



## Applying resilience thinking to ‘ordinary’ cities: A theoretical inquiry

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**Abstract.** This paper assesses the prospective contribution of social-ecological resilience thinking in advancing a theory of ‘ordinary’ cities. Building on the hierarchical divide that continues to prescribe analyses and representations of cities in urban studies, the paper suggests that, while ideologically contentious, the conceptual configuration of resilience thinking, promoted essentially through notions of uncertainty, diversity and transformation, shows considerable potential for interdisciplinary research. While remaining cautious about its analytical thresholds, applying the framework as it emerges from its ecological niche suggests that resilience thinking can, alongside other concepts, play a part in creating an enabling environment for broadening the way communities, neighbourhoods and institutions that form and connect cities across the globe are understood, studied and represented in urban theory; allowing us to recognise all cities and their citizens as relatable and ‘ordinary’.

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## 1. Introduction

With more than half of the world's population currently living in cities (UN-Habitat, 2010), urbanisation, along with its abounding layers and complexities, has installed itself as one of the greatest challenges of the present decade and of those ahead. The ensuring pressures cities are facing continue to shift in fierceness as well as in nature, spanning from the marginalising effects of neighbourhood gentrification, to the indiscriminate impacts of climate change. In building strategies to improve responses to predictable stressors as well as to unforeseeable events, the separation of the social and natural worlds is no longer a viable option for cities in constructing their images of a sustainable future. The United Nation's Sustainable Development Goals (SDGs) and New Urban Agenda have taken on the task of setting a global strategy for improving the prospects of greening policies as well as unifying cities across the world under the umbrella of sustainability.

The study of cities in urban theory has been largely dominated by the global/world cities discourse (Roy, 2009). Based on the idea of a distinct hierarchical order of cities along their predicated roles in commanding the flow of global capital (Brenner, Keil, 2006), this approach anchors an already existing historical, cultural, political and ideological divide between people of the two worlds: the 'developed' and 'developing'. While such a distinction may have esteemed a function in apprehending variation between the 'First World' and 'Third World' in the past, the continued reference to cities along hierarchical lines enforces a worldview that marginalises hundreds of cities and millions of citizens who do not qualify for mention on the global/world city ladder. The global/world city approach (Sassen, 1991; Friedmann, 1986) has been deemed a useful concept in identifying the intertwined networks that operate within cities (Csomós, Derudder, 2014), as well as in exploring the nexus between democracy and global citizenship (Isin, 2013). Nevertheless, a broader shift fuelled by the need to decolonise urban studies through a new way of imagining cities (Amin, Thrift, 2002) and cityness everywhere (Robinson, 2002, 2006) is due.

In their paper, 'The ordinary city', Ash Amin and Stephen Graham (1997: 411) set foundations for an alternative perspective on the city to emerge; one revelling in the heterogeneity of everyday life and the economic, cultural and social diversity of "city assets". This discourse has been developed by Jennifer Robinson (2002, 2006), who challenges the lines along which urban theory disproportionately represents cities in the global North as models of urbanity, while studying cities in the global South as development projects. While gradually gaining in strength, the prospects of a theoretical 'take-over' by an alternative urban theory that unsettles the foundations on which countless theoretical models of urbanity and cityness have been built, is yet to be seen.

Resilience thinking as the study of social-ecological systems, or SESs, counts as one of the most rapidly growing conceptual frameworks emerging from the field of sustainability transformations (Olsson et al., 2014). With roots traceable to clinical psychology (Richardson, 2002), the central concept of resilience at the heart of the framework appears in a range of fields across the sciences and boasts a variety of attributable features to its definition and characterisation. Despite being clouded with criticism from a number of disparate directions, resilience, in its ecological conceptualisation as the capacity to persist in the face of external stress (Holling, 1973) can be pinpointed in countless planning and development policies drawn out for cities and urban communities across the world in furthering their path towards sustainable growth.

In an effort to explore alternative approaches to advancing a theoretical shift in the study of cities as it endures in urban theory, this paper explores the prospects of applying resilience thinking to the concept of 'ordinary' cities. By operationalising the framework around its theoretical core, this paper explores the world of social-ecological resilience by investigating its prospective contribution to a broader ideological turn to take place in the study of cities. Following an overview of the paramount conceptions, the body of the paper locates itself around three entry points which outline the theoretical application of the framework, while examining the relatability of the notions at the heart of resilience with the perception of cities as 'ordinary'.

### 1.1. 'Ordinary' cities

According to Robinson (2006), all cities are best understood as 'ordinary'. Building on Amin and Graham's (1997: 411) propositions of an alternative perspective on the city based on the idea of city life as a composition of "the heterogeneity of economic, social, cultural and institutional assets," Robinson suggests a means of narrowing the divide between cities as it persists in urban studies by reframing the way global metropolises are hierarchically listed on a ladder of modernity. Instead of labeling cities as 'developed' or 'developing', and rather than locking cities within or outside of rank-based groupings of 'globalness/worldiness', Robinson (2006: 2) proposes that we envision "a world of ordinary cities." An 'ordinary' city perspective is based on the notion that all cities are complex, dynamic and diverse, equipped with the ability to imagine their own futures, as well as creating "their own distinctive forms of cityness" (ibid). Instead of ascribing the creation of 'the city' and 'cityness' only to metropolises on the global/world cities hierarchy, recognising all cities as 'ordinary' allows for their uniqueness, individuality and organic identity to emerge in the form of a multitude of "ways of being urban" (ibid: 1).

Robinson and Roy (2016: 182) suggest the generation of urban theory takes place in a midst of fields which bring together power, politics and practice, setting out to delineate the limits of what will be theorised while, simultaneously, drawing "scholars and practitioners to imagine something new." According to Amin and Graham (1997: 418), contemporary urban research is guilty of shunning the "multiplexity of urban life", which it needs to integrate if it wants to stay relevant for the cities of today and tomorrow. A world of 'ordinary' cities as imagined by Robinson (2006), links cities through wide-ranging networks of people and resources, creating an order in which urban areas across the globe bring together diversity in activities, ideas, practices and in their unique versions of 'cityness'.

### 1.2. Social-ecological resilience thinking

Resilience thinking, as it first appeared in the field of clinical psychology (Richardson, 2002), traces its roots back several decades. Today, the concept and the theoretical framework attached to it can be found across the sciences, spanning from engineering (Hollnagel et al., 2007) to sociology (Bottrell, 2009; Greene et al., 2004) and archaeology (Butzer, 1982; Redman, 2005), to name a few. Resilience was introduced into ecology by C.S. Holling (1973), who defined it as a property of ecological systems to absorb change and persist in the light of adversity. Holling's definition of ecological resilience has been absorbed into the study of social-ecological systems (SESs), defined as complex adaptive networks linking people with nature in which humans are seen as part of, rather than distinctly detached from, nature (Berkes et al., 2016).

Walker and Salt (2012: 113) identify adaptive cycles and basins of attraction as the "building blocks of resilience thinking." The adaptive renewal cycle is a model based on four phases that map the behaviour of SESs at different temporal and spatial scales which include growth, conservation, release and renewal. Basins of attraction refer to stability states, or multiple stability domains, between which SESs move through regime shifts (Folke, 2016). Linking to the building blocks of the theory, the resilience thinking framework also consists of three central aspects which we can identify as 'pillars' pertinent to the evolution of social-ecological systems: these are resilience, adaptability and transformability. Resilience in this context refers to the capacity of a SES to deal with a shock while retaining its identity; adaptability relates to the system's capacity to adjust to the shock; and transformability represents the capacity of the system to cross thresholds and transition into new stability domains (Folke et al., 2010).

Holling's (1973) characterisation of ecological resilience removed itself from the definition of resilience as the capacity of a system to 'bounce back' to an equilibrium after a shock or disturbance. This equilibristic view of resilience echoes the concept's definition the field of in engineering (Gunderson, 2000) and is one which Holling (1973: 17) identifies as a feature inferable to the "stability" of SESs rather than their resilience.

## 2. Applying the framework

Through its extensive usage in the realms of policy and research, the lifeblood and definition of resilience within and outside of its disciplinary origins has become a prosaic target of wide-ranging criticism. While some pinpoint the concept's anti-political nature (MacKinnon, Derickson, 2013), others denote its limitations when applied to the social sphere (Adger, 2000; Brown, 2014), its conservative approach to social change in linked nature-society dynamics (Cote, Nightingale, 2012), as well as its inability to adequately conceptualise human agency (Davidson, 2010) as its most eminent shortcomings. According to Joseph (2013: 44), the reality that governments are pushing a particular agenda through the adoption of resilience means that as far as policy is concerned, "the effects of the use of the concept are more important than theorising its precise meaning".

Regardless of how we position ourselves in our demeanour towards the approach, it is fair to acknowledge that resilience is not a concept that can be applied in a generic manner (Desouza, Flanery, 2013). Moreover, prior to attempts at operationalising a resilience framework, questions surrounding what resilience means, for whom and in what context should to be answered (Meerow et al., 2016). The use of the term in reference to the urban instantly presents its ambiguity. While *urban resilience* has generally referred to "to the ability of a city or urban system to withstand a wide array of shocks and stresses" (Leichenko, 2011: 164), the concept of resilience applied to cities can connote a focus on urban security, as well as on economics, counter-terrorism, or climate change (Vale, 2014). In other words, the extensive use of terms such as *urban resilience* and *resilient cities* does not demonstrate a consensus surrounding the definitions of these concepts or concerning the prescribed outcomes they set out to meet.

The following section explores the prospective contributions of resilience thinking – framed around Holling's (1973) definition of the concept and in relation to the framework's theoretical blocks and pillars outlined above – by applying it to the concept of 'ordinary' cities. In testing the thresholds of the framework, key traits surrounding the study

of cities as complex adaptive systems are discussed in relation to the principles upholding an alternative urban theory build on the notion of a world of 'ordinary' cities and the multiplex nature of cityness.

### 2.1. Reconfiguring the city

In their call for an alternative urban theory, Amin and Graham (1997: 418) argue that it is vital for the city, which they define as "a variegated and multiplex entity," to be understood as "a set of spaces where diverse ranges of relational webs coalesce, interconnect and fragment". 'Ordinary' cities, as framed by Robinson (2006), exist in a world of cities intertwined through connections raises from the interaction between people and the exchange of ideas and resources. Cities under resilience thinking have been defined as complex adaptive social-ecological systems (SESs), consisting of a series of inter-linked social, economic, institutional, and ecological subsystems. As explained by Alberti and Marzluff (2004: 242), cities can be perceived as adaptive in their evolving nature "over time and space", as well as in relation to the ways in which they respond to change. Their networks of sub-systems represent a complex web of interconnections which interact and affect "all the others at various structural and functional levels" (ibid: 247), allowing us to draw on what Walter and Salt (2012) identified as one of the building blocks of resilience thinking; the adaptive cycle.

The contribution of viewing cities as complex diverse, linked subsystems to urban theory is threefold: firstly, a social-ecological resilience acknowledges the undeniable and interdependent relationship between nature and society. As noted by Desouza and Flanery (2013), the people-environment linkage is central to the study of cities. The focus that resilience thinking places on this link presents an opportunity to address the challenges urbanisation poses on urban ecosystems, while enabling us to explore the nature of the linkages through a systems-focused lens. Berkes (2007: 284) emphasises the human-environment relationship as one that "contributes to a comprehensive vulnerability analysis by avoiding the artificial divide" between the social and environmental domains. What more, a continued analytical dismissal of a part of

the human-nature nexus is likely to generate grossly inadequate outcomes concerning a system's ability to cope with change and persevere through adversity. Meaning, a study of the capacities of individuals and communities to deal with uncertainty solely through "the social dimension lens" will presumably generate "narrow and wrong conclusions" as a result of its omission of the ecological dimension's role in the system's function and existence (Folke, 2016: 260). Given social-ecological resilience thinking relies on SESs as the central units of analysis (Mee-*row et al.*, 2016), the analytical significance of each sub-unit within the city framed as a complex adaptive system (Alberti, Marzluff, 2004), can ensure a broader and integrated approach to the study of interactions *within* as well as *between* cities.

Secondly, viewing cities as multiplexes of networks allows us to build approaches to dealing with change and uncertainty based around one of the central components of resilience theory: diversity. Robinson (2002: 545-546), describes 'ordinary' cities as "diverse, creative, modern and distinctive." The concept of diversity in resilience thinking revolves around the idea of choice and the abundance options when dealing with shocks and stresses. A complex adaptive system characterised with high diversity will be able to switch between basins of attraction with less difficulty, while allowing for the adaptive cycle to explore new opportunities when in need of a regime shift (Berkes, 2007). Cities, as argued by Desouza and Flanery (2013: 89), operate at "the edge of chaos, in a state of constant dynamic disequilibrium." The concept of diversity in cities translates to the need for high levels of social and economic diversity, in order to ensure more flexibility when responding to shocks and stresses (Ahern, 2011). In other words, diversity makes for a stronger system by allowing its communities and political constituencies to tap into a wider array of resources in exploring innovative ways to handling crises. People, as key actors within the urban SES, play a crucial role in determining the creation, government and maintenance of all components of the city structure (Desouza, Flanery, 2013). Resilience thinking emphasises both the importance of disparate sources of social capital (Folke, 2006) as an important attribute of complex adaptive systems, as well as the eminence of economic transforma-

tion (McCormick et al., 2013) in dealing with uncertainty. The centrality of diversity at the bedrock of resilience thinking relates directly to the call for a plurality in the conceptualisation of cityness in urban studies. As highlighted by Robinson (2002: 531–532), one of the most alarming realities of the way in which contemporary urban theory has framed the urban experience is the cognizance that "a relatively small group of (mostly western) cities," have been used to generate theoretical models of cityness for urban areas across the world. Thus, a focus on diversity becomes a central tool in applying resilience thinking to the study of cities not solely due to its perception of difference and plurality in what cities consist of, but in the way cities are studied and represented in urban theory.

Thirdly, applying resilience thinking to the study of cities allows us to question the territorial bounding of urban areas as spatially impassive and immovable. In exploring what constitutes an 'ordinary' city, Robinson (2006: 120) reiterates the need for spatial fluidity in how we frame what a city is, highlighting that "cities cannot be understood as territories in any sense of being firmly bounded, easily demarcated or contained." Amin and Graham (1997: 412) elaborate on the nature of urban life as "founded on the 'multiplexing' of diverse assets which may or may not all come together in the city." The territorialisation of economic activities, as argued by Robinson (2005: 763), as well as political relations and place-based social identities across cities, can be understood as opportunities for engagement with the city as place on the one hand, and "as a series of unbounded, relatively disconnected and dispersed" activities on the other. By adopting a lens that allows for a study of cities to cross spatial delimitation, resilience thinking enables us to approach urban areas as dynamic nodes within networks that crosscut limits and link people, processes and institutions within and across territorial boundaries. Meaning, the framework allows for cities to be conceptualised as "complex adaptive systems as well as spatial systems" (Desouza, Flanery, 2013: 91), while acknowledging that urbanisation originates at multiple scales and often beyond the city itself (Elmqvist et al., 2008). In order to broaden the range of cities that urban studies attend to, the lens used to imagine and capture the diversity and spatial ambiguity of cityness must be recon-

sidered. Resilience thinking delivers the tools to review the means in which the city has been framed as a unit of analysis by emphasising its linkages with the local as well as the global sphere, questioning our perception of what it means to *be urban* as well as reviewing the criteria surrounding what *qualifies* as *urban*.

## 2.2. Power and transformation

One of the most poignant objections directed at resilience thinking relates to its putative neglect of the notions of power within the study of SESs (Olsson et al., 2015). In his critique, Joseph (2013: 38) identifies resilience as a “form of governmentality” and attributes the enthusiasm for the concept across policy literature to “its fit with neoliberal discourse”. An exploration of the social component of resilience theory can be referred to as a means of responding to these objections. Adger (2000: 347) defines social resilience as “the ability of groups and communities to cope with external stresses and disturbances as a result of social, political and environmental change.” Adger goes on to mark that social resilience is, in essence, “institutionally determined,” which he elaborates as an arrangement in which “institutions fundamentally determine the economic system in terms of its structure and distribution of assets” (ibid: 354). Adger’s conceptualisation is central to our understanding of resilience applied to the social realm, as it focuses on structural enablers and constraints in a particular social order, thereby allowing us to investigate the existing power relations as well as the values on which the order is built.

Despite its institutional conceptualisation, social resilience has come under fire for its “conservative approach to social change” when applied to the human-nature relationship (Cote, Nightingale, 2012: 480). Adger (2000) himself questions the application of ecological models to social systems, raising the pertinence of social resilience to the community rather than to the individual as a paramount reality necessitating further attention. A closely related concept has since emerged that has set out to focus specifically on individuals and has shown promise in advocating for a new take on the social in resilience thinking. Norris et al. (2008: 127) define com-

munity resilience as “a process linking a network of adaptive capacities” to the ability to adapt to change. Framed as a process rather than an outcome or systemic attribute, community resilience in this sense is intimately linked to the adaptive capacities of a system or sub-system to cope with a crisis and underlines the strategies of individuals that compose the community to mobilise available resources in the face of a shock.

In spite of the prospects delivered by this conceptualisation, community resilience has shown its limitations when applied in practice. In his comparative study of flood recovery amongst two communities in Brisbane and Dhaka, Walters (2015) questions the bearing of urban community resilience as a worthwhile conceptual endeavour. His study showed that the effects of an external shock on individuals and communities cannot be fully comprehended without an understanding of “the city as a whole” (ibid: 55). Walters’s perception of resilience as a concept which, by definition “calls for its objects to possess certain resources to allow it to recover” (ibid), also challenge the idea of urban resilience as a process (Norris et al., 2008), rather than as a pre-existing feature or attribute that can be developed, not installed. What more, in the case of slum dwellers in Dhaka, Walters (2015) concluded that community resilience was not a helpful concept, given the presence of pre-existing conditions which could not accommodate the emergence or bloom of resilience of any form. In describing the conditions that restrained community resilience amongst the slum dwellers, Walters specifically identifies the absence of fundamental rights as a disheartening reality, suggesting a focus on immediate disaster relief instead of an exploration of the deep structural constraints that lock communities in chronic vulnerability, is doomed to only address immediate and explicit needs. By opting for broad assumptions about communities as empowered “stand alone” units detached from the context they exist in, the concept of urban resilience misses its purpose (ibid: 51).

The findings uncovered in Walters’s (2015) comparative study serve as landmarks in advancing the study of cities as ‘ordinary’ through the application of resilience thinking for a number of reasons. Firstly, in highlighting the constraints experienced in operationalising the concept of community resil-

ience and deeming it partially unavailing, the study indirectly points to the need for conceptual inter-disciplinarity when working with a resilience framework. This understanding has already been marked in resilience thinking, as noted by Folke et al. (2010) who point towards a need for other concepts to be mobilised in the study of the dynamics and complexities of intertwined SESs. Above all, it is the theoretical roots of social-ecological resilience thinking that make a resilience approach related to a series of other concepts, namely sustainability, adaptation and vulnerability (Meerow et al., 2016). Vulnerability, in particular, a concept which has appeared as a loose antonym of resilience (Adger, 2000), places an emphasis on the ability of an SES to deal with pressures while questioning what makes the system at hand less vulnerable (Berkes, 2007). Operationalising a resilience framework that integrates a vulnerability analysis of a community, neighbourhood or city into its orbit, allows us to uncover the multi-layered nature of the system's frailty and its structural roots. While the concept of community resilience was not useful in framing the capacity of the slum dwellers in Dhaka to face up to the effects of the flood, resilience thinking integrated with vulnerability would disclose the underlying fragility of the community's ability to respond by naming the constraints under the pretext of 'bad' resilience.

This leads us to the second point. Theoretical contemplation on the nature and character of resilience in practice, as well as the generation of answers to questions surrounding what resilience means and for whom, seldom address the lived experiences, strategies and practices of those affected by the stressor to which resilience needs to be built (Vale, 2014). By identifying features of a system distinguishable by their unfavourable effects on the rights and freedoms of citizens, 'bad' resilience can be used as a means of instigating structural change and speeding up the incidence of a regime shift. In resilience theory, movement between different basins of attraction – or states of stability – are expected, since the adaptive cycle is in constant motion. In their exploration of the resilience of livelihood strategies in Cambodia, Marschke and Berkes (2006) use the concept of 'bad' resilience to identify an order constructed on unsustainable foundations which locks people and communities in poverty traps. With a notion of 'good' resilience as the attribute

of a state perceptible by its inclusiveness, diversity and flexibility (*ibid*), resilience thinking can be operationalised as a means of identifying injustice by investigating the foundations on which the stability domain is based. One of the greatest contributions of resilience thinking to interdisciplinary research is the manner in which crises are inferred as opportunities rather than obstacles. The resilience 'pillar' of transformability relates to crises as windows of opportunity for the navigation of social-ecological shifts from one stability domain to another (Folke et al., 2010; Walker et al., 2004). Panarchy, introduced by Holling (2001) as the theory concerning the evolution of complex adaptive systems, places a strong emphasis on the thresholds involved in the transitions between stability domains, as well as on the role of the crisis in instigating the regime shift. The interface between stability and transformation in resilience theory (Redman, 2005) connotes the degree to which change and renewal are embedded in the study of cities as SESs. The need to continuously examine existing power relations that determine the futures of individuals, communities, neighbourhoods and the cities they form is crucial in ensuring institutions and processes characterised by 'bad' resilience are replaced before diminishing the adaptive capacities of people to respond to a shock.

Lastly, Walters's (2015) study proves how urban research that cross-cuts the North-South divide contributes to decolonising the way cities and their citizens are understood and represented. The city, as per Robinson's (2008: 86) rendering, is a platform for political contestation and for making "claims and demands for collective responsibility." Any initiative to restore social justice in the city must, according to Amin and Graham (1997: 426), ensure it "unlocks social capabilities through the empowerment of autonomous groups." A resilience approach to map political power across scales has the potential to identify the thresholds and opportunities for change to take place (Folke et al., 2010). The extent of the deprivation experienced by slum dwellers in Dhaka would, presumably, not have come across as clearly had there been no comparison of the findings with another case study. This is not to suggest that comparisons should only be drawn between 'developed' and 'developing' cities. Rather, by encouraging urban research to move past the variations along existential benchmarks observable

across the North-South divide, comparative studies based instead on the shared principles of justice and equality allow for cities and their citizens everywhere to be represented as 'ordinary' and relatable.

### 2.3. Situating knowledge

Cities excluded from the global/world city hierarchy are, as argued by Robinson (2002), often trapped between finding their place within the globalisation process, belted by the concepts of modernity and development which limit the ways in which cityness is imagined. Roy's (2009: 828) response to these restraining effects of the way cities have been represented in urban theory draws out attention to "alternative modernities" which, she argues, "are produced in multiple urban sites" and can be used not only to analyse local realities but also, in "other places."

In her probe into the cultural formations through which resilience itself emerged, Arora-Jonsson (2016: 105) suggests resilience thinking is "embedded in wider cultures with a history it cannot ignore." The author suggests a perception of resilience as a product of cultural values is crucial in order for us to operationalise the framework for trans- and interdisciplinary research in a manner that builds on its own situatedness. Cote and Nightingale (2012) raise the importance of situating resilience, calling attention to the important political implications this can have on navigating through the multitude of applications of resilience thinking. Situating resilience research, according to their notion, requires a move away from an approach based on the abstract application of concepts and criteria towards the extraction of knowledge through observation of socio-cultural issues and social relations in specific contexts. What more, in regards to social adaptation and responses to change, a situated approach to resilience research allows for these heterogeneous processes to be understood through a focus on the "recursive relationship between knowledge, agency and context as mediated by power, culture and history" (ibid: 484).

In his study on the impacts of climate change on indigenous communities in the Western Arctic, Berkes (2007: 290) uncovers the complexion of these impacts on the affected population, but also,

discovers the crucial role of local knowledge in unravelling rare insights into the nature of this globally observable phenomenon. Specifically, the study established that climate change manifested itself through local observations of "weather variability, predictability, and the occurrence of extreme weather events," rather than through an increase in annual temperatures. These findings affirm not only the need for multiscale analyses of phenomena occurring at multiple levels, but also attest to the invaluable role of local knowledge in filling "the gaps of global science" by providing first-hand insights on the effects of crises and on the adaptation strategies adopted to counter these effects (ibid: 290).

In the study of adaptation and responses to change, differences between cities qualified as global/world cities and 'the rest' are diminishing. Roy (2009: 828) calls for urban theory to accommodate the narrowing of these gaps by facilitating the replacement of a divisive study of cities with one that builds on theoretical models of cityness that are "simultaneously located and dislocated". In order to advance a resilience framework that enables its inter and transdisciplinary application, it is crucial to understand resilience not solely as a systemic property that delivers capacity to absorb shocks, but to also emphasise the situatedness of resilience as well as of the values that create, preserve and enforce our understanding and perception of the concept, manifested through the knowledge these processes generate. Urban ecosystems provide a unique opportunity to observe the interactions between humans and ecological processes (Alberti, Marzluff, 2004). In light of the diversity of issues cities must build the capacity to face, a view of cities through a social-ecological lens is in itself an important step away from the separations enforced by approaches fixed within one of the science domains and a move closer to a more profound understanding of city structures, institutions and the people that form them. For urban theory to remain relevant to the study, understanding and representation of cities everywhere, we must direct our attention to analysing the complex connections between the people, communities, neighbourhoods and institutions which together "determine, and have claims on, the future of the 'ordinary' city" (Robinson, 2008: 86).



### 3. Conclusion

This paper explores the prospects of applying resilience thinking to advancing a theory of ‘ordinary’ cities. Urban theory has been largely dominated by the framework of global/world cities (Roy, 2009). This analytical lens, based on a hierarchical order of cities ranked according to their reputed function within the global economy, has accentuated the persistent North-South divide in urban studies and continues to fuel the disproportional representation of cities and urban realities that fall outside of the global/world city remit. Building on Ash Amin’s and Stephen Graham’s (1997) call for an alternative perspective on the city, Jennifer Robinson (2002: 546) calls for urban studies to “decolonise its imagination about cityness.” In response to the need for transforming the ways in which cities are imagined, understood and represented in urban research, Robinson builds on the notion of “ordinary’ cities, which exist in a world of cities founded on their intertwined diversity, creativity and distinctive versions of modernity. Derived from the kinetics of adaptive cycles, basins of attraction and advanced through notions of resilience, adaptation and transformation, social-ecological resilience thinking addresses the dynamics and development of complex adaptive social-ecological systems, or SESs (Folke et al, 2010). According to Walker and Salt (2012), resilience thinking is a world view that revolves around seeing linkages, thresholds and cycles in what is around us and using these observations to question what drives these processes and connections. Despite enjoying considerable esteem in its ecological home turf, resilience has been heavily criticised for its unwieldy application to the social domain (Cote, Nightingale, 2012) as well as for its reputed nature as a form of governmentality (Joseph, 2013).

Applied to the study of cities as inherently unstable, complex adaptive SESs, resilience thinking retains promise (Vale, 2014). Using a social-ecological resilience-focused lens to investigate the way cities are studied enables us to address the historical, social, cultural and political processes which nurture existing vulnerabilities, while developing pertinent responses for individuals, communities and their neighbourhoods in following their shared probe

for sustainable growth. What more, acknowledging the value of historical, social and cultural knowledge by situating resilience and resilience research, we can expand our theoretical and methodological tools to incorporate “located and dislocated” (Roy, 2009) experiences of cities and cityness. In a world of ‘ordinary’ cities, ways of being urban are as diverse as the people, networks, ideas and connections that constitute the cities themselves (Robinson, 2006). With urbanisation on the rise and the nature and occurrence of unknown crises looming, the challenges that cities face have multiplied. Resilience thinking allows us to recognise uncertainty and change as opportunities of growth. This applies to the study of cities as dynamic multiplexes of networks, but also, to our understanding of cities and citizens across the world as relatable and ‘ordinary’ (1).

### Note

(1) This article is part of the 40<sup>th</sup> issue of *Bulletin of Geography. Socio-economic Series* entitled “Sustainability—differently”, edited by Mirek Dymitrow and Keith Halfacree (Dymitrow, Halfacree, 2018).

### References

- Adger, W.N.**, 2000: Social and ecological resilience: are they related? In: *Progress in human geography*, Vol. 24(3), pp. 347–364. DOI: [10.1191/030913200701540465](https://doi.org/10.1191/030913200701540465)
- Ahern, J.**, 2011: From fail-safe to safe-to-fail: Sustainability and resilience in the new urban world. In: *Landscape and urban Planning*, Vol. 100(4), pp. 341–343. DOI: [10.1016/j.landurbplan.2011.02.021](https://doi.org/10.1016/j.landurbplan.2011.02.021)
- Alberti, M. and Marzluff, J.M.**, 2004: Ecological resilience in urban ecosystems: linking urban patterns to human and ecological functions. In: *Urban ecosystems*, 7(3), pp. 241–265. DOI: [10.1023/B:UE-CO.0000044038.90173.c6](https://doi.org/10.1023/B:UE-CO.0000044038.90173.c6)
- Amin, A. and Graham, S.**, 1997: The ordinary city. In: *Transactions of the Institute of British Geographers*, Vol. 22(4), pp. 411–429. DOI: [10.1111/j.0020-2754.1997.00411.x](https://doi.org/10.1111/j.0020-2754.1997.00411.x)

- Amin, A. and Thrift, N.**, 2002: Cities: Reimagining the urban. Cambridge: Polity Press.
- Arora-Jonsson, S.**, 2016: Does resilience have a culture? Ecocultures and the politics of knowledge production. In: *Ecological Economics*, Vol. 121, pp. 98–107. DOI: [10.1016/j.ecolecon.2015.11.020](https://doi.org/10.1016/j.ecolecon.2015.11.020)
- Berkes, F.**, 2007: Understanding uncertainty and reducing vulnerability: Lessons from resilience thinking. In: *Natural hazards*, Vol. 41(2), pp. 283–295. DOI: [h10.1007/s11069-006-9036-7](https://doi.org/10.1007/s11069-006-9036-7)
- Berkes, F., Arce Ibarra, M., Armitage, D., Charles, A., Loucks, L., Makino, M., Satria, A., Seixas, C., Abraham, J. and Berdej, S.** 2016: Analysis of Social-Ecological Systems for Community Conservation. Community Conservation Research Network (CCRN). Available at: <http://www.communityconservation.net/resources/social-ecological-systems-guide-book/>, DoA: 01.12.2018.
- Bottrell, D.**, 2009: Understanding ‘marginal’ perspectives: Towards a social theory of resilience. In: *Qualitative Social Work*, 8(3), pp. 321–339. DOI: [10.1177/1473325009337840](https://doi.org/10.1177/1473325009337840)
- Brenner, N. and Keil, R.**, editors, 2006: The global cities reader. Abingdon: Routledge.
- Brown, K.**, 2014: Global environmental change I: A social turn for resilience? In: *Progress in Human Geography*, Vol. 38(1), pp. 107–117. DOI: [10.1177/0309132513498837](https://doi.org/10.1177/0309132513498837)
- Butzer, K.W.**, 1982: Archaeology as human ecology: Method and theory for a contextual approach. Cambridge: University Press.
- Cote, M. and Nightingale, A. J.**, 2012: Resilience thinking meets social theory: Situating social change in socio-ecological systems (SES) research. In: *Progress in Human Geography*, Vol. 36(4), pp. 475–489. DOI: [10.1177/0309132511425708](https://doi.org/10.1177/0309132511425708)
- Csomós, G. and Derudder, B.**, 2014: Ranking Asia-Pacific cities: Economic performance of multinational corporations and the regional urban hierarchy. In: *Bulletin of Geography. Socio-economic Series*, Vol. 25, pp. 69–80. DOI: [10.2478/bog-2014-0030](https://doi.org/10.2478/bog-2014-0030)
- Davidson, D.J.**, 2010: The applicability of the concept of resilience to social systems: Some sources of optimism and nagging doubts. In: *Society and Natural Resources*, Vol. 23(12), pp. 1135–1149. DOI: [10.1080/08941921003652940](https://doi.org/10.1080/08941921003652940)
- Desouza, K.C. and Flanery, T.H.**, 2013: Designing, planning, and managing resilient cities: A conceptual framework. In: *Cities*, Vol. 35, pp. 89–99. DOI: [10.1016/j.cities.2013.06.003](https://doi.org/10.1016/j.cities.2013.06.003)
- Dymitrow, M. and Halfacree, K.**, 2018: Sustainability—differently. In: *Bulletin of Geography. Socio-economic Series*, Vol. 40. DOI: [10.2478/bog-2018-0011](https://doi.org/10.2478/bog-2018-0011)
- Elmqvist, T., Alfsen, C. and Colding, J.**, 2008: Urban systems. In: Jorgensen, S.E. and Fath, B. editors, *Encyclopedia of Ecology*, pp. 3665–3672. DOI: [10.1016/B978-008045405-4.00364-5](https://doi.org/10.1016/B978-008045405-4.00364-5)
- Folke, C.**, 2016: Resilience (Republished). In: *Ecology and Society*, Vol. 21(4), pp. 1–30. DOI: [10.5751/ES-09088-210444](https://doi.org/10.5751/ES-09088-210444)
- Folke, C., Carpenter, S., Walker, B., Scheffer, M., Chapin, T. and Rockström, J.**, 2010: Resilience thinking: Integrating resilience, adaptability and transformability. In: *Ecology and society*, Vol. 15(4), pp. 1–9. DOI: [10.5751/ES-03610-150420](https://doi.org/10.5751/ES-03610-150420)
- Friedmann, J.**, 1986: The World City Hypothesis. In: *Development and Change*, Vol. 17(1), pp. 69–84. DOI: [10.1111/j.1467-7660.1986.tb00231.x](https://doi.org/10.1111/j.1467-7660.1986.tb00231.x)
- Greene, R.R., Galambos, C. and Lee, Y.**, 2004: Resilience theory: Theoretical and professional conceptualizations. In: *Journal of Human Behavior in the Social Environment*, Vol. 8(4), pp. 75–91. DOI: [10.1300/J137v08n04\\_05](https://doi.org/10.1300/J137v08n04_05)
- Gunderson, L.H.**, 2000: Ecological resilience – in theory and application. In: *Annual review of ecology and systematics*, Vol. 31(1), pp. 425–439. DOI: [10.1146/annurev.ecolsys.31.1.425](https://doi.org/10.1146/annurev.ecolsys.31.1.425)
- Holling, C.S.**, 1973: Resilience and stability of ecological systems. *Annual Review of Ecology and Systematics*, Vol. 4(1), pp. 1–23. DOI: [10.1146/annurev.es.04.110173.000245](https://doi.org/10.1146/annurev.es.04.110173.000245)
- Holling, C.S.**, 2001: Understanding the complexity of economic, ecological, and social systems. *Ecosystems*, Vol. 4(5), pp. 390–405. DOI: [10.1007/s10021-001-0101-5](https://doi.org/10.1007/s10021-001-0101-5)
- Hollnagel, E., Woods, D.D. and Leveson, N.**, 2007: Resilience engineering: Concepts and precepts. Hampshire: Ashgate.
- Isin, E.F.**, editor, 2013: Democracy, citizenship and the global city. Abingdon: Routledge.
- Joseph, J.**, 2013: Resilience as embedded neoliberalism: A governmentality approach. In: *Resilience*, Vol. 1(1), pp. 38–52. DOI: [10.1080/21693293.2013.765741](https://doi.org/10.1080/21693293.2013.765741)
- Leichenko, R.**, 2011: Climate change and urban resilience. In: *Current Opinion in Environmental Sustainability*, Vol. 3(3), pp. 164–168. DOI: [10.1016/j.cosust.2010.12.014](https://doi.org/10.1016/j.cosust.2010.12.014)

- MacKinnon, D. and Derickson, K.D.**, 2013: From resilience to resourcefulness: A critique of resilience policy and activism. In: *Progress in Human Geography*, Vol. 37(2), pp. 253–270. DOI: [10.1177/0309132512454775](https://doi.org/10.1177/0309132512454775)
- Marschke, M. and Berkes, F.**, 2006: Exploring strategies that build livelihood resilience: A case from Cambodia. In: *Ecology and Society*, Vol. 11(1), pp. 1–16. DOI: [10.5751/ES-01730-110142](https://doi.org/10.5751/ES-01730-110142)
- McCormick, K., Anderberg, S., Coenen, L. and Neij, L.**, 2013: Advancing sustainable urban transformation. *Journal of Cleaner Production*, Vol. 50, pp. 1–11. DOI: [10.1016/j.jclepro.2013.01.003](https://doi.org/10.1016/j.jclepro.2013.01.003)
- Meerow, S., Newell, J.P. and Stults, M.**, 2016: Defining urban resilience: A review. In: *Landscape and urban planning*, Vol. 147, pp. 38–49. DOI: [10.1016/j.landurbplan.2015.11.011](https://doi.org/10.1016/j.landurbplan.2015.11.011)
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F. and Pfefferbaum, R. L.**, 2008: Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American journal of community psychology*, Vol. 41(1–2), pp. 127–150. DOI: [10.1007/s10464-007-9156-6](https://doi.org/10.1007/s10464-007-9156-6)
- Olsson, L., Jerneck, A., Thoren, H., Persson, J. and O’Byrne, D.**, 2015: Why resilience is unappealing to social science: Theoretical and empirical investigations of the scientific use of resilience. In: *Science advances*, Vol. 1(4), pp. 1–12. DOI: [10.1126/sciadv.1400217](https://doi.org/10.1126/sciadv.1400217)
- Olsson, P., Galaz, V. and Boonstra, W.J.**, 2014: Sustainability transformations: A resilience perspective. In: *Ecology and Society*, Vol. 19(4), pp. 1–13. DOI: [10.5751/ES-06799-190401](https://doi.org/10.5751/ES-06799-190401)
- Redman, C.L.**, 2005: Resilience theory in archaeology. In: *American Anthropologist*, Vol. 107(1), pp. 70–77. DOI: [10.1525/aa.2005.107.1.070](https://doi.org/10.1525/aa.2005.107.1.070)
- Richardson, G.E.**, 2002: The metatheory of resilience and resiliency. In: *Journal of clinical psychology*, Vol. 58(3), pp. 307–321. DOI: [10.1002/jclp.10020](https://doi.org/10.1002/jclp.10020)
- Robinson, J.**, 2002: Global and world cities: a view from off the map. In: *International journal of urban and regional research*, Vol. 26(3), pp. 531–554. DOI: [10.1111/1468-2427.00397](https://doi.org/10.1111/1468-2427.00397)
- Robinson, J.**, 2005: Urban geography: World cities, or a world of cities. In: *Progress in Human Geography*, Vol. 29(6), pp. 757–765. DOI: [10.1191/0309132505ph582pr](https://doi.org/10.1191/0309132505ph582pr)
- Robinson, J.**, 2006: Ordinary cities: Between modernity and development. London: Routledge.
- Robinson, J.**, 2008: Developing ordinary cities: City visioning processes in Durban and Johannesburg. In: *Environment and Planning A*, 40(1), pp.74–87. DOI: [10.1068/a39127](https://doi.org/10.1068/a39127)
- Robinson, J. and Roy, A.**, 2016: Debate on global urbanisms and the nature of urban theory. In: *International Journal of Urban and Regional Research*, Vol. 40(1), pp. 181–186. DOI: [10.1111/1468-2427.12272](https://doi.org/10.1111/1468-2427.12272)
- Roy, A.**, 2009: The 21<sup>st</sup>-century metropolis: New geographies of theory. *Regional Studies*, Vol. 43(6), pp. 819–830. DOI: [10.1080/00343400701809665](https://doi.org/10.1080/00343400701809665)
- Sassen, S.**, 1991: The global city: New York, London, Tokyo. Princeton: University Press.
- UN-Habitat**, 2010: State of the world’s cities 2010/2011: Bridging the urban divide. London: Earthscan.
- Vale, L.J.**, 2014: The politics of resilient cities: Whose resilience and whose city? In: *Building Research & Information*, Vol. 42(2), pp. 191–201. DOI: [10.1080/09613218.2014.850602](https://doi.org/10.1080/09613218.2014.850602)
- Walker, B., Holling, C. S., Carpenter, S. and Kinzig, A.**, 2004: Resilience, adaptability and transformability in social–ecological systems. In: *Ecology and Society*, Vol. 9(2), pp.1–9. DOI: [10.5751/ES-00650-090205](https://doi.org/10.5751/ES-00650-090205)
- Walker, B. and Salt, D.**, 2012: Resilience thinking: Sustaining ecosystems and people in a changing world. Washington: Island Press.
- Walters, P.**, 2015: The problem of community resilience in two flooded cities: Dhaka 1998 and Brisbane 2011. *Habitat International*, Vol. 50, pp. 51–56. DOI: [10.1016/j.habitatint.2015.08.004](https://doi.org/10.1016/j.habitatint.2015.08.004)