Article

Ingroup Identification, Outgroup Infrahumanization, and Intention to Mobilize in Land Use Conflicts

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Abstract
Based on the application of a social psychology intergroup perspective to the analysis of people–place relationships, we conducted an experimental study in the context of a land use conflict revolving around the construction of a bridge over the Messina Channel (Italy). We aimed to analyze the relations between the salience of the identification with the ingroup defined by being pro- versus antibridge, outgroup infrahumanization, and the intention to mobilize in the conflict. In two community samples, from Reggio Calabria, where the structure should be placed ($n = 107$), and from Sciacca, which is more than 200 kilometers away from it ($n = 100$), the salience of ingroup identification influenced the intention to mobilize via the partial mediation of outgroup infrahumanization. The attitude toward the bridge and the distance from it did not moderate the paths that we have analyzed. Strengths, limitations, and implications for environmental psychology research are discussed.

Keywords
psychology, attitudes, participation, experiment, environmental psychology, land use conflicts; intergroup conflict; infrahumanization, ingroup identification

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Place-identity processes in land use conflicts have mainly been addressed based on the idea that changes in community environmental features might provoke changes in residents' identity (Breakwell, 1986), thus reshaping the psychological relationship between individuals and places. Studies concerned with oppositions to the construction of infrastructures and facilities, such as those carried out by Devine-Wright (2013), specifically suggested that such opposing behaviors should be viewed as forms of place-protective actions rooted in residents' place attachment and identity.

However, people–place relations are also shaped by interpersonal dynamics and are used to negotiate specific interests, ranging from identitarian to economic (Batel et al., 2015). Environmental psychology research has been giving increasing attention to the sociocultural meanings associated with the environment, which are created within groups and negotiated through intergroup comparison (e.g., Batel et al., 2015; Di Masso, Dixon, & Pol, 2001; Hauge, 2007). For instance, in a study conducted among Australian university students, Dono, Webb, and Richardson (2010) found that social identification with a group of environmentalists predicted environmental activism through the mediation of the citizenship component of environmental behavior. Moreover, Ferguson, Branscombe, and Reynolds (2011) have shown that intergroup comparison can be strategically employed to promote motivation to perform sustainable behavior, such as sustainable transport choices, energy, and water conservation. Finally, examining the psychological consequences of climate change threats for intergroup conflicts, Fritsche, Cohrs, Kessler, and Bauer (2012) found that reminding German and British people of the threatening consequences of climate change increased the expression of authoritarian attitudes and the derogation of deviant groups.

Taken together, these studies suggest that group processes and intergroup dynamics play an important role in shaping people–place relationships and, conversely, that such relationships are interrelated with a variety of nonenvironmental variables. Building on these premises and adopting an intergroup dynamics approach, in this article we have focused on ingroup identification and outgroup infrahumanization to examine the case of a land use conflict arising from the planned siting of a high-impact structure.

Conflicts Over Land Use

The decision-making process of land use for facilities and infrastructures is often accompanied by relatively sharp conflicts at the sites identified by planners, proponents, or decision makers. Such conflicts always imply an environmental component, to a greater or lesser extent, and they have the same general dynamics as environmental conflicts (Bullard, 2000).

A variety of factors and processes underlie land use conflicts. Studies based on the paradigms of human geography, planning, and environmental politics have shown that such conflicts may occur because of divergences in how developers and residents perceive the value of a project, in their potentially conflicting interests, and in the costs-to-benefits ratio of the project in question. The most recurrent triggers of conflict over land use are connected to environmental injustice factors. Residents may legitimately demand to be treated fairly by both the developers and the authorities (an exemplar of relational justice), and to be significantly involved in all of the decisions in play (Bullard, 2000). This demand is apparently connected to issues of trust with the authorities, decision makers, and developers, especially in cases where perceptions of injustice are related to noninclusive actions taken by government agencies and decision makers (Gross, 2008). Moreover, residents can feel that the risks for health and the environment are beyond the threshold of acceptability and oppose foreseen detrimental changes in quality of life and well-being (Wu, Zhai, Li, Ren, & Tsuchida, 2014). However, individual differences are not relevant to risk perception, whereas perceived environmental injustice and norms for equity and fairness are (Wolsink & Devilee, 2009). In conclusion, conflicts seem to develop more because of the failure of institutional agencies to build social acceptance than because of the lack of community acceptance (Wolsink, 2010).

As apparent from this brief review, a conspicuous part of the research on siting and land use conflicts has attempted to examine the factors that are likely to trigger resistance from communities and to drive residents to protest. Oddly, this strand of research has for the most part proceeded independently of psychosocial studies on collective action and the psychology of protest, although the single variables used as predictors in collective action models have also been considered in land use conflict studies. For instance, political efficacy was found to predict opposition to wind farms, some studies showed that sense of injustice explained resistance, and the opposition to waste infrastructure facilities was shown to be affected by the norm of commitment to others, which is closely related to ingroup identification (e.g., Devine-Wright, 2013; Gross, 2008; Wolsink & Devilee, 2009).

Building on the psychosocial model of collective action proposed by Klandermans (1997) and subsequently developed by Van Zomeren, Postmes, and Spears (2008), Mannarini, Roccato, Fedi, and Rovere (2009) showed that, in the case of a conflict over a new transport infrastructure, three main predictors of collective action operated. These predictors, namely social identity, perceived group efficacy, and sense of injustice, played an important role in mobilizing people against the planned structure, against those who supported it, and in favor of those who opposed it. Of these three factors,

social identity, that is, the outcome of the identification process with a group that is actively engaged to defend its own position or with a group that has similar opinions about a relevant social issue, received the soundest empirical confirmation as a predictor.

In land use conflicts, opinions toward a planned structure generate opinion-based groups, whose members share similar views on that social issue and are often actively engaged to defend their own positions. When a group is defined by a shared opinion, this opinion becomes an important basis for collective self-definition for its members (Bliuc, McGarty, Reynolds, & Muntele, 2007). Therefore, opinion-based groups can become psychologically meaningful for their members, allowing them to develop a specific portion of their social identity and thus become an important source of self-esteem, and providing feelings of membership and safety, whereas outgroups may elicit feelings of competition and opposition (Tajfel & Turner, 1979). Despite the fact that conflicts over new infrastructures involve at least two parts, research on public opinion has mainly focused on opponents and their supporters and neglected to investigate the motives and perceptions of proponents and of those who are in favor of the planned structure.

The Relevance of Intergroup Perspective in Land Use Conflicts

The features of conflicts over new infrastructures/facilities definitely call for an intergroup approach with focus on intergroup bias, which most social psychologists assume develops from the basic process of social categorization. Indeed, the most convincing literature on this topic (see, among others, Burningham, Barnett, & Thrush, 2006; Wolsink, 2012) has made it clear that opponents to new projects are often stigmatized by proponents, by the mass media, and even by common citizens who are in favor of the new structure, and that this stigmatization serves as a form of outgroup derogation. However, these studies did not fully develop the implications of such a bias from a genuine intergroup perspective. Moreover, they neglected that, in the public, both people who are in favor of and who oppose new projects may stigmatize the counterpart.

Public opinion studies on land use conflicts that have explicitly integrated social psychology and environmental psychology paradigms have only recently given full attention to the intergroup perspective. Mannarini, Roccato, and Russo (2015) found that both opponents and supporters of a high-speed railway project were subjected to the false consensus effect, that is, to the cognitive bias of overestimating the number of people who shared their opinion, plausibly to foster their self-esteem through an increase in the

perceived accuracy and correctness of their own position. They also found that perceived consensus mobilized people to defend their ingroup, even if they tested this path only among opponents. In the same vein, Roccato, Orazio, and Mannarini (2015) focused on the ingroup overexclusion effect, that is, the propensity to include in the outgroup the people whose position is unknown or ambiguous. In their study, the ingroup overexclusion effect fostered the tendency for both parts involved in the same land use conflict that was studied by Mannarini et al. (2015) to actively engage in pro-ingroup actions. Finally, Gray (2003) showed that, in environmental conflicts, the process of group identification is as important as the process of outgroup connotation, and that outgroups can be perceived as a single "enemy" in spite of the diversity of the positions that their members typically hold. This type of friend-enemy pattern in land use conflicts can engender not only ingroup favoritism but also outgroup derogation and harsh intergroup bias.

The social psychology literature has recently identified dehumanization as an intergroup bias, which involves the categorization of individuals in the outgroup as being outside the boundaries of the human community. Dehumanization can assume different forms, ranging from the most extreme in contexts of violence, genocide, and war, to subtler and ordinary forms, such as infrahumanization, that is, the consideration of outgroup members as more animal-like and less human-like than ingroup members. In particular, Leyens and colleagues (2003) have shown that people tend to attribute uniquely human emotions (for instance, optimism, sorrow, etc.) more frequently to the ingroup than to the outgroup, independent of their valence. Infrahumanization emerges in different intergroup domains and may affect overt behaviors. For instance, it reduces the willingness to help a social target when in trouble, both in intergroup (Carella & Vaes, 2006) and interpersonal relations (Baldry, Pacilli, & Pagliaro, 2015), and even fosters discrimination, aggression, and violence toward the members of the outgroup (Viki, Osgood, & Phillips, 2013). In the present study, we have built on these findings to suggest not only that infrahumanization is an intergroup bias that is likely to occur in conflicts over land use, but also that it may affect both sides' intention to mobilize in favor of one of the conflicting parties. Although it does not imply any form of outgroup derogation or discrimination, such an intention sets the premise for long-term confrontational dynamics.

Land use and environmental conflicts share the fundamental elements that characterize all conflicts: the confrontation between two or more actors, their interdependence, the importance of how they perceive and frame the situation, and the need for communication (Daniels & Walker, 2001). Intergroup conflict is far stronger in relational groups, whose members define themselves based on the differences between them and a specific outgroup (Hinkle & Brown, 1990).

Opinion-based groups, which are the focus of the present research, are by definition relational groups. They are characterized by opposing objectives and compete with each other to achieve them. Although conflict is not a necessary condition for the occurrence of infrahumanization, when conflict is present, it increases the probability of infrahumanizing the outgroup (Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007). Moreover, in a vicious circle, the denial of the opponent's humanity during a conflict constitutes a crucial mechanism in the continuation of that conflict (Oren & Bar-Tal, 2007). Therefore, the intergroup-relations context of conflicts over land use offers an interesting opportunity to examine this form of outgroup derogation in more depth.

Context of the Study

The context for our research was an Italian conflict concerning the construction of a bridge over the Messina Channel, dividing mainland Italy from Sicily. The first idea to build such a bridge dates back to the time of the Roman Empire, and reemerged periodically in the following centuries (Jorio, 1999). In 1969, an international competition was announced, aimed at selecting the best bridge project, and the four best projects were rewarded. In subsequent years, the often-changing Italian governments displayed contradictory behaviors toward the bridge: Right-wing governments tried to begin the work, while left-wing governments interrupted the procedures to commence it. At present, a definitive project exists, according to which the bridge would be 3.660 kilometers long and 60 meters wide, with four railway lines, six highway lanes, and two hard shoulders. In spite of this, the work was never begun—consistent with the explanation offered by Aitken, McDonald, and Strachan (2008), more because of the inefficacy of the strategies used by the project's sponsors than because of the strength of the local objectors. The population was not involved in the decisional process in any of these phases, and both the sponsors of the project and the interest groups opposing the bridge systematically resorted to a technocratic, top-down Decide-Announce-Defend approach, even if the literature has systematically shown that such approaches are characterized by environmental injustice (e.g., by lack of recognition of affected groups, lack of procedural justice, and problems concerning distributional justice: see, among others, Gibson, 2005; Wolsink, 2010). In the last few decades, Italian public opinion has polarized on the attitude toward the bridge. In 2006, 47.1% of the Italians were in favor of and 52.9% were against the structure. The same percentages held true for the population living in or nearby the location where the bridge is supposed to be built, where a conflict arose between residents with favorable and unfavorable opinions (Campana, Dallago, & Roccato, 2007).

Aims of the Study

In the present study, we aimed to examine a conflict over the construction of a new infrastructure from the perspective of social identity theory. Adopting an experimental research design, we analyzed the relationship between salience of ingroup identification and willingness to mobilize in the future in favor of or against a planned structure, examining the mediating role of outgroup infrahumanization.

Based on Mannarini et al. (2009), we expected that making ingroup identification salient (i.e., making salient the identification with those who either oppose or endorse the planned structure) would foster the intention to mobilize in land use conflicts (Hypothesis 1). This hypothesis is consistent with the literature on collective action based on social identity theory, which has repeatedly demonstrated a positive association between identification with a social movement organization (Van Zomeren et al., 2008) or with an opinion-based group (Bliuc et al., 2007) and the engagement in organized actions that benefit the group.

Based on Demoulin and colleagues (2004) and on Pacilli, Roccato, Pagliaro, and Russo (2016), who showed a positive association between ingroup identification and a reduced perceived humanness of the outgroup when membership categories are psychologically relevant, we expected that the salience of ingroup identification with the opinion-based group would increase outgroup infrahumanization (Hypothesis 2).

Moreover, perceptions of the outgroup as less human-like and more animal-like than the ingroup strengthen the latter group's positive image and reinforces the righteousness of its vision and stances, thereby consolidating its tendency to act on behalf of the ingroup (Opotow & Weiss, 2000). Thus, the subhuman consideration of outgroup members should constitute a powerful motivator for engaging in pro-ingroup activities, such as mobilizing in favor of or against the planned structure in the near future. Therefore, we expected outgroup infrahumanization to show a positive association with participants' intention to mobilize in the conflict that we studied (Hypothesis 3).

Finally, uniquely human emotions can be understood to require higher order mental capacities, such as self-reflection and retrospection (Waytz & Epley, 2012). The consideration of the outgroup as being less capable of using those higher order mental capacities than the ingroup could be a strong motivation to be involved in ingroup activities. Indeed, the decision to act on behalf of the ingroup (and against the outgroup) could be prompted by the consideration of the outgroup members' position toward the structure as being less legitimate than that of the ingroup members, in that it is the product of their lower mental states and thus based on a scarcity of reflection and

attention. Consequently, we expected not only that the salience of ingroup identification would increase the intention to be involved in pro-ingroup activities, but also that this influence would be mediated by the infrahumanization of the outgroup (Hypothesis 4).

The most convincing literature on this topic shows that, in land use conflicts, the valence of attitudes and behaviors toward a potentially unwanted structure is independent of its planned location (e.g., Martin & Myers, 2005; Wolsink, 1994). Consistent with this, we predicted that this pattern of relations would not be moderated by the distance of the planned structure from the participants' area of residence. Moreover, the literature shows that, in land use conflicts, ingroup favoritism and outgroup derogation are symmetrical between the public opinion in favor of and against the construction of potentially unwanted facilities (Mannarini et al., 2015; Roccato et al., 2015). In line with this, we expected that the relations that we analyzed would not be moderated by opinions against or in favor of the bridge.

Method

Participants and Procedure

Two hundred and seven people participated in this study. They comprised two community samples, made up of residents from Reggio Calabria, where the bridge would be placed ($n = 107$, 53 men, M age = 43.14, $SD = 10.37$), and from Sciacca, which is more than 200 kilometers away from the planned structure ($n = 100$, 42 men, M age = 41.14, $SD = 15.84$). The sample was built by means of a snowball strategy. Pedestrians were approached by two research assistants in the streets, who introduced them to this research and asked them about their attitude toward the bridge. Subsequently, they asked them for their cooperation in recruiting people who shared their attitude toward the bridge. These people were contacted and—in the case they accepted—were given the questionnaire, which they filled in at their home. After 2 or 3 days, they were contacted by the research assistants, who returned to their homes to collect the questionnaire. After being thanked and carefully debriefed by means of the standard procedures, participants were asked to indicate additional participants with similar opinions about the bridge. The participants living in Reggio Calabria and in Sciacca showed no differences concerning gender, $\chi^2(1, N = 207) = 0.51$, $p = .46$, and age, $t(205) = -1.09$, $p = .28$. Moreover, as regards attitude toward the bridge, pro- and antibridge participants were equally distributed in the samples from the two cities, $\chi^2(1, N = 207) = 0.54$, $p = .46$.

Experimental Manipulation and Measures

Pro- and antibridge participants were randomly assigned to the experimental (salience of ingroup identification) or the control (no salience of ingroup identification) conditions. The correctness of their identification as holders of a positive versus a negative attitude toward the bridge was checked via their response to the following item: "What is your opinion toward the construction of the bridge over the Messina Channel?" (response categories ranging from 1 = *I am totally favorable* to 4 = *I am totally unfavorable*). All the participants were classified correctly as pro- or antibridge.

As in Pacilli et al.'s (2016) Study 2, we manipulated the salience of ingroup identification by asking the antibridge members from the experimental group to respond to the items of the questionnaire following a specific instruction, which was reported at the top of every presented scale: "Please answer the following questions, keeping in mind that you belong to the group of the people who are against the building of the bridge." In contrast, the instruction given to the probridge members of the experimental group was, "Please answer the following questions, keeping in mind that you belong to the group of the people who are in favor of the building of the bridge." Pro- and antibridge participants in the control group did not receive any instruction to keep in mind their opinion-based group membership. Their instruction simply read, "Please answer the following questions." The experimental group and the control groups were made up of 55 and 52 participants from Reggio Calabria and 51 and 49 participants from Sciacca, respectively. No association between group and place of residence was detected, $\chi^2(1, N = 207) = .00$, $p = .95$.

Participants completed an adapted version of the infrahumanization scale developed by Albarello and Rubini (2012). They were asked to indicate to what extent, in their opinion, members of the ingroup and outgroup felt eight primary and secondary emotions. Primary positive emotions were pleasure [*piacere*], surprise [*sorpresa*], desire [*desiderio*], and excitement [*eccitazione*], while primary negative emotions were pain [*dolore*], agitation [*agitazione*], sadness [*tristezza*], and restlessness [*irrequietezza*]. Secondary positive emotions were wonder [*stupore*], optimism [*ottimismo*], enthusiasm [*entusiasmo*], and contentment [*allegria*], and secondary negative emotions were discomfort [*disagio*], sorrow [*dispiacere*], anxiety [*turbamento*], and embarrassment [*imbarazzo*]. Participants provided their responses on a 7-point Likert-type scale. Primary and secondary emotions were separately averaged (ingroup primary emotions, $\alpha = .79$; outgroup primary emotions $\alpha = .79$; ingroup secondary emotions, $\alpha = .73$; outgroup secondary emotions $\alpha = .81$). Subsequently, in line with Demoulin et al. (2004), we created a single index by

subtracting the outgroup secondary emotions score from the ingroup secondary emotion score.[1] Thus, the higher the score, the higher the infrahumanization of the outgroup.

To measure the dependent variable, that is, participants' intention to mobilize to support the ingroup position, we adapted a single item that was previously used by Mannarini et al. (2015; see also Roccato et al., 2015), that is, for antibridge participants, "Are you willing to take part in actions (e.g., public demonstrations, petitions, public meetings) against the bridge over the Messina Channel in the next few months?", and for probridge participants, "Are you willing to take part in actions (e.g., public demonstrations, petitions, public meetings) in favor of the bridge over the Messina Channel in the next few months?" (response categories ranged from 1 = *surely no*, to 4 = *surely yes*). Consistent with Mannarini et al. (2015) and with Roccato et al. (2015), we treated the item as an interval scale.

Finally, we asked participants to answer nine balanced items (from 1 = *absolutely unimportant*, to 6 = *very important*) on their identification with the opinion-based ingroup defined by being pro- versus antibridge (α = .71). The items–such as, "It is important to me to be favorable/unfavorable toward the bridge" and "Being favorable/unfavorable toward the bridge has nothing to do with my identity" (reverse item)–were adapted from Barreto and Ellemers's (2000) identification scale. We used this variable as a manipulation check, that is, to check whether, due to our experimental manipulation, the experimental group showed stronger ingroup identification scores as compared with the control group.

Participants' scores on these variables were computed as the mean of the items of the scales.

Results

Table 1 shows the descriptive statistics for the variables we used and the correlations among them. Preliminary analyses showed that our experimental manipulation was successful. The participants from the experimental group showed significantly higher identification with the ingroup scores, $M = 4.56$, $SD = 1.07$, than did those from the control group, $M = 4.26$, $SD = 1.03$, $t(205) = -2.11$, $p = .04$, $\eta^2 = .02$.

Figure 1 reports the results of the mediational model we used to test our hypotheses. Resorting to Process's Model 4 (a macro for SPSS software created to perform mediation and moderation analyses, see Hayes, 2013), we used the experimental manipulation as the independent variable, the intention to mobilize to support the ingroup position as the dependent variable, and outgroup infrahumanization as the mediator. Consistent with

Table 1. Descriptive Statistics of the Variables We Used and Correlations Among Them.

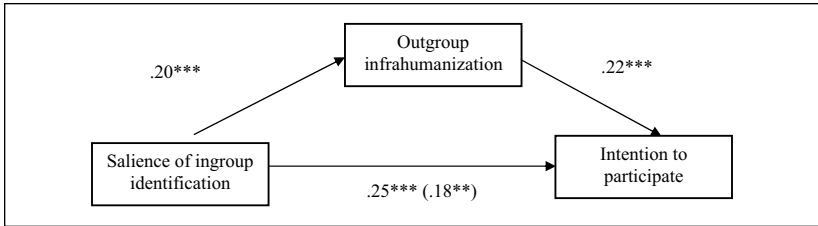|	Descriptives				Correlations					
	M	SD	Minimum	Maximum	1	2	3	4	5	6
1. Outgroup infrahumanization	0.17	1.10	−2.94	5.13	—	.23**	.25**	.28***	−.07	.25**
2. Salience of ingroup identification	0.02	1.00	−1	1		—	.24**	−.00	.00	.15*
3. Intention to participate	2.43	0.96	1	4			—	.16*	.18**	.48**
4. Attitude toward the bridge	2.47	0.98	1	4				—	−.40***	.13
5. Place of residence	0.03	1.00	−1	1					—	.13
6. Identification with the ingroup	4.41	1.06	1.56	6.67						—

$*p < .05. **p < .01. ***p < .001.$

Figure 1. Prediction of the intention to participate in the conflict via salience of ingroup identification and outgroup infrahumanization (standardized parameters are displayed).
$**p < .01.$ $***p < .001.$

Hypotheses 1 and 2, the salience of ingroup identification (coded 1 in the case of salience and −1 in the case of nonsalience) significantly predicted both the intention to mobilize to support the ingroup position, $R^2 = .06$, and outgroup infrahumanization, $R^2 = .05$. Consistent with Hypothesis 3, the latter variable showed a positive association with the intention to partici- pate, $R^2 = .07$. The mediation was partial. When adding the proposed medi- ator, the direct path between the salience of ingroup identification and the dependent variable remained significant, passing from $b = .25$, $SE = .07$, $p < .001$ to $b = .18$, $SE = .07$, $p = .007$. Based on Hayes (2013), we estimated the indirect effect of salience of ingroup identification on the dependent variable and checked whether the reduction in the direct effect could have been attributed to the mediation of outgroup infrahumanization, using boot- strapping with 1,000 resamples to compute 95% confidence intervals (CIs). CIs that do not contain 0 denote significant indirect effects. Consistent with Hypothesis 4, the indirect effect of the salience of ingroup membership on outgroup infrahumanization was significant, indirect effect = .05, $p = .004$ (95% CI = [.0142, .0946]).

Figure 2 shows the results of two moderated mediational models aimed at analyzing whether participants' attitude toward the bridge (measured via the four-category single item described above: see the upper panel of the figure) and their place of residence (see the lower panel of the figure) moderated the paths we have detected. Resorting to Process's Model 59 (Hayes, 2013), as in the model presented in Figure 1, we used the experimental manipulation as the independent variable, the intention to mobilize to support the ingroup position as the dependent variable, and outgroup infrahumanization as the mediator. Moreover, we used participants' attitude toward the bridge (see the upper panel of the figure) and their place of residence (see the lower panel of the figure) as moderators of such three paths. Operatively, we centered the
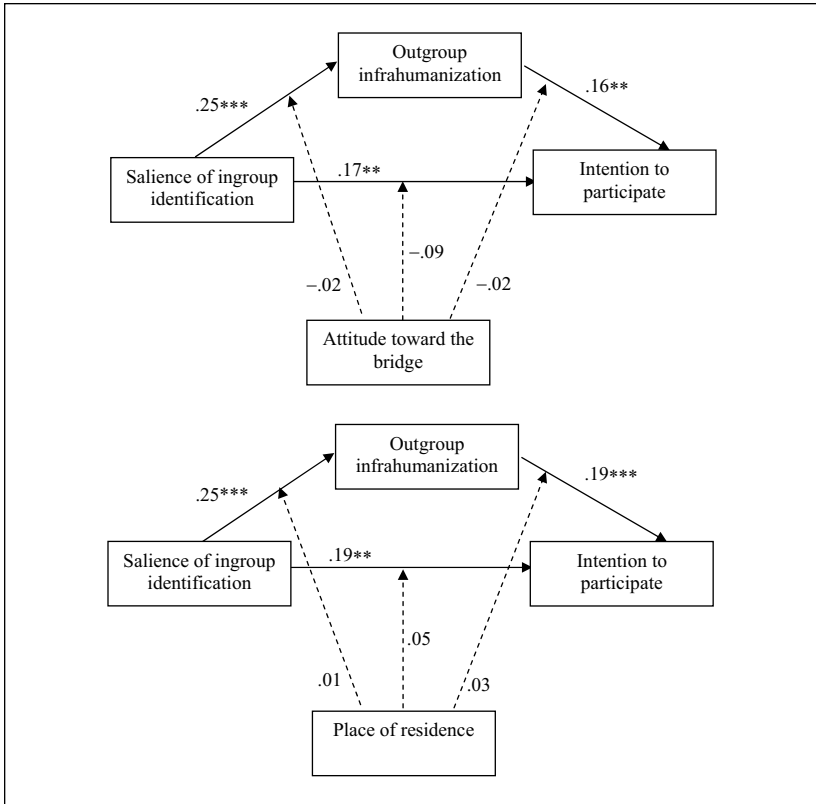
Figure 2. Participants' attitude toward the bridge (left panel) and place of residence (right panel) do not moderate the analyzed relations
Note. Standardized parameters are displayed. Dotted lines represent nonsignificant paths.
**$p < .01$. ***$p < .001$.

predictors and the moderators and analyzed the significance of the relations between their interactions and the dependent variables we predicted.

These models confirmed the significance of the paths stemming from the mediated model. More interestingly as concerns our goals, neither participants' attitude toward the bridge, nor their place of residence moderated the paths we analyzed. Indeed, participants' attitude toward the bridge did not show a significant link with (a) outgroup infrahumanization in interaction with salience of ingroup identification, $b = -.02$, $SE = .07$, $p = .75$; (b) participants' intention to take part in the conflict in interaction with salience of ingroup identification, $b = -.09$, $SE = .07$, $p = .20$; and (c) participants' intention to take part in the

conflict in interaction with outgroup infrahumanization, $b = -.02$, $SE = .06$, $p = .72$. The same held true as concerns participants' place of residence. Indeed, this variable did not show a significant link with outgroup infrahumanization in interaction with salience of group identification, $b = .01$, $SE = .08$, $p = .16$, neither with participants' intention to take part in the conflict in interaction either with salience of group identification, $b = .05$, $SE = .06$, $p = .48$, nor with outgroup infrahumanization, $b = .03$, $SE = .06$, $p = .63$.

Discussion

In the territories where conflicts over land use develop, mainly as a result of unfair and top-down approaches adopted by institutions and developers (Wolsink, 2012), hard confrontations spread between residents in favor of and against the planned structure. When this happens, each part believes to hold the monopoly of rationality, legitimacy, and knowledge, plausibly for a mix of cognitive (because people tend to belong to homogeneous social networks that share the same dominant opinion) and motivational (because holding such beliefs is psychologically rewarding) reasons (Roccato & Mannarini, 2012). Building on the idea that people–place relations and actions have, at least in part, an intergroup basis and may be seen as involving identity issues (Mannarini et al., 2015; Roccato et al., 2015), in this study we aimed to enhance our knowledge of the causes of such a hard confrontation, by focusing on the social-psychological processes rooted in social categorization, intergroup bias, and outgroup derogation.

Decades of research have shown that social categorization processes affect the ways in which individuals and groups perceive others and shape their mutual relationships. Specifically, a social categorization process entails a tendency to evaluate the groups to which individuals belong (i.e., the ingroups) more positively than external groups (i.e., the outgroups). Perceptions and behaviors linked to social identification processes suggest that land use conflicts can be framed and analyzed fruitfully from an intergroup perspective. The achievement of group identification has been depicted as a sense of "us-versus-them," and signs of such a mechanism have recently also been detected in conflicts over land use (see Cheng & Daniels, 2005; Mannarini et al., 2009; Mannarini et al., 2015; Roccato et al., 2015; Teo & Loosemore, 2011). With the purpose of expanding this line of research, in this study, we have focused on a specific manifestation of intergroup bias, that is, outgroup infrahumanization, and on its relationship with the identification with an opinion-based group (against or in favor of the planned structure) and with the intention to mobilize to support the ingroup position.

We found that the salience of ingroup identification significantly predicted both outgroup infrahumanization and the intention to mobilize. Interestingly, the influence of the salience of ingroup identification on the intention to mobilize was partially mediated by the perception of the outgroup members as being less human as compared with the ingroup members. Therefore, the expected effect of social identification with an opinion-based group on the potential mobilization of individuals confirmed the role of social identity in predicting collective action and demonstrated the validity of this important predictor also for the intention to mobilize, thereby showing the power of the "us-versus-them" mechanism that is implied in contentious collective action. Moreover, our results indicated that infrahumanization can be associated not only with attitudes and behaviors aimed at discrediting or damaging the alleged or real enemy, but also with the outcome of the intergroup comparison, thus serving as a drive to potential mobilization. All these processes were symmetrical in terms of area of residence and attitude toward the structure.

Consequently, in this research, we have found that one of the causes of the worrisome levels of conflict in land use struggles is rooted in the tendency of both sides to consider outgroup members as somewhat less human than ingroup members. We believe that the subhuman perception of outgroup members as a powerful motivator for mobilizing in favor of or against a planned structure is a novel and particularly relevant result for our comprehension of conflicts over land use. Although it is understandable that supporters and opponents of a specific structure inevitably perceive their own position as better than the outgroup's, our findings indicate that an alarming transition is possible when there is a shift from the perceived inferiority of outgroup *ideas* to the perceived inferiority of outgroup *members*, as a consequence of making the group membership of members salient.

This shift may contribute to a souring of the conflict (Opotow & Weiss, 2000). When they follow this line, conflicts over land use may become intractable. The literature on intractable conflicts shows that the exclusion of the adversary from the sphere of human groups is one of the most detrimental obstacles to the peaceful resolution of a conflict (Oren & Bar-Tal, 2007). Interestingly, the denial of the outgroup's humanity not only explains the nature of the conflict but also, and above all, why it continues over time (Bar-Tal, 1989). When groups are involved in severe conflicts, they not only tend to perceive themselves and their motivation in a very positive way, but they also attribute all responsibility for the continuation of the conflict to the characteristics of the opponent (Oren & Bar-Tal, 2007). Associated with this is the high risk that dehumanization may engender violence and aggression toward the adversary without triggering guilt feelings, because the outgroup

members are perceived at least in part outside the human community, and therefore not worthy of moral consideration.

Consequently, there is a risk that clashes of ideas in the public arena may shift to clashes of people in the context of everyday interpersonal relations, engendering negative consequences for interpersonal and intergroup harmony in the local community. Indeed, the members of the opposed opinion groups can be transformed from adversaries into enemies, which may entail the reciprocation of harsh derogation, the intensification of the conflict, and an inescapable impasse in its resolution (Pacilli et al., 2016). Although not all land use conflicts share the characteristics of intractable conflicts, many of them do, and it is apparent that many of the above considerations can be used to describe what happens in such conflicts.

Our study had three main strong points. First, it helped deepen the theoretical and empirical links between the different strands of research on land use conflicts, intergroup relations, and collective action, by using a social psychology approach to study a classic issue from environmental psychology. Second, we took into account the role of social identification with opinion-based groups for *both* parts involved in the conflict, namely, those who endorse and those who oppose the planned structure, and we surveyed residents living near the location where the structure is to be built and those who live far away from it. This allowed us to demonstrate that the processes on which we focused were not moderated by participants' attitudes toward the structure or by their distance from its site. These results offer further support to studies that criticize the NIMBY (Not in My BackYard) concept, according to which people mobilize against a structure due to biased cognitive processes and to defend selfish interests (Dear, 1992; Kraft & Clary, 1991). In contrast, our findings are consistent with the most convincing literature, especially as far as the following two points are concerned, that is, the fact that people in favor of and against the structure typically resort to the same sociocognitive processes, including intergroup bias, and the fact that there are no systematic differences between people living near and people living far away from the location where the planned structure is to be built (Mannarini & Roccato, 2011). This study's third strong point is its experimental design, which allowed us to measure a causal path between the salience of ingroup identification and infrahumanization of the outgroup. This is particularly notable because the literature on land use conflicts mainly adopts a correlational approach, which is unable to deal with causal links (e.g., Devine-Wright, 2011; Flahaut, Laurent, & Thomas, 2002; Mannarini et al., 2009).

However, due to the research design we adopted, the second path of our model, that is, the path linking outgroup infrahumanization to the intention to mobilize, was of a correlational and not causal nature. Therefore, it would be

interesting to repeat this study by manipulating the outgroup infrahumanization as well. Moreover, as it happens systematically in psychological research, especially when performed experimentally, the sample we used was not representative of the populations living near and far away from the structure site. We simply approached people in the streets of Reggio Calabria and Sciacca, which does not constitute a formal random extraction from their population. However, contrary to standard procedures, the benefit of our sample was the fact that it was extracted from the territorial community and not from university classrooms. Nonetheless, a replication of this research performed on representative samples would be fruitful.

Finally, our choice to measure our dependent variable using a single item (as previously done by Mannarini et al., 2015; Roccato et al., 2015) and not a scale could appear not-fully convincing, in that scales are commonly considered as more informative, reliable, and predictive than single items (e.g., Baumgartner & Homburg, 1996; Churchill, 1979). However, the literature shows that the performance of single items tends to be equivalent to that of the scales, especially when the measured construct is concrete (as in our case) and easily imagined (Rossiter, 2002). Moreover, single items tend to show satisfactory test–retest reliability coefficients and to correlate strongly with longer measures of the same construct (Zimmerman et al., 2006). Finally, single items have been shown to be efficient predictors of behavioral outcomes (Nagy, 2002). According to Bergkvist and Rossiter (2007), in nonstudent samples (as in our case), single items may be even more advisable than full scales, in that they minimize respondents' refusal and their tendency to resort to response sets. Nevertheless, the actions (participate in public demonstrations, sign petitions, attend meetings) we provided as concrete examples to participants could certainly be measured as distinct items. The use of multi-item scales in future studies would contribute to disentangle the possible differential effects of ingroup identification on the willingness to undertake a variety of different participatory behaviors, considering the mediating role of outgroup infrahumanization.

Conclusion

This study enhanced the understanding of the reasons for the radicalism of land use conflicts and advanced our knowledge about their intergroup nature. Moreover, albeit indirectly, it offered a glimpse into the potential of a social-psychological approach, more specifically an intergroup approach, to the dynamics of place-related identity processes and environmental behaviors among those involved in such conflicts. Indeed, a group-based approach highlights that individual environmental attitudes and values, as well as

identity processes, are interrelated to the environmental values of groups, that people are likely to respond to group norms, and that self-categorization processes have important practical implications for place-related behaviors (Rabinovich, Morton, Postmes, & Verplanken, 2012).

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Note

1. We conducted a mixed ANOVA model with salience of ingroup identification (present vs. absent), distance of the infrastructure (proximal vs. distant) and position toward the bridge (pro vs. anti) as between-participant factors, valence of secondary emotion (positive vs. negative) and target group (ingroup vs. outgroup) as within-participant factors, controlling for attribution of primary emotions. No significant main effect of the target group emerged, $F(1, 202) = 3.52$, $p = .062$, $\eta^2 = .017$. The crucial two-way interaction effect of salience of ingroup identification × target group on the attribution of secondary emotions was significant when controlling for the attribution of primary emotions, $F(1, 202) = 4.04$, $p = .046$, $\eta^2 = .020$. Simple effects analysis showed that secondary emotions were attributed more to the ingroup ($M = 3.28$, $SE = .11$) than to the outgroup ($M = 2.99$, $SE = .10$) only in the salience of ingroup identification condition, $F(1, 202) = 14.37$, $p < .001$, $\eta^2 = .07$, while no significant difference emerged in the nonsalience of membership condition, $F(1, 202) = .75$, $p = .387$, $\eta^2 = .004$. In line with Demoulin et al. (2009), after having shown that the effect found on the secondary emotions existed over and above any effect on primary emotions, we tested our mediational hypothesis adopting a single index of secondary emotions (see also Albarello & Rubini, 2012).

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