The false consensus effect: A trigger of radicalization in locally unwanted land uses conflicts?

The false consensus effect: A trigger of radicalization in locally unwanted land uses conflicts?

Abstract

We tackled the conflicts on locally unwanted land uses (LULU) focusing on the false consensus effect (FCE). Through a secondary analysis of data from a representative sample of residents in the district area of Turin, Italy, where a high-speed railway (HSR) should be sited (N = 1785), we tested whether the FCE mediates the relationship between perceived threat to the place and mobilization against the HRS. Participants tended to overestimate the number of people holding their same opinion. Among the participants against the HSR (n = 305), the tendency to incur in the FCE was higher for who perceived the project as a threat to the place. Moreover, the perception of an alleged consensus around one's own opinion mobilized them to defend their position. Our study suggested that standard approaches to LULU conflicts may benefit from the use of socio-cognitive variables. Strengths and limitations of the study are discussed.

Keywords: Nimby; Lulu; Environmental conflicts; False consensus; Protest, Mobilization

1. Introduction

In the last decade public opposition to the siting of new energy and transport infrastructures has been growing in many countries all over the world (Saint, Flavell, & Fox, 2009). In Italy the number of conflicts over local unwanted land uses (LULU) has systematically increased since 2005. In 2012 the Nimby Forum Observatory (www.nimbyforum.it) surveyed 354 conflicts, 151 more than in 2011. According to these data, the majority of the oppositions (62.7%) criticized power stations such as hydroelectric and thermoelectric stations, power lines, biomass power plants, photovoltaic installations, and wind farms. Protests against waste disposal units (mainly landfills and incinerators) totaled 28.3%, and opposition to transport infrastructures amounted to 7.6% of the cases surveyed. Although LULU conflicts are not new or unusual in history, they are still one of the most complex issues affecting communities. The often-intractable nature of such conflicts, and the challenges they pose to decision makers and communities have fuelled animated political debates and stimulated a substantial amount of scientific research on the topic. According to early reviews such as Kraft and Clary's (1991, pp. 302-303), this kind of protests are characterized by: "(1) distrust of project sponsors; (2) limited information about the siting issue; (3) attitudes towards the project that are local and parochial, and which do not consider broader ramification; (4) an emotional orientation towards the conflict; and (5) a high level of concern about project risks".

This interpretation led the first researchers into this topic to label as NIMBY (Not In My Backyard) these kind of protests (e.g., Dear, 1992; Piller, 1991). The implicit assumptions underlying the NIMBY paradigm were apparently built on a set of values, which led researchers to associate the alleged self-interest of the local opponents to irrational conducts and selfish attitudes, while simultaneously overlooking the equally self-interested motives of the proponents. Moreover, the early and conventional NIMBY view completely neglected the issues of democracy and power that were entailed in the conflicts revolving around unwanted land uses, and the related conflicting dynamics between top-down and bottom-up decision-making processes, as well as between authorities operating at different territorial levels, namely local and national authorities.

The NIMBY paradigm, holding that groups opposing unwanted facilities are ill-informed, irrational, and/or selfish, has been widely criticized. Evidence-based research showed that LULU mobilizations are often rationally based (Takahashi & Gaber, 1998), that the attitude toward the facility does not depend on the knowledge of its details (Dietz, Stern, & Rycroft, 1989), nor on its distance from participants' area of residence (Martin & Myers, 2005), and that egoism is not among the main reasons of these mobilizations (Zald & McCarthy, 1987). Thus, empirical findings showed that the concept embedded in the NIMBY label is inappropriate to describe and explain LULU conflicts (Burningham, Barnett, & Thrush, 2006; Wolsink, 2000, 2006).

Following this critical approach to the conventional view, the siting literature has identified a number of environmental, social, and psychological factors that are likely to foster a negative response to unwanted facilities: (a) the aesthetic impact of the facility itself, and relationships with out-siders (Hagget, 2011); (b) the type of facility, and the clarity of choice (Esaiasson, 2014); (c) values concerning environmental injustice and the fairness of the siting process (Wolsink & Devillee, 2009); (d) unwanted consequences, such as health and material concerns, and detrimental changes in quality of life (Schively, 2007); (e) perception of risks associated to the facility (Hunter & Leyden, 1995; Pol, Di Masso, Castrechini, Bonet, & Vidal, 2006; Wu, Zhai, Li, Ren & Tsuchida, 2014); and (f) trust in the authorities, decision makers, and development organizations (Groothuis & Miller, 2005; Gross, 2007). Most important for this study, along with the studies that addressed specific and discrete aspects of each project, a second strand of research has focused on two other environmental psychological issues. On the one hand, on the notion of place and the psychological ties with places (i.e., place attachment, and place identity): LULU oppositions can be deemed as place-protective actions that arise when the projects threaten place-based identities and their realization is likely to disrupt the emotional bonds that residents establish with the meaningful places in which they live or with whom they identify with (Devine-Wright, 2009).

Place identity and place attachment are concepts built upon the assumption that the symbolic valence of the environment affects the way individuals conceive and describe themselves (Wester-

Herber, 2004). Specifically, place identity denotes the psychological counterpart of the physical features of a location in terms of meaning and emotions (Devine-Wright, 2009). Environmental research on a variety of territorial communities demonstrated that a stable, meaningful and valuable experience of a place of residence can contribute to fostering a positive individual sense of self (Nowell, Berkowitz, Deacon, & Foster-Fishman, 2006), but that individuals are not always totally aware of their emotional attachment to place. However, they are likely to increase their awareness when an event forces them to leave it (Fried, 2000) or threatens to disrupt this bond, as in the case of land uses that have a deep impact on the place itself. According to this perspective, LULU oppositions are likely to emerge whenever a perceived negative change in the place of residence is likely to occur. Although there may be territorial communities characterized by feeble place attachment feelings and weak, or ambivalent, or even negative place identities, the extant siting literature reports the importance of such dimensions in LULU conflicts.

Indeed, studies such as those by Vorkinn and Riese (2001), Devine-Wright and Howes (2010), and Devine-Wright (2013) showed that, along with project-related variables, high levels of place attachment and of perceived environmental injustice predict low acceptance of land use changes. Jacquet and Stedman's (2014) expanded this argument by suggesting that the anticipated risk or threat of disruption to place and community meanings and identities can prod opposition. All of these studies emphasized the impact exerted on public response to unwanted facilities by perceived threat, either to residents' quality of life (Pol et al., 2006), to their personal wellbeing (Moser, 2009), or to their emotional bonds with places and place-based identities (Devine-Wright, 2009).

On the other hand, a second strand of research has focused on the notion of environmental justice, arguing that residents legitimately demand to be treated fairly by the facility's proponents and the authorities, and to be significantly involved in all of the decisions in play (Bullard, 2000).

The current study continues on this line of research by examining the impact of perceived threat to places on the opposition to the siting of a high-speed railway (HSR) in the Susa Valley (for

details on the facility, see below). Most importantly, our investigation introduces an additional and hitherto unexplored variable in the siting literature, namely the of false consensus (FCE) socio-cognitive bias.

2. Socio-cognitive biases in conflicts over land uses: The false consensus effect

All LULU oppositions give raise to social conflicts, or insert themselves into pre-existing ones. From a socio-psychological perspective, social conflicts can be analyzed through the lens of inter-group dynamics, which the most part of social psychologists assume to develop from the basic process of social categorization. Decades of research have shown that the social categorization processes affect the way individuals and groups perceive the others and shape their mutual relationships. Specifically, the social categorization process entails the tendency to positively evaluate the groups to which individuals belong (i.e., the ingroups) and to negatively evaluate the external groups (i.e., the outgroups). This tendency, referred to as the intergroup bias, has been acknowledged as a general phenomenon, which is nevertheless likely to be intensified by a number of factors, such as ingroup identification, ingroup and outgroup status, and threat (for a review, see Hewstone, Rubin, & Willis, 2002).

Among the numerous manifestations of the intergroup bias, our study focuses on the false consensus effect. With the exception of two Italian study that have explored the role of some socio-cognitive biases in LULU conflicts, namely Russo's (2009) on paranoid social cognition, and Roccato, Orazio, and Mannarini's (in press) on the ingroup overexclusion effect, at present the siting literature has never considered this type of variables to predict public opposition to unwanted facilities.

The FCE has been defined as the tendency to overestimate the commonness of one's own responses (opinions, preferences, and behaviors) (Ross, Greene, & House, 1977). Such a distortion has been explained based on four main processes (see Marks & Miller, 1987; Verlhiac, 2000). First, selective exposure and cognitive availability. As normally people tend to relate to others who are similar to themselves, examples of agreement are more readily and frequently accessible from

memory than example of disagreement. This induces individuals to overestimate consensus for their own opinion. Second, salience and focus of attention. When individuals focus on their own preferred position, instead of considering more than one or alternative positions, they are likely to inflate support for that position, as that is the most salient in the sphere of their immediate consciousness. Third, logical information processing. The FCE may be explained as the result of a causal attribution process, according to which individuals tend to explain their behaviors and opinions by attributing the causes to situational, as opposed to dispositional, forces. This tendency should result in perceived augmented consensus for the considered opinion or behavior. Fourth, and most important for this study, motivation. The motivational hypothesis refers to the tendency of the individuals to use the positioning of the self and others to validate the accuracy and correctness of their position, to strengthen perceived social support, and to maintain or restore self-esteem. From this perspective, the FCE functions as a self-defensive or self-enhancement mechanism, that may increase under the effect of situational factors, such as ambiguity, uncertainty, and, interestingly for this study, threat. Indeed, as shown by Sherman, Presson, and Chassin (1984), when individuals perceive a threat to the self or to their ingroup, they are motivated to seek support for their own positions and therefore to perceive increased consensus.

In LULU conflicts, the FCE should be related to the perception that many others (more than they actually are) within the community or in the public opinion share the same position of the perceiver on the controversial project. It is realistic to postulate that both opponents and supporters should overestimate consensus for their respective position, though the literature agree that such a bias is more likely to characterize minority groups. Indeed, minorities seem to have a greater need than majorities for seeking acknowledgement and legitimateness for their position (Sanders & Mullen, 1983; Suls & Wan, 1987). These findings are consistent with a motivational perspective that accentuates the need to justify counter-normative behaviors. Based on the findings from both the LULU and the FCE literature, which concurrently suggest that threat affects both the false consensus bias and the opposition to unwanted facilities, the current study aims at establishing a

direct relationship between the FCE and protest behavior in LULU conflicts. Evidence that the FCE affects behavior has been found by Botvin, Botvin, Baker, Dusenbury, and Goldberg (1992) in their research on adolescents' tobacco use, and by Bauman and Geher (2002), who showed that the FCE predicts behavioral intentions regarding important social issues, such as abortion, death penalty, animal testing, legalization of drugs, ban on gun sales, ban on smoking in public places, racial quotas, and others.

3. The present study

In this study we focused on an Italian movement against the construction of a high speed railway in the Susa Valley (near Turin, North-Western Italy). This railway project is designed to link the cities of Turin and Lyon within a European plan of high speed railway network. The anti-HSR movement was born in the early 1990s in the Susa Valley, and from the autumn 2005, when some clashes with the police occurred, progressively became more and more spread across the district area of Turin. After these episodes the movement and the HSR project gained much media visibility (Mannarini & Roccato, 2011). By the end of 2006, about two-thirds of the Susa Valley residents (62.7% according to Campana, Dallago, & Roccato, 2007, and 64.4% according to Mannarini, Roccato, Fedi, & Rovere, 2009) were against the siting of the new railway.

We used secondary data collected in the district area of Turin to investigate whether residents have a biased perception of the commonness of their own opinion about the HSR project. More specifically, based on Marks and Miller (1987) and on Verlhiac (2000), we expected that residents in Turin district area would show the FCE, independently of whether they approved or disapproved the HRS project. Thus, we hypothesized that citizens approving the project would overestimate the number of people supporting the HRS and, conversely, that citizens disapproving it would overestimate the number of people opposing the HRS (HP1).

Our second goal was to test whether the FCE mediates the relationship between perceived threat to the Susa Valley and participation in the protest against the HRS. Given that this second goal was specifically focused on the link between the FCE and engagement in protest behaviors, we

decided here to limit our investigation to the subsample of respondents that disapproved the HRS project. Generally speaking, based on Bullard (2000) and Devine-Wright (2009, 2013; Devine-Wright & Howes, 2010), we expected that perceived threat to the Susa Valley would be positively linked with engagement in protest against the HSR, and that this relationship would be at least partially explained (i.e., mediated) by the FCE (HP2). More in detail, we hypothesized that threat perception would be positively linked with the FCE (Sherman, Presson, & Chassin, 1984), and that resorting to the FCE would show a positive relation with the likelihood of taking part in demonstrations against the construction of the HSR (Bauman & Geher, 2002; Botvin et al., 1992).

4. Materials and method

We performed a secondary analysis of the data collected by the Osservatorio del Nord Ovest (North-Western Observatory, www.nordovest.org), a research institute of the University of Turin, in September 2006. The Osservatorio del Nord Ovest surveys via mail, three times per year, a panel of participants, stratified to be representative of different concentric populations, i.e., those living in Turin, in the Turin district area, in Piedmont, in Northern Italy, and in the whole Italy. In this research we used the sample rooted in the Turin district area, the Italian county where the HSR should be placed (N = 1785, men = 50.0%, mean age = 54.36, SD = 15.23, redemption rate = 47.21) was representative of the residents in Torino district area, the Italian county where the HSR should be placed.

Participants' were asked questions related to socio-demographic characteristics, attitudes and behaviors towards economic, political, and sociocultural issues. The questions about the HSR were just a small section of the questionnaire, and the only purpose of the Osservatorio was to obtain information to describe citizens' perceptions and attitudes toward the new railway project.. The complete questionnaire is available at the Osservatorio's website. We used five sets of variables.

1. Control variables: gender, age, and education (years of formal education).

2. Attitude toward the HSR. Respondents were asked whether they were in favor of the HSR ("completely favorable" or "quite favorable") or not ("quite unfavorable" or "completely

unfavorable"). Based on these data, we computed a dichotomous variable assessing participants' attitude toward the project.

3. Estimate of the quota of Susa Valley residents mobilized against the HSR. We asked to the respondents the following question: "In your opinion, how many people living in the Susa Valley are involved in the anti-HSR movement? A small minority of the residents; A large number, but less than the 50%, of the residents; A large number, above the 50% of the residents; The overwhelming majority of the residents". Given that previous research showed that in 2006 48% of the residents were involved in the anti- HSR protest (Campana et al., 2007), the correct, unbiased answer would be the second one. Participant with a favorable attitude toward the HSR who chose the first alternative and participants with an unfavorable attitude toward the HSR who chose the third or the fourth alternative have been considered as people resorting to the FCE (= 1), while the other participants have been classified as people not resorting to this bias (= 0).

4. Perceived threat to the Susa Valley. Like Campana et al. (2007), we used the following four-category Likert item: "The HSR would irreparably damage the Susa Valley". Response alternative ranged from "I completely disagree" to "I completely agree".

5. Participation against the HSR. Like Mannarini et al. (2009) we used the following item: "Did you take part into actions (e.g. public demonstrations, petitions, public meetings) against the HSR in the last 12 months" (No = 0; Yes = 1).

5. Results

To test HP1 we analyzed the relation between participants' attitude toward the HSR and their estimate of the number of Susa Valley residents opposing the facility. The two variables showed a significant relation, $\chi^2(3) = 264.885$, $p < .001$, $\phi = .42$. Adjusted standardized residual analysis showed that both people in favor and people not in favor of the facility resorted to the FCE (see Table 1).[1]

[1] Adjusted standardized residuals show which cells of a contingency table are significantly associated. When > 2.00 they show a significant positive association, while when < - 2.00 they show a significant negative association.

To test HP2, we tested a mediation model (using MPlus, estimator WLSMV) on the subsample or respondents who reported a negative attitude toward the HSR (n = 305). As shown in Figure 1 (standardized parameters are reported), consistent with HP2, perceived threat to the Susa Valley showed a positive link with the probability of taking part in actions against the HSR. This effect was partially mediated by the FCE. Indeed, perceived threat to the Susa Valley showed a positive link with the FCE (R^2 = .06) which, in turn, showed a positive relation with participation in protests against the HSR. The indirect effect between perceived threat and participation was statistically significant (indirect effect = .12, p < .01). As a whole, our model allowed us to explain about one fifth of the variance of our dependent variable (R^2 = .19). None of the socio-demographic control variables we used (gender, age, and education) showed a significant relation with perceived threat, false consensus, and participation.

6. Discussion

In our study we addressed the role played by individual perceptions of the public opinion in reinforcing protest behaviors to LULU works. We first showed that citizens tend to overestimate the number of people that hold their same opinion on a new infrastructure project, incurring in what has been labeled the “false consensus effect” (Ross et al., 1977). This cognitive bias seems to be pervasive: Not only people opposing the project think that their position is shared by the majority, but this is true also for people approving the project. Previous studies on the FCE focused on the differences between the perceptions of people favoring and opposing an issue (De La Haye, 2000; Muellen & Hu, 1988), largely ignoring the actual (dis)approval of the issue in the population. This has mainly been the consequence of the unavailability of generalizable data: We overcame this limitation by analyzing the FCE in a representative sample.

Second, focusing on people disapproving the project, we showed that the tendency to incur in the false consensus bias is stronger for those who perceive the new project as highly threatening; also, the false consensus bias triggers the motivation to engage in protest behaviors against the project. On the whole, the results suggested that resorting to the false consensus bias in LULU

conflicts seems to function as a defensive or adaptive response to real or perceived threat represented by the new work and the proponents of it. In addition, the results demonstrated that the perception of wide consensus around one's own opinion (independently of whether it is real or not) mobilizes people to defend or give high visibility to their position. This process stands as a complement of the spiral of silence process (Noelle-Neuman, 1984): Just as people who believe, based on their perception of what everybody else thinks, to be in a minority position do not speak out and tend to remain silent, our findings suggested that those who believe to be in a majority position are ready to stand up and publically defend their position. This is also in line with Bauman and Geher's (2002) suggestion that the false consensus effect can be seen as a distortion of social norms perceptions: The false consensus over a social issue (the high-speed train in this case) can predict behavioral intentions related to that issue (participating in public manifestations against the high-speed train project).

Generally speaking, after those by Russo (2009) and by Roccato et al. (in press), our study confirms that standard approaches to LULU conflicts may benefit from the use of socio-cognitive variables, that might help researchers to understand the reasons of local mobilizations against unwanted facilities and of the well-established threat-mobilization link (e.g., Devine-Wright, 2009; Moser, 2009; Pol et al., 2006).

More in detail, our findings have interesting implications for the role of the false consensus effect in conflicts dynamics. On the one hand, the FCE facilitates the public manifestation of dissent and, more in general, of voice behaviors, mainly because it offers a basis for social legitimization. On the other hand, the FCE plausibly promotes a delegitimization of the counterpart, with a high risk of boosting radicalizations of the conflict and with a subsequent difficulty in handling the dispute. In this light, trying to reduce or limit the FCE when it comes to LULU conflicts can be one strategy to open up or favoring the legitimization of the counterpart's point of view. According to the literature, the reduction of the FCE could be pursued in two ways. The first is to favor the contact with diverse opinions (Woicieszack & Price, 2009) through public debates in which all the

stances could have the same visibility and legitimacy with the purpose of contrasting selective exposure and disproportioned self-focused attention. The second is to build and provide the citizens with an informative framework on the contested project with the purpose of providing cognitive instruments that could contain the negative emotional reactions to the project itself and its possible consequences. Not by accident, these actions, i.e., exposure to diversity and thorough and unbiased information, are built-in a variety of participatory approaches to decision-making processes, especially those inspired to deliberative democracy theory (Elster, 1998; Fishkin & Laslett, 2003).

On the whole, our study has some strong points. First, we used a representative sample of the population living around the area where the HSR should be placed. Thus, contrary to what systematically happens in standard research in social and environmental psychology (that is often based on student samples), we presented results based on generalizable data. Moreover, in research on the FCE the presence of false consensus is often inferred by the presence of an asymmetry in the perception of the frequency of an opinion or of a behavior between people in favor and against an issue. This does not allow the researcher to identify who is actually resorting to false consensus. On the contrary, we could classify our respondents into people resorting vs. not resorting to the FCE by using factual information of the opinion about the HSR gained in surveys involving local residents. This helped us to connect empirically the literature on LULU conflicts with that on socio-cognitive biases.

As in all the studies, also this one has some limitations. First of all, we relied on cross-sectional data: Thus, we could not test any causal effect between the variables used in the study. Drawing from previous research, we hypothesized that threat perception would influence the frequency of incurring in the false consensus bias which, in turn, would mobilize residents to take part in protest actions. However, we could not rule out the alternative hypothesis that being involved in protest actions drives the overestimation of the personal position's commonness. New, experimental research is needed to rule out this alternative link between the variable we analyzed. Second, we had to limit our analyses on the mediating role of the FCE to a specific subsample of

respondents, i.e. those who disapproved the HRS project. This choice was due to the unavailability of information related to the engagement in public actions in favor of the HRS project. New research aimed at testing the symmetry of the relations we have focused on between people in favor and against the contested facility would be interesting. Third, we relied on a sample of residents in the district of Turin, a geographic area that include, but is not limited to, the Susa Valley. Even though it has been shown that participation in protests against LULU projects is much more affected by the perception of the negative consequences of the work itself than by the distance between the place where the work will be sited and where the respondents live, it could be interesting to verify whether these results hold also in a population more directly affected by the LULU work, such as people living in Susa Valley.

7. Conclusions

This study shed some new light on the processes leading to LULU conflicts. On the one hand, it showed new, interesting opportunities to explain them by integrating a socio-cognitive variable in classic explanatory models used in this field of research. On the other hand, it might be used as a basis to manage these conflict in a more effective and adequate way, aimed to help people not to resort to the FCE and thus not to radicalize LULU conflicts.

Commentato [t1]: Vi piace questo paragrafetto smilzo di conclusioni? Io accorperei alla discussion, dicendo "In conclusion, this study….".
Se però preferite lasciare così ok

Silvia: per me e' ok accorparlo al resto

References

Bauman, K. P, & Geher, G. (2002). We think you agree: The detrimental impact of the false consensus effect on behavior. *Current Psychology*, *21*, 293-318.

Botvin, G. J., Botvin, E. M., Baker, E., Dusenbury, L., & Goldberg, C. J. (1992). The false consensus effect: Predicting adolescents' tobacco use from normative expectations. *Psychological Reports*, *70*, 171-178.

Bullard, R. (2000). *Dumping in Dixie: Race, class and environmental quality*. Boulder, CO: Westview.

Burningham, K ., Barnett, J., & Thrush, D. (2006) The limitations of the NIMBY concept for understanding public engagement with renewable energy technologies: A literature review. School of Environment and Development, University of Manchester. Available from: http://www.sed.manchester.ac.uk/research/beyond_nimbyism/

Campana, P., Dallago, F., & Roccato, M. (2007). Valsusa, Italia: La Tav e le grandi opere nella percezione dell'opinione pubblica [The Susa Valley, Italy: HSR and land uses in the public opinion]. In F. Dallago & S. Zambrino (Eds.), *Osservatorio del Nord Ovest: Rapporti focalizzati 2006* [North-Western Observatory: Research reports, 2006] (pp. 87-125). Roma: Carocci.

Dear, M. (1992). Understanding and overcoming the Nimby syndrome. *Journal of the American Planning Association*, *58*(3), pp. 288-301.

De La Haye, A.-M. (2000). A methodological note about the measurement of the false-consensus effect. *European Journal of Social Psychology*, *30*, 569-581.

Devine-Wright, P. (2009). Rethinking NIMBYism: The role of place attachment and place identity in explaining place-protective action. *Journal of Community and Applied Social Psychology*, *19*, 426-441.

Devine-Wright, P. (2013). Explaining "Nimby" objections to a power line: The role of personal, place attachment and project-related factors. *Environment and Behavior*, 45, 761-781.

Devine-Wright, P., & Howes, Y. (2010). Disruption to place attachment and the protection of restorative environments: A wind energy case study. *Journal of Environmental Psychology, 30*, 271-280.

Diez, T., Stern, P. C., & Rycroft R. W. (1989). Definitions of conflict and the legitimization of resources: The case of environmental risk. *Sociological Forum*, *4*(1), 47-70.

Elster, J. (Ed) (1998). *Deliberative democracy*. Cambridge: Cambridge University Press.

Esaiasson, P. (2014). NIMBYism – A re-examination of the phenomenon. *Social Science Research, 48*, 185-195.

Fishkin, J., & Laslett, P. (Eds) (2003). *Debating deliberative democracy*. Wiley-Blackwell.

Fried, M. (2000). Continuities and discontinuities of place. *Journal of Environmental Psychology*, 20, 193–205.

Groothuis, P. A., & Miller, G. (2005). The role of social distrust in risk-benefit analysis: a study of the siting of a hazardous waste disposal facility. *Journal of Risk Uncertainty, 15*, 241–257.

Gross, C. (2007). Community perspectives of wind energy in Australia: The application of a justice and fairness framework to increase social acceptance. *Energy Policy, 35*, 2727–2736.

Gross, S., & Miller, N. (1997). The ‘‘golden section’’ and bias in perceptions of social consensus. *Personality and Social Psychology Review, 1*, 241–271.

Haggett, C. (2011). Understanding public responses to offshore wind power. *Energy Policy, 39*, 503-510.

Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology, 53*, 575-604.

Hunter, S., & Leyden, K. (1995). NIMBY: Explaining opposition to hazardous waste facilities. *Policy Studies Journal, 23*, 601–619.

Jacquet, J. J., & Stedman, R. (2014). The risk of social-psychological disruption as an impact of energy development and environmental change. *Journal of Environmental Planning and Management, 57*, 1285–1304.

Kraft, M. E., & Clary, B. B. (1991). Citizen participation and the NIMBY syndrome: public response to radioactive waste disposal. *Western Politics Quarterly*, *44*, 299–328.

Mannarini, T., & Roccato, M. (2011). Uses of the term NIMBY in the Italian press, 1992-2008. *Environmental Politics*, *20*, pp. 807-825. doi: 10.1080/09644016.2011.617167

Mannarini, T., Roccato, M., Fedi, A., & Rovere, A. (2009). Six factors fostering political protest: Predicting participation in locally unwanted land uses movements. *Political Psychology*, *30*, 895-920. doi: 10.1111/j.1467-9221.2009.00732.

Marks, G., & Miller, N. (1987). Ten years of research on the false-consensus effect: An empirical and theoretical review. *Psychological Bulletin*, *102*, 72-90.

Martin, R., & Myers, D. L. (2005). Public response to prison siting: Perceptions of impact on crime and safety. *Criminal Justice and Behavior*, *32*(1), 143-171.

Moser, G. (2009). Quality of life and sustainability: Towards person-environment congruity. *Journal of Environmental Psychology*, *29*, 351-357.

Mullen, B., Atkins, J. L., Champion, D. S., Edwards, C., Hardy, D., Story, J. E., & Vanderklok, M. (1985). The false consensus effect: A meta-analysis of 115 hypothesis tests. Journal of Experimental Social Psychology, 21,262-283.

Mullen, B., & Hu, L.-T. (1988). Social projection as a function of cognitive mechanisms: Two meta analytic integrations. *British Journal of Social Psychology*, *27*, 333–356.

Noelle-Neumann, E. (1984). *The spiral of silence: Public opinion our social skill*. Princeton, NJ: Princeton University Press.

Nowell, B., Berkowitz, M., Deacon, Z., & Foster-Fishman, P. (2006). Revealing the cues within community places: Stories of identity, history, and possibility. *American Journal of Community Psychology*, 37(1-2), 29-46.

Piller, C. (1991). *The fail-safe society: Community defiance at the end of American technological optimism*. New York, NY: Basic Books.

Pol, E., Di Masso, A., Castrechini, A., Bonet, M. R., & Vidal, T. (2006). Psychological parameters

to understand and manage the NIMBY effect. *Revue Européenne de Psychologie Appliquée, 56*, 43–51.

Ross, L., Greene, D., & House, P. (1977). The false consensus effect: An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology, 13*, 279-301.

Roccato, M., Orazio, S., & Mannarini, T. (in press). Minaccia, sovra-esclusione dall'ingroup e propensione a partecipare ai conflitti Lulu [Threat, ingroup overexclusion, and tendency to partecipate in LULU conflicts]. *Psicologia sociale*.

Russo, S. (2009). Lulu conflicts and reactions to perceived injustice: An Italian case study. *Psicología Política, 38*, 47-73.

Saint, P. M., Flavell, R. J. & Fox, P. F. (2007). *Nimby wars: The politics of land use*. Hingham, MA: Saint University Press.

Sanders, G. S. & Mullen, B. (1983). Accuracy in perceptions of consensus: Differential tendencies of people with majority and minority positions. *European Journal of Social Psychology*, 57-70.

Sherman, S. J., Presson, C. C., & Chassin, L. (1984). Mechanisms underlying the false consensus effect: The special role of threat to the self. *Personality & Social Psychology Bulletin, 10*, 127-138.

Schively, C. (2007). Understanding the NIMBY and LULU phenomena: reassessing our knowledge base and informing future research. *Journal of Planning Literature, 21*, 255–266.

Suls, J., & Wan, C. K. (1987). In search of the false-uniqueness phenomenon: Fear and estimates of social consensus. *Journal of Personality and Social Psychology, 52*, 211-217.

Takahashi, L. M., & Gaber, S. L. (1998). Controversial facility siting in the urban environment: Resident and planner perceptions in the United States. *Environment and Behavior, 30*, 184-215.

Verlhiac, J.-F. (2000). L'effet de faux consensus: Une revue empirique et théorique. *L'Année Psychologique*, 100, 141-182.

Vorkinn, M., & Riese H. (2001). Environmental concern in a local context: The significance of place attachment. *Environment and Behavior, 33,* 249-263.

Wester-Herber, M. (2004). Underlying concerns in land-use conflicts: The role of place identity in risk perception. *Environmental Science & Policy*, *7*, 109–116.

Whitley, B. E. (1988). False consensus on sexual behavior among college women: Comparison of four theoretical explanations. *The Journal of Sex Research*, *35*, 206-214.

Woicieszack, M., & Price, V. (2009). What underlies the false consensus effect? How personal opinion and disagreement affect perception of public opinion. *International Journal of Public Opinion*, *21*, 25-46.

Wolsink, M. (2000). Wind power and the NIMBY-myth: Institutional capacity and the limited significance of public support. *Renewable Energy, 21*, 49-64.

Wolsink, M. (2006). Invalid theory impedes our understanding: A critique on the persistence of the language of NIMBY. *Transactions of the Institute of British Geographers, 31*, 85–91.

Wolsink, M., & Devillee, J. (2009). The motives for accepting or rejecting waste infrastructure facilities. Shifting the focus from the planners' perspective to fairness and community commitment. *Journal of Environmental Planning and Management, 52*, 217-236.

Wu, Y., Zhai, G., Li, S., Ren, C., & Tsuchida, S. (2014). Comparative research on NIMBY risk acceptability between Chinese and Japanese college students. *Environmental Monitoring and Assessment, 186*, 6683–6694.

Zald, M. N., & McCarthy, J. D. (Eds.) (1987). *Social movements in an organizational society: Collected essays*. New Brunswik, NJ: Transaction Books.

Table 1.

Estimate of the Val Susa residents opposing the HSR by attitude toward the HSR

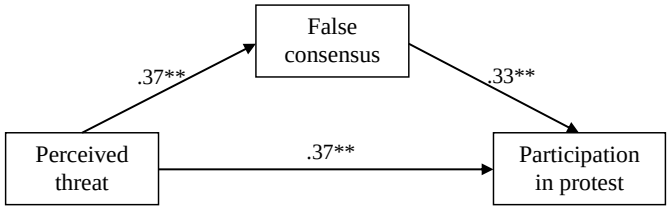
	Negative attitude toward the HSR	Positive attitude toward the HSR
A small minority of the residents	4 (- 7.3)	207 (7.3)
A large number, but less than the 50%, of the residents	57 (- 9.4)	563 (9.4)
A large number, above the 50% of the residents	102 (3.9)	260 (- 3.9)
The overwhelming majority of the residents	149 (13.9)	146 (- 13.9)
Total	312	1176

Note. Frequencies are reported in cells and adjusted standardized residuals in parentheses.

Figure caption.

Figure 1. Prediction of participation in actions against the HSR via perceived threat to the Susa Valley and FCE

Figure 1.


False consensus
.37**
.33**
Perceived threat
.37**
Participation in protest