Journal of Cleaner Production xxx (2016) 1–13

Contents lists available at ScienceDirect

Journal of Cleaner Production

journal homepage: www.elsevier.com/locate/jclepro

Cities shaping grassroots niches for sustainability transitions: Conceptual reflections and an exploratory case study

Marc Wolfram

Yonsei University, Department of Urban Planning and Engineering, 50 Yonsei-ro, Seodaemun-gu, Sinchon-dong, 120-749 Seoul, South Korea

ARTICLE INFO

Article history:
Received 26 September 2015
Received in revised form
31 July 2016
Accepted 9 August 2016
Available online xxx

Keywords:
Cities
Grassroots niche
Social innovation
Place
Urban policy
Urban governance

ABSTRACT

This paper discusses the crucial role cities play in the emergence and formation of grassroots socio-technical niches for sustainability transitions. Drawing on research engaged with strategic niche management, grassroots innovations and urban social innovations, it conceptualizes the interdependencies between urban contexts and grassroots niche dynamics, and explores a critical case in point: Current policy efforts in the city of Seoul to create, diversify and network social innovations in urban neighborhoods. The analysis illustrates the specific characteristics of innovative place-making activities in everyday-life urban environs and how empowerment, proximity and institutional thickness enable them to meet basic conditions for niche formation in terms of networking, shared expectations and social learning, while also raising new questions of inclusion, legitimacy and strategy. In conclusion, four issues are highlighted that appear to decisively impact on the formation of urban grassroots niche and related sustainability transition pathways: 1) Urban empowerment capacities, 2) Embedded holistic innovation, 3) Novel community-oriented governance modes, and 4) Urban niche/regime interactions. These issues thus require particular attention in future research and policy in order to guide the coevolution of cities and urban grassroots initiatives towards sustainability.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Cities are critical hotspots for socio-technical system transitions towards sustainability. This is not only due to their quantitative importance in an urbanizing world, but also, and perhaps more importantly, regarding their role as incubators and catalysts of socio-economic and environmental change (Mumford, 1961; Jacobs, 1970; Douglas, 2010). It is essentially *urban* patterns of production and consumption, social interaction, as well as cultural practice that drive global flows of people, materials and information (Weinstein and Turner, 2012; Elmqvist, 2013; Vojnovic, 2014). Correspondingly, cities are also the places where all systems of provision that today require radical transformation eventually coalesce (McCormick et al., 2013).

Research on cities and socio-technical transitions has developed a strong focus on urban infrastructure systems, examining how cities shape and are shaped by their transformation under conditions of global environmental change and economic destabilization (Guy et al., 2001, 2011; Monstadt, 2009; Hodson and Marvin, 2010; Bulkeley et al., 2011). This has illuminated why and how actors at various scales engage in new forms of governance arrangements and local experimentation in order to reconfigure urban energy, water, waste or transport systems (Berkhout et al., 2010; Bai et al., 2010; Coutard and Rutherford, 2010; Hodson and Marvin, 2012; Späth and Rohracher, 2012; Hamann and April 2013; Castán Broto and Bulkeley, 2013; Hodson et al., 2013; Moloney and Horne, 2015). Nevertheless, other urban dimensions of socio-technical change and related experiments have so far remained largely underexplored.

In particular, studies of grassroots innovations and niche formation (Seyfang and Smith, 2007; Seyfang and Longhurst, 2013), as well as urban social innovation (MacCallum et al., 2009; Moulaert et al., 2010) point towards implications of cities for the way in which citizens and local civil society actors get involved in the spatially embedded reproduction of socio-technical regimes and/or creation of sustainability innovations (cf. Bulkeley et al., 2014; Baker and Mehmood, 2015). Urban contexts enable and require the social and physical interconnection or 'bundling' (Shove et al., 2012) of diverse social practices that (de-)stabilize not only single systems, but 'multi-regime' configurations (Smith et al., 2010; Papachristos et al., 2013; Næss and Vogel, 2012; Mizuguchi et al.,

E-mail address: m.wolfram@yonsei.ac.kr.

http://dx.doi.org/10.1016/j.jclepro.2016.08.044
0959-6526/© 2016 Elsevier Ltd. All rights reserved.

Please cite this article in press as: Wolfram, M., Cities shaping grassroots niches for sustainability transitions: Conceptual reflections and an exploratory case study, Journal of Cleaner Production (2016), http://dx.doi.org/10.1016/j.jclepro.2016.08.044

2015). At the same time, cities also provide 'protected spaces' that allow people to articulate and enact diverse 'alternative ontologies' and 'spatial imaginaries' of socio-technical change (Longhurst, 2015), since they fundamentally enable the manifestation of diversity (Castells, 1983; Fincher and Iveson, 2008). Most importantly, cities draw on substantive policy capacities that directly affect citizens across all life domains, including e.g. housing, green space, employment, consumption, education or culture, among others. This also implies approaches for enabling citizen participation in planning and decision making, as well as for community support linked to a variety of purposes. These urban policies and interaction forms thus have an immediate bearing on the constitution of social practices and related (multi-)regime configurations, as well as on association- and coalition building processes for place-based socio-technical change, and may also be used strategically in this regard (Aylett, 2013, p. 870; Cohen and Ilieva, 2015; de Wildt-Liesveld et al., 2015).

Complementary to recognizing cities as contested sites of multi-level 'low-carbon politics' (Bulkeley et al., 2014; Moloney and Horne, 2015), or simply as 'seedbeds' for innovative businesses (Geels, 2011), there is thus a need to account for the role of urban contexts in *shaping* civil-society driven sustainability innovations. Especially regarding place-making activities that mutually engage citizens, local authorities and businesses in the transformation of the diverse socio-technical systems embedded in the urban fabric, this role appears to be more influential than so far discussed. Therefore, this paper takes up this perspective and explores how cities enable or constrain the emergence and formation of grassroots niches. In particular, it asks for implications in terms of urban policy and governance in this, considering the prospective for a purposeful orientation at sustainability transitions. To start with, basic conditions for grassroots niche formation and their relation to urban contexts are deducted from research dealing with socio-technical grassroots innovations, and with spatially embedded social innovations. Second, these conditions are then explored empirically through the study of a highly pertinent urban case - the evolving approach for 'village community' governance in Seoul - accounting for their articulation, identifying critical issues that arise from implementation, and deriving new insights for theory and practice. Finally, the conceptual and empirical results obtained are discussed to provide responses to the above questions, and to conclude about implications for future research and policy.

2. Cities and grassroots niches

In order to unveil the interdependencies between cities and grassroots niches dynamics, two pertinent fields of research are invoked here, respectively dealing with grassroots socio-technical niches and urban social innovation. They offer distinctive insights about enabling conditions for bottom-up innovation dynamics and niche formation, as well as on the role of urban place and urban policy in this. To engage with these two strands, the concepts of 'niche' and 'strategic niche management' will first be briefly expanded.

2.1. Niche formation and strategic niche management

Recognizing the systemic character of societal sustainability problems, system innovation studies have developed conceptual models to interpret and understand the dynamics of socio-technical change, and to identify new options for policy intervention (Elzen et al., 2004; Markard et al., 2012). The multi-level perspective (MLP) maps out the co-evolutionary process between incumbent socio-technical configurations (regimes), emerging alternatives (niches), and developments or events in the system environment (landscape) that can lead to deeper structural change (Geels, 2002). Since regimes are highly institutionalized (through regulation, organization, practices, cultures) and thus resistant to change, niches represent a critical source of new ideas and practical solutions for system innovations. Therefore, strategic niche management (SNM) has been suggested as a crucial form of policy intervention to enable the creation of robust and influential niches (Kemp et al., 1998; Schot and Geels, 2008).

From an SNM perspective, niches are seen as 'protected spaces' for experimenting with alternative socio-technical configurations, liberated from the selection pressures of the regime (Smith and Raven, 2012). Yet, niches are not spatial configurations but conceived as 'cosmopolitan' networks constituted of 'local initiatives' and 'trans-local' intermediaries that may span across scales (Geels and Deuten, 2006). Niche formation is then described as a process in which intermediaries distill lessons from current initiatives and offer transferable knowledge to new ones, who then re-interpret and apply it in their local contexts. This supports the consolidation of learnings and replication of successful practices, thereby increasing the influence of the niche on regime actors to adopt new solutions (Raven et al., 2008). The formation process is therefore sequenced into phases, starting from isolated initiatives ('local phase'), to first exchanges of experiences among initiatives ('inter-local phase'), and increasing aggregation of knowledge across initiatives ('trans-local phase'), towards consolidation of a robust niche that coordinates local projects and exerts strong influence on the regime ('global phase') (Geels and Deuten, 2006).

2.2. Grassroots innovations and grassroots niches

Based on SNM, most analyses of niches dynamics have so far focused on market-oriented technological innovations featuring industry and state actors. However, a growing body of literature addresses sustainability innovations that are driven and implemented by civil society actors instead. This perspective has examined diverse types of community initiatives and grassroots movements dealing with issues such as energy, mobility, housing, food or complementary currencies regarding their requirements and impacts (Ornetzeder and Rohracher, 2013; Seyfang and Haxeltine, 2012; Seyfang and Longhurst, 2013; Seyfang and Smith, 2007; Smith, 2006a, 2006b).

In line with the assumptions of SNM, three basic conditions have been confirmed empirically that appear to shape the development path and diffusion prospects of grassroots niches: 1) *Expectations* of what an innovation shall achieve need to be widely shared among niche members and stakeholders, as well as specific and realistic, including concrete and feasible targets; 2) *Networking* is needed beyond members, not only to mediate expectations, but also to diversify the interests involved, broaden support for the innovation, and obtain access to resource types required for implementation (knowledge, skills, human, organizational, institutional, technological and/or financial); 3) *Learning* should be experiential and occur in the wider social context of communities, organizations and institutions, thereby also changing actor preferences and practices (second-order learning). This highlights the particular importance of the *intermediaries* involved in enabling and facilitating the required communication, interactions and transfers (Bai et al., 2010; Seyfang and Haxeltine, 2012; Davies, 2012; Seyfang et al., 2014).

However, there are several particularities of grassroots niches, which demand specific attention. First of all, they are essentially value-driven and focused on social needs. Therefore, intrinsic benefits for the community in terms of needs fulfilment, identity, self-expression, recognition, belonging and/or aspirations of its members form the primary motive, rather than wider diffusion

Please cite this article in press as: Wolfram, M., Cities shaping grassroots niches for sustainability transitions: Conceptual reflections and an exploratory case study, Journal of Cleaner Production (2016), http://dx.doi.org/10.1016/j.jclepro.2016.08.044

Download English Version:

https://daneshyari.com/en/article/8099575

Download Persian Version:

https://daneshyari.com/article/8099575

Daneshyari.com