

Effects of Place Identity on Common-Pool Resource Management on Private Lands: A Conceptual Framework

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1. Introduction

Population growth and urban expansion along the urban-rural interface have converted much private open space including farm, forest, and ranch lands for residential development and associated land uses. Land conversion may lead to fragmentation of continued private agricultural lands to become too small to be economically viable for agricultural production (Wilkins et al., 2003). At the same time, habitat for wildlife, maintenance of water supply and quality, soil conservation, flood control, greenhouse gas sequestration, and provision of scenic landscape as well as nature or agriculture-based recreation may also be adversely impacted (Czech, Krausman, & Devers, 2000; Ewing, Kostyack, Chen, Stein, & Ernst, 2005; Hellerstein et al., 2002).

2. Common-Pool Resources

Many of the ecosystem goods and services supported by private open space are common-pool resources (CPRs). CPRs differ from other types of resources in the attributes of subtractability and non-excludability (Dietz, Dolšak, Ostrom, & Stern, 2002). Unprotected wildlife that moves from one property to another is CPRs. Consumption of wildlife due to hunting or lack of suitable habitat on a property reduces the overall population available for others to enjoy it through activities such as wildlife watching or hunting. On the other hand, the environmental amenities of a land managed in a sustainable manner benefits society often without the owner being compensated for the management costs. These two attributes of CPRs are, therefore, likely to lead to the incentive problems of overuse and free-rider (Ostrom et al., 1994).

Private landowners' decision between consuming the resources on their land for short-term economic maximization and maintaining the land for its ecological functions may be described as common-pool resource dilemmas that occur when "individuals in interdependent situations face choices in which the maximization of short-term self-interest yields outcomes leaving all participants worse off than feasible alternatives" (Ostrom, 1998, p. 1). If each private landowner makes the decision to maximize short-term economic outputs from his/her land, society will suffer the consequences of losing the ecosystem goods and services originally supported by private lands.

2.1 Solution to CPR dilemmas

Different solutions have been examined to solve CPR dilemmas (Kollock, 1998; Messick & Brewer, 1983). Structural solutions use externally driven mechanisms that enforce exclusive

access, regulations on consumption, and changing the structure of the group (e.g., group size) that has access to CPRs. Motivational solutions emphasize psychological processes that transform individuals' goal of maximizing self-interest to the one that focuses more on collective benefits. Social value orientations (e.g., individualism, competition, cooperation, and altruism) have been suggested as relatively stable dispositions that carry the motivational force for individuals' engagement in collective action (Kopelman et al., 2002; Kollock, 1998). On the other hand, collective identity or group identity is more malleable. It may enhance one's trust in other group members (Ostrom, 1998; Kramer et al., 2001), increase his/her expectations that other group members will reciprocate the act of trust (Kollock, 1998; Van Lang & Messick, 1996), and strengthen the beliefs that his/her involvement in collective action will make a significant difference to the collective outcome or self-efficacy (De Cremer & van Vugt, 1998). Figure 1 summarizes the aforementioned relationships among collective identity, trust, reciprocity, self-efficacy, and collective action. Here, collective identity influences decisions to engage in collective action through trust, expectations of reciprocity, and beliefs in self-efficacy.

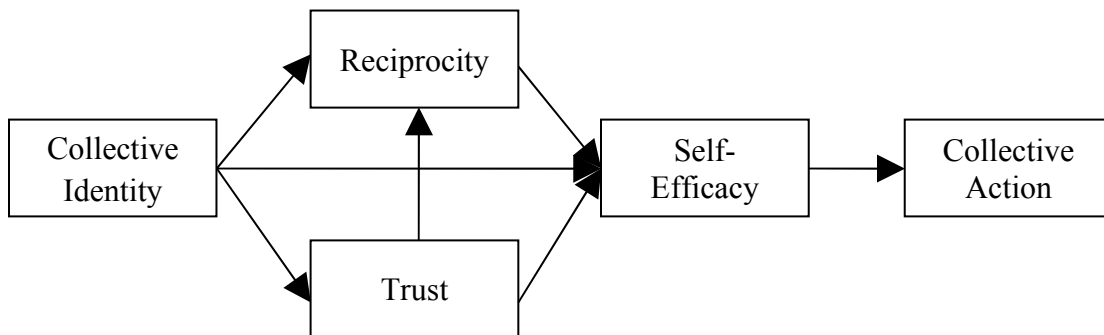


Figure 1. Goal transformation model for collective action

2.2 Limitations of CPR research

Much of the CPR dilemmas research employed experimental designs based on the minimal group paradigm where study participants were arbitrarily assigned to a group based on an attribute not important or not relevant to the identity salient to them (Krammer & Goldman, 1995). As a consequence, group identity was frequently used as a treatment and single indicators were applied to identify individuals' possessions of this psychological state despite the complex and rich meanings that one may attribute to a group valuable to him/her.

Furthermore, this line of research has not focused much on the collective identity deriving from one's identification with a specific geographic location and association with individuals who share the same place. At the same time, field work on the commons focusing on local user groups in small communities has identified that clearly defined boundaries and factors deriving from individuals' interactions with specified places are crucial for successful CPR management (Agrawal, 2002).

3. Place identity

An identity associated with one's interaction with a place or place identity can be viewed as comprising the meanings that the person ascribes to the place (Cuba & Hummon, 1993) and that become the defining elements of self-identity (Proshansky, Fabian, & Kaminoff, 1983). Meanings of a specific geographic location may be distinguished into a cognitive and affective dimension (Proshansky, 1978; Relph, 1976). Meanings that describe the biophysical and spatial features of the place as well as the activities and functions it supports can be categorized as the cognitive aspect of place identity. Affective place-identity is expressed through one's feelings related to scenic beauty, connection to nature, pride, self-esteem, spirituality, attachment, and belongingness deriving from the place.

Place constructs, such as place identity, place attachment and sense of place, have been increasingly applied to natural resource management to explore the effects of the people-place relationship on attitudes, perceptions, or behaviors toward natural resource conditions or management (Kaltenborn, 1998; Kyle, Graefe, Manning, & Bacon, 2004; Payton, Fulton, & Anderson, 2005; Stedman, 2002; Vaske & Kobrin, 2001). However much of this research has not yet invested much to explore the effects of this relationship on natural resource management at the group level. Furthermore, examination of how place constructs may affect CPR management on private lands has been lacking. Another less understood area in place research is the impacts of environmental change on one's relationship with a place and responses to the change (Davenport & Anderson, 2005; Rogan, O'Connor, & Horwitz, 2005).

4. An integrative approach to place-based collective action

In order to address the research gaps mentioned above, we propose 5 propositions that integrate the different lines of research on CPR dilemmas, place identity, and group processes primarily based in social identity theory.

Proposition 1- Place-based collective identity is comprised of multiple dimensions

According to Tajfel (1981), social identity is "that part of an individual's self-concept which derives from his knowledge of his membership in a social group (or groups) together with the value and emotional significance attached to that group membership" (p. 255). Some have adopted Tajfel's conceptualization of social identity and viewed this construct as comprising one's awareness of his/her membership in a group or self-categorization, valuation of the group or group self-esteem, and emotional attachment to the group or affect commitment (Bergami & Bagozzi, 2000; Ellemers, Kortekaas, & Ouwerkerk, 1999). Additionally, it has been suggested a sense of interdependence or common fate as another important component of social identity (Jackson & Smith, 1999). Deaux (1996) has stated that "interdependence, entails a more concrete relationship between self and other members of the social category. At *minimum*, interdependence connotes the possibility of some form of joint action; at *maximum*, interdependence consists of coordinated activities by people with common goals and shared outcomes" (p. 784).

In Proposition 1, we view the cognitive and affective dimension of place identity at the collective level (e.g., a region) as components of place-based collective identity. The cognitive dimension represents one's awareness of his/her membership in a group formed as a

consequence of his/her identification with the region in which his/her property is located and associations with others who share the same region. Shared meanings of the biophysical and socio-cultural features unique to a region help define individuals as belonging to a distinct group. Feelings of scenic beauty, connection to nature, pride, self-esteem, spirituality, attachment, and belongingness deriving from the region are manifestations of the affective dimension. This dimension of place-based collective identity is comparable to affective commitment in social identity.

The value component used to define social identity can also be applied to describe place-based collective identity to represent the evaluations of self-worth deriving from one's membership in the region. This dimension is reflected in place research showing that one's residential and favorite places serve the function to facilitate individuals' self-enhancement (Lalli, 1992) and self-evaluation (Twigger-Ross & Uzzell, 1996).

Interdependence among individuals is a necessary condition to delineate a CPR dilemma (Ostrom, 1998). Although a sense of interdependence is not included in Tajfel's conception of social identity, we see it as another dimension comprising place-based collective identity. A sense of interdependence represents the extent to which individual landowners' self-interest to conserve the important features on their property is dependent on the achievement of the collective goal to sustain the shared place meanings of the region where these individual properties are located. The proposed dimensional structure of place-based collective identity is illustrated in Figure 2.

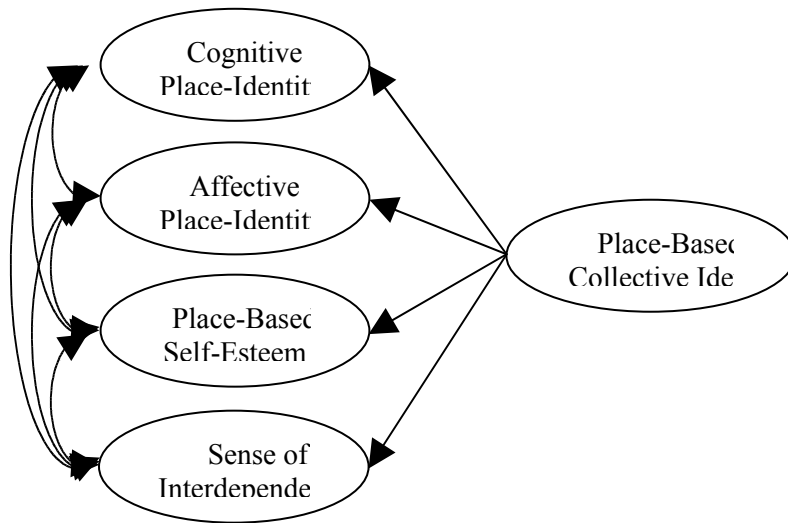


Figure 2. Dimensional structure of place-based group identity

Proposition 2- Place-based collective identity creates intergroup favoritism which in turn facilitates the perception of trust, reciprocity and self-efficacy

Place-based collective identity enhances perceived similarity and favorable evaluations among landowners belonging to the same place-based group which in turn facilitates their perception of other group members' trustworthiness and belief that other group members will reciprocate acts of trust (Kramer et al., 2001). A sense of place-based collective identity, trust in

and expectation of reciprocity from other group members together contribute to private landowners' beliefs that their involvement in natural resource management beneficial to the region collectively can make significant contribution to the outcome (De Cremer & van Vugt, 1998; Messick & Brewer, 1983).

Proposition 3- Perceived environmental change that may threaten one's place-based collective identity is likely to enhance the salience of the identity and its effect on collective action

Proposition 3 suggests that perceived environmental change that may threaten one's place identity is likely to enhance the salience of the identity and its effect on collective action. The effect of environmental change on collective identity and collective action is less discussed in the CPR dilemma literature. Empirical evidence from place research is only indirect. Place literature has suggested that individuals are not aware of their place identity until change in the physical environment is perceived (Brown & Perkins, 1992; Feldman, 1990; Williams & Stewart, 1998). Lai's (2007) study provides some preliminary support for this proposition. Findings of this study show that landowners who perceived environmental qualities of the surrounding landscape declining expressed a higher level of resistance to change by subdividing their property or moving to a different place. The same group of landowners also tended to invest more effort in applying ecologically sound measures to managing their properties.

Proposition 4- Place-based collective identity, trust, reciprocity, and self-efficacy contribute to collective action only when one intends to continue the identity

Proposition 4 suggests that place-based collective identity, trust, expectations of reciprocity from other group members and the beliefs of significant personal impacts on the collective outcome will contribute to collective action only when landowners are intended to maintain the identity. If landowners have no intention to remain the connection with the region for a variety of reasons, then they are less likely to invest limited resources in collective action even if they are identified with the region, trust other ingroup members, believe that they will receive reciprocity from other members, and feel a sense of self-efficacy,.

Proposition 5- Salient subordinate groups may undermine the effect of place-based collective identity on collective action

Kramer and Brewer's (1984) experimental research shows that salient group boundaries among individuals are likely to prompt competition for declining resources. If the divergence in landowner interests in the attributes and meanings of the region to be conserved or developed expands, and groups of different interests emerge as a consequence of this divergence, then it may undermine the effort to promote collaboration among them. Research that examines the conflicts between long-term residents and newcomers in their support for natural resource management provides indirect empirical evidence for this proposition (Bonaiuto, Carrus, Martorella, & Bonnes, 2002; Gosnell, Haggerty, & Travis, 2006).

5. Implications

In this final section, we will make several suggestions based on the five proposed propositions for agencies or organizations strive to facilitate landowner collaboration (e.g., cooperative wildlife management) to sustain common-pool resource management at a regional scale.

1. To promote collaboration among private landowners, agencies and organizations may need to identify landowners' self- and collect-interests in conserving the place meanings important to their place identity embedded in the region where their properties are located. Moreover, agencies and organizations may need to convey to landowners that they share the membership with landowners of the region (i.e., collective identity based in the region). In so doing, landowners' trust and beliefs in reciprocity from the agencies and organizations could be enhanced.
2. Furthermore, we suggest that agencies and organizations may need to develop mechanisms, such as information sharing, public involvement, network building, and technical support, to facilitate communication and interactions with landowners. Through these mechanisms, agencies and organizations may
 - a. enhance individual landowners to identify the shared meanings that comprise the place-based collective identity and to
 - b. minimize the perceptions of differences between landowners of dissimilar interests (e.g., newcomers vs. oldtimers).
3. Although various landowner programs have been provided by governmental and non-governmental organizations to financially support landowners' effort to sustain the natural resources on their properties, the temptation to sell the land or convert the land for uses of higher economic outputs is always there if the land means nothing other than economic production to landowners. Promotion of landowner programs that take into account landowners' connection with their property and the region may help overcome landowners' dilemmas to trade their land entirely for short-term economic values.
4. Also we suggest the need to raise landowners' awareness about the adverse effects of environmental change on environmental features and associated meanings important to their place identity to make the identity salient. This may in turn enhance their engagement in collective action for sustainable common-pool resource management in the region.

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