

# **Social psychological processes and inclusive policymaking in the environmental domain: the role of local identity upon the acceptance of biodiversity and fresh-water conservation policies.**

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## Abstract

Assumptions from the fields of social and environmental psychology are used to discuss the role of participatory approaches in promoting the endorsement of public environmental policies, in the domains of biodiversity and fresh-water resource conservation.

The results of various Italian case-studies, investigating how public compliance to approaches followed by public authorities, are presented. The main focus is on the role of local identity in shaping public acceptance of conservation policies.

In the case of biodiversity conservation, field studies and laboratory experiments were conducted to assess the role of local identity in driving local support for (or opposition to) the institution of different natural protected areas. Results showed how a strong local identity can be a major social psychological driver of local people's support for biodiversity conservation policies, when these are implemented through participatory and inclusive approaches. Conversely, a strong local identity can represent a major social psychological barrier to the endorsement of public biodiversity conservation policies, when inclusive methods are not sufficiently implemented.

In the case of fresh water resource conservation, a field study was conducted to assess the role local identity, value orientations and trust in public authorities' upon domestic fresh-water conservation behaviours. Results showed how local identity, pro-social value orientation, and trust in public authorities predict water conservation behaviours.

The implications for the enhancement of public commitment to biodiversity and freshwater conservation policies are discussed.

## Summary

Social and environmental psychology is dedicating increasing attention to the study of the "human dimension of global environmental changes" (biodiversity loss, depletion of natural resources, climate changes, deforestations, etc.), and the *sustainability issues*, and in particular to the study of the social psychological factors and processes involved in the use and conservation of limited and *common* natural resources (e.g., water, air, soil, etc.) (Bonnes, Bonaiuto, 2002).

Several theoretical frameworks have been developed in the social psychological domain for the study of the various pro-environmental or ecological behaviours, including among these also the support for natural resource conservation policies. According to the Interdependence Theory and the Social Dilemmas perspective pro-environmental/ecological behaviours can be considered

as *cooperative behaviours* (Dawes & Messick, 2000, Van Vugt, Snyder, Tyler, Biel, 2000; Vlek, 2000).

The social psychological studies on cooperative behaviours indicates that depicting individuals as merely selfish human beings is inadequate to explain the complexity of people's behaviour in resource use and conservation. For example, social psychological studies revealed that people differ for the degree they are self vs others oriented: not all people are completely self-oriented, and thus unwilling to cooperate (es. Messick, McClintock, 1968). Many social psychological factors, besides selfishness disposition, may affect people's decision to cooperate. Among these factors, identity processes are receiving increasing attention during these years (Bonaiuto, Bilotta, Bonnes, Carrus, Ceccarelli, Giuliani, Martorella, 2006; Bonaiuto, Carrus, Martorella, Bonnes, 2002; Carrus, Bonaiuto, Bonnes, 2005; Van Vugt, 2001; De Kremer, Van Vugt, 1999).

Identity processes are a widely addressed issue both in the environmental psychological literature and in the more general field of social psychology (see Twigger-Ross, Bonaiuto & Breakwell, 2003, for a recent review). For example Social Identity Theory (SIT, Brewer, 1991; Brown, 2000) considers achieving a positive or "optimal" distinctiveness for the self as one of the basic motivations leading individuals to identify with a specific group.

Typically, people who highly identify with a specific social group tend to act on behalf of this group instead of for themselves as individuals, and to support anything which helps in maintaining a positive image of this group (see Ellemers, Spears & Doosje, 1997; Hewstone, Rubin & Willis, 2002). Environmental psychology, has widen and integrated this Social Identity Theory with its *Place Theory* (Canter, 1977; Bonnes, Secchiaroli, 1995), highlighting how individuals could identify with specific *places* and developing what it is called as a *place identity* (eg. Proshansky, Fabian, Kaminoff, 1983), by establishing emotional bounds with the same *places* (*place attachment*; see for example Giuliani, 2003). Thus the more he/she identifies with a specific place, the more s/he might appreciate any environmental transformation which gives a positive character to that place (Twigger-Ross et al., 2003).

People's acceptance of environmental conservation policies, such as, for example, the changing in the use of local resource (land, water, ecc.) for conservation aims could thus be affected by the degree to which they identify with the local places or areas involved, and by how much people are emotionally attached to these areas (es. Carrus and Bonnes, 1999, Bonaiuto et al. 2002, Bonaiuto et al., 2006).

Within this perspective, our Research Group developed several field studies on natural resource use changes for biodiversity conservation, with the aim of assessing the role of local identity in driving local cooperation to, or support for, (or opposition to) the institution of different natural protected areas and the willingness to participate to water conservation policies, in Italy. Four of these studies are briefly described here. Study 1 and 2 were focused on the institution of two natural protected areas in the region of the Sardinia Island. In particular, Study 1 concentrated its attention on the case of the Gennargentu National Park (Carrus, Bonnes, 1999). The park is a wide mountain ecosystem, located in the Central-Eastern part of Sardinia. It was instituted in order to protect a large number of endangered or rare animal and vegetal species, and also the large number of extremely rare endemism due to the geographically isolated nature of the area. The Park was designated in 1998 by the Italian National Government, but the first proposal of the park institution was formulated 30 years before. The major reason for such a long term process of designation is the strong opposition of inhabitants living inside the park area, who even now are still claiming against the decision of the National Government. The major aim of this study was to investigate the reasons for the ongoing social conflicts between inhabitants and local authority, by

clarifying the different “meanings” (social representations and attitudes) given to the park by the various local groups, and related social psychological factors involved. Participants to this study were 30 people living in the Sardinia island, belonging to two different local groups: 1) “local” people (N=15), living in small rural villages inside the park area, and 2) “non local” people (N=15), living in the city of Cagliari (the biggest metropolitan area of Sardinia located about 200 km from the park). Methods of investigation for study 1 were semi-structured interviews (seven open-ended questions concerning natural parks in general, the specific Gennargentu Park, and behaviours towards the natural environment) which were then content analysed. Results from this study showed a strongly polarized structure of the representations, attitudes and knowledges held by the two groups, and different patterns of argumentation used on accounting for positive or negative judgements. In particular, “Non Local” group exhibit on the whole a more positive attitude toward both the Gennargentu Park and Natural parks in general. These people also evaluate their global level of knowledge about the Gennargentu Park as low. “Local” group exhibit on the whole a more negative attitude toward both the Gennargentu Park and Natural parks in general. These people declare a high degree of knowledge about the Gennargentu Park, and ask to be actively involved in the management and planning policies of the Park area.

On the basis of this explorative study, more structured research designs were developed for investigating more systematically: a) the relationship between local identities and institution of natural protected areas in various contexts (other protected areas, in various part of the country) and b) the role of the different approaches (more or less participatory) followed by local authorities in the designation process. Hence, a second study focused on another Sardinian regional park: the Geominerarian Regional Park (Carrus, Bonaiuto, Bonnes, 2005). The Park was mainly promoted by the Sardinian Mining Agency and designated in 1997 by the Sardinian Regional Administration. In this case, a wide local participatory process preceded the park institution. The park was instituted in order to: 1) protect the precious geological and mineral resources distributed throughout the region; 2) recover a complex system of old extractive industrial sites (which are of particular historical and cultural value for the region and for its inhabitants); 3) provide alternatives (e.g., eco-tourism) for the poor economy of an area badly hit by the crisis in the mining industry (which has progressively declined since the early 1960s, having now only a few sites still operatin). The main aim of study 2 was to assess the role of various social psychological factors (e.g., general environmental concern, attitudes towards protected areas in general) and regional identity in predicting support for this specific natural protected area. Participants to this second study were 316 residents in various areas of Sardinia: 195 (61.9%) from small rural villages located within or near the park territories and 120 (38.1%) from a large city about 60 km away from the park territories (171 females and 144 males; age range: 18 - 86 years,  $M = 37.1$ ;  $S.D. = 16.7$ ). Method of investigation for this study were self-administered paper-and-pencil questionnaire containing measures of general environmental concern (6 items taken from NEP scale: Dunlap & Van Liere, 1978), attitudes towards natural parks in general (12 items taken from Bonaiuto et al., 2002), regional identity (16 items, taken from Carrus, 2002, composed of two subscales “Regionale Pride” and “Regional Empowerment”). Support for the Geominerarian park (16 items partly adapted from Bonaiuto et al., 2002 and partly obtained from a preliminary qualitative study). Main results of this study are that “Regional pride” (people’s pride and need for preserving their own regional culture and traditions ) predicts support for the park, independently of other factors, such as, attitudes towards natural parks in general Archeological Park of Gravina in Puglia (Carrus, Bonaiuto, Bonnes, 2005). The Park is located in the Puglia region (Southern Italy). It was set up in 1999 by the Municipality of Gravina in Puglia in order to preserve a complex system of geological and ancient

archeological sites dating back to prehistoric times, covering a broad area of the municipal territory. The specific features of this park, as well as the management strategies implemented by the local authorities during the designation process, are very similar to those of the Geominerarian Park of Sardinia. The main aim of this study was thus to replicate results of study 2 in a different context. Participants to study 3 were 157 respondents living in two areas of Puglia: 86 (54.8%) participants from Gravina in Puglia and 71 (45.2%) participants from Altamura, a town with similar characteristics, situated near the park territories. On the whole 84 participants were females (53.5%) and 73 were males (46.5%); age ranged between 18 and 79 ( $M = 39.4$ ;  $S.D. = 15.4$ ). Method of this study was the same questionnaire used for study 1 (with small changes: i.e. adapted to the different context considered). Results for study 3 are the same as for study 2.

On the whole, results of these three studies showed how a strong local identity can be a major psychological driver of local people's support for institution of protected areas, when these are designated through the adoption of participatory and inclusive approaches, such in the case of study 2 and 3. Conversely, a strong local identity emerged as a major driver of local people's opposition to protected areas, when participatory and inclusive approaches were not followed by public environmental authorities, such in the case of study 1.

Finally, a fourth study focused on the issue of fresh-water conservation at the Elba Island (Tuscany) (Bonaiuto et al, 2006). The Elba island is the biggest, the most highly populated and economically developed of the seven Island composing the Tuscan Archipelago. Every year, on the Elba, there is a problem of water shortage that can leave people without drinkable water even for an entire week. This situation occurs more frequently during the second half of August, when also the flow of vacationers is extremely high and the weather is very dry. The main aim of this study was to explore the impact of individual, social-psychological, and social-structural variables on both voluntary and prescribed (structural) by local authorities cooperation in fresh-water conservation. In particular the aim was to assess the role of local identity, value orientations (*pro-self* – a more selfish orientation - or *pro-social* - a more altruistic orientation), and trust in local authorities upon cooperation (voluntary or structural, i.e. prescribed by the local authority) in water saving behaviours, during water scarcity periods. Participants to study 4 were a total of 758 people: 380 of them were permanent residents of the Elba Island, while 375 were non-permanent residents ("vacationers": owners or renters for at least 5 years of holiday houses on the Island. Occasional tourists were avoided, as it would have been difficult to assess their degree of local identification). The sample was balanced for the main socio-demographic characteristics (gender, age, educational level). Method of study 4 was a self-administered paper-and-pencil questionnaire containing measures of *Local identity*, *Voluntary cooperation in water saving*, *Prescribed (structural) cooperation in water conserv.*, *Individual Trait of Social Value Orientation* (pro-self vs. pro-social), *Perception of local authority's legitimacy*, Socio-demographic characteristics (gender, occupation, educational level, length of residence, place of residence). Results of this study showed cooperation as a function of social value orientation and local identification. In particular, the highest levels of voluntary cooperation to conserve water were detected among *prosocial* persons with *high local identity*, while the lowest levels of voluntary cooperation were detected among *proself* persons with *low local identity*. Also the effect of other factors, such as perception of local authorities' legitimacy, participants place of residence, and severity of water scarcity condition, was found as statistically significant. In particular voluntary cooperation was higher among individuals who perceived a higher legitimacy of local authority.

On the whole, these studies highlight the critical role played by the ways local authorities involve local residents in the decisional process concerning local

environmental changes and natural resources conservation. In general, the more people feel involved in such processes the more they will cooperate with these decisions and will support the related environmental policies.

Moreover, local identity showed to have a strong impact on environmental cooperative behaviours. However, the nature of this impact in the supportive, cooperative *versus* non cooperative behaviours also depends on the characteristics of the decisional process considered. Local identity tends to enhance support to policy decisions when these decisions are achieved throughout a participatory process. On the contrary, they seem to enhance opposition to policy decisions when they are achieved without a participatory process.

## References

- Bonaiuto, M., Carrus, G., Martorella, H., and Bonnes, M., 2002. Local identity processes and environmental attitudes in land use changes: the case of natural protected areas. *Journal of Economic Psychology*, 23: 631-653.
- Bonaiuto, M., Bilotta, E., Bonnes, M., Carrus, G., Ceccarelli, M., Giuliani, M., Martorella, H., 2006. Local identity moderating the role of individual differences in natural resource use: the case of water consumption. Manuscript submitted for publication to *Journal of applied social psychology*.
- Bonnes, M. and Bonaiuto, M., 2002. Environmental psychology: From spatial-physical environment to sustainable development. In: R. Bechtel and A. Churchman (Editors.), *Handbook of environmental psychology*. Wiley, New York, pp. 28-54.
- Brewer, M.B., 1991. The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17: 475-482.
- Brown, R., 2000. Social Identity Theory: Past achievements, current problems and future challenges. *European Journal of Social Psychology*, 30: 745-778.
- Canter, D., 1977. *The psychology of place*. Architectural Press, London.
- Capozza, D., and Brown, R., 2000. *Social Identity Processes*. Sage, London.
- Carrus, G., and Bonnes, M., 1999. Conflicting meanings of a protected natural area in Italy: the Case of the Gennargentu National Park. In: I. Eisto, T. Hokkanen, M. Ohman and A. Repola, (Editors.), *Local involvement and economic dimensions in biosphere reserve activities*. Academy of Finland, Helsinki, pp. 159-166.
- Carrus, G., Bonaiuto, M. and Bonnes, M., 2005. Environmental Concern, Regional Identity and Support for Protected Areas in Italy. *Environment and Behavior*, 37: 237-257.
- Bonnes, M., Secchiaroli, G., 1995. *Environmental Psychology*. Sage, London.
- Dawes, R., and Messick, D.M., 2000. Social Dilemmas. *International Journal of Psychology*, 35: 111-116.
- De Cremer, D., and Van Vugt, M., 1999. Social identification effects in social dilemmas: a transformation of motives. *European Journal of Social Psychology*, 29: 871-893.
- Ellemers, N., Spears, and R., Doosje, B., 1997. Sticking together or falling apart: ingroup identification as determinant of group commitment versus individual mobility. *Journal of Personality and Social Psychology*, 72: 617-626.
- Gifford, R., 2002. *Environmental Psychology. Principles and practice*. Optimal Books, Colville, Canada.
- Giuliani, M.V., 2003. Theory of attachment and place attachment. In: M. Bonnes, T. Lee and M. Bonaiuto (Editors.), *Psychological Theories for Environmental Issues* Ashgate, Aldershot, UK, pp. 203-233.
- Hewstone, M., Rubin, M., and Willis, H., 2002. Intergroup bias. *Annual Review of Psychology*, 53: 575-604.

- Messick D.M. and McClintock, C.G., 1968. Motivational bases of choice in experimental games. *Journal of experimental social psychology*, 4: 1-25.
- Proshansky, H.M., Fabian, A.K., Kaminoff, R., 1983. Place-Identity: physical world socialization of the self. *Journal of environmental psychology*, 3: pp.57-83.
- Twigger-Ross, C., Bonaiuto, M., and Breakwell, G., 2003. Identity theories and environmental psychology. In: M. Bonnes, T. Lee and M. Bonaiuto (Editors.), *Psychological Theories for Environmental Issues*. Ashgate ,Aldershot, UK, pp. 203-233.
- Van Vugt, M., 2001. Community Identification Moderating the Impact of Financial Incentives in a Natural Social Dilemma: Water Conservation. *Personality and Social Psychology Bulletin*, 11: 1440-1449.
- Van Vugt, M., Snyder, M., Tyler, T., and Biel, A., 2000. *Cooperation in Modern Society: Promoting the welfare of communities, states, and organisations*. Routledge, London.
- Van Vugt, M. and De Cremer, D., 1999. Leadership in *social dilemmas*: Group identification effects on collective actions to provide public goods. *Journal of Personality and Social Psychology*, 76: 587-599.
- Vlek, C., 2000. Essential Psychology for Environmental Policy Making. *International Journal of Psychology*, 35: 153-167.