Bernardo et al., 2021; Pettigrew & Tropp, 2006). Results showed that a range from about 150 to 200 participants would be enough to achieve a power of at least 80% on the predicted associations.

## 3.1 | Method

### 3.1.1 | Participants and procedure

At the beginning of the questionnaire, participants indicated, with free-format responses, their nationality and the nationality of their parents. Five dichotomous items, one for each of the five target-groups, asked participants whether they belonged to these groups or not. The initial sample, comprising 220 participants, was reviewed based on introductory questions to ensure that the final dataset excluded respondents who declared not being Italians, or declared being Italians with both non-Italian parents ( $N = 14$ ), who belonged to one (or more) of the five target outgroups ( $N = 58$ ), or who had with more than 20% of missing in the critical variables ( $N = 2$ ). The final sample included 146 participants (121 female,  $M_{\text{age}} = 28.31$  years,  $SD = 11.03$ ). All participants were therefore Italian (i.e., with at least one Italian parent), heterosexuals, not overweight or with Roma ethnicity, and without declared disabilities.

Participants were approached through e-mail, messaging apps, or social networks by trained students and completed an online survey. Before filling the questionnaire, participants provided an informed consent. The purpose of the study was explained to them, they were guaranteed anonymity, and they were informed that they could leave the study at any time; they were also provided with a contact reference in case of queries. Participants did not receive any form of compensation for their participation. After completing the survey, they were thanked and debriefed.

### 3.1.2 | Measures

The full scales used in the study are provided in the [supplementary online material](#). Unless indicated otherwise, all measures have a five-step scale ranging from 1 = “not at all” to 5 = “very much.”

#### *Quality of contact with the primary outgroup*

Quality of contact was measured with four semantic differential items (e.g., hostile/friendly, rude/kind) used in previous studies (e.g., Capozza et al., 2013). On the five-point scale, 1 indicated the negative and 5 the positive pole; 3 was the mid-point.

#### *Quantity of contact with the primary outgroup*

We used five items from Di Bernardo et al. (2021). Participants indicated the amount of contact they had with immigrants at school/work, in the neighbourhood, during free time and in general; they were further asked the number of immigrants they spent their time with. For the first four items, responses ranged from 1 (*none*) to 5 (*very much*). For the last item, response options were: 1 (*none*), 2 (*one or two*), 3 (*three or four*), 4 (*five or six*), 5 (*more than six*).

#### *Perceived moral distance toward the primary outgroup*

The perception of moral (dis)similarity between ingroup and primary outgroup was assessed with four items adapted from Pacilli et al. (2016). Participants were asked to rate the extent to which Italians and immigrants differ on four moral traits (e.g., honesty, morality).

#### *Attitudes toward the primary outgroup*

We used the general evaluation scale (Wright et al., 1997) composed of six bipolar items (e.g., positive/negative). On the five-step scale, 1 represented the negative and 5 the positive pole; 3 indicated the mid-point.

#### *Collective action intentions toward the primary outgroup*

Participants rated their willingness to engage in actions favouring equality for immigrants on four items (e.g., “Would you participate to a demonstration against the unequal treatment of immigrants?”) adapted from broader literature on collective action (e.g., Di Bernardo et al., 2021; Saguy et al., 2008).

#### *Collective action intentions toward secondary outgroups*

For each the four secondary outgroups, we created four items targeted toward the specific outgroup (e.g., for gay and lesbian people: “Would you go to gay pride?”; for individuals with disability: “Would you vote for a political party committed to increase pensions for disabled people?”; for obese individuals: “Would you support a campaign promoting body positivity against weight prejudice?”; for Roma people: “Would you vote for laws supporting the integration of Roma people in Italy?”).

#### *Contact with the secondary outgroups*

As a control measure, one item assessing contact with each of the secondary outgroups was included: “How much contact do you have with [target group]?” Responses ranged from 1 (*none*) to 5 (*very much*).

### 3.2 | Results<sup>1</sup>

For each variable, a composite score was created by averaging the respective items. Descriptive statistics, reliability, and correlations are reported in Table 1 (the full table with also correlations with control variables is presented in the [supplementary online material](#)).

To test the study hypotheses, we ran a structural equation model (SEM) with observed variables using Mplus (version 8.3, Muthén & Muthén, 2017). The quantity and quality of contact toward the primary outgroup were the independent variables; perceived moral distance toward the primary outgroup was the proximal mediator; collective action intentions and attitudes toward the primary outgroup were the distal mediators; and collective action intentions toward the four secondary outgroups were the dependent variables. All the direct paths from independent variables to distal mediators and to dependent variables, along with the direct effect from the proximal mediator to dependent variables, have been estimated; the four contact with secondary outgroups items were also included as independent variables and their relations with the respective collective action intentions have been estimated. We allowed correlations between same-level variables.

Model adaptation to the data was evaluated using the indexes proposed by Hu & Bentler (1999): a non-significant  $\chi^2$ , RMSEA smaller than .06, CFI and TLI higher than .95, and SRMR less than .08, indicate good fit. The significance of the indirect effects was tested using bootstrapping procedures with 5,000 resamples (Hayes, 2013).

The fit of the model was acceptable,  $\chi^2(24) = 36.54$ ,  $p = .05$ , RMSEA = .06 (CI .000/.097), CFI = .96, TLI = .90, SRMR = .05. As can be seen in Figure 2, quality, but not quantity, of contact with the primary outgroup was negatively associated with perceived moral distance toward the primary outgroup (immigrants); in addition, significant positive relations emerged between contact quality and both attitudes and collective action intentions toward the primary outgroup; a residual path also emerged from contact quality to collective action intentions toward one secondary outgroup (gay and lesbian individuals). Perceived moral distance toward the primary outgroup was negatively associated with collective action intentions toward the primary outgroup, and also toward one secondary outgroup (Roma people).

Finally, collective action intentions toward the primary outgroup were positively associated with collective action intentions toward the four secondary outgroups. No significant associations emerged for attitudes toward the primary outgroup.

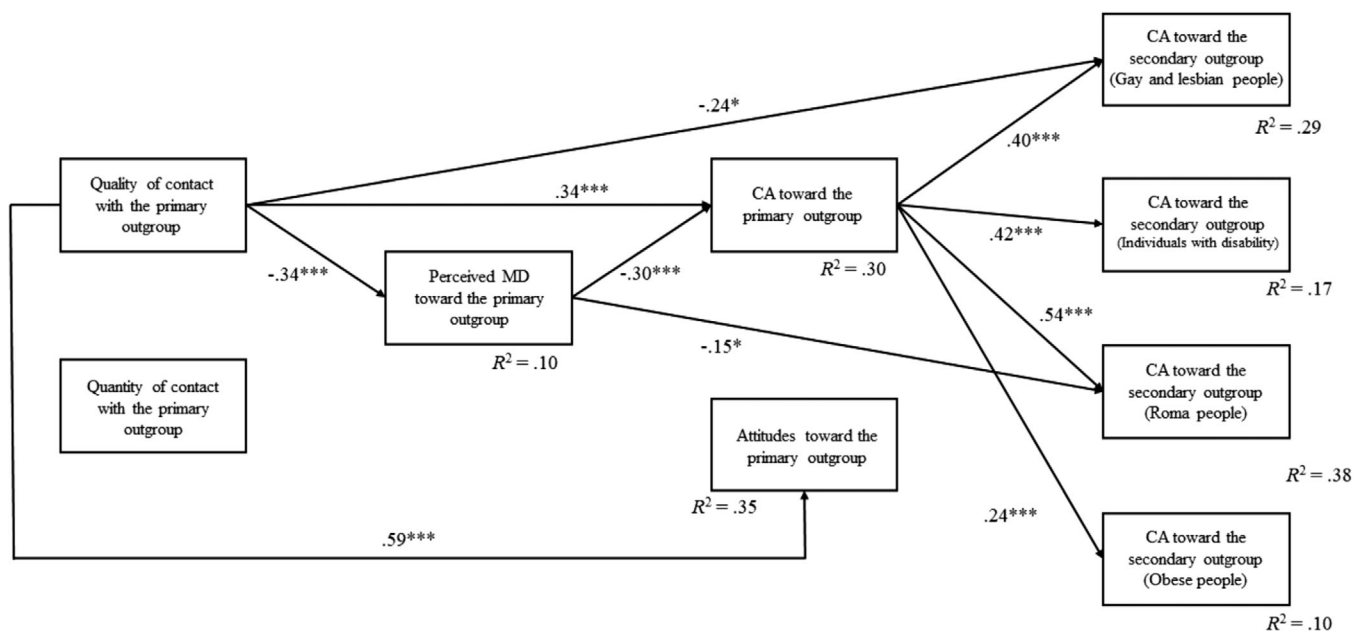
Table 2 reports bootstrapping analyses (for the full list of indirect effects, see the [supplementary online material](#)). In line with expectations, we found evidence of perceived moral distance as mediator of the contact to collective action relationship: specifically, the association of quality of contact with the primary outgroup with collective action intentions toward the primary outgroup was mediated by lower

<sup>1</sup> In all studies, missing data were treated using full information maximum likelihood (FIML). With FIML, data are not imputed with new values but they are estimated by establishing the values that maximize the likelihood function based on all available data.

**TABLE 1** Descriptive statistics, reliability (boldface on the diagonal), and correlations between variables, Study 1 (N = 146)

Variable	M	SD	1	2	3	4	5	6	7	8	9
1 Quality of contact with the primary outgroup	3.88	0.94	<b>.87</b>								
2 Quantity of contact with the primary outgroup	2.12	0.75	.41***	<b>.83</b>							
3 Perceived moral distance toward the primary outgroup	2.41	1.03	-.29***	-.02	<b>.89</b>						
4 Collective action intentions toward the primary outgroup	3.31	1.06	.45***	.20*	-.40***	<b>.85</b>					
5 Attitudes toward the primary outgroup	3.45	0.63	.58***	.16*	-.26***	.38***	<b>.84</b>				
6 Collective action intentions toward the secondary outgroup (gay and lesbian people)	3.38	1.38	.11	.08	-.22**	.41***	.16*	<b>.91</b>			
7 Collective action intentions toward the secondary outgroup (individuals with disability)	4.51	0.62	.11	-.01	-.05	.37***	.20**	.26***	<b>.75</b>		
8 Collective action intentions toward the secondary outgroup (Roma people)	3.01	1.22	.27***	.09	-.37***	.59***	.21**	.41***	.20**	<b>.89</b>	
9 Collective action intentions toward the secondary outgroup (obese people)	4.45	0.81	-.04	-.07	-.06	.19*	.10	.31***	.42***	.22**	<b>.88</b>

Note. The response scale for all measures ranges from 1 to 5. Descriptive statistics and correlations for secondary outgroups contact are available as online additional materials. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .



**FIGURE 2** Structural equation model of the secondary transfer effect of contact on collective action (N = 146). Only significant standardized coefficients are reported (the model with unstandardized coefficients is provided in the [supplementary online material](#)). Contact with secondary outgroups and correlations between same-level variables have not been reported for ease of reading (see the [supplementary online material](#)). MD = Moral distance; CA = Collective action intentions. \* $p < .05$ . \*\*\* $p < .001$

levels of perceived moral distance toward the primary outgroup. More relevant to the present research, consistent with our hypothesis of the STE of collective action, the indirect effects of quality of contact with the primary outgroup on increased collective action intentions toward secondary outgroups were mediated by collective action intentions toward immigrants. Providing preliminary evidence for the mediat-

ing role of perceived moral distance in the STE, Table 2 also shows that quality of contact was indirectly associated with greater collective action toward secondary outgroups via lower perceived moral distance toward the primary outgroup and in turn greater collective action toward the secondary outgroup. No evidence, however, was found for the mediating effect of attitudes toward the primary outgroup. This



**TABLE 2** Significant standardized indirect effects in the hypothesized model, Study 1 ( $N = 146$ )

Predictor	First-level mediator	Second-level mediator	Dependent variable	Mean bootstrap estimate	Percentile confidence interval (95%)
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (gay and lesbian people)	0.041	[0.006, 0.077]
Quality of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (gay and lesbian people)	0.136	[0.050, 0.221]
Quality of contact with the primary outgroup	Perceived moral toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.055	[0.010, 0.101]
Quality of contact with the primary outgroup	Perceived moral toward the primary outgroup	--	CA toward the secondary outgroup (Roma people)	<b>0.053</b>	<b>[0.007, 0.099]</b>
Quality of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.182	[0.072, 0.292]
Quality of contact with the primary outgroup	Perceived moral toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (obese people)	<b>0.024</b>	<b>[0.000, 0.048]</b>
Quality of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (obese people)	0.079	[0.002, 0.156]
Quality of contact with the primary outgroup)	Perceived moral toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (individuals with disability)	0.043	[0.003, 0.084]
Quality of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (individuals with disability)	0.142	[0.056, 0.228]
Quality of contact with the primary outgroup	Perceived moral toward the primary outgroup	CA toward the primary outgroup	--	0.102	[0.024, 0.181]

Note. CA = collective action intentions. Mean bootstrap estimates are based on 5,000 bootstrap samples. Boldface indicates a marginally significant indirect effect (90% CI).

finding contrasts with the literature on the STE (Vezzali et al., 2021). It is worth noting, however, that the STE literature generally used attitudes toward secondary outgroups as dependent variables, while in this study dependent variables were measures of collective action; we will return to this finding in the general discussion.

Taken together, these results provide preliminary evidence for perceived moral distance as a mediator of the STE. After obtaining this initial evidence that perceived moral distance can mediate contact effects, and that perceived moral distance can be implied in the STE, in Study 2 we introduced measures of perceived moral distance toward secondary outgroups to test our mediation hypotheses directly.

## 4 | STUDY 2

In the second study, conducted in the United Kingdom, participants were those who self-identified as British with immigrants from Eastern Europe serving as the primary outgroup and Roma people and refugees as the secondary outgroups. In this study, perceived moral distance

toward the primary outgroup was again tested as the mediator of the effects of contact on collective action intentions toward the primary outgroup. Advancing Study 1, however, we also tested perceived moral distance toward secondary outgroups, in addition to collective action intentions and attitudes toward secondary outgroups, as mediators of the STE.

Sample size was defined based on Study 1 results. Specifically, a simulation of the hypothesized model using the Monte Carlo method (10,000 resamples) revealed that it was possible to achieve at least the 80% of power on the expected associations with the number of participants ranging from 150 to 200.

## 4.1 | Method

### 4.1.1 | Participants and procedure

Two hundred and two participants completed an online questionnaire using the survey software tool, Qualtrics. We asked participants

whether they belonged to the British ethnic majority group (that is, White British) or to other ethnic groups (e.g., British Asians), as well as whether they belonged to any of the three target-groups (Eastern European, Roma, refugee). We excluded respondents belonging to at least one of the three targeted outgroups ( $N = 14$ ), and/or participants who did not complete the survey accurately (i.e., more than 20% of missing data, complete missing in at least one scale, failing to correctly answer attention check items) ( $N = 28$ ). The final sample included 160 participants (113 female, 44 male, one other gender, two not specified;  $M_{\text{age}} = 32.31$ ,  $SD = 12.39$ ). All respondents were British and declared that they did not belong to any of the three target outgroups.

Participants were recruited through e-mail, social media and survey participation websites including a call for participants, a survey circle, and a survey swap, and were asked to complete an online survey hosted on Qualtrics. As in Study 1, participants provided an informed consent and were introduced to the purpose of the study; they were also informed that their participation was anonymous and that they could leave the study at any time, in addition to being provided with a contact reference. Participants did not receive any compensation for taking part to the study.

Attention checks were introduced into the survey to ensure that participants were paying attention to the research and to prevent participant by bots. The attention checks included a series of items that stated, for example, "please select strongly agree". After completing the survey, participants were thanked and debriefed.

#### 4.1.2 | Measures

The measures used were similar to those employed in Study 1, with a few exceptions: (1) quantity of contact toward Eastern Europeans was assessed with four items instead of five items; (2) we used an evaluation thermometer to assess attitudes toward the primary outgroup, as opposed to the general outgroup evaluation scale. Specifically, participants evaluated Eastern Europeans on a single item using a response scale ranging from 0 (*extremely unfavourable*) to 100 degrees (*extremely favourable*), with 50 as the mid-point (*neither positive nor negative*); (3) measures of perceived moral distance using the same items as in Study 1 were also administered for each of the secondary outgroups in addition to the primary outgroup; and (4) collective action intentions toward primary and secondary outgroups were assessed with the same items used in Study 1 to assess collective action intentions toward the primary outgroup (see also the [supplementary online material](#)).

#### 4.2 | Results

We created a composite score for each variable by averaging the relative items. Descriptive statistics, reliability, and correlations are reported in Table 3 (the full table, including correlations with control variables is presented in the [supplementary online material](#)).

As a preliminary analysis, considering (a) the similarity between primary and secondary groups, and (b) the moderately strong correlations among measures of perceived moral distance, and among measures of collective action, toward the three target groups, we conducted two confirmatory factor analyses to test whether (1) the three perceived moral distance measures, and (2) the three collective action measures represent distinct constructs. The model for perceived moral distance showed an excellent fit  $\chi^2(6) = 6.59$ ,  $p = .04$ , RMSEA = .03, CFI = 1.00, TLI = .99, SRMR = .01. Results showed that all loadings were higher than .55 and all correlation were lower than |1|, demonstrating that correlations differed significantly from perfect correlation (|1|) and therefore the constructs are empirically (as well as theoretically) distinct. Similarly, fit indexes for model including measures of collective action were excellent:  $\chi^2(6) = 7.79$ ,  $p = .25$ , RMSEA = .04, CFI = .99, TLI = .99, SRMR = .01. All loadings were higher than .85 and all correlations were lower than |1|.

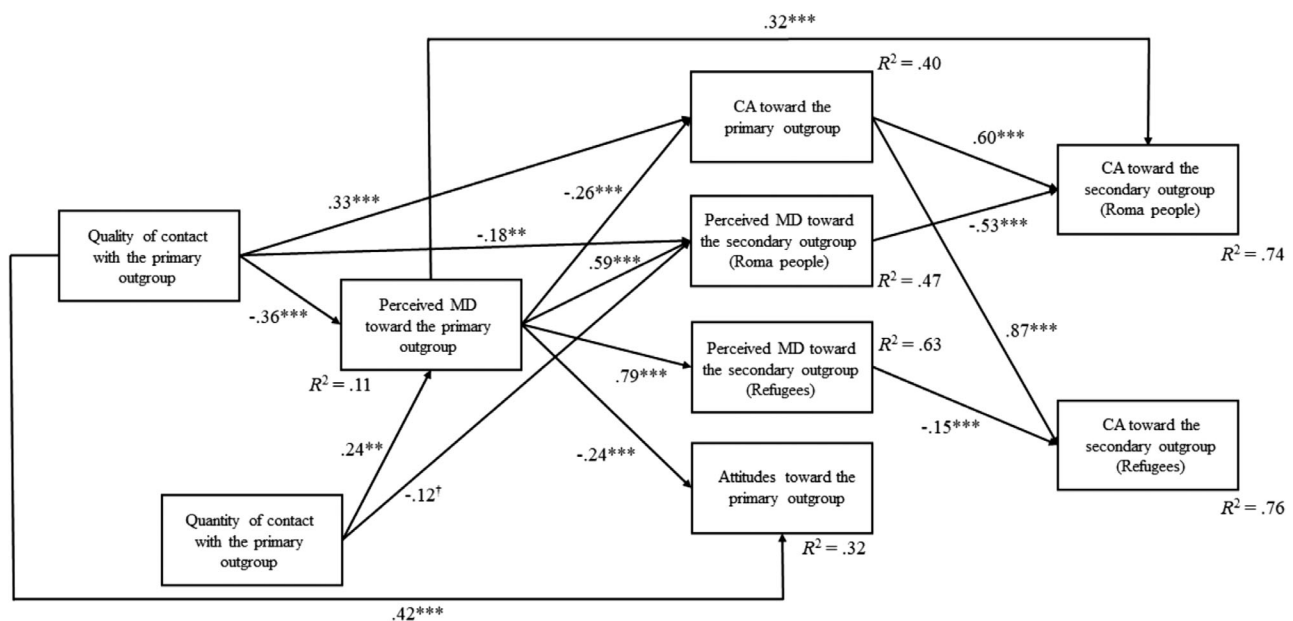
A SEM with observed variables was used for testing the hypothesized model: quantity and quality of contact with the primary outgroup were the independent variables, perceived moral distance toward the primary outgroup was the proximal mediator; collective action intentions and attitudes toward the primary outgroup, along with perceived moral distance toward the two secondary outgroups, were the distal mediators; collective action intentions toward the two secondary outgroups were the dependent variables. The direct associations from contact with the primary outgroup to distal mediators and to dependent variables were estimated; the direct path from perceived moral distance toward the primary outgroup to collective action intentions toward secondary outgroups was also included in the model. Finally, control items (contact with the two secondary outgroups) were considered as exogenous variables and their relations with the dependent variables, along with same-level variables correlations, were estimated.

The model fitted the data well,  $\chi^2(12) = 25.62$ ,  $p < .05$ , RMSEA = .08 (CI 038/.130), CFI = .98, TLI = .93, SRMR = .04. As can be seen in Figure 3, both quantity (positively) and quality (negatively) of contact with the primary outgroup were associated with perceived moral distance toward the primary outgroup; contact quality was also related to more positive attitudes and greater collective action intentions toward the primary outgroup; quality and quantity (marginally) were also related to lower perceived moral distance toward one secondary outgroup (Roma people). Perceived moral distance toward the primary outgroup was associated with all the distal mediators (positively with perceived moral distance toward secondary outgroups, and negatively with attitudes and collective action intentions toward the primary outgroup); it was also directly associated with collective action intentions toward one secondary outgroup (Roma people). Collective action intentions toward the primary outgroup were associated with greater collective action intentions toward secondary outgroups. Finally, the two perceived moral distance variables toward the two secondary outgroups were associated with collective action intentions toward the respective outgroup.

**TABLE 3** Descriptive statistics, reliability (boldface on the diagonal), and correlations between variables, Study 2 (N = 160)

Variable	M	SD	1	2	3	4	5	6	7	8	9
1 Quality of contact with the primary outgroup	3.92	0.66	<b>.85</b>								
2 Quantity of contact with the primary outgroup	2.14	0.81	.42***	<b>.85</b>							
3 Perceived moral distance toward the primary outgroup	1.99	1.21	-.26***	.09	<b>.94</b>						
4 Collective action intentions toward the primary outgroup	3.37	1.02	.45***	.25***	-.33***	<b>.84</b>					
5 Attitudes toward the primary outgroup	80.84	17.78	.52***	.25***	-.33***	.50***	<b>-</b>				
6 Perceived moral distance toward the secondary outgroup (Roma People)	2.82	1.58	-.39***	-.16*	.62***	-.40***	-.32***	<b>.95</b>			
7 Perceived moral distance toward the secondary outgroup (refugees)	1.96	1.29	-.22***	.06	.79***	-.31***	-.26***	.55***	<b>.96</b>		
8 Collective action intentions toward the secondary outgroup (Roma people)	2.85	1.50	.45***	.35***	-.22**	.75***	.43***	-.59***	-.20**	<b>.90</b>	
9 Collective action intentions toward the secondary outgroup (refugees)	3.76	1.16	.36***	.21**	-.30***	.87***	.42***	-.33***	-.33***	.66***	<b>.86</b>

Note. The response scale for all measures ranges from 1 to 5, with the exception of the measure of attitudes toward the primary outgroup, which ranges from 0 to 100. Descriptive statistics and correlations for secondary outgroups contact are available as online additional materials. \*p < .05. \*\*p < .01. \*\*\*p < .001.



**FIGURE 3** Structural equation model of the secondary transfer effect of contact on collective action (N = 160). Only significant standardized coefficients are reported (the model with unstandardized coefficients is provided in the supplementary online material). Contact with secondary outgroups and correlations between same level variables have not been reported for ease of reading (see the supplementary online material). MD = Moral distance; CA = Collective action intentions. †p < .08. \*\*p < .01. \*\*\*p < .001

As can be seen in Table 4 (for the full list of indirect effects, see the supplementary online material), we replicated the mediation effect of perceived moral distance toward the primary outgroup on attitudes and collective action intentions toward the primary outgroup observed in Study 1. We also found the mediating effect of both perceived moral distance toward secondary outgroups (marginal effect for the refugee outgroup) and collective action intentions toward the primary outgroup on the relationship between contact with the primary

outgroup and collective action in support of the secondary outgroups. Replicating results obtained in Study 1, the above indirect effects were significant for quality rather than quantity of contact.<sup>2</sup>

<sup>2</sup> The sample also includes British minorities (representing 12% of the sample), except for individuals belonging to the three target groups. To rule out the possibility that results could be due at least in part to belonging to minority groups, we re-ran analyses by only considering the majority sample (N = 143). The model showed a good adaptation to the data,  $\chi^2(12) = 21.36$ .

**TABLE 4** Significant standardized indirect effects in the hypothesized model, Study 2 ( $N = 160$ )

Predictor	First-level mediator	Second-level mediator	Dependent variable	Mean bootstrap estimate	Percentile confidence interval (95%)
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (Roma people)	CA toward the secondary outgroup (Roma people)	0.112	[0.052, 0.171]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.056	[0.015, 0.97]
Quality of contact with the primary outgroup	--	Perceived moral distance toward the secondary outgroup (Roma people)	CA toward the secondary outgroup (Roma people)	0.095	[0.016, 0.174]
Quality of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.196	[0.092, 0.300]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	--	CA toward the secondary outgroup (Roma people)	-0.114	[-0.181, -0.046]
Quantity of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (Roma people)	CA toward the secondary outgroup (Roma people)	-0.075	[-0.137, -0.014]
Quantity of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	-0.038	[-0.074, -0.001]
Quantity of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	<b>0.084</b>	<b>[0.001, 0.166]</b>
Quantity of contact with the primary outgroup	--	Perceived moral distance toward the secondary outgroup (Roma people)	CA toward the secondary outgroup (Roma people)	<b>0.062</b>	<b>[0.003, 0.121]</b>
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (refugees)	CA toward the secondary outgroup (refugees)	<b>0.042</b>	<b>[0.002, 0.083]</b>
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (refugees)	0.081	[0.020, 0.142]
Quality of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (refugees)	0.284	[0.148, 0.420]
Quantity of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (refugees)	<b>-0.055</b>	<b>[-0.101, -0.009]</b>
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (Roma people)	--	-0.212	[-0.311, -0.112]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (refugees)	--	-0.282	[-0.418, -0.146]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	--	0.093	[0.023, 0.164]

(Continues)

TABLE 4 (Continued)

Predictor	First-level mediator	Second-level mediator	Dependent variable	Mean bootstrap estimate	Percentile confidence interval (95%)
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Attitudes toward the primary outgroup	--	0.084	[0.013, 0.156]
Quantity of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (Roma people)	--	0.143	[0.033, 0.253]
Quantity of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (refugees)	--	0.190	[0.049, 0.331]
Quantity of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	--	<b>-0.063</b>	<b>[-0.116, -0.010]</b>
Quantity of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Attitudes toward the primary outgroup	--	<b>-0.057</b>	<b>[-0.111, -0.007]</b>

Note. CA = collective action intentions. Mean bootstrap estimates are based on 5,000 bootstrap samples. Boldface indicates a marginally significant indirect effect (90% CI).

Surprisingly, we observed unpredicted negative effects of quantity of contact toward the primary outgroup. Specifically, quantity of contact was found to be indirectly associated with lower collective action intentions toward secondary outgroups via the hypothesized mediators due to its positive association with greater perceived moral distance toward the primary outgroup (note that we obtained a lower number of indirect effects for quantity than for quality of contact, and some of these were marginal). A possible explanation is that, the contact quantity measure being neutral with respect to contact valence, some of the participants' responses may have referred to *negative* contact; the ambiguity of the contact quantity measure with respect to contact valence is likely to be reflected in the lower number of indirect effects emerged and in their weakness.

Taken together, the collective findings of Studies 1 and 2 demonstrate evidence for our proposed model. To ensure that we are confident regarding these effects we further tested our model in Study 3 with a larger sample and removing the concerns regarding shared variance in Study 2.

## 5 | STUDY 3

Study 3 was conducted in Italy. Participants were Italians, immigrants represented the primary outgroup and Roma people, and gay and lesbian people represented the secondary outgroups. Constructs and hypotheses were the same as in Study 2. In this case, however, to avoid shared method variance, we used different measures to assess collec-

tive action intentions toward primary and secondary outgroups. We also recruited a larger sample to test hypotheses with a SEM model with latent variables.

The sample size was increased to enable us to test a SEM with eight latent variables (2 observed indicators each) and three observed variables. An a priori power analysis indicated 400 participants to be the minimum sample size allowing a power of 80% for detecting a small to medium effect size. In addition, similarly to Study 2, a power analysis, using Monte Carlo simulations (10,000), considering both coefficients and variances from the previous study, confirmed the adequacy of our sample.

### 5.1 | Method

#### 5.1.1 | Participants and procedure

From the initial sample of 452 participants, using items to assess the groups to which the participants belonged as described in Studies 1 and 2, we excluded 11 respondents who declared that they were Italians with two non-Italian parents, and 35 respondents who declared that they belonged to one of the three target outgroups (or did not indicate whether they belonged to these outgroups). No participants were removed due to missing data. The final sample included 406 Italian participants (i.e., with at least one Italian parent), declaring that they were not members of the target outgroups (239 female, 165 male, two missing data). The age ranged from 18 to 79 years old ( $M_{age} = 36.35$ ,  $SD = 13.72$ ).

Trained university students contacted participants, spreading an online questionnaire via e-mail, messaging apps, or social networks.

$p < .05$ , RMSEA = .07, CFI = 0.99, TLI = .95, SRMR = .05. The general pattern of findings does not change.

**TABLE 5** Descriptive statistics, reliability (boldface on the diagonal), and correlations between variables, Study 3 ( $N = 406$ )

Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1 Quality of contact with the primary outgroup	3.68	0.77	<b>.88</b>								
2 Quantity of contact with the primary outgroup	2.12	0.88	.48***	<b>.79</b>							
3 Perceived moral distance toward the primary outgroup	2.45	1.09	-.31***	-.12*	<b>.92</b>						
4 Collective action intentions toward the primary outgroup	2.93	1.15	.53***	.36***	-.36***	<b>.87</b>					
5 Attitudes toward the primary outgroup	63.79	26.11	.58***	.38***	-.49***	.66***	-				
6 Perceived moral distance toward the secondary outgroup (Roma People)	3.62	1.25	-.17***	-.14**	.48***	-.31***	-.31***	<b>.95</b>			
7 Perceived moral distance toward the secondary outgroup (gay and lesbian people)	1.41	0.85	-.17***	.01	.35***	-.12*	-.15**	.09 <sup>†</sup>	<b>.93</b>		
8 Collective action intentions toward the secondary outgroup (Roma people)	2.48	1.58	.43***	.32***	-.29***	.69***	.60***	-.45***	-.03	<b>.92</b>	
9 Collective action intentions toward the secondary outgroup (gay and lesbian people)	3.53	1.26	.29***	.12*	-.23***	.51***	.39***	.13**	-.25***	.40***	<b>.89</b>

Note. The response scale for all measures ranges from 1 to 5, with the exception of the measure of attitudes toward the primary outgroup, which ranges from 0 to 100. Descriptive statistics and correlations for secondary outgroups contact are available as online additional materials. <sup>†</sup> $p < .07$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Before starting the study, the purpose of the study was explained to participants, and they were told that anonymity was guaranteed, and that they could leave the study at any time. The participants provided informed consent; we also provided them with a contact reference. Participants did not receive any compensation for their participation. At the end of the survey, a final section was created to debrief and thank participants.

### 5.1.2 | Measures

The same measures used in Study 1 were included, with two differences: (1) we considered two secondary outgroups (Roma people, and gay and lesbian people); (2) an evaluation thermometer as in Study 2 was used to assess attitudes toward the primary outgroup; and (3) perceived moral distance toward secondary outgroups was assessed by using the same items used for the primary outgroup (see the [supplementary online material](#)).<sup>3</sup>

## 5.2 | Results

For each variable, a composite score was created by averaging the respective items. Descriptive statistics, reliability, and correlations are reported in Table 5 (the full Table including correlations with control variables is presented in the [supplementary online material](#)).

The hypothesized model was tested employing a SEM model with latent factors. For each latent variable, two parcels were computed

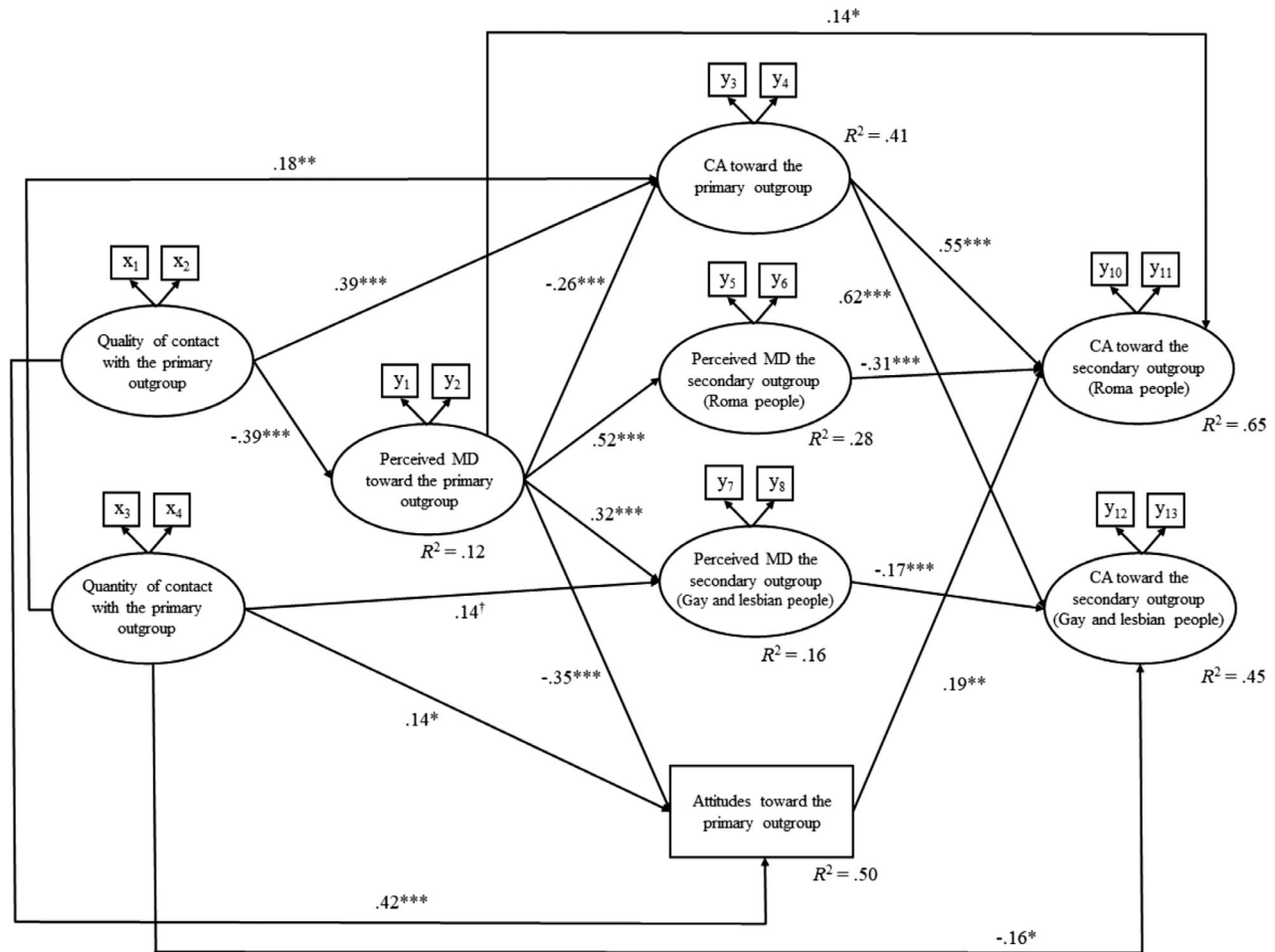
following the “item-to-construct balance” method (Little et al., 2002),<sup>4</sup> except for attitudes toward the primary outgroup, consisting in a single item that has been kept observed in the analysis (standardized factor loadings are provided in the [supplementary online material](#)).

The model is similar to the one tested in Study 2, with the difference being that latent variables were used instead of observed variables. The model showed good fit to the data,  $\chi^2(110) = 232.86$ ,  $p < .001$ , RMSEA = .05, CFI = .98, TLI = .97, SRMR = .04 (CI .043/.062). The results are presented in Figure 4. Quality of contact with the primary outgroup was negatively associated with perceived moral distance toward the primary outgroup; direct paths also emerged between contact quality and greater collective action intentions and more positive attitudes toward the primary outgroup. Quantity of contact with the primary outgroup was positively related to attitudes and collective action intentions toward the primary outgroup; residual paths also emerged between quantity of contact and greater perceived moral distance (marginal effect) and lower collective action intentions toward one secondary outgroup (gay and lesbian people).

Regarding the proximal mediator, perceived moral distance toward the primary outgroup was positively associated with the four distal mediators—that is, positively associated with perceived moral distance toward secondary outgroups, and negatively associated with attitudes and collective action intentions toward the primary outgroup. A direct association between perceived moral distance toward the primary outgroup and collective action intentions toward one secondary outgroup (Roma people) also emerged.

<sup>3</sup> In the [supplementary online material](#) we also include additional measures used in the studies with exploratory purposes.

<sup>4</sup> First, for each construct, two initial parcels were computed by selecting the two items with the highest loadings, which became the anchors for the other items; second, the two items with the next highest loadings were added to the anchors in an inverted order (i.e., the item with the highest loading was combined with the parcel with the lowest loading). This iterative procedure was concluded when, for each construct, all items were combined into parcels.



**FIGURE 4** Structural equation model of the secondary transfer effect of contact on collective action ( $N = 406$ ). Only significant standardized coefficients are reported (the model with unstandardized coefficients is provided in the [supplementary online material](#)). Contact with secondary outgroups and correlations between same level variables have not been reported for ease of reading (see the [supplementary online material](#)). MD = Moral distance; CA = Collective action intentions.  $\dagger p < .08$ .  $*p < .05$ .  $**p < .01$ .  $***p < .001$

Finally, attitudes toward the primary outgroup were positively associated with collective action intentions toward one secondary outgroup (Roma people); the two perceived moral distance variables toward the two secondary outgroups were negatively associated with collective action intentions toward the respective outgroup; collective action intentions toward the primary outgroup generalized to collective action intentions toward the two secondary outgroups.

As noted in Table 6 (the full list of indirect effects is provided in the [supplementary online material](#)), with respect to contact quality, we obtained full support for perceived moral distance toward secondary outgroups, and for collective action intentions toward the primary outgroup, as mediators of the STE. We also obtained some evidence for attitude generalization (except that attitudes toward the primary outgroup did not mediate the indirect effect of quality of contact on collective action intentions toward one of the two secondary outgroups—gay and lesbian people).

Contact quantity was weakly indirectly associated with greater collective action intentions toward secondary outgroups via more positive collective action intentions toward the primary outgroup; however, no

evidence was found for perceived moral distance as a mediator of contact quantity; the indirect effect via more positive attitudes toward the primary outgroup only emerged toward one secondary outgroup (Roma people) and was marginal.

In sum, the results fully replicated findings of the two previous studies, providing consistent evidence for collective action intentions and perceived moral distance as the processes underlying the indirect effects of contact quality on collective action intentions toward secondary outgroups. Evidence was much more limited for quantity of contact, also showing negative effects of contact quantity as in Study 1. As we argued in Study 2, these may reflect negative contact experiences reported by some of the participants, leading to mixed and weak results. These findings support the importance of interventions that focus on *positive* contact (Davies et al., 2011; Pettigrew, 1997).<sup>5</sup>

<sup>5</sup> In all the three studies, to ensure that results were not affected by non-normality of the data, the analyses have been replicated by using the maximum likelihood estimation with robust errors (MLR). As MLR does not provide bootstraps, indirect effects were calculated as the product between the coefficients of the predictor to mediator and the mediator to outcome variable relationships. The general pattern of findings does not change.

**TABLE 6** Significant standardized indirect effects in the hypothesized model, Study 3 ( $N = 406$ )

Predictor	First-level mediator	Second-level mediator	Dependent variable	Mean bootstrap estimate	Percentile confidence interval (95%)
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (Roma people)	CA toward the secondary outgroup (Roma people)	0.062	[0.028, 0.096]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.054	[0.021, 0.088]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Attitudes toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.026	[0.005, 0.047]
Quality of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.216	[0.120, 0.311]
Quality of contact with the primary outgroup	--	Attitudes toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.080	[0.026, 0.134]
Quantity of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (Roma people)	0.097	[0.022, 0.173]
Quantity of contact with the primary outgroup	--	Attitudes toward the primary outgroup	CA toward the secondary outgroup (Roma people)	<b>0.027</b>	<b>[0.003, 0.052]</b>
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Perceived moral distance toward the secondary outgroup (gay and lesbian people)	CA toward the secondary outgroup (gay and lesbian people)	0.021	[0.005, 0.038]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	CA toward the secondary outgroup (gay and lesbian people)	0.061	[0.023, 0.100]
Quality of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (gay and lesbian people)	0.243	[0.140, 0.345]
Quantity of contact with the primary outgroup	--	CA toward the primary outgroup	CA toward the secondary outgroup (gay and lesbian people)	0.110	[0.025, 0.194]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	CA toward the primary outgroup	--	0.099	[0.043, 0.154]
Quality of contact with the primary outgroup	Perceived moral distance toward the primary outgroup	Attitudes toward the primary outgroup	--	0.136	[0.074, 0.198]

Note. CA = collective action intentions. Mean bootstrap estimates are based on 5,000 bootstrap samples. Boldface indicates a marginally significant indirect effect (90% CI).

## 6 | GENERAL DISCUSSION

We conducted three studies in two different contexts (Italy and the United Kingdom), showing that the STE also operates for collective action. First, we found that the effects of quality of contact with the primary outgroup generalized to greater intentions to engage in collective action on the behalf of a variety of disadvantaged groups. The finding that the STE also applies to challenging attitudes like intentions to

restore social equality is extremely encouraging for contact research, in addition to being an important finding for STE research more specifically. It is worth noting that effects mainly emerged for quality of contact; effects for quantity of contact were mixed, lower in number and in size, in line with research showing the importance of focusing on the quality rather than on the amount of contact (Davies et al., 2011; Pettigrew, 1997). Importantly, our results in support of the STE for collective action extend earlier preliminary work (Cernat, 2019;



Schulz & Taylor, 2018) whilst using important controls to increase the reliability of STE findings. This includes statistically controlling for contact with secondary outgroups and using different measures to assess attitudes (in our case, collective action intentions) toward primary and secondary outgroups.

A further contribution of the present research is the identification of perceived moral distance as a mediator of the relationship between contact and collective action toward both primary and secondary outgroups. In Study 1, we showed for the first time that perceived moral distance toward the primary outgroup mediates contact effects on attitudes and collective action toward the primary outgroup, and in turn collective action toward secondary outgroups. This finding not only adds to previous scarce research on the interplay between contact and morality (Jasinskaja-Lahti et al., 2021) and, specifically, to morality as mediator of contact (Brambilla et al., 2013; Vezzali et al., 2020). It also extends it, by identifying a new morality dimension (perceived moral distance) that helps explain why contact reduces prejudice and promotes advantaged group members' engagement in collective action toward both primary and secondary outgroups. Results from Studies 2 and 3 further revealed that perceived moral distance (toward both primary and secondary outgroups) favours the generalization of intentions to engage in collective action to secondary outgroups, therefore spreading the search for intergroup equality. To the extent that the ingroup is perceived as morally similar to primary and secondary outgroups, the outgroups are granted the right to be treated the same as the ingroup, leading individuals to be willing to engage in actions to achieve intergroup equality.

The latter finding has different theoretical implications for existing theories. In an integration of the popular social identity model of collective action (Van Zomeren et al., 2008, 2012), Van Zomeren et al. (2018) pointed out the key role of morality for promoting collective action, and specifically the need to identify different types of moral beliefs. Further, they indicated as especially relevant the examination of morality *violations* to motivate individuals to act. Consistently, we identified perceived moral distance as a new dimension that allows contact to promote collective action. The fact that increased moral similarity motivated individuals to engage in collective action (in terms of intentions) suggests that they perceived some type of violation of outgroup moral rights, which deserved action to restore social equality. We did not assess whether it was a violation that motivates collective action, however; future studies can test this hypothesis directly. Still, this study contributes to research on the multiple ways in which morality could be incorporated into collective action research.

We note that, in both Studies 2 and 3, a residual positive association between perceived morality toward the primary outgroup and collective action intentions toward the Roma secondary outgroup emerged (see Figures 3 and 4). Possibly, perceiving moral distance toward the primary outgroup somehow highlighted the contrast with the Roma group in a way favourable to Roma, resulting in a positive association with greater intentions to engage in collective action. The same residual association (estimated with exploratory purposes), however, was negative in Study 1 (Figure 2), and in both studies 2 and 3 the raw correlation between the two measures was negative (see Tables 3 and 5). We therefore suggest caution in interpreting this finding.

It could be argued that contact may foster the adoption of a superordinate representation including ingroup and outgroup (Gaertner & Dovidio, 2000), which in turn allows (former) outgroup members to be perceived as morally similar to the ingroup. Preliminary evidence for this can be found in a correlational study by Cocco et al. (2022), who showed that advantaged group members' contact with the disadvantaged group was associated with greater one-group perceptions and in turn higher attribution of morality to outgroup members; finally, greater outgroup morality was associated with higher intentions to engage in collective action. Possibly, in the present research, one-group perceptions entered the process, allowing recognition of moral similarity with the outgroup. Future studies should illuminate the role of one-group perceptions in predicting perceived moral distance.

As a further theoretical implication, lowering perceived moral distance not only toward the primary outgroup, but also in turn toward secondary outgroups, implies a reconceptualization of ingroup morality. This consideration taps into the concept of deprovincialization proposed by Pettigrew (1998), based on the idea that contact allows a less provincial view of ingroup customs and traditions, making embracing other cultures more likely. In other words, contact can broaden one's horizons, leading to attitude change toward outgroups. Deprovincialization, operationalized as ingroup attitudes (Tausch et al., 2010, Studies 2–4), ingroup identification (Schmid et al., 2013), collective self-esteem (Tausch et al., 2010, Study 1), has received mixed support in STE research. Future studies may consider an operationalization of deprovincialization based on perceived moral distance and evaluate its role in the STE.

Pettigrew and Meertens (2005) investigated subtle prejudice as the perceived differences in values between ingroup and outgroup members. We argue that perceived moral distance can be similarly intended as a subtle perception leading to outgroup discrimination. In this sense, avoiding engaging in collective action might be intended as a subtle form of discrimination: individuals in this case do not act openly against the outgroup, but avoid to engage actively in its support. It is therefore important that future research also investigates constructs that may increase perceived moral distance, like negative contact.

A third theoretical implication relates to the concept of generalized prejudice proposed by Akrami et al. (2011) (see also Allport, 1954; Zick et al., 2008). The authors suggested that prejudice toward a variety of outgroups can have a common component, independent of the specific characteristic of each group. Vezzali and Stathi (2021, Chapter 6) (see also Vezzali et al., 2021) argued for the relevance of the concept of generalized prejudice for STE research: to the extent that the STE consists in generalizing contact experiences to several outgroups, it may impact on the common component of prejudice. Vezzali et al. (2021) differentiated mediators of the STE into three categories: referred to the outgroup, referred to the ingroup, referred to the self. To the extent that tests of morality perceptions in STE research have generally referred to perceptions of *outgroup* morality, morality was included in the category of mediators referred to the outgroup. The type of morality investigated in the three studies that we presented cannot be included in one of these categories. Instead, it falls between mediators referred to the ingroup and mediators referred to the outgroup. In other words, perceived moral distance represents a bridge between

contact and the primary and secondary outgroups. We argue that perceived moral distance can create the premises for the reduction of generalized prejudice (see also Forsberg et al., 2019). By acting simultaneously on morality perceptions regarding ingroup and outgroups, it allows a general reconceptualization of the ingroup in relation to outgroups. This should, on one side, lower the motivational forces sustaining generalized prejudice, and on the other side, should lead to the perception of a variety of outgroups as moral, favouring the process of prejudice reduction. Future studies should test these hypotheses, using measures of outgroup attitudes and generalized prejudice.

We also provided the first evidence for collective action toward the primary outgroup as a mediator of the STE using collective action toward secondary outgroups as the dependent variable. Specifically, willingness to engage in collective action toward the primary outgroup stemming from contact was associated with greater intentions to act to promote the interest of secondary outgroups. To the extent that collective action intentions toward the secondary outgroup represented our focal variable, collective action toward the primary outgroup served the function that attitudes toward the primary outgroup generally have in STE research (note that the validity of the finding is reinforced by the fact that we used different measures to assess collective action intentions toward primary and secondary outgroups in two of our three studies). This finding is in line with research showing that generalization is stronger when objects (in our case, psychological constructs) are similar (Fazio et al., 2004).

Finally, we obtained only weak evidence for attitude generalization. Although seemingly in contrast with STE research, this finding is not surprising. As we argued above, part of the reason why attitude generalization emerged as the main mechanism underlying the STE relates to the fact that outgroup attitudes generally represented the focal dependent variable. In other words, the overwhelming evidence of attitudes toward the primary outgroup as a mediator of the STE may be at least in part a function of its conceptual similarity with the classic outcome variable of STE research (i.e., attitudes toward the secondary outgroup). Nonetheless, we argue that having found mediating effects of perceived moral distance, and collective action intentions, against this relevant mediator provides especially strong support to the present findings.

Although we considered attitudes toward the primary outgroup, we did not consider other relevant mediators identified by research on the STE, such as intergroup emotions (see Vezzali et al., 2021). This is especially relevant when considering that other mediators, like for instance intergroup emotions, can act as more proximal mediators, while perceived moral distance toward secondary outgroup may represent a distal mediator. Future research, especially longitudinal research, may help clarify this point.

Pettigrew and Hewstone (2017) warned against the role of third variables that may account for contact effects. In the case of the present research, it may be possible that generalization of collective action from primary to secondary outgroups depends at least in part on third variables, like justice orientation, universalistic values, openness to experience, perceived efficacy of collective action, right-wing authoritarianism, etc. However, experimental (e.g., Becker & Wright,

2021) and longitudinal (e.g., Reimer et al., 2017) research on contact and collective action shows that contact has a causal effect on collective action (toward the primary outgroup); at least part of collective action engagement can therefore depend on contact and as a consequence, at least a part of the association between collective action toward primary and secondary outgroup should be a function of contact. A theoretically interesting question, however, is not only whether these effects emerge when controlling for similar variables but also whether this deepens the understanding of generalization processes. Specifically, future research might explore which variables moderate the generalization process and in particular the association between collective action toward primary and secondary outgroup.

A further point of development concerns the fact that the secondary outgroups considered in the present research vary in the degree to which they are disadvantaged. This has the advantage of enabling us to be more confident regarding the extent to which our findings can be extended to groups varying in social status. On the other hand, however, we did not systematically investigate the role of social status in the present research. As stated in the review in the STE by Vezzali et al. (2021), formally investigating the role of social status is an important future direction, to understand the potential but also the boundary conditions of the STE.

Taken together, the studies conducted as part of the present research have important practical as well as policy implications. The fact that interventions based on contact theory can reduce prejudice toward a wide range of stigmatized groups opens the door to a generalized reduction of prejudice in national and potentially supranational contexts (depending on the intervention conducted). However, it also suggests that contact can foster *mobilization* toward a wide range of disadvantaged groups. In other words, contact can represent a *practical* first step toward the achievement of social equality. For instance, findings reveal consistent effects on a group that commonly experiences discrimination in the EU like the Roma. Given the difficulty of identifying shared strategy at the EU level to foster the integration of Roma communities, we believe that contact can represent a fruitful avenue. For instance, contact interventions may be conducted at national and supranational levels with policies to promote contact with diversity (e.g., in school contexts and also with dedicated events) or through the media, relying on indirect forms of contact (White et al., 2021).

Despite the contributions of the present research, we acknowledge that there are some limitations associated with our research. First, the studies presented are correlational, therefore we cannot make any causal conclusions. We note, however, that previous experimental and longitudinal research has provided strong support for the causal role of contact in the STE (Vezzali et al., 2021). Second, the present studies focused only on advantaged groups, so findings cannot be generalized to disadvantaged group members. Whether contact can have sedative effects among disadvantaged groups, that is it can inhibit collective action (Dixon et al., 2007). Future research should focus on disadvantaged groups and test whether and when STE of mobilizing or sedative effects emerges. Third, contact toward secondary outgroups was assessed with suboptimal single-item measures assessing contact quantity, whereas contact toward the primary outgroups was assessed

with multiple-item measures of quantity and quality of contact; results could possibly be weaker with stronger assessments of contact toward secondary outgroups. Although this choice was taken only to control for previous encounters and reduce the length of the questionnaire, future studies should use more reliable measures of contact toward secondary outgroups. Fourth, secondary outgroups may be partially overlapping with primary outgroups, raising doubts on whether effects were driven by generalization rather than partial inclusiveness. This is true, for instance, in Studies 2 and 3, with the primary outgroups of Eastern immigrants (Study 2) and immigrants in general (Study 3) overlapping with the Roma secondary outgroup. We note, however, that inclusiveness is not total, with Roma not being fully included in the group of people from the East (which is much larger) or in immigrant groups (for instance, many Roma communities are Italian). This reasoning is indirectly reflected in associations between variables, which are moderate when considering perceived moral distance; although they are stronger for collective action measures, they still are empirically distinct. Nonetheless, future studies might further extend the present results by considering the extent of reciprocal inclusiveness between primary and secondary outgroups. Fifth, some of the indirect effects are small (see Tables 2, 4, and 6), suggesting caution in the interpretation of findings. Finally, the research is based on convenience samples, which seriously limits the extent to which our conclusions can be generalized.

In conclusion, we have shown in the present research that the STE is also effective for collective action among advantaged group members, and that perceived moral distance, as well as collective action intentions, act as consistent underlying mechanisms. We believe that examining the factors and psychological processes favouring the commitment to actions that aim to support disadvantaged groups is a worthy endeavour that can increase understanding of ways to promote social equality.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## DATA AVAILABILITY STATEMENT

The dataset is available at the following link: [https://osf.io/24qus/?view\\_only=ed4a36abfff44db0a15bc8a134f1fc51](https://osf.io/24qus/?view_only=ed4a36abfff44db0a15bc8a134f1fc51).

## ETHICS STATEMENT

The research was conducted in accordance with APA ethical guidelines. University of Bristol provided ethical approval for the UK study.

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## SUPPORTING INFORMATION

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