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Does owner heterogeneity matter in the management of multi-owned housing?

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ABSTRACT

During the past decades, the question of how user heterogeneity has an impact on common pool resource (CPR) management has been receiving increased attention. However, this issue has not yet been fully discussed in the field of multi-owned housing management which is of paramount importance to the sustainable use of housing stock. To straddle the research gap, this paper first provides a brief review of the theoretical and empirical work on the relationship between user heterogeneity and collective action in CPR management. It then discusses which aspects of owner heterogeneity may affect owners' collective actions in the management of a multi-owned housing development. Using survey data from 72 apartment buildings in Hong Kong, it found that the overall owner heterogeneity — in terms of knowledge level, age level, tenure mode, and length of time living there — posed significant but negative impacts on owners' collective actions, *ceteris paribus*. This paper not only has implications for the formulation of housing-care policies but also lends support to neighbourhood homogenization.

1. Introduction

Common pool resource (CPR) refers to a type of good which has the feature of non-excludability and subtractability (Ho & Gao, 2013). A wide variety of goods fall under the heading of CPR, such as irrigation systems, fishing grounds, and the atmosphere. Because of the distinctive characteristics of a CPR, its users' collective actions are greatly needed in its consumption, maintenance, and preservation. Unfortunately, those actions are never straightforward for the users. Due to various reasons, such as the temptation of free riding and high transaction costs, the users may fail to act collectively. Quite often, the accumulation of their action failures leads to the resource degradation. In the past decades, a considerable amount of research effort has been dedicated to understanding the conditions under which CPR users may succeed in the collective management of their resources (Andersson, Benavides, & Leon, 2014; Dietz, Ostrom, & Stern, 2003; Poteete & Ostrom, 2008; Ruttan, 2008). Group heterogeneity, as one structural indicator of a user group, has come to the attention not only of academic researchers but also policy-makers. Despite the ample studies of group heterogeneity, the existing research has been divided about how group heterogeneity impacts collective action in CPR management (Ruttan, 2006, 2008). For instance, one view states that group heterogeneity creates barriers to users' communication (Baland & Platteau, 2000; Ostrom, 1999); but another view holds that greater group heterogeneity is associated with more diversity of users' skills and resources (e.g. money) (Beard, 2007; Olson, 1965; Quintelier, Stolle, & Harell, 2012). In addition, empirical studies have reported paradoxical results on group heterogeneity, with both positive and negative effects being found (Poteete, Janssen, & Ostrom, 2010; Poteete & Ostrom, 2004; Ruttan, 2008; Varughese & Ostrom, 2001).

As the debate on group heterogeneity continues, the role of owner heterogeneity has been brought up in the field of multi-owned housing (MOH) management. Some scholars argue that owner heterogeneity is not a significant issue in MOH management. This view rests on the assumption that when an MOH development is transacted, the market will automatically match buyers' preferences to its management style (McCabe, 2011). In other words, owners tend to be homogenous within a

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development under the price mechanism. However, other researchers maintain that owner heterogeneity does exist and may affect management activities (Forrest, Grange, & Yip, 2002; Yip, 2011; Yip & Forrest, 2002). For instance, Walters and Hastings (1998) observed that MOH owners have different preferences on the demolition of unauthorized building works, which partially contributes to their proliferation in Hong Kong. Guilding, Warnken, Ardill, and Fredline (2005) found that, within a development, investment-oriented owners and consumption-oriented owners have conflicting management agendas, leading to chaos in the formulation of management plans. Still others have noticed that owners' divergent interests in the collective sales of an MOH development are one of the biggest obstacles to its redevelopment (Christudason, 2009; Hastings & Adams, 2005; Hui, Wong, & Wan, 2008). However, no empirical studies have been done to investigate the role of owner heterogeneity so far. In fact, the existing research has been almost silent about the following two issues: (a) whether owner heterogeneity has a bearing on owners' collective actions in the management of an MOH development; and (b) if so, how it exerts its influence on the action outcomes.

The above research gaps need to be bridged for at least the following three reasons. First of all, as Ostrom (2000) put it, MOH is one of the most important man-made CPRs in the twenty-first century. Nowadays, MOH has become a dominant dwelling type in developed countries, such as the U.S.A., Canada, Sweden, and Australia (Easthope & Bandolph, 2009; Ganapati, 2010; Ho & Gao, 2013; Randolph & Tice, 2013). Also, it has mushroomed over big cities in developing countries, such as China, Vietnam, Brazil and India (Chen & Mostert, 2007; Ganapati, 2010; Guo, Li, & Li, 2008; Huong & Sajor, 2010; Murakaml et al., 2009). In light of its number, how it is managed will certainly have enormous impacts on the configuration of urban environments, people's quality of life, and the sustainable use of housing stock (Johnston & Reid, 2013; Nicol & Knoepfel, 2008). Such impacts certainly necessitate the investigation of owner heterogeneity which can advance our knowledge of MOH management. Second, due to the rapid urbanization, increasingly globalized markets, and greater mobility, more diversity in local communities is inevitable (Arthurson, 2013; Lelevrier, 2013). An investigation into owner heterogeneity effects is a meaningful attempt to enhance our understanding of community diversity. The last, but not the least, reason is that findings on owner heterogeneity can help put an end to the debate on group heterogeneity.

The rest of the paper is organized as follows. First, it synthesizes the theoretical underpinnings and empirical findings on the relationship between group heterogeneity and collective action. Second, it discusses which aspects of owner heterogeneity would have an impact on collective action. It then conducts empirical analyses to ascertain the effects of the focal owner heterogeneity, followed by a presentation and discussion of the results. Finally, the paper concludes with tentative policy implications for dealing with heterogeneity effects.

2. Literature review: group heterogeneity and collective action

The research on group heterogeneity can be traced back to Olson's (1965) seminal work, *The Logic of Collective Action*, in which he identified group heterogeneity as a critical influential factor in collective action. Since Olson, researchers have started to explore how group heterogeneity could shape the prospect of collective action. So far, they have examined multiple sources of group heterogeneity. Some of them put an emphasis on intangible group heterogeneity, such as group members' interests in collective goods, their resources available for goods production, and their perceptions of benefits and costs attached to collective goods (Hardin, 1982; Karaivanov, 2009; Marwell & Oliver, 1993; Oliver & Marwell, 1988). Others have focused on group members' demographic heterogeneity, such as economic inequality, social differences, and cultural diversity (Alberto & Ferrara, 2005; Ruttan, 2006, 2008). Here, economic inequality refers to individuals' disparities in, for example, wealth, assets, income and endowment (Velded, 2000). Social differences are concerned with individuals' disparities in age, gender, social class, and so on (Varughese & Ostrom, 2001). Culture diversity is about individuals' disparities in, for instance, ethical belief, religion and cultural norms (Ostrom, 1999).

There are several ways in which an aspect of group heterogeneity can exert its influence on the prospect of collective action. One of the basic ways is by entering an individual's *preference* (Alberto & Ferrara, 2005). According to social identity theory and exchange theory, people like interacting with someone who is similar to them (Costa & Kahn, 2003). On the one hand, this kind of interaction reminds them of themselves, which contributes directly to their utility of well-being. It also creates a sense of fairness, which makes interactions sustainable (Cheung & Leung, 2011). The above views are supported by the empirical study which found individual participation in social activities was lower in more heterogeneous groups (Alesina & Ferrara, 2000). The second way is by affecting individual's *strategy* (Alberto & Ferrara, 2005). As is known, sharing something in common will increase the predictability of peoples' interactions (Alesina & Ferrara, 2000). Besides, as social sanctions can be imposed on people with common traits relatively easily, the risk of being cheated by others would be greatly reduced. Thus, even if individuals have no strong preference on homogeneity, they may be inclined to transact with others similar to themselves.

The third way is by *production function* (Marwell & Oliver, 1993; Oliver & Marwell, 1988; Ostrom, 2000). Sometimes, the more heterogeneous a group is, the more diverse the members' skills and resources are. Compared to a homogenous group, it is easier for a heterogeneous group to find a subgroup of members who are highly resourceful and highly interested in collective goods to shoulder the costs of goods production (Olson, 1965). The last, but not the least, way is by *social capital* (Cheung & Leung, 2011). Social capital usually refers to “generalized trust, norms of reciprocity, and networks” (Forrest & Kearns, 2001). It has been demonstrated that those elements of social capital can facilitate people's cooperation (Ballet, Sirven, & Requiers-Desjardins, 2007; Bowles & Gintis, 2002; Carpenter, Daniere, & Takahashi, 2004; Forrest & Kearns, 2001). Recent studies have also shown that the elements are adversely correlated with group heterogeneity (Bowles & Gintis, 2002; Coffe, 2009; Gijsberts, Meer, & Dagevos, 2012). Therefore, group heterogeneity may have a negative impact on the prospect of collective action through its influence on social capital.

In fact, the impact of one aspect of group heterogeneity can be mediated by other factors, such as another aspect of group heterogeneity, group size, and institutions (Poteete & Ostrom, 2004). As for group size, additional group members may add diversity on certain aspects. Thus, one may expect its increase will lead to a higher degree of group heterogeneity – that is, the increase in group size may reinforce the impact of group heterogeneity. For instance, Shrestha and Cheong (2005) developed a theoretical model that showed clearly how the interaction between group size and group heterogeneity determined collective action outcomes. In addition, the effects of group heterogeneity are contingent on the institutions that regulate the collective action