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Social Innovation and the Governance of Sustainable Places

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Abstract

This article explores social innovation as a tool for the promotion of place based sustainable development. The literature highlights the satisfaction of basic needs and situations of crises as two major drivers of socially innovative actions. We use these insights to explore the conditions under which social innovation can lead to social transformation and sustainable place making. We also recognise that social processes occur through, and are shaped by, the material forms that constitute and are constituted in place specific settings. This highlights the deep interconnections that exist between place making and the resources, attributes and characterises - the materiality (such as rivers, soil, trees) - that exist within that locality. It is here that a close tie can be discerned between understanding the adaptive process in complex socio-ecological systems and the role of social innovation in such adaptation. Socially innovative initiatives at the community level can also be scaled upwards through the co-ordinating role of the state, while at the same time act as a pressure for more participatory forms of governance. Governance processes that enhance the role of both economic and social actors in the steering of social change help to infuse more open, democratic practices into social steering. With social, economic and state actors co-mingling as agents of social change, social innovation can come to play a key role in enhancing sustainable human-environment interactions.

Keywords: social innovation; place making; human-environment interactions; sustainable development; governance.

Introduction

Since the 1990's, the concept of 'social innovation' has gained prominence in social science research, with the literature paying particular attention to innovation at the community level. This can be attributed to the growing awareness of the value of social innovation in promoting social processes of integration and assimilation. From a social science perspective, social innovation can be understood as extraordinary measures taken by ordinary people and is closely tied to the notion of social capital. In part, the social science focus has helped to counteract previous emphasis on innovation understood in organisational and technological terms (Hillier *et al.* 2004), placing weight instead on the origins and social impact of innovation processes.

This article explores the role of social innovation in the promotion of sustainable places, an approach new to the literature. We argue that social innovation can counteract social exclusion and, by supporting collective wellbeing, can help promote more sustainable forms of development at the place based level. Our understanding of place extends beyond the social and cultural characteristics to include the natural, ecological resource base present at the local level. However, top-down support is required for the full realisation of the potential of social innovation, especially through state steering. In turn, this has implications for the types of governance arrangements that best support the diffusion of social innovation across scale. We begin by looking at the concept of social innovation and explore under what conditions its transformational potential can be realised. We then explore the links between social innovation and sustainable forms of place making, drawing upon a social and cultural understanding of place alongside considerations of the ecological dimension. This brings attention to how social innovation can support social and ecological resilience. Finally we discuss the links between social innovation and governance practices, in particular in relation to new forms of co-steering between social, economic and state actors in the management of social change.

The potential of social innovations

The concept of social innovation is not new, with the writings of both Emile Durkheim (Durkheim 1893) and Max Weber (Weber 1968) stressing the importance of social innovation in the creation of social order, especially given social and technological change. In 1930s, Joseph Schumpeter pointed to the value of social innovation in the promotion of structural change in society (Schumpeter 2003). In 1982, Chambon, David and Devevey published a slim book, '*Les innovations sociales*', based on their observations of the student revolts, labour movements and intellectual debates of the 1960s and 1970s. The authors emphasized the relationship between crisis and revival, and how social innovation can foster societal change through collective action. To them, social innovation has the potential to transform a society through 'practices [that] are more or less directly aimed at allowing an individual, or a group of individuals to deal with a social need or a set of needs, that could not be satisfied by other means' (Chambon *et al.* 1982, p. 8, *authors' translation*).

Since the 1990s, the concept of social innovation has been used in a variety of academic sub-disciplines (Hillier *et al.* 2004), including management studies, which has brought focus on organizational innovation and organizational leadership. The concept is also widely used in regional development studies to cast light on the role of social, economic and environmental capital in promoting innovation dynamics in a given

geographic area (Moulaert and Nussbaumer 2005). This perspective is of particular interest to us here. Not only has it a place based focus, but it also points to the potential embedded within communities to respond and adapt to external crises. We wish to explore this potentiality, given our concern to investigate how and under what circumstances more adaptive and resilient, and thus sustainable, forms of development can be promoted at a place based level.

Exploration of the literature reveals that despite various commonalities, there has been limited communication between those studying sustainable development and those investigating social innovation (Mehmood and Parra 2013). There are several reasons for this. First, many successful socially innovative actions are simply assumed by stakeholders to be environment friendly. Second, the social change arising from actions is implicitly considered as contributing to social sustainability. Finally, the presence of direct economic gains can lead to a failure to consider whether these make a contribution to the longer term, sustainable development of the community. As we discuss below, a social innovation lens can help break from such conventional wisdom, revealing new insights into the links between collaborative forms of governance and place-based sustainability outcomes.

Defining social innovation

As work on social innovation expanded, so too did the variety of ways in which the concept has come to be understood. A good contemporary starting point is the definition provided by Phills, which sees social innovation as ‘the process of inventing, securing support for, and implementing novel solutions to social needs and problems’ (Phills *et al.* 2008, p. 36). For the purposes of our analysis, however, we see social innovation as both a process and as a product. Viewing social innovation as a process turns attention to the organisational and social processes that produce innovation, such as individual creativity, organisational structures and environmental context. Viewed as a product, attention is focused on the outcome of social innovation, and how this is manifested in social change, in this case, more sustainable forms of community development. In this latter focus on the transformational potential, social innovation can be understood as a ‘significant, creative and sustainable shift’ in the way a given society deals with a ‘profound and previously intractable problem’ – such as poverty, disease, violence or environmental degradation (Nilsson 2003, p. 3). Following Nilsson, social innovation is *significant* in so far as it exhibits three characteristics: scale, such as the number of people affected; scope, requiring societal improvement in a deep and multidimensional way; and resonance, that is, capturing people’s imagination in a powerful manner. It is this impact on scale, scope and resonance that moves actions from ordinary societal responses to innovative ones. It also serves to distinguish social innovation from social capital, an issue discussed below. Thus, for social innovation to be judged as such, it should have impact on the broader, social, political and economic context that created the problem in the first place (Social Innovation Generation 2012). In addition, the value created accrues to society as a whole, rather than to private individuals, for social innovation is about impact that happens beyond the individual level. Innovation is *social* to the extent to which the balance is ‘tilted towards social value – benefits to the public or to society as a whole, rather than private value – gains for entrepreneurs, investors and ordinary (not disadvantaged) consumers’ (Phills *et al.* 2008, p. 39).

Social innovation functions at different levels within society. First, it can function at the micro level, in the satisfaction of both material and non-material human needs. The fulfilment of needs is seen as a foremost driver of social innovation, needs that may

emerge as a consequence of deprivation, exploitation, or other crisis mechanisms. The second, meso level sees social relations impacting on the relationship between individuals in general, and between social groups in particular. The third dimension bridges the first and second scales of action and here social innovation is linked to empowerment, in that micro and meso level initiatives can bring positive, macro level change through up-scaling, for example, through institutional leverage. In this way, marginalised groups become empowered through the creation of both shared community identities and socio-political capabilities and through strengthening of social capital (Moulaert *et al.* 2010). In turn, social innovation can contribute to the changes in the role of, and relationship between, civil society and the state, the significance which is discussed below, where the governance implications of social innovation are discussed in more depth.

While social innovation can hold great potential to deal with underlying causes of unsustainable behaviour, and to promote social change aimed at more sustainable futures, the question remains as to the circumstances under which social innovation and its transformational potential can be realised in practice. In the following section, we look at social innovation as a normative goal and identify key drivers of social innovation practices.

The emergence of social innovation

Several factors have been put forward to account for the rise of social innovation, most of which focus on social innovation as a process. These include the suffering of people in deprived areas arising from a mix of incidents and situations, such as factory closures and resultant unemployment; the development of areas with high density of lower income groups; and physical decline of neighbourhood infrastructure, often taking place alongside the lack of community institutions and limited government interventions (Moulaert 2009). In analysing this myriad of causal factors, we focus on two key, but interrelated drivers of social innovation: (1) needs and necessities and (2) crisis. In the context of both needs and crisis, civil society becomes a ‘pivotal terrain’ (Swyngedouw 2005) upon which innovative actions and ultimately, social transformation, emerges.

As mentioned above, the foremost driver of social innovation is the requirement to satisfy the basic needs of individuals and groups. Their fulfilment forms a key component of the Brundtland concept of sustainable development, (Baker 2006). Subsequent UN Summits have linked the provision of needs, be they material, cultural or spiritual, to more sustainable forms of societal development (Pepper 1996). This is reflected for example, in the adoption of the WEHAB (water, energy, health, agriculture, and biodiversity) Agenda at the World Summit on Sustainable Development in 2002 (WSSD 2002). Local Agenda 21 (LA21) action programmes also highlight the importance of social innovation. LA21 pays particular attention to its place specificity, in that the history, resources and social structures operative at the local level means that communities necessarily opt for place specific options when it comes to satisfying their basic needs (Baker 2006).

One of the pioneering examples of socially innovative initiatives based on specific local needs was the Comilla Cooperative Pilot Project for rural development in East Pakistan (now Bangladesh). Established in 1959 as an integrated model for local development, it offered a cooperative approach to building and maintaining local institutions by local communities. The Comilla Model helped build the institutions needed for training and development, for the management of systems of irrigation and drainage, and for the establishment of ‘solidarity lending mechanisms’ (micro finance)

among rural communities (Choldin 1972). The project became an exemplar of best practice in relation to community based development. It acted as a precursor to the subsequent wave of microcredit and microfinance institutions, which provided loans, savings, insurance and other financial services to poor people who lack access to the conventional financial system. Although the economic benefits of contemporary microcredit systems for poverty alleviation in the Global South are still considered negligible (Karlan and Zinman 2009), these systems can trigger measures that help revive social relations and fulfil the basic needs of neglected individuals and groups (Mair and Marti 2007). Despite concerns, many believe it is more effective, efficient, sustainable and just than mainstream funding mechanisms. In addition, the bulk of the financial value created by microfinance institutions accrues to the poor and communities rather than to individual entrepreneurs or investors (Phills *et al.* 2008, p. 36). As such, microcredit has a strong social element, helping to promote social capital and wellbeing, particularly at the community level.

The example of fair trade is also used in the social innovation literature, in that it works across many links in the value chain, ranging from growers, to distributors to consumers. It is seen as having created deep social and environmental value through the deployment of a host of internal safeguards, including sustainable agricultural techniques, international certification and labelling, child labour prevention policies, and fair pricing practices (Phills *et al.* 2008, p. 39). Community actions following the London riots of 2011 are also given as an example. The riots are seen as an illustration of how austerity measures at the higher level (under policies introduced by government) and subsequent closure of public institutions at lower levels (for example, by local authorities) can serve to create frictions among local groups, particularly young people, and incite feelings of deprivation. Severance from the urban economic spheres and from the benefits of social relations, while at the same time facing declining quality of public policy delivery, results in pressures that transform such locations into what Moulaert and Leontidou (1994) call 'disintegrated areas'. The logic of action in such areas often tends to be contradictory, with policy objectives and actions becoming divergent and *ad hoc*. In response, community groups have worked together to turn these disintegrating factors to their benefit, for example by using migration flows as a means of discovering new social networks, supporting ethnic entrepreneurship, revalorising social assets and reviving local institutional and artistic traditions (Hillmann 2009). Gibson-Graham and Roelvink (2009) see such initiatives as future-oriented community developments that arise out of the diversity, aspirations, strengths and assets (or capital stocks) of local communities.

Our second key factor, *crisis* can also act as a driver of social innovation. Responses to a crisis situation can potentially lead to the empowerment of local groups (Gerometta *et al.* 2005). Some crises can be of an acute nature, but others can be of a longer term or even indeterminate form, such as, for example, the problem of global environmental change (Folke *et al.* 2010). In this context, what becomes important – and thus acts as a catalyst for action - is the spatial impact of a crisis, because this impact is both more immediate and imminent. People are not motivated to act by abstract and global framing of problems. Rather, it is the spatial, place based impact that stimulates social innovation for collective action and at the local level. At this level, crisis can act as a window of opportunity for societal change (Chapin *et al.* 2010).

Both the literature on, and practice of, social innovation has been largely concerned with social and economic development (Parra and Moulaert 2010), with limited focus on the environmental dimension. In contrast, we point to the fact that the local, natural environment, and in particular the locally specific natural resource base, also shapes the

potential for social innovation. Changing how the value of the natural environment is both recognised and used, for example in relation to the harvesting of natural resources or the provision of ecosystem services, increasingly holds the key to the realisation of more sustainable forms of societal development and place-making. From this perspective, the internationally successful, Transition Towns' movement (Scott-Cato and Hillier 2010) is of particular interest. First emerging in Kinsale, Ireland, the objective of this predominantly urban initiative is to devise locally based and environmentally sustainable responses to the deepening oil and climate crises (Hopkins 2008). Expanding throughout the early 21st century in both the UK and beyond, by the May 2013 there were about 1100 initiatives registered as part of the Transition Towns Network (TTN 2013), although the movement is predominantly found in Anglo-Saxon countries. By helping local towns to make the transition to a post-carbon future, the movement helps reduce oil-dependence and its negative social and environmental impacts. In addition, Transitions Towns projects stress the need for place based actions, asking local communities to take responsibility for localised measures aimed at the promotion of sustainable production and consumption activities - such as food growing and community gardening, and the establishment of localised exchange trading systems (Mehmood and Franklin 2013). Most of the transitional strategies promoted by the movement are not unique, but based on successful – yet dispersed – activities and practices from Asia, Africa and Latin America. However, when judged in terms of scale, scope and resonance, key characteristics of social innovation as discussed above, the movement provides an excellent example of social innovation from a sustainable development perspective. Yet, the geographically restricted nature of the Transition Network raises an important question: why do some communities manage to foster social innovation and others do not?

The diffusion of social innovation

In answering this question, attention is turned to the preconditions that allow, encourage and nurture socially innovative practices. The term 'enabling environment' is used to describe the context within which social innovation both arises and is diffused. 'Enablers' include networks, organisation and institutions, such as government departments, foundations, corporations, non-profit organisation or social capital investors. On a practical level, these agents may become involved in changing policy, creating tax incentives or opening up capital markets to social innovation initiatives (Social Innovation Generation 2012). Such actions, in turn, have implications for state steering, not least because they open up options for governance arrangements that extend beyond the formal, regulatory role of the state in steering social change. This link between social innovation and new forms of governance, particularly those that involve enhanced participatory practices and network engagement, is discussed further below.

The processes that generate social innovation are different from the processes underlying their adoption and diffusion. This brings our attention to the notion of social capital and we turn to the concept as understood by Putnam, which emphasised social capital as a feature of organisations at a societal scale and as a positive asset (Putnam 2000). Putnam defined social capital as networks, shared norms, values and understandings that facilitate co-operation within and between groups (Putnam 2004). He points to the role of social movements in building social capital, in particular the notion of internal *bonding* based on common interests between individuals and groups, and the external *bridging* based on diversity through networking with other

communities and institutions (Putnam 2000). When social capital is based on common values held across groups operating at different scales, it can become a valuable resource for solving multi-level problems (Brondizio *et al.* 2009, p. 264). This is especially useful in dealing with environmental policy issues, which are characterised by rising levels of horizontal and vertical connectivity (Lafferty 2004). This helps distinguish social innovation from social capital, in that the wider remit and deeper significance of social innovation is critically dependent upon the generation of social capital and social innovation in turn helps to further promote that capital form. In this context of social capital development, successful socially innovative initiatives can become sites of social learning that can, in turn, feedback to further strengthen capital stocks. The case of ‘incubator movement’ in Brazil can be given in example here. Following the economic recession of the 1980s, the Brazilian incubator movement promoted collaboration between public universities, industry, civil society and the state, supporting community-oriented cooperative enterprises (Dubeaux 2013). Over time, this helped institutionalise social learning, knowledge transfer and collective action for regional economic development.

In summary, the argument presented above has shown how the social science input into the study of innovation has revealed social innovation in a place based context. In this place based manifestation, social innovation can serve three key, mutually reinforcing functions: the satisfaction of basic individual and collective needs; the strengthening of social relations at a place based, community level; and the enhancement of the socio-political capability of individuals and communities to influence place making (Moulaert *et al.* 2005). These functions can, in turn, bring positive, macro level change through up-scaling, for example, through institutional influence.

It is clear that social innovation has a strong temporal dimension, in that it is created, adopted and diffused in the context of a particular period in history. This is not least because the mechanisms of social innovation, including the underlying sequences of interactions and events, change as a society and its institutions evolve (Phills *et al.* 2008, p. 39). It also exhibits a strong spatial dimension, for, as argued already, social innovation is rooted in place based needs and contexts and its emergence is seen as dependent upon patterns of social contacts and of community rootedness. In this analysis, we extend this dependence to include the environmental resource base of a community.

In addition, and by its nature, social innovation also contains the potential for social transformation, for, as we have defined the term above, social actions are considered innovation by virtue of the impact they have on the broader social, economic and political context within which such actions arise. This turns our attention to the discussion on social innovation as a product, that is, to consideration of the outcome of social innovation, and how this is manifest in social change. In order to investigate this matter, we explore the links between social innovation and sustainable place making in a more direct manner.

Social innovation as sustainable place making

Social innovation exhibits a strong spatial dimension and is often location specific and spatially embedded, features that give it a direct role in sustainable place making, although the focus on place is not always explicit in the social innovation literature. In exposing this link, we agree with Gieryn that despite claims that globalisation and technological innovation have resulted in the ‘transcendence of place’, place persists as

both a constituent element of social life and of historical change (Gieryn, 2000, p. 463). We also take our cue from Gieryn's characterisation of place as having three necessary and sufficient conditions: geographic location, material form and investment with meaning and value. We are particularly interested here in the idea of place as having material form. This brings recognition that social processes occur through, and are shaped by, the material forms that constitute and are constituted in place specific settings. It highlights the deep interconnections that exist between place making and the resources, attributes and characterises - the materiality (such as rivers, soil, trees) - that exists within that locality. In this conception, place acts as an 'agentic player' (Gieryn 2000), revealing how the ecological context has a detectable effect on social life. In turn, society can make - or destroy - places and their ecological materiality, processes and flows, in short, their resilience, that is, the ability of the system to maintain its identity in the face of internal change and external shocks and disturbances (Cumming *et al* 2005; Davoudi *et al* 2013).

Thus, while the literature has shown how the emergence and subsequent impact of social innovation is closely tied to the social and cultural characteristics of a place, as stated above, we extend this analysis to include the natural, ecological resource base present at the local level. This means considering place making and social innovation in the dual context of both the built and the natural environment. This interrelated context is important, not least because the tendency to ignore the ecological dimension of social life lies at the root of our current environmental crisis. Furthermore, this extension throws into sharp relief how social innovation shapes place-bound ecological characteristics as it unfolds in practice, such as the state of the local rivers, the amount of tree cover, and more generally the resilience of the local ecology. Social practice can operate in synergy or in opposition with the local environment, bringing both positive and sustainable 'coupling' between social practices and environmental resources, or destructive and unsustainable paths. While the literature is replete with examples of negative practices, such as in relation to natural resource management and use, we point to the Transition Towns movement as an example of positive coupling. By supporting community-led responses to climate change, such as food growing, renewable energy projects, cycling and car sharing, urban gardening and bee keeping, clothes swaps and repair circles, alongside skill sharing and training, they help reduce local dependence on high consumption activities that are extremely dependent on fossil fuel. Furthermore, the re-localisation of consumption and production practices encourages thrift in natural resources use and builds greater understanding and thus respect for nature. In the context of the need to find more sustainable ways of place making, it is also important to see social innovation as both path dependent, that is, emerging within and reliant upon place specific characteristics, including the cultural, social and environmental resources of a locality, but as also involving new forms of social actions and learning. The product of social innovation over time, namely social transformation, takes place within the context of a dynamic interplay between that path dependency and the diffusion of new practices of place engagement. Promoting sustainable development therefore has to take account of this dynamic interplay, which both constrains and reforms the ways in which place making occurs.

It is here that a close tie can be discerned between understanding the adaptive process in complex socio-ecological systems (Folke *et al.* 2010) and the role of social innovation in such adaptation. Social innovation can be particularly important in adaptive processes, because systems that are better able to give rise to and diffuse novelty (such as new products, services, ways of doing, ideas, etc) are more resilient and in turn better able to withstand and adapt to external shock (Social Innovation

Generation, 2012). The capacity of society to create a steady flow of social innovations over time, particular those which re-engage vulnerable populations, is an important contributor to overall social and ecological resilience.

In terms of place-specific sustainable development initiatives, one of the seminal policies is that of LA21 adopted at the Rio Earth Summit in 1992 (UNCED 1992). LA21 calls for the inclusion of local communities in planning and decision-making aimed at the promotion of sustainable development (Lafferty and Eckerberg 1998). The implementation of LA21 has involved community groups, economic actors and local authorities in collective searches for alternative ways to mobilise local resources (or different forms of capital). This place based sustainability perspective also links economic development to an agenda of social equity and has acted not only as an exemplar of best practice for meeting community needs, but has also forged links both horizontally and vertically across scale, particularly through the International Council for Local Environmental Initiatives (ICLEI). Furthermore, and despite the dominance of countervailing ideologies – particularly those promoting traditional economic growth, its legacy has endured, including over time and across policy domains (Baker and Eckerberg 2008). As such, we hold that LA21 is an example of social innovation, one that is particularly interesting from the point of view of promoting collective action for sustainable place making.

While recognising the place based characteristics of social innovation – that is, how social innovation exists in a reciprocal relationship with place – we also need to be aware that social innovation belongs not only to a specific place but is also embedded in the complexities of wider spatial connections (MacCallum *et al.* 2009). These connections exist within and between places, including at higher scales. Furthermore, place connectivity can have positive and negative implications for the resilience of coupled socio-ecological systems. On the one hand, connectivity makes it possible for disturbing forces, such as disease and financial crisis, to spread throughout the system at a rapid pace. On the other hand, connectivity can accelerate learning processes and policy transfer, helping the spread of best practice upwards to higher levels. We are mindful of the fact that, while a sense of place may help promote social innovation, socially innovative practices themselves may not necessarily infuse a positive place identity. Two major influences are at work here. First, there is the positive role of social innovation ‘enablers’ in place making, for example, in building bridges between spatially fragmented communities. Against this, the path dependences of a place can exhibit a tendency to ‘persist’, giving that a particular place may exhibit limited propensities to accommodate social innovation and change its relational dynamics. This returns our discussion again to the issue of how and under what conditions social innovation arises and is diffused. While we have answered this question at least in part, we are conscious of the fact that matters in relation to the governance of social innovation, while touched upon in this article, have yet to be given explicit attention. In exploring issues of governance in a more direct way, we explore further answers to this most persistent question - why social innovation arises and diffuses in certain places and not in others. In addition, our focus on governance can also help to cast further light on the importance of the scalar dimension when considering the impact of social innovation processes.

Social innovation and the governance of place

The development of new ideas about place based environmental governance is important for understanding the making of sustainable places. These new ideas are

emerging in response to rising concerns about anthropogenic climate change and biodiversity loss, including the potential threats to agriculture and food security arising from the loss of ecosystem services. Such concerns have given rise to a series of place based food initiatives, such as guerrilla gardening, community food growing co-operatives and local garden sharing schemes. These inherently place based responses have heightened awareness of the need for policy makers to focus on the dynamics of the relationship between social processes and ecological systems, rather than treating them as separate or distinct entities. From a governance perspective, recognition of this connectivity means addressing the spatial and temporal mismatches that currently exists between the biophysical system and the governance system responsible for managing human-environment interactions (see Brondizio *et al.* 2009, p. 270). Scale mismatches arise because the spatial, temporal, or functional scales at which the environment varies is misaligned with the scales at which human social organization occurs, and management practices take place (Cumming 2006). This mismatch results in governance practices that fail to promote resilience either at the social or ecological levels (Folke 2006).

Two main strategies can be discerned in recent efforts to adapt governance systems to take account of the connectivity between ecological systems and social processes, both of which involve giving greater attention to the scalar dimension of policy making. First, responsibility is moved upwards to high levers of authorities, including at the EU and UN levels. This can be seen, for example, in the emergence of global governance regimes for the management of biodiversity through the Convention on Biological Diversity. The second strategy takes the opposite track, shifting responsibility downwards to local levels of authorities (Baker and Eckerberg 2008). This latter shift has occurred alongside, while also reinforcing, the emergence of new governance arrangements that draw heavily upon the enhanced involvement of actors from both the economy and civil society in the steering of social change (Swyngedouw 2005, p. 1992). This participatory and network governance has strengthened the capacity of the state to steer across multi-level scales (Rauschmayer 2009). In addition, new governance arrangements, in particular those that promote the enhanced engagement of civil society, have helped infuse policy making with more open, democratic principles, leading to new forms of participatory democracy. Newer ideas are also emerging for example, in relation to panarchy and polycentric governance (Brondizio *et al.* 2009, pp. 268-69), casting light on the importance of new governance practices and institutional arrangements for social resilience.

As such, social innovation is significant because it supports efforts to dissolve the traditional boundaries between public, private and civil society actors (Phills *et al.* 2008, p. 36), social innovation emerges and diffuses in the context of shifts in the role of, and relationship between, these different actors. It also sees the enhanced use of public-private partnerships of the delivery of local initiatives, integrating private capital with public and philanthropic support (Phills *et al.* 2008, p. 39). In other words, social innovation challenges the traditional, hierarchical approach to societal steering, bringing an exchange of ideas and values between public and private actors, resulting in corresponding shifts in their roles and relationships as *co-mingled* agents of social change. This, in turn can lead to the establishment of new place based and scale-related governance structures (MacCallum *et al.* 2009), as seen for example, in the emergence of new institutional arrangements for the management of participatory practises, such as in LA21. In short, social innovation supports and is in turn supported by new governance practices.

There is ample evidence to point to the reciprocal benefits arising from strong

relationships between local government and civil society organisations, for both social cohesion and the pursuit of sustainable development (Evans *et al.* 2008). The adoption of new governance approaches, where collaborative, ‘multi modal forms’ of governance ‘co-mingle’ across scale also resonates with a place based perspective on sustainable development. A sustainable place based perspective stresses the need for governing socio-economic activity in spatially demarcated places, while at the same time taking account of places as open, complex and dynamic systems embedded in higher level scales. In addition and building upon the findings of Evans *et al.* (2008), effective governance for sustainable development is more likely to occur when governments work closely with civil society agents.

However, new governance practices can be selective, giving preferential treatment to specific civil society groups and particular forms of stakeholder involvement. As such, new forms of governance can act in a contradictory manner, empowering new actors but disempowering others (Swyngedouw 2005, 1992). The practice of social innovation can confront such tensions by facilitating social groups and civil society alliances working at different spatial scales (neighbourhoods, cities, regions), allowing them to have value added impacts on higher, macro level policies. If we use the bipolarity of ‘top-down’ and ‘bottom-up’ processes in a multilevel governance hierarchy, we find that many socially innovative actions tend to be initiated by the individuals and groups at neighbourhood levels (Moulaert *et al.* 2010). These levels often have to endure the impacts of exclusionary policies, practices and processes, or simply the lack of adequate infrastructure. In such situations, neighbourhoods can become pivotal places for local initiatives and civil society actions aimed at overcoming social polarisation, political alienation, economic disadvantage and negative, environmental externalities. This can be achieved through collective action to increase social interaction, support economic viability and enhance political capabilities of the excluded groups to develop a sense of community that could be difficult to achieve by acting alone (Moulaert *et al.* 2010). Once successful, these initiatives can be amplified and replicated both horizontally and vertically across different spatial scales, a process supported by and in turn strengthening multi-level governance arrangements.

Thus, while bottom up engagement is critical for the development of new forms of sustainable place making for the excluded and marginalised, the ‘top down’ contributions from the state in the form of institutional interventions are also critically important. These interventions can occur through specific regulations, strategies, policies, plans and funding mechanisms. They help avoiding the localism bias that can be operative at lower levels and which can cause problems at higher scale (BEPA 2010). The state, for example, through its co-ordinating role, can ensure that social innovation practices in one place or policy area do not bring undesirable consequences to the other places and policy areas. As such, state interventions can help address the problem of spatial or temporal displacement of any negative externalities that may be associated with social innovation at the local level. Furthermore, the co-ordinating role of the state can operate alongside more traditional distributive responsibilities, thereby ensuring more equitable distribution of benefit across space and time.

In between the ‘top-down’ and ‘bottom-up’ extremities there are ‘bottom-linked’ strategies, acting as an interplay across spatial scales by linking institutional initiatives from ‘above’ and active and empowering involvement from ‘below’ (Miquel *et al.* 2013). Community Center Gellerup (CCG) in Aarhus, Denmark provides an example of public sector bottom-linked innovation. Gellerup is a disintegrated area suffering from social deprivation and with a high number of ethnic minority residents. The Community Center was established in 2005 through joint efforts of the local public library, civil

society organisations and social workers, as a multifunctional entity to bring facilities such as library, healthcare, education and job counselling services under one roof within the local community. Although in receipt of formal institutional support, management is horizontal, with a focus on local empowerment through close coordination yet informal interaction between service providers, activists and the community. Not only does CCG bring together various professional groups (such as social workers, librarians and health workers) in contact with vulnerable groups but it also provides a platform for knowledge sharing, mutual learning, networking, and capacity building. As such, it facilitates bridging social capital. The CCG was monitored between 2005-2007 by various national and European (Urban II) research and evaluation studies. In 2008, the Danish Agency for Libraries and Media allocated substantial grants to replicate the initiative across 16 public libraries in the country with focus on marginalised ethnic neighbourhoods (Andersen *et al.* 2013).

The success of CCG reveals how bottom-linked strategies can be promoted through the creation of new, or strengthening of existing, links between citizens, civil society organisations and the various public and private actors operating at different spatial scales. It is this interface that holds the potential to transform traditional governance relations, by changing existing norms and producing new practices and policies for sustainable place making. We thus see a two-way relationship operating between governance and social innovation: the traditional, top down, hierarchical governance from the state can facilitate social innovation while guarding against coordination or distribution failures; while, at the same time, socially innovative actions can lead to the emergence of new governance patterns that strengthen multi-level engagement and participatory practices. The experiences of Comilla, Transition Towns, CCG models and other similar initiatives mentioned in this paper reveal how social innovations can help establish a specific identity with place. It also shows how such initiatives can provide models to be replicated or adapted in other places, and be scaled up through the active role of the state,

Conclusion

This paper has investigated social innovation and its potential to contribute to sustainable place making. Discussion on the meaning of social innovation was followed by consideration of the context within which social innovation arises. Here we highlighted the integrated role of public/private institutions, civil society and citizens in sustainable place making. While the literature has exposed how social innovation is closely tied to the characteristics of a place, including its social, economic and cultural components, we have expanded this to include consideration of the ecological dimensions of place construction. Local identities, specific histories and social-ecological interactions upon which places are constructed, can act as vectors for transformative social innovation, which in turn can help nurture adaptive transitions. A clearer understanding of the links between social innovation and the construction of more resilient communities is important, as resilience at the community level provides the bedrock upon which sustainable futures are built. This perspective allows us to view social innovation in the context of the coupled relationship that exists between social processes and ecological systems. It makes the links between social innovation and sustainable place making more explicit, thus providing a better understanding of how social innovation can contribute to the promotion of sustainable development

We have also discussed how social innovation, while strengthening the performance, robustness and resilience of social systems at the local level, can be scaled upwards and applied to similar systems operating at the macro level. Through such

examples as Comilla Model, Transition Towns movement, Community Centre Gellreup, as well as the example of LA21, we have shown how bottom-linked strategies can be adopted elsewhere, particularly through the co-ordinating role of the state.

Social innovation can also contribute to more participatory forms of engagement in the steering of social change. These lead to new forms of interactions and partnerships between public, private, and civil society organisations and citizens. We have been careful however not to celebrate the virtues of self-managed risk, prudence and self-responsibility (Swyngedouw 2005). Rather, we have argued strongly in support of the 'co-mingling' of social innovation with wider hierarchical governance. We thus pointed to the continuing role of the state as a player in initiating and co-ordinating the process of social innovation. Addressing the challenge of promoting sustainable human-environment interactions, including at the level of place, requires collaboration and co-operation between the multiplicities of actors operating across different spatial and temporal scales.

References

- Andersen, J., Delica, K. and Frandsen, M.S., 2012. From 'book container' to community centre. *In: F. Moulaert, D. MacCallum, A. Mehmood and A. Hamdouch, eds. The International Handbook on Social Innovation: Social Innovation, Collective Action, Social Learning and Transdisciplinary Research.* Cheltenham: Edward Elgar, 197-206.
- Baker, S., 2006. *Sustainable development.* London: Routledge.
- Baker, S. and Eckerberg, K., 2008. Conclusion: Combining old and new governance in pursuit of sustainable development. *In: S. Baker and K. Eckerberg, eds. In Pursuit of Sustainable Development: New governance practices at the sub-national level in Europe.* Abingdon/New York: Routledge/ECPR Studies in European Political Science, 208-228.
- BEPA, 2010. *Empowering people, driving change: Social innovation in the European Union.* Brussels: Bureau of European Policy Advisers, European Commission.
- Brondizio, E.S., Ostrom, E., and Young, O.R., 2009. Connectivity and the Governance of Multilevel Social-Ecological Systems: The Role of Social Capital. *Annual Review of Environmental Resources*, 34, 253-781.
- Chapin III, F.S., Carpenter, S.R., Kofinas, G.P., Folke, C., Abel, N., Clark, W.C., Olsson, P., Stafford Smith, D.M., Walker, B. H., Young, O.R., Berkes, F., Biggs, R., Grove, J.M., Naylor, R.L., Pinkerton, E., Steffen, W., and Swanson, F.J., 2009. Ecosystem Stewardship: Sustainability strategies for a rapidly changing planet, *Trends in Ecology and Evolution*, 25 (4), 241-249.
- Chambon, J.L., David, A. and Devevey, J.M., 1982. *Les innovations sociales.* Paris: Presses universitaires de France.
- Choldin, H.M., 1972. An Organizational Analysis of Rural Development Projects at Comilla, East Pakistan. *Economic Development and Cultural Change*, 20 (4), 671-690.
- Cumming, G. S., Barnes, G., Perz, S., Schmink, M., Sieving, K.E., Southworth, J., Binford, M., Holt, R.D., Stickler, C. and Van Holt, T., 2005. An exploratory framework for the empirical measurement of resilience, *Ecosystems*, 8 (8), 975-987.
- Cumming, G. S., Cumming, D.H.M. and Redman, C.L., 2006. Scale mismatches in social-ecological systems: causes, consequences, and solutions, *Ecology and Society*, 11 (1), [online]. Available from: <http://www.ecologyandsociety.org/vol11/iss1/art14/> [Accessed 28 August 2013].
- Davoudi, S., Brookes, E. and Mehmood, A., 2013. Evolutionary resilience and strategies for climate adaptation. *Planning Practice and Research*, 28 (3), 307-322.

- Dubeaux, A., 2013. Technological incubators of solidarity economy initiatives: A methodology for promoting social innovation in Brazil. *In: F. Moulaert, D. MacCallum, A. Mehmood and A. Hamdouch, eds. The International Handbook on Social Innovation: Social Innovation, Collective Action, Social Learning and Transdisciplinary Research.* Cheltenham: Edward Elgar, 299-307.
- Evans, B., Joas, M., Sundback, S. and Theobald, K., 2008. Institutional and Social Capacity Enhancement for Local Sustainable Development: Lessons from European urban settings'. *In: S. Baker and K. Eckerberg, eds. In Pursuit of Sustainable Development: New governance practices at the sub-national level in Europe.* Abingdon/New York: Routledge/ECPR Studies in European Political Science. 74-95
- Folke, C. 2006. Resilience: The emergence of a perspective for social–ecological systems analyses. *Global Environmental Change*, 16, 253–267.
- Folke, C., Carpenter, S. R, Walker, B., Scheffer, M., Chapin, T. and Rockström, J., 2010. Resilience Thinking: Integrating resilience, Adaptability and Transformability. *Ecology and Society*, 15 (4), 1-9.
- Gerometta, J., Häussermann, H. and Longo, G., 2005. Social innovation and civil society in urban governance: Strategies for an inclusive city. *Urban Studies*. 42 (11), 2007-2021.
- Gibson-Graham, J.K. and Roelvink, G., 2009. Social Innovation for Community Economies. *In: D. MacCallum, F. Moulaert, J. Hillier and S. Vicari, eds. Social innovation and territorial development.* Farnham: Ashgate, 25-38.
- Gieryn, T.F., 2000. A Space for Place in Sociology. *Annual Review of Sociology*, 26, 463-496.
- Hillier, J., Moulaert, F. and Nussbaumer, J., 2004. Trois essais sur le rôle de l'innovation sociale dans le développement territorial, *Géographie, Economie, Société*, 6 (2), 129-152.
- Hillmann, F., 2009. How Socially Innovative is Migrant Entrepreneurship? A Case Study of Berlin. *In: D. MacCallum, F. Moulaert, J. Hillier and S. Vicari, eds. Social innovation and territorial development.* Farnham: Ashgate, 101-114.
- Hopkins, R., 2008. *The transition handbook: From oil dependency to local resilience.* Totnes: Green Books.
- Karlan, D. and Zinman, J., 2009. *Expanding Microenterprise Credit Access: Using Randomized Supply Decisions to Estimate the Impacts in Manila* [online]. CEPR Discussion Paper No. DP7396, SSRN. Available from: <http://ssrn.com/abstract=1469875> [Accessed on 21 November 2011].
- Lafferty, W.M., ed., 2004. *Governance for Sustainable Development: The Challenge of Adapting Form to Function.* Cheltenham: Edward Elgar
- Lafferty, W.M. and Eckerberg, K., eds., 1998. *From the Earth Summit to Local Agenda 21: working towards sustainable development.* London: Earthscan
- MacCallum, D., Moulaert, F., Hillier, J., and Vicari, S. eds., 2009. *Social Innovation and Territorial Development.* Farnham: Ashgate
- Mair, J. and Marti, I., 2007. Entrepreneurship for social impact: Encouraging market access in rural Bangladesh. *Corporate Governance* 7 (4), 493-501.
- Mehmood, A. and Franklin, A., 2013. Sustainable urban land-use and the question of eco places. *Proceedings of Urban and Regional Planning*, Karachi: NED University
- Mehmood, A. and Parra, C., 2013. Social Innovation in an unsustainable world, *In: F. Moulaert, D. MacCallum, A. Mehmood, and A. Hamdouch, eds. The International Handbook on Social Innovation: Collective Action, Social Learning and Transdisciplinary Research,* Cheltenham: Edward Elgar, 53-66.

- Miquel, M.P., Cabeza, M.G., and Anglada, S.E., 2013. Theorising multi-level governance in social innovation dynamics. In: F. Moulaert, D. MacCallum, A. Mehmood and A. Hamdouch, eds. *The International Handbook on Social Innovation: Social Innovation, Collective Action, Social Learning and Transdisciplinary Research*. Cheltenham: Edward Elgar, 155-168.
- Moulaert, F., 2009. Social Innovation: Institutionally Embedded, Territorially (Re)Produced. In: D. MacCallum, F. Moulaert, J. Hillier and S. Vicari, eds. *Social innovation and territorial development*. Farnham, Ashgate: 11-24.
- Moulaert, F. and Leontidou, L., 1994. Localités désintégrées et stratégies de la lutte contre la pauvreté: une réflexion méthodologique post-moderne. *Espaces et sociétés*. (4), 35-54.
- Moulaert, F., Martinelli, F., Swyngedouw, E. and Gonzalez, S., 2005. Towards Alternative Model(s) of Local Innovation, *Urban Studies*. 42 (11), 1969-1990
- Moulaert, F., Martinelli, F., González, S. and Swyngedouw, E., eds., 2010. *Can Neighbourhoods Save the City?: Community Development and Social Innovation*. London: Routledge.
- Moulaert, F. and Nussbaumer, J., 2005. The Social Region: Beyond the Territorial Dynamics of the Learning Economy. *European Urban and Regional Studies*. 12, 45-64
- Nilsson, W.O., 2003. *Social Innovation: An Exploration of the Literature*, McGill University: Social Innovation Initiative.
- Parra, C. and Moulaert, F., 2010. Why sustainability is so fragilely 'social'...? In S. Oosterlynck, J. V. D. Broeck, L. Albrechts, F. Moulaert and A. Verhetsel, eds., *Strategic Spatial Projects: Catalysts for Change*. London, Routledge. 163-173.
- Phills, J.A.Jr., Deiglmeier, K. and Miller, D.T., 2008. Rediscovering Social Innovation [online]. *Stanford Social Innovation Review*. Available from: http://www.ssireview.org/articles/entry/rediscovering_social_innovation/ [Accessed on 21 November 2011].
- Putnam, R.D., 2000, *Bowling alone: The collapse and revival of American community*. London: Simon and Schuster.
- Putnam, R.D., ed., 2004. *Democracies in Flux: The Evolution of Social Capital in Contemporary Society*. Oxford: Oxford University Press.
- Schumpeter, J., 2003. *The Theory of Economic Development* [translation of 'Theorie der wirtschaftlichen Entwicklung' by Ursula Backhaus]. Dordrecht: Kluwer Academic Publishers.
- Rauschmayer, F., Paavola, J. and Wittmer, H., 2009. European governance of natural resources and participation in a multi-level context: An editorial. *Environmental Policy and Governance*, Special Issue: European Governance of natural resources: participation in a multi-level context, 19 (3), 141-147.
- Scott-Cato, M. and Hillier, J., 2010. *How could we study climate-related social innovation? Applying Deleuzian philosophy to Transition Towns*. *Environmental Politics*, 19 (6), 869-887.
- Social Innovation Generation, 2012. *Social Innovation* [online]. Available from: <http://sigeneration.ca/> [Accessed on 1 February 2012]
- Swyngedouw, E., 2005. Governance innovation and the citizen: The Janus face of governance-beyond-the-state. *Urban Studies*, 42 (11), 1991-2006.
- TTN, 2013. Transition Network: Transition Initiatives Directory [online], Available from <http://www.transitionnetwork.org/initiatives> [Accessed on 16 July 2013].
- UNCED, 1992. *The Earth Summit* [online], United Nations Conference on Environment and Development, 3-14 June Rio de Janeiro, UNCED secretariat. Available from: <http://www.un.org/geninfo/bp/enviro.html> [Accessed on 1 February 2012]

Weber, M., 1949. Objectivity in Social Science and Social Policy. *The Methodology of the Social Sciences*, 15, 50–112. World Summit on Sustainable Development (WSSD), 2002. WEHAB Framework Papers [online]. Available from: <http://www.un.org/jsummit/> [Accessed on 23 January 2012)].