Organising Urban Sustainability Transformations

Exploring the role, abilities, and potential of Sustainability-Oriented Hybrid Organisations

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Abstract

Sustainability, and the systems transformations required to achieve it, can fundamentally be viewed as an organisational challenge. This thesis argues that mainstream organisational logics and practices can be considered a root cause of current socio-ecological problems and emphasises the need to transform both socio-ecological systems and organisations. New organisational forms and models are required not only to reduce the negative social and environmental impacts of organising human activities but also to help promote net-positive sustainability and restore global socio-ecological systems. Through deductive and inductive qualitative approaches, this thesis identifies, conceptualises, and investigates the roles, abilities, and potential of an emerging type of organisation, namely *Sustainability-Oriented Hybrid Organisations* (SOHOs) to contribute to transformations towards sustainability in urban environments.

Through a comprehensive multi-disciplinary literature review the thesis provides an overview of current knowledge and develops SOHOs as an umbrella category for organisations that use a mixture of market and mission-oriented practices, beliefs, and rationales to tackle social and ecological issues whilst generating a sufficient amount of their income from trading in goods or services, so as to make them economically viable and self-sustaining. Furthermore, the thesis explores nine SOHOs in the Metropolitan Area of Barcelona and finds that they are well placed and have the ability to foster the development of foundational transformative capacities at local scales, namely: (1) reconnecting social and ecological systems dynamics in a way that is harmonious, healthy, and which regenerates life-support systems; (2) fostering healthy individual and political agency; and (3) contributing to building rich community relationships and enhancing social cohesion. However, the actions of SOHOs could have unintended negative effects on the development of transformative capacities at the urban scale,

especially as the strategies they adopt can contribute to their missions and practices drifting towards profit or engagement in identity politics, and enemy narratives.

Next, the thesis asks how and what might make SOHOs able to support positive transformative change towards sustainable development and identifies two main factors, namely that they: (1) promote and apply complex socio-ecological worldviews where individuals and organisations are seen as integral components of socio-ecological systems; and (2) create enabling collaborative environments which include synergetic connections and substantive relationships 'beyond' the organisation. This study showcases that SOHOs can help transcend unsustainable dichotomies perpetuated in management theory and practice where rigid and fictitious dichotomies are imposed between what occurs internally within the organisation and what occurs 'out there' in biophysical systems, economies, and the broader social world. However, for the transformative potential of SOHOs to fully eventuate enabling environments are required, especially in the form of policy and institutional support.

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Chapter 1: Introduction

1.1. Urban sustainability transformations as an organisational challenge

Urban sustainability, and the systems transformations required to achieve it, can fundamentally be viewed as an organisational challenge. Organisations constitute the main intermediate social mechanisms that link individual behaviours, preferences and responsibilities with the dynamics of global systems. They are also the social spaces where social interactions materialise, and in so being, where power and responsibilities are structured, and authority is created and reproduced. Arguably, the predominant mode of organising modern societies today tends to emphasise – using Ferdinand Tönnies' categorisation – the functional and instrumental association-type of *Gesellschaft,* which promotes extrinsic and utilitarian values and impersonal roles over relations based on intrinsic and community values of the *Gemeinschaft* (Tonnies, 1957). This instrumental, utilitarian logic, to organising social systems ultimately leads to an undermining of the collective good to a point where most societies are decimating their natural life support systems and thus organising their own destruction.

An explanation for this paradox can be found in the perpetuation of certain organisational theories and logics with clear ideological backgrounds, which have accentuated the virtues of bureaucratic arrangements. This particularly includes scientific management and human relations theory which together have prescribed practices that perpetuate an understanding of organisations *as* closed functional microcosms separated from historical, social, and ecological contexts (Grey, 2017). In these theories, nature is seen merely as "bundles of resources" outside the organisations, which is ready to be exploited (Shrivastava, 1994); and in turn, workers are seen as a functional part of a machine that needs to be managed towards increased productivity, efficiency, and

profitability where culture, values, or financial incentives are levers for that purpose (Braverman, 1998; Smircich, 1983). As such, the logics, or bounded rationalities, and practices of mainstream organisations have led to considerable negative spill-over effects or externalities on socio-ecological systems' as well as on social cohesion, and overall quality of life (Grey, 2017). This has occurred to an extent where modern organisations can be viewed as key agents ushering in the Anthropocene era which "represents a new phase in the history of both humankind and of the Earth, when natural forces and human forces have become intertwined, so that the fate of one determines the fate of the other" (Zalasiewicz, Williams, Steffen, & Crutzen, 2010, p. 2231). This especially goes for transnational corporations which are "central actors in the human-dominated world and possess the ability to influence critical functions of the biosphere" (Folke et al., 2019, p. 1398). This thesis therefore argues that dominant organisational theories, logics, and models and their core ideological bases, principles, and practices can be seen as one of the cultural root causes driving global environmental change.

In this thesis I understand organisations as social constructs that that arise when individuals come together to coordinate activities toward collective goals. They are governed by formalised or informal patterns of rules, logics, and decision making and are made up of individuals interacting with each other as well as with objects, and biophysical dynamics, and are in constant movement. As such, they should not be anthropomorphised or considered fixed entities, nor should they be considered as systems with fixed boundaries (Stacey, 2003). Institutions are different from organisations in that they are the "rules of the game" and refer to underlying ideological values and norms that structure social interaction (North, 1990). They can manifest in formal organisations but also in informal organisation and social order. There are many classifications for organisations

and their logics or institutional boundaries, most commonly the clasifications of public, private, or non-profit organisations are used (Battilana & Lee, 2014).

Coinciding with the emergence of the *Anthropocene era* are calls, both from academia and practice, for fundamental systems transformations to tackle problems such as climate change and unsustainable trends of development, especially in cities. For instance, transformations is used in reports by the Intergovernmental Panel on Climate Change (Field, 2012) and in development assistance funds such as the Global Environment Facility and the Green Climate Fund (Boodoo, Mersmann, & Olsen, 2018). These calls have coincided with a lack of action on climate change and the worsening state of biophysical systems. For instance, even if warming is contained to the Paris Agreement target limit of 2°C average above preindustrial levels, this might tip the pathway of the Earth System into a "Hothouse Earth" scenario, resulting in "massive, sometimes abrupt and undoubtedly disruptive" impacts on human societies (Steffen et al., 2018, p. 6). Sustainability transformations are particularly urgent in urban environments due to the fact that people living in modern cities do not produce their own food, collect their own water, or produce their own resources for subsistence, let alone manage their own waste; but instead rely on vast complex organisational systems to provide such services (Morton, 2007; Mumford, 1970). The consequences of this physical disconnection, or "ecological alienation", is a "cognitive disconnection between people's understanding of the impacts of their activities and biophysical reality" (Ives et al., 2018, p. 4). A key contributor to this is a growing division and specialisation of labour, based on performing narrowly defined tasks away from direct biophysical experiences, characteristic of highly urban and industrial contexts (Cumming et al., 2014; Lin, Fuller, Bush, Gaston, & Shanahan, 2014).

But what kind of "sustainability" are societal organisations transforming towards? Sustainability is not a fixed state nor does it have an end point, it is rather a normative process and an emergent property which stems from conversations regarding what future people want in different contexts and this is based on their understandings of the consequences on ecological, social, and economic dynamics by different actions or processes (J. Robinson, 2003; J. Robinson & Tansey, 2006). As such, it differs in various socio-cultural and ecological settings. Predominant narratives on sustainability often take a 'doing less harm' or a net-zero approach to sustainability which is based on a 'limits and constraints' narrative. This is a vision that has so far failed to inspire action. Therefore, this thesis will highlight the need for organisations to not only contribute to sustainability, but where possible, also to regenerative sustainability, which is a net-positive approach to sustainability that aims to maximise benefits (J. Robinson & Cole, 2015). J. Robinson and Cole (2015, p. 138) argue that "human activity does not necessarily have to be minimised because it is inherently harmful but can instead contribute directly to both environmental and human well-being". As such, the focus of this approach is to develop a regenerative paradigm which is designed "to engage with a living world through its emphasis on a co-creative partnership with nature based on strategies of adaptation, resilience and regeneration" (Du Plessis, 2012, p. 7).

Another key question is what role different forms of organisations play in contributing to or hampering efforts towards achieving urban transformations towards regenerative sustainability. Unless transformations are aimed at addressing the systemic causes of climate change and social vulnerability (O'Brien, 2012), they are likely to perpetuate existing structures and exacerbate and extend negative impacts and vulnerabilities across the globe (Nalau & Handmer, 2015). If mainstream organisational theories and models are one of the underlying causes and drivers of global trends of

unsustainability, then sustainability transformations will also require organisational transformations. Sustainability transformations require more than "new technologies, better management, improved policies or behavioural changes" (O'Brien & Sygna, 2013, p. 4), and as a result we are unlikely to achieve them with the same organisations that helped bring about current socio-ecological problems. Instead, humans need to move toward a second-order social learning and achieve a "quantum leap" (O'Brien, 2016) in organisational capacity to adapt to the present reality and transform it so that new means are deployed to achieve sustainability oriented goals (Tàbara & Pahl-Wostl, 2007).

Therefore, changing how society organises itself – especially in urban environments and in relation to wider social-ecological systems – is of paramount importance to promoting transformations towards a sustainability that regenerates socio-ecological systems. This goes beyond 'corporate biosphere stewardship' which focusses on looking after and caring for socio-ecological systems (Folke et al., 2019). Transformations of global dynamics require new guiding paradigms and exemplary practices at the level of organisations in order to achieve sustainable and fair socio-ecological interactions in line with the climate challenge (Edwards, 2010). One such emerging organisational form is *Sustainability-Oriented Hybrid Organisations* (SOHOs), an umbrella concept developed in this thesis to enable the investigation of the roles, abilities, and potential of a variety of novel forms of organisations which can set the foundations of a new guiding organisational paradigm to address the unsustainability challenges of our time. These types of organisations have previously been put forward as potentially pivotal agents for sustainability transformations (Haigh & Hoffman, 2012, 2014; Schaefer, Corner, & Kearins, 2015). They are considered hybrids because they operate in the intersection of the public, private, and non-profit organisational domain. This is because they use a mixture of market and mission-oriented practices, beliefs, and

rationales to tackle social and ecological issues. In addition, while generating profit may not be the main driving force for their existence, they generate a sufficient amount of income from the trading in goods or services to be economically viable and self-sustaining. In doing so, hybrid organisations are situated somewhere on a continuum between Tonnies *Gesellschaft* and *Gemeinschaft*, having retreated from the utilitarian *Gesellschaft* extreme. Yet, in trying to strike this balance very little is known about their specific roles, strategies, required abilities, and actual and potential contributions to urban and global sustainability transformations.

To advance knowledge on this topic, this thesis examines nine SOHOs in the Metropolitan Area of Barcelona. This is a city which is experiencing considerable changes in its urban dynamics and which has a growing number of SOHOs engaged in activities which could help promote regenerative sustainability, especially in the built environment and energy sectors. Many of the changes in the city are characterised by a bottom-up approach to addressing problems associated with the financial crisis, tourism, and increasingly environmental sustainability. In fact, Barcelona has been qualified as one of "the most socially innovative urban environments in the world, where alternative cultures have been present, both historically and through the years of the recent financial crisis..." (Castells & Hlebik, 2017, p. 162). One of these alternative cultures is the Social and Solidarity Economy which consists of nearly 4000 organisations and initiatives (Ajuntament de Barcelona, 2017b). As such, it represents an interesting context to study SOHOs and the role they can play in transformations towards sustainability.

1.2. Research aim and questions

The overall aim of this thesis is to understand the roles as well as current abilities, and potential of SOHOs in triggering and steering transformations towards sustainability in urban environments. More specifically, the research questions are:

- **Research question 1:** How are organisations contributing to (un)sustainability?
- **Research question 2:** What is known about hybrid organisations for whom the main purpose is not to maximise economic profit but to achieve social and ecological missions, and how could they help bring about sustainability transformations?
- **Research question 3:** How are SOHOs supporting the development of capacities conducive to fostering sustainability transformations at the community and urban scale?
- **Research question 4:** How and what might make SOHOs able to support positive transformative change towards sustainability?

1.3. Thesis structure and chapter summary

The main part of this thesis is a compilation of three academic papers presented as research chapters, preceded by five chapters which contextualise the problem, existing literature and theory, and methods, and followed by a final chapter which presents conclusions and implications for both practice and research.

Chapter One serves to introduce the research, its rationale, significance, aim and questions, as well as contributions. Chapter Two answers research question 1 through presenting a literature review of mainstream organisational and management literature related to the natural environment. This literature review outlines that mainstream organisational and management theories, logics, and practices can be seen as one of the

cultural root causes of global environmental change due to their tendency of viewing organisations *as* environments in and of themselves. The chapter also touches upon how more contemporary "greener" and sustainability-oriented organisational theories and practices which aim to be *for* the environment, the economy, and society or *adapting to* the environment have not gone far enough in addressing this unsustainability. This showcases the need to transform the way collective action is organised in order to address problems like climate change and social inequality. The review also highlights an emerging view where organisations are seen as *within* environments, and it is this view which most hybrid organisations, especially SOHOs appear to adopt. This review provided the onus behind the decision to pursue research on SOHOs.

Chapter Three outlines the theoretical foundations of the thesis with respect to the organising urban sustainability transformations perspective. The chapter outlines three perspectives that form the theoretical basis of the thesis, namely: regenerative sustainability as a normative goal focussing on net sustainability gains, not only on 'doing less harm'; a perspective that connects three spheres of transformations (practical, political, and personal), where I argue that organisations are key intervention points in all three spheres; and complex systems theories that include the role of visions, capacities, strategies, and positive tipping points. Chapter Four outlines the research approach and methods taken in this thesis including both inductive and deductive approaches and methods and the rationale for the choices made in the thesis. Chapter Five presents the research context of Barcelona and assesses the degree to which this urban setting can be considered an enabling environment for transformations towards sustainability and argues that it is increasingly enabling.

Chapter Six describes the results of a systematic literature review which develops *Sustainability-Oriented Hybrid Organisations* as an umbrella concept and considers what

is known about these organisations. It outlines that the literature coalesces around four areas: (1) the factors that drive and enable the creation and development of SOHOs; (2) the actions and practices they engage in; (3) their direct outcomes and broader impacts; and (4) the barriers and challenges they face. It argues that taking advantage of dominant tools, mechanisms, and incentive structures related to global and local market dynamics are required by agents wanting to influence the course of development towards sustainability and that SOHOs should work towards implementing regenerative activities to promote sustainability transformations. It also outlines the need for further empirical research into the outcomes and impacts of SOHOs and whether these are fostering sustainability transformations.

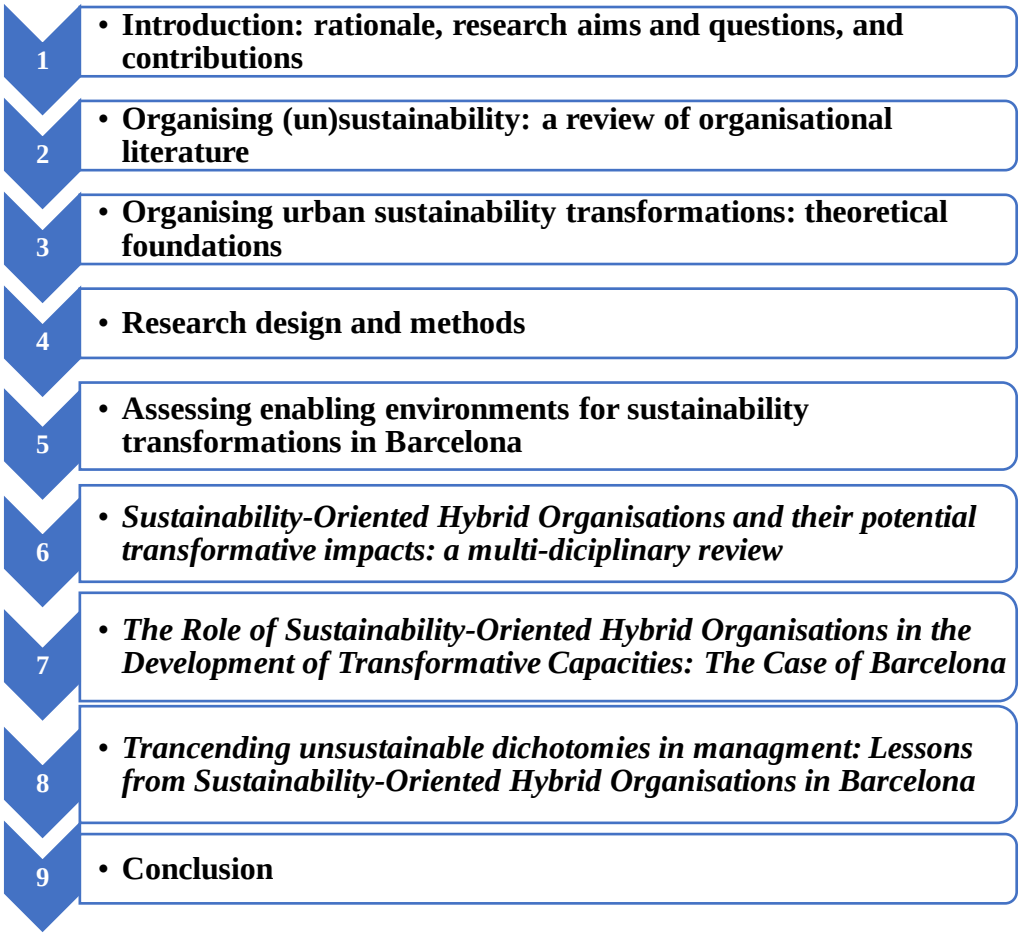
Chapter Seven outlines a qualitative empirical study into how SOHOs support the development of transformative capacities for regenerative sustainability. It does so through analysing nine SOHOs in the Metropolitan Area of Barcelona based on the further development of an existing framework. The paper found that SOHOs are decisive in initiating the development of transformative capacities at the community scale, but that their strategies could harm their development at the urban scale.

Chapter Eight takes a grounded theory approach to understanding what might make SOHOs able to contribute to sustainability transformations. It investigates the same nine SOHOs in the Metropolitan Area of Barcelona and finds that these organisations are characterised by: (1) a promotion and application of complex socio-ecological worldviews where individuals and organisations are seen as integral components of socio-ecological systems; and (2) a creation of enabling collaborative environments which facilitate synergetic connections and substantive relationships 'beyond' the organisation. The conclusion is that SOHOs can be considered promising organisational forms that have the potential to challenge unsustainable dichotomies perpetuated by mainstream

management logics and practices. Chapter Nine concludes the thesis and considers its main contributions, lessons learned, implications, and future research directions. See Figure 1 for an outline of the structure of the thesis, where the research articles are italicised.

Regarding publication of results, Chapter Six has been submitted to *Sustainability Science* for consideration for publication. Chapter Seven has been submitted to *Cities* for consideration for publication. Chapter Eight has been submitted to *Journal of Cleaner Production* and was published in October 2019. Each of the papers are co-authored with my supervisors J. David Tàbara and Thomas F. Thornton. The journals are all peer-reviewed, indexed, scientific journals. All work is primarily my own and I have included statements of co-author contributions in Appendix I. Further thesis contents providing more detail about literature reviews, other co-authored papers and research projects carried out during the thesis as well as details of interviewees and example interview guides is located in Appendices II-VI.

Figure 1: Structure of thesis



1.4. Contributions

A key contribution of this thesis is the development of the organising urban sustainability transformations perspective and the argument that sustainability transformations can be viewed as an organisational challenge. This perspective advances both organisational and sustainability science research through linking the two in a novel way. Earlier organisational research has considered the "interconnections of organizations with social-ecological systems and the dynamic feedbacks that exist between organizations and social-ecological systems" (Williams, Whiteman, & Kennedy, 2016, p. 1), has focussed on ecological sensemaking in organisations (Whiteman, 2012), and investigated how social and environmental business practices contribute to

organisational resilience (DesJardine, Bansal, & Yang, 2019). However, the focus of this research is on how organizations can and should adapt to the impacts of global environmental change, especially climate change, not how organisations can and should transform in order to address these problems. Valuable work has also been done on the role of individuals and organisations ecological or spatiotemporal embeddedness in promoting strong sustainability (Philippe & Bansal, 2013; Whiteman & Cooper, 2000), as well as on how sustainable ventures are "uniquely positioned to synchronise their emerging activities with the natural cycles of their social and environmental contexts" (Muñoz & Cohen, 2017, p. 1), and that this promotes further sustainability efforts by the entrepreneurs. However, this research has not adequately focussed on the need to transform both organisations and systems in order to promote regenerative sustainability, and how this can be brought about by experimenting with new organisational forms.

Vice versa, sustainability science and sustainability transformations research has not adequately focussed on the role of organisations, and organisational transformations, in fostering regenerative sustainability. This is despite the fact that the needs of societies are met through organisations, and decisions and actions made within them have impacts on global system dynamics. Sustainability science researchers has argued for concepts such as 'corporate biosphere stewardship' which focusses on looking after and caring for socio-ecological systems (Folke et al., 2019), for understanding the social values that drives a corporation to engage in corporate social responsibility (Fordham & Robinson, 2019), and that investors should respect planetary boundaries and invest in solutions to environmental problems (Butz, Liechti, Bodin, & Cornell, 2018). These approaches rarely question the mainstream methods of which collective action is currently organised and its consequences on socio-ecological relations, but instead focus on incremental change and efficiency gains within existing systems and organisational forms. However,

some research has acknowledged the need for more fundamental changes with Loorback & Wijsman (2013, p. 26) arguing that "becoming a sustainable business often entails an organizational transition rather than an optimization of the existing" which relates to the fact that conventional management could be counterproductive to sustainability as pre-selected goals, ready-made plans, and linear processes could make managers overlook emerging solutions (Svensson et al., 2011). This thesis takes this argument even further and attempts to answer calls for research on sustainability venturing to take the step into sustainability science to better understand the socio-ecological interactions that such organisations engage in (Muñoz & Cohen, 2017), and also argues that sustainability scientists need to consider in greater depth the role of organisations and organisational change in promoting transformations towards regenerative sustainability.

The thesis describes concrete empirical examples of emerging organisational forms and develops a new concept - SOHOs - which can be used to understand and promote urban and global sustainability transformations. Organisations are both a part of the problem and of the solution underlying current trends of unsustainable development. Therefore, developing a perspective and narrative around sustainability transformations as an organisational challenge could help highlight the importance of understanding the role and potential of organisational processes in promoting or hindering regenerative sustainability. If societies do not transform the organisation of collective action, then sustainability improvement are unlikely to arise.

The introduction and critical assessment of the SOHOs umbrella concept emerged through a comprehensive multi-disciplinary literature review. The need for this term stems from the fact that there is a growing amount of research on such organisations, from different fields, characterised by inconsistent terminology and conceptualisations, and fragmentation of knowledge. By introducing and fleshing out of the novel SOHO

umbrella term I seek to constructively consolidate and interrelate knowledge from different fields, especially regarding the roles and potential of such organisations in promoting sustainability transformations.

Another contribution of the thesis relates to advancing knowledge on the role of SOHOs in developing transformative capacities for regenerative sustainability. The terms transformative capacities and regenerative sustainability have not been combined to this extent previously, despite their importance and the potential advantages of treating them in combination. The development of transformative capacities and enabling environments are required in order to foster successful transformations. However, society needs to transform towards a world where humans regenerate social and ecological systems, instead of one that is focussed only on doing less harm (J. Robinson & Cole, 2015). We find that SOHOs are able to muster a set of foundational transformative capacities at the community scale but that their actions could have unintended negative effects on the development of transformative capacities at the urban scale, especially as the strategies they adopt can contribute to their missions and practices drifting towards profit or engagement in identity politics, and enemy narratives.

Despite the argument that SOHOs have significant potential for promoting sustainability (Haigh & Hoffman, 2012, 2014; Schaefer et al., 2015), little is known about what makes them able to do so, especially related to sustainability transformations. Based on a grounded theory exploration, this thesis finds that this ability relates to their complex socio-ecological worldviews and enabling collaborative environments. This finding strongly suggests that SOHOs are able to transcend unsustainable dichotomies perpetuated by mainstream organisational management research and practice. This is because, instead of seeing nature, people, and organisations beyond the immediate organisational scope as "external" to clearly defined organisational boundaries,

individuals in SOHOs see themselves as embedded within local socio-ecological contexts and connected to other organisations. This poses questions regarding the tendency that many organisational scholars have to want to remain "within" organisational boundaries (Czarniawska, 2013). Understanding how hybrid organisations and corporations contribute to sustainability – let alone transformations – is unlikely to come about unless there is a move away from a view of organisations as value-creating artefacts separated from socio-ecological systems.

Chapter 2: Organising (un)sustainability: a review of the organisational and management literature

2.1. Introduction

This section presents a literature review of classical organisation and management literature, as well as corporate sustainability and the views these have of the natural environment along with the consequences these views have for biophysical and social interactions. The aim of the review is to answer research question 1 regarding how organisations are contributing to (un)sustainability. It outlines that classical organisational theories and business models – and their core ideological bases, principles and practices – can be seen as one of the cultural root causes of global environmental change, and that the remnants of these theories are prevalent within today's "greener" organisational models. However, it also highlights that there are alternative organisational concepts and models emerging that have more complex and integrated views of socio-ecological systems, including hybrid organisations and sustainable ventures, which are more likely to contribute to promoting sustainability transformations.

The literature on organisations and management – including on corporate sustainability – is vast and growing rapidly and doing a systematic review of different theories views of the natural environment – as well as considering the direct and indirect impacts of mainstream organisational theories on environmental and social systems – is not feasible within the remit of this thesis. However, the many literature reviews, articles, and books written on the topic already (e.g. Grey, 2017, Mowles et al 2016, Edwards, 2010, Shrivastava, 1994, Baneerjee, 2011) have enabled me to carry out a selective narrative review. The results of this review are the identification of four main views related to organisations and the environment, namely: organisations *as* total environments; organisations *for* the environment, economy and society; organisations *adapting to* the environment; and organisations *within* environments. The literature

within these views sometimes overlap but the orientations themselves can be seen as distinct.

2.2. Organisations *as* environments

Current organisational theories, models, university courses as well as wider economies, are heavily influenced by classical organisational theories such as *bureaucracy, scientific management* (Taylorism), *Fordism* and *human relations theory*, where organisations approach the level of 'total institutions' (Goffman, 1961), detached from the rest of the biophysical and (often) social worlds. These theories tend to view organisations *as* closed microcosms, separate from historical, social, and ecological contexts (Grey, 2017), where nature is merely 'bundles of resources' to be exploited (Shrivastava, 1994) or a sink that can absorb all kinds and quantities of waste (Cohen & Winn, 2007; Hart, 1995). Thus, natural ecosystems have little intrinsic value other than for their extrinsic utility (Bell, Autry, Mollenkopf, & Thornton, 2012). The consideration of scarcity in natural resources can even be a valuable attribute as it can help a company be competitive if it is the first in acquiring, substituting, or transforming it into a profitable commodity (Barney, 1991). Grey has outlined that the rationalities and practices that these classical theories have described, prescribed, and ultimately created have had considerable negative effects on socio-ecological systems' interactions (2017).

These organisational theories and the organisations they have prescribed or produced are one of the main engines of the industrial revolution and thereby socio-ecological disconnection. In fact, the industrial revolution brought with it the largest transformation in organisational history (Edwards, 2010) from organisations bound by power, charisma, and tradition, towards large scale bureaucracies bound by rational-legal authorities (Weber, 1930). While this led to unprecedented levels of efficiency and productivity (Merkle, 1980), it also led to record levels of environmental degradation and

Greenhouse Gas (GHG) emissions (Koch, 2011). Bureaucratic organisations were driven primarily by instrumental rationality, which focused on efficiency of means rather than the efficacy of the ends produced (Shenhav, 1999). However, as Weber (1930) warned, the over-specialisation of workers 'without spirit' and the 'iron cage' of rationalisation could lead to the removal of personal responsibility and reason from the organisational equation. Since the aim of many bureaucratic organisations and scientific management theory at the time was to remove personal discretion from work, individual agency rarely went beyond the bureaucratic contract (Graeber, 2015). Workers are seen as participants of an economic treadmill operating in an environment of perfect competition that can be managed towards increased productivity, efficiency, and profitability through levers such as culture, values (Smircich, 1983) or financial incentives (Braverman, 1998). Bureaucratic organisations tend to be increasingly efficient and rational in the use of means to achieve ends but the individuals within them are often unable to assess the moral and ultimate rationality of achieving the goals of the organisation – hence delegating such responsibilities to the market or shareholders. This often leads to goal displacement, where following a regulation becomes an end in itself, losing sight of the broader policy objective (Merton, 1940)[1].

George Ritzer argues that the current form of the 'iron cage' can be seen through processes of "McDonalidization" – where organisations and societies are run 'rationally' like a fast-food restaurant which produces 'irrational outcomes' like dehumanisation, alienation, disenchantment, homogenisation of cultures (Ritzer, 1993), humans behaving like machines (Ritzer, 2013), as well as socio-ecological detachment. This can result in removing individual human reason and agency from the organisation (Bruenderman, 2009). When organisations are seen *as* environments in and of themselves and dominated

[1] Such displacement can result in negative environmental externalities as with the Volkswagen clean diesel scandal in 2015 (Grey, 2015).

by instrumental rationality, there is a lack of space for the collective creation, learning, struggling, and overcoming which is necessary for building social capital and cohesion. Instead, agency, social capital, and cohesion, as well as connections to the physical environment, are often built solely outside the organisation, as could be seen by the development of working class culture in western industrial cities (Grey, 2017).

2.3. Organisations *for* the environment, the economy and society

As mounting negative environmental consequences of the industrial revolution and its classical organisational theories became increasingly evident, new environmental views of organisational types emerged. These approaches saw organisations as needing to minimise negative environmental consequences and – in a sense – act *for* the environment, the economy and society, e.g., through the notion of sustainable development. This emerging view sees organisations as systems which exist within and impact the "external" environment. As such, the internal/external dichotomy is also prevalent within corporate sustainability literature as it is used to analyse how organisations interact with the "external" systems within which they operate such as the economy, nature or institutional environments (Byl & Slawinski, 2015; Corbett, Webster, & Jenkin, 2018; Milne & Gray, 2013). While organisations and the environment are still understood as separate, it is nevertheless recognised that they influence each other. These views have contributed to tangible improvements in socio-ecological relations (Aragon-Correa, 2013). However, this paradigm is still unable to fundamentally address systemic problems such as climate change (Gladwin, 2011). Instead, *corporate sustainability* practices have been criticised for being more akin to ensuring long-term capital profit seeking (Milne & Gray, 2013), and greenwashing (Lyon & Montgomery, 2015), where social and ecological concerns receive much less attention than economic goals (Banerjee, 2011). Whereas corporate sustainability research suffers from a distinct lack

of clarity regarding what the concept means with 33 definitions identified by (Meuer, Koelbel, & Hoffmann, 2019).

This subordination of ecological concerns relates to the tendency of these organisations to not integrate sustainability as a core part of their business models. Instead, their focus is on merging economic competitiveness with environmental and social demands to gain market advantage (Russo & Minto, 2012). With approaches such as *corporate social responsibility (CSR)* (Margolis & Walsh, 2003), *environmental management* (Albertini, 2013), or *triple bottom line reporting* (Elkington, 1998) being implemented to achieve economic or strategic benefits to the organisation. Assumptions are made that it is possible to achieve a balance between environmental, social, and economic goals and that such goals reinforce each other (Orlitzky, Schmidt, & Rynes, 2003). This has led to a focus on win-win approaches which in some cases ignore the tensions that arise when environmental, social and economic goals diverge (Byl & Slawinski, 2015). Critics of win-win approaches argue that whether the environment is 'winning' is left at the margins while economic wins take centre stage (Kallio & Nordberg, 2006). Furthermore, not everyone perceives win-win situations between the environment and development which means that there will always be trade-offs for some people (Thornton et al., 2019). Most approaches to organisational sustainability fit squarely within instrumental rationality (Schaltegger, Hansen, & Lüdeke-Freund, 2016) and to an anthropocentric view of social-ecological interactions with a focus on making the business case for sustainability (Haigh & Hoffman, 2014). This shows that these models and ideas are still deeply embedded in a dualistic understanding of organisations with the natural environment and therefore are not likely to foster the fruitful socio-ecological re-connections needed for sustainable development. In sum, these corporate sustainability approaches are in fact not organised *for* the environment.

Whether such organisations are *for* society has also been questioned. Such efforts occur mainly through *CSR* activities where corporations tend to fund philanthropic actions of already-engaged NGOs and try to take responsibility towards communities and the environment in the areas where they operate. CSR strategies have been found to contribute to building social cohesion through activities such as providing funding or pro-bono support to sporting initiatives, educational programs, or poverty alleviation (Aguinis & Glavas, 2012) and in these cases such initiatives are generally not done with a profit motive. In other situations, CSR is integrated into business models or supply chains to increase trust between the organisation and its customers (Wieland & Handfield, 2010), which can be considered as part of a marketing strategy where the aim is to increase profitability. Therefore, one of the primary reasons why organisations engage in CSR is to secure financial gains (Aguinis & Glavas, 2012). Moreover, it may be the case that such 'social-washing' to boost trust in corporations could make consumers blind to the more systemic impacts organisations are having on the environment and society (McKibben, 2006) such as through continuing to increase consumption, GHG emissions, paying employees unliveable wages or promoting unhealthy food habits. A prime example is McDonalds funding Ronald McDonald house, child charities, and sport events whilst their food promotes negative food habits and health outcomes in children (Ebbeling, Pawlak, & Ludwig, 2002).

2.4. Organisations *adapting to* the environment and climate change

With growing warnings about anthropocentric climate change, another view has emerged both within organisation studies and climate change focussed literatures, namely that organisations need to *adapt to* global environmental change either by taking advantage of new market opportunities or minimising risks and vulnerabilities to their core businesses. Most of this literature sees organisations as open systems which have the

ability to adjust to or influence environmental change (Winn, Kirchgeorg, Griffiths, Linnenluecke, & Günther, 2011). The organisational literature focussed on climate change mitigation is similar to the literatures discussed in the previous section and relates to corporate sustainability and has mainly centred on how to provide market advantage through instrumentalist and managerialist perspectives (Wittneben, Okereke, Banerjee, & Levy, 2012), especially related to GHG management and increasing efficiency (Linnenluecke, Griffiths, & Winn, 2013). The emphasis is mainly on supply chain efficiencies over altering business models. However, the emphasis on corporate voluntary action has been criticised as being the reason for the lack of significant reductions in GHGs (Wittneben et al., 2012) and therefore such approaches are unlikely to contribute to sound socio-ecological reconnection and tackling global environmental change.

In the organisational adaptation and organisational resilience literature, the main aim of climate adaptation is to secure access to or protect critical core business resources from environmental change, especially climate change (Tashman, Winn, & Rivera, 2015). Some authors also stress that such protective adaptive strategies could face limits given the finite nature of ecosystem services under present rates of ecological degradation and that they therefore constitute a form of maladaptation (Clément & Rivera, 2017). To avoid reaching adaptation limits and/or maladapting, organisations would need to proactively engage in transformative change. However, for these theories and practices the main purpose of such transformations is to increase the resilience of the firm and its ability to protect its core business interests by maintaining profitability (Clement and Rivera, 2017) often through continued growth at the expense of the environment. Such conceptualisations of organisations *adapting to* the environment is not likely to result in reducing unsustainable trends of development, instead it could add to these trends.

However, other research related to organisations and adaptation has contributed interesting insights into how social capital can provide goodwill between individuals and organisations and thereby create foundations for these organisations to thrive under uncertainty and act rapidly to new conditions (Lengnick-Hall & Beck, 2005). It has especially focussed on how shadow spaces for learning within and between organisations can promote both individual and social learning and thereby increase adaptive capacity in organisations through processes of experimentation, imitation, communication, learning, and reflection (Pelling, High, Dearing, & Smith, 2008). These shadow spaces may generate social cohesion and facilitate the emergence of political agency where the goal of the agent can become to adapt the institutional architecture of their system (Pelling et al., 2008). As such, this research can provide valuable insights into how an organisation can adapt or transform to address unsustainability, and whether an organisation, such as SOHOs, are adapting to or transforming the system it is operating within.

2.5. Organisations *within* environments

Complexity perspectives have emerged within most academic fields and organisational studies is no exception. *Complexity perspectives* offer a conceptual framework that combines the acknowledgement of the unpredictability of environmental, economic and social systems with the emergence of distinctive and contingently stable patterns of organisation in which sustainability can occur (Anderson, 1999). While common features of classical organisational theories are control, certainty, causality, linear change, and viewing organisations as closed systems, complexity theory argues that the future is open and subject to perpetual construction with certainty out of reach (Stacey, Griffin, & Shaw, 2000). Therefore, collective action along with environmental systems dynamics, become interlinked and mediated by complex sociotechnical mechanisms which in turn emerge from concrete organisational practices (Levy &

Lichtenstein, 2012). Such complexity attuned practices bring with them the potential for fruitful socio-ecological re-connections as such individuals see organisations as key components situated *within* complex socio-ecological environments. Examples of seeing organisations as *within* environments and complex socio-ecological systems have been found in four branches of literature, namely: next-stage organisations; alternative organisations; hybrid organisations; and sustainable venturing.

The concept of *next stage organisation* is based on the premise that organisations are manifestations of human worldviews at specific stages of development and that humans are currently transitioning into what can be described as Maslow's "self-actualizing" level, Wilber's integral consciousness or a 'teal' level of consciousness (Laloux, 2014). This "level" of consciousness involves taming egos and acquiring more wholesome and authentic ways of being along with building abilities to deal with complexity. Organisations which embody this configuration are currently emerging and are characterised by principles and processes related to self-management, wholeness, and evolutionary purpose (Laloux, 2014). Examples of organisations which informed this characterisation is *Buurtzorg* (non-profit neighbourhood nursing organisation), *AES* (electricity production and distribution), *Patagonia* (outdoor apparel), and *Sun Hydraulics* (hydraulic designer and producer).

It has been argued that these *next stage organisations* are in tune with collective evolution and the growing quantum paradigm which makes them more capable of tackling highly complex and interconnected problems by tapping into the transformative potential of conscious, collective evolution, and to create and maintain space for members with differing developmental trajectories, skills, and backgrounds (Reynolds, 2017). They can therefore generate goods and services whilst creating value for all stakeholders as well as heal ecological, psychological, and sociological ills (Reynolds, 2017). Thus

far, both research and practice, on *next-stage organisations* have focussed primarily on internal organisational dynamics rather than focussing on the ends the organisation contributes to producing, which with respect to the environment can be negative as is the case with *AES* in their generation of electricity from fossil fuels including coal, diesel, gas, and oil. However, it has been argued that these organisations are inclined to 'do the right thing' with respect to social and ecological systems due to their processes related to distributed power and collective intelligence (Laloux, 2014). Yet, many of these organisations are not oriented towards sustainability which does not make them ideal case studies for this thesis.

Alternative organisations as organising concepts have emerged within critical management studies to highlight the flaws and blind spots of mainstream organisational and management literature. In this field, *alternative organisations* are understood as opposite to traditional, predominant, or hegemonic institutional arrangements (Cheney, Santa Cruz, Peredo, & Nazareno, 2014). This often means less bureaucratic and hierarchical organisational structures which are centred on fulfilling the needs of humans and the environment rather than simply maximising profit or producing unnecessary products and services, as such the individuals within them tend to see the organisation as *within* complex socio-ecological environments. Alternative organisational practices tend to develop innovative and situated initiatives based on needs-driven social economies and their practices tend to be creative, novel, untested, or radically different from more common ones (Parker, Fournier, & Reedy, 2007). However, what counts as alternative is not always clear. In fact, "what is constituted as 'alternative' is historically and politically responsive to extant dominant forms of organizing" (Ganesh & Zoller, 2014, p. 2). Diverse social-ecological formations, such as the *transition towns movement* (Ganesh & Zoller, 2014), *worker cooperatives* (Cheney et al., 2014), and eco-enterprises such as

bioregionalism and *permaculture* (Campbell, 2008), have all been classified as part of the alternative organisational wave. These movements have the potential to not only develop transformative capacities but also positively change wider systems dynamics beyond their own operating contexts as well as create happier and more fulfilling lives for their dwellers in a democratic and local fashion (Ganesh & Zoller, 2014). However, the lack of clear definitions or theoretical understanding of *alternative organisations* makes it challenging to use it as a lens for researching their transformative potential.

A third strand of literature which views organisations as components *within* environments is the *hybrid organisations* literature. *Hybrid organisations* span institutional boundaries and operate in more than one organisational logic or domain (e.g. public, private, or non-profit sectors) (Battilana & Dorado, 2010; Battilana & Lee, 2014; Pache & Santos, 2010). In other words, *hybrid organisations* have "structures and practices that allow for the coexistence of values and artefacts from two or more categories" of organisations (Doherty, Haugh, & Lyon, 2014, p. 418). There are multiple types of *hybrid organisations*, but the ones in question here are the ones that span the three sectors (public, private, and non-profit) through aiming to address problems related to the commons (e.g. the environment or society) that are typically the domain of the public or non-profit sectors, but doing so through market based mechanisms, which is typically the domain of the private sector. Good examples of such organisations are social and environmental enterprises.

Authors developing these concepts, as well as individuals in the organisations themselves, are more likely not to see organisations as separate from social or ecological systems (Hart, 2007), but instead take a more holistic view, emphasising the value of nature beyond resources or as a waste pit. *Hybrid organisations* aim to tackle social, economic, and/or environmental problems through combining for and non-profits

elements, and maintaining a mixture of market and mission-oriented rationales, beliefs and practices (Smallbone, Evans, Ekanem, & Butters, 2001). They aim to generate positive ecological and social outcomes through their business activities, instead of as a result of the profits they generate. Therefore, the individuals within these organisations are more inclined to view themselves as integral parts *within* environments and as such have been deemed an important step towards sustainability (Haigh & Hoffman, 2014). However, the hybrid literature tends to focus on organisations that aim at solving social or environmental problems, not both simultaneously, as will be highlighted in Chapter Six. However, sustainable entrepreneurs and SOHOs differ from social entrepreneurs and social enterprises (Muñoz & Cohen, 2018b), especially related to their core motivations and aims of solving both social and environmental problems simultaneously, as well as how they see the role of economic goals and how they go about organisational change (Schaltegger & Wagner, 2011). This goes to show that there is a need for new concepts, especially to understand the roles, abilities, and potential such organisations have in promoting sustainability transformations.

Closely related to the literature on hybrid organisations – and a sub domain of entrepreneurship literature – is the study of the sustainability-oriented entrepreneurs that create hybrid organisations and the venture activities they engage in. *Sustainability entrepreneurship* focuses on the "preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society" (Shepherd & Patzelt, 2011, p. 137). Whereas *sustainable ventures* are commercially viable and contribute to environmental protection and social justice (Muñoz & Dimov, 2015). Both of these perspectives view organisations as embedded within and deeply interconnected to

complex socio-ecological systems (Muñoz & Cohen, 2017). However, their focus is on the key entrepreneurs and their venture processes rather than on the wider organisational context with the multiple people that are involved. The sustainable venture approach, goes beyond the narrative of "opportunity development" and market interaction, "towards considering the rhythmic patterns of the entrepreneur and its venture together with those of the economies, societal groups and natural ecosystem sustainable entrepreneurship relies on" (Muñoz & Cohen, 2017, p. 1). As such, it can be argued that the theory on *sustainable venturing* has come the furthest with respect to considering sustainable ventures as integral components of complex socio-ecological systems. However, what has not been adequately theorised or researched within this realm is the role such ventures play within promoting sustainability transformations (Hockerts, Muñoz, Janssen, & Nicolopoulou, 2018).

2.6. Conclusion

Classical organisational theories and business models, and their core ideological bases, principles, and practices can be seen as one of the cultural root causes of negative global environmental change; and the remnants of these theories are still prevalent within today's "greener" organisational models. This was showcased through a selective review of traditional management and classical organisational theory, as well as mainstream corporate sustainability literature regarding the views these have of the natural environment and the consequences of these for biophysical and social interactions. I argue that the environmentally alienating conceptions and practices that traditional management and classical organisational theory has described and prescribed, and ultimately created, can be considered a main driver of the reproduction and organisation of unsustainability: such theories see organisations *as* closed functional microcosms separated from historical, social, and ecological contexts. In addition, this chapter touches upon how

contemporary “greener” and sustainability-oriented organisational theories and practices which aim to be *for* the environment, the economy, and society or *adapting to* the environment have not gone far enough in addressing this unsustainability. This showcases the need to transform the way collective action is organised in order to address problems like climate change and social inequality. The review also highlights an emerging view with transformative potential where organisations are seen as *within* environments, and it is this view which most hybrid organisations, especially SOHOs appear to adopt. As a result of this view these organisations are more likely to promote sustainability transformations, yet not enough is known about these organisations as well as why and how this might be the case.

Chapter 3: Organising urban sustainability transformations: theoretical foundations

3.1. Introduction

This chapter presents the theoretical foundations aimed at understanding new modes of organising urban sustainability transformations. This perspective takes an organisation-centred approach and investigates the roles new organisational forms such as SOHOs can play in bringing about transformative processes. It considers that classical and mainstream organisational forms can be considered a root cause of socio-ecological problems and that mainstream organisations need to be transformed to tackle current trends of unsustainability, especially in urban environments. There are numerous different definitions and theories on sustainability transformations in the literature, which presents challenges with respect to understanding what such processes might entail (Feola, 2015; O'Brien & Sygna, 2013). As such, this chapter starts with providing a general overview of sustainability transformations and urban transformations, which includes consideration of different theoretical perspectives on such processes. A further discussion of theoretical perspectives on sustainability transformations (socio-technical transitions, socio-ecological resilience, and social transformations) can be found in Appendix II. The chapter also outlines three perspectives that provide the foundation for the organising urban sustainability transformations perspective, namely: regenerative sustainability as a normative goal focussing on net sustainability gains, not only on 'doing less harm'; a perspective that connects three spheres of transformations (practical, political, and personal), where I argue that organisations are key intervention points in all three spheres; and complex systems theories that include the role of visions, capacities, strategies, and positive tipping points.

3.2. Contextualising urban sustainability transformations

One of the key motivations behind the emergence and permeation of the term transformations in both academia and practice is the lack of action on tackling problems associated with unsustainable trends of development, especially climate change, social inequalities, and political polarisation (Feola, 2015). Evidence suggests that continuing along the same track of incremental change is not going to be enough to reach the targets set out in the Paris Agreement on climate change or the Sustainable Development Goals (O'Brien & Sygna, 2013). Instead, a narrative has emerged around the need to transform systems *towards* sustainability, which benefits the most vulnerable and where ideally "no one is left behind" as is the goal in the 2030 Agenda on Sustainable Development (United Nations, 2015). This system focus has been highlighted in the Intergovernmental Panel On Climate Change's Fifth Assessment Report which defines transformations as "a change in the fundamental attributes of natural and human systems [that] could reflect strengthened, altered, or aligned paradigms, goals, or values towards promoting adaptation for sustainable development, including poverty reduction" (Field, Barros, Mastrandrea, et al., 2014, p. 5).

As such, one prominent perspective is that what is being or needs to be transformed is systems. Changes in socio-ecological systems include changes in values, norms, cultures, technologies, production and consumption patterns, power dynamics, and individual behaviours (Andrachuk & Armitage, 2015; O'Brien, 2012), and their relationships with biophysical mechanisms. Focussing on systems from this broad perspective can help discern and understand what processes, factors, capacities, and interactions influence transformations and what strategies might be appropriate for different contexts and problems (Tàbara, Frantzeskaki, et al., 2018). The focus on systems can also help identify whether a system or an organisation is characterised by 'flourishing life' in contrast to one that leads to the opposite or even itself is 'dead', e.g. by being

increasingly stuck in bureaucratic non-adaptive ways (Waddock & Kuenkel, 2019). As such, living systems are always open – yet sufficiently contained in their purposes or functions – so boundaries enable a meaningful identity and structure (Capra & Luisi, 2014). However, setting definitional boundaries in complex systems is challenging. For instance, while a city would be considered a system, it is difficult to define where a city ends, and the countryside begins, particularly as the ecology of contemporary large cities, in terms of consumption of natural resources and impacts on biophysical processes, including climate and biodiversity loss, is global.

This focus on complex systems also allows for a more nuanced consideration of the underlying or root causes of large-scale environmental problems such as climate change and how to address these. This point stems from a theoretical perspective which argues that actions which perpetuate structures and systems that cause climate change and vulnerability will not lead to true and long-term adaptation (Matyas & Pelling, 2015; O'Brien, 2012; Pelling, 2010; Tanner & Bahadur, 2013). However, what these root causes might be is still heavily debated. For instance, Marshall et al. (2014, p. 584) argues that "by reducing global emissions of greenhouse gasses (mitigation), we can deal with the root cause of the problem and limit the magnitude of human induced global climate change" Others argue that capitalism is the root cause of climate change and without it being dismantled – or at least drastically altered – tackling climate change will not be possible (Pelling, Manuel-Navarrete, & Redclift, 2012). Whereas others go deeper and argue for the need for "… questioning of the assumptions, beliefs, values, commitments, loyalties and interests that have created the structures, systems and behaviours that contribute to anthropogenic climate change, social vulnerability and other environmental problems in the first place" (O'Brien, 2012, p. 668). This is the perspective that I most closely align with in this thesis.

A narrative and field of research has also emerged around the need to transform cities and urban environments. This stems from the fact that in 2018, 55% of the world's population reside in cities (roughly 4.2. billion people) and this is projected to increase to 68% by 2050 (UN, 2018). Cities consume nearly 80% of the world's energy production (World Bank, 2019) and account for 70% of energy-related carbon emissions globally (Poponi et al., 2016). Their contribution to GHG emissions stems mainly from their land use, infrastructure, transportation, and resource consumption (Sharifi & Yamagata, 2015). Additionally, many cities are increasingly vulnerable to the effects of climate change such as heat waves, droughts, floods, and other hazards (Rosenzweig et al., 2018). In fact, 70% of cities are already feeling the effects of climate change which is related to the fact that over 90% of urban areas are coastal, or are located on floodplains or in dry areas without the means to deal with negative impacts (Carter et al., 2015; Romero-Lankao et al., 2018). The need to address these problems have been recognised in UN-Habitat's New Urban Agenda (Habitat, 2016), in Sustainable Development Goal 11 on making cities inclusive, safe, resilient, and sustainable (United Nations, 2015), and through the Cities IPCC Conference and its output the Global Research and Action Agenda on Cities and Climate (Prieur-Richard et al., 2018).

Furthermore, despite the growing dependency of the good health of global biophysical systems, urban residents are increasingly culturally disconnected from their natural and man-made life support systems. While on the one hand cities rely on vast complex organisational systems to provide services such as water, electricity, food, and transport (Morton, 2007; Mumford, 1970), existing organisation and information mediating mechanisms allow city dwellers to disregard the processes and biophysical conditions that make this possible. This disconnection or lack of awareness of global change derived from cities' growth, limits people's capacities to understand the

connections between their own actions and their impacts on the natural environment (Ives et al., 2018). As such, our cities not only need to change towards becoming more sustainable, they also need to help foster cultural and organisational re-connections between humans and the biophysical reality. This is important because culturally re-connecting with what sustains us is an imperative for long term sustainability (Folke et al., 2011) and a precondition for learning how to leverage transformations in social-ecological systems (Ives et al., 2018).

However, there is also a growing narrative that cities are "the solution to climate change" (C40 Cities, 2019), are "fearless" in their defence of human rights, democracy, and the common good (Fearless Cities, 2019), or that they are "hotspots for the development of transformative solutions for a One Planet Future" (WWF, 2019). As such, cities are not just seen as contributors to unsustainability or vulnerable to the effects of climate change, but they are also spaces where solutions are likely to emerge. This relates to cities being centres for ideas, innovation, culture, science, commerce, and social development, amongst other things. Furthermore, it has been argued that mayors are more nimble than state and national officials in taking decisive action with potentially immediate and impactful results (C40 Cities, 2019). Additionally, cities are where the majority of the world's commerce and financial activity takes place (C40 Cities, 2019) and is the home to millions of organisations of all scales and varieties.

Therefore, growing amounts of research has been carried out relating to urban sustainability transformations, which reflects a gradual convergence between urban and transformation studies (Wolfram & Frantzeskaki, 2016). This includes understanding what capacities are needed for urban transformations (Borgström, 2019; Hölscher, Frantzeskaki, & Loorbach, 2019; Hölscher, Frantzeskaki, McPhearson, & Loorbach, 2019; Wolfram, 2016; Wolfram, Borgström, & Farrelly, 2019; Ziervogel, 2019).

Wolfram and Frantezeskaki has identified four research perspectives on urban transformations, namely: transforming urban metabolisms and political ecologies; configuring urban innovation systems for green economies; building adaptive communities and ecosystems; and empowering and harnessing urban grassroots niches (Wolfram & Frantzeskaki, 2016). Although all of these perspectives consider the role of organisations such as government bodies, corporations, and NGOs, the latter perspective goes the farthest in considering that "change for sustainability is driven by heterogenous approaches and initiatives of civil society actors in cities" (Wolfram & Frantzeskaki, 2016, p. 14). This approach views cities as 'seedbeds' for innovative businesses (Geels, 2010b), or 'protective spaces' that enable people to come up with and implement alternative narratives and 'spatial imaginaries' of socio-technical change (Longhurst, 2015). In other words, the city shapes sustainability innovations driven by civil society (Wolfram & Frantzeskaki, 2016), and can enable or disenable opportunity spaces for transformations to occur (Ma et al., In Review).

However, the role of new organisational forms in promoting sustainability transformations in urban contexts has not been adequately examined using different theoretical lenses. Existing research has investigated the role of new organisational forms, such as social enterprises, mostly through the lens of socio-technical transitions (Antadze & McGowan, 2017; D. Gibbs & O'Neill, 2014; Hillman, Axon, & Morrissey, 2018). This theory has previously been criticised for tending towards reductive methodologies, managerial and technological prescriptions, not adequately considering ecological dynamics as well as neglecting the role of power, discourses, and interpersonal relations (Gillard, Gouldson, Paavola, & Van Alstine, 2016; Kern & Smith, 2008; Scrase & Smith, 2009). As such, there is a need for new theoretical perspectives that can shed further light

on the role of new organisational forms – such as SOHOs – in promoting urban sustainability transformations.

3.3. Regenerative sustainability

The aims or goals of transformation processes are contested. What individuals perceive as desirable transformations depends on their cognition values (Patterson et al., 2015) and specific contexts and situations in which they unfold. Furthermore, transformations affect agents differently, challenge existing power structures, and this often involves conflicting interests (Gillard et al., 2016). Sustainability has emerged as a normative set of principles ultimately implemented through social negotiation, e.g., generally to achieve social equity, human well-being, environmental integrity, and economic feasibility (Leach, Scoones, & Stirling, 2010; O'Riordan, 2009), most recently articulated through the Sustainable Development Goals (United Nations, 2015). However, what sustainability means in different contexts varies substantially and as such this depends on understanding how different local actors and the systems in which they operate work (Pickett, Cadenasso, Childers, McDonnell, & Zhou, 2016). Sustainability offers an interpretative and normative lens that integrates social, environmental, and economic considerations.

However, a prevalent narrative of sustainability relates to 'limits and constraints' where the focus lies on achieving zero harm or socio-environmental damage. The overarching message that this narrative portrays is that "human activities are bad for the planet and the path to sustainability involves minimizing them. The less human activity, the better" (Maggs & Robinson, 2016, p. 186). This constraining approach has been argued to have failed in engaging a broader range of people in coming up with creative alternatives, e.g. including in perception and in the questioning of knowledge, that

promote systemic change, and instead is likely to induce apathy or denial (Gifford & Comeau, 2011; Shellenberger & Nordhaus, 2004). It has also tended to overemphasize biophysical dimensions at the exclusion of social and cultural dimensions (Maggs & Robinson, 2016) and "it adopts an uncritical approach to the role and meaning of scientific understanding" (J. Robinson & Cole, 2015, p. 137). It also arguably has not gone far enough as it has instead promoted a "prolonged inevitable environmental decline by aiming to make things 'less bad' as opposed to finding ways to rehabilitate and improve unsustainable circumstances" (J. Robinson & Cole, 2015, p. 133).

In light of this, a new approach has emerged that focusses on *regenerative sustainability* (Cole, 2012; Du Plessis, 2012; Du Plessis & Brandon, 2015; Hes & Du Plessis, 2014; J. Robinson & Cole, 2015). This perspective focusses on sustainability being net-positive and maximising benefits (J. Robinson & Cole, 2015), not least because "merely eliminating further negative impacts is not enough" (Maggs & Robinson, 2016, p. 186). The narrative shifts away from reducing human impacts towards cultivating positive human and biophysical impacts; people are not the problem, but the solution (Maggs & Robinson, 2016). The focus is on developing a regenerative paradigm which is designed "to engage with a living world through its emphasis on a co-creative partnership with nature based on strategies of adaptation, resilience and regeneration" (Du Plessis, 2012, p. 7). This perspective is based on a procedural view of sustainability (J. Robinson, 2004), which is based on understandings and decisions about the nature of the world that is provisional, as such:

> "It must be constructed through an essentially social process whereby scientific and other "expert" information is combined with the values, preferences and beliefs of affected communities, to give rise to an emergent, "co-produced" understanding of possibilities and preferred outcomes" (J. Robinson, 2004, p. 381)

This approach has especially been considered with respect to the design of buildings (Cole, 2012; Du Plessis & Brandon, 2015; Hes & Du Plessis, 2014) and neighbourhood development (Waldron, Cayuela, & Miller, 2013). It also has many similarities with the regenerative design field emerging out of the green building movement, (Lyle, 1996; Svec, Berkebile, & Todd, 2012), and as such has strong connections to the urban context but moves away from the modernist view which is common in the urban field (Maggs & Robinson, 2016).

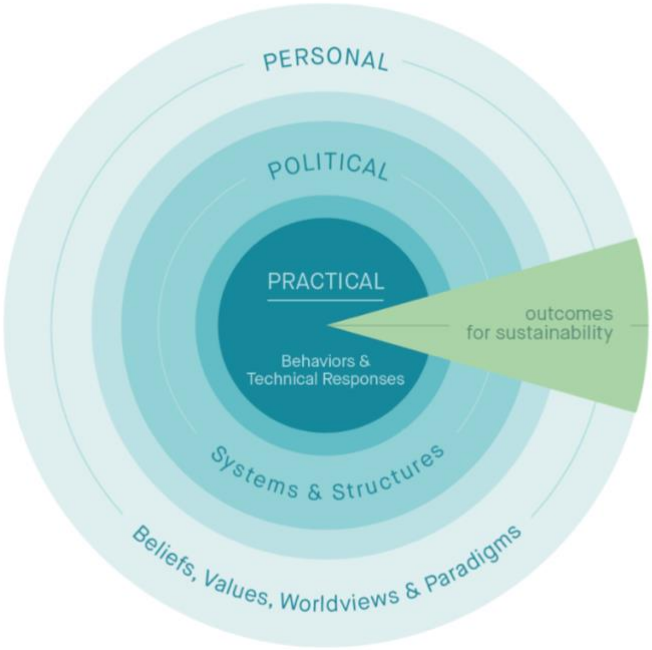
However, environmental, economic, and social constraints and limits do exist, which means that trade-offs and unequal distribution of costs and benefits are likely in particular circumstances (Gillard et al., 2016). Yet, the regenerative approach advocates that in the first instance it should be considered whether it is possible and worthwhile to implement net-positive activities, especially with respect to the design of buildings and urban systems (J. Robinson & Cole, 2015). Key questions are therefore, where is regenerative sustainability possible, how can it be operationalised, and how could net-positive outcomes be conceived and measured (J. Robinson & Cole, 2015). Other key questions are who are the key actors that conceive of such processes, and what role could regenerative sustainability initiatives play in promoting transformation processes in cities. To help answer these questions we review two further theoretical perspectives from the sustainability transformations literature.

3.4. Three spheres of transformation and organisations as key intervention points

The social transformations literature has focussed on the argument that humans need to transform themselves, and adapt to the fact that human behaviours, actions and institutions, are the causes of climate change (O'Brien & Selboe, 2015). In this vein, Beddoe and colleagues (2009, p. 2482) has argued that “a regime shift cannot occur

without changing worldviews, institutions, and technologies together, as an integrated system". This links individual change with systems change and recognises that one is unlikely to happen without the other (O'Brien & Sygna, 2013; O'Brien, 2018). O'Brien and Sygna (2013, p. 1) highlight that transformations are a highly complex process often without clarity regarding "what needs to be transformed and why, how, in whose interest, and what the consequences will be". To help shed light on these issues they developed a tool in the form of three spheres (the practical, political, and personal sphere), which can help crystallise how, why, and where sustainability transformations could come about. They argue that transformations occur across these interacting and embedded spheres with the practical sphere relating to technical solutions and behaviours, the political relates to socio-ecological systems which influence the transformational dynamics in the practical sphere, and the personal sphere "includes individual and collective beliefs, values and worldviews that shape the ways that the systems and structures (i.e., the political sphere) are viewed, and influence what types of solutions (e.g., the practical sphere) are considered "possible" (O'Brien & Sygna, 2013, p. 5). Transformations in the latter are argued to have powerful consequences as its considered that systems emerge from paradigms (Meadows, 1999). See Figure 2 for a visual representation of the three spheres.

Figure 2: The three spheres of transformation



Source: O'Brien & Sygna 2013

Interactions across the three spheres are considered to have the largest potential for non-linear transformations (O'Brien & Sygna, 2013) and I argue that organisational change is a potentially significant intervention point which breaches all three spheres. This is because organisations are where behaviours and technical solutions are realised, where social systems and institutions are re-produced or evolve, and where individuals enact discourses and paradigms. However, not enough focus has been put on the need to transform mainstream organisations and the role this can play in fostering sustainability transformations. This is despite the argument that "becoming a sustainable business often entails an organizational transition rather than an optimization of the existing" (Loorbach & Wijsman, 2013, p. 26). This is particularly important as conventional management could be seen as counterproductive to sustainability as the focus on pre-selected goals, ready-made plans, and linear processes could make managers overlook emerging

solutions (Svensson et al., 2011). Instead, there is a strong argument for the need for new organisational forms that are "explicitly transforming self and society by providing products and services in a way that is healing ecological, psychological, and social ills" (Reynolds, 2017, p. 141). The question is how effective an intervention points new organisational forms might be in promoting transformations towards sustainability.

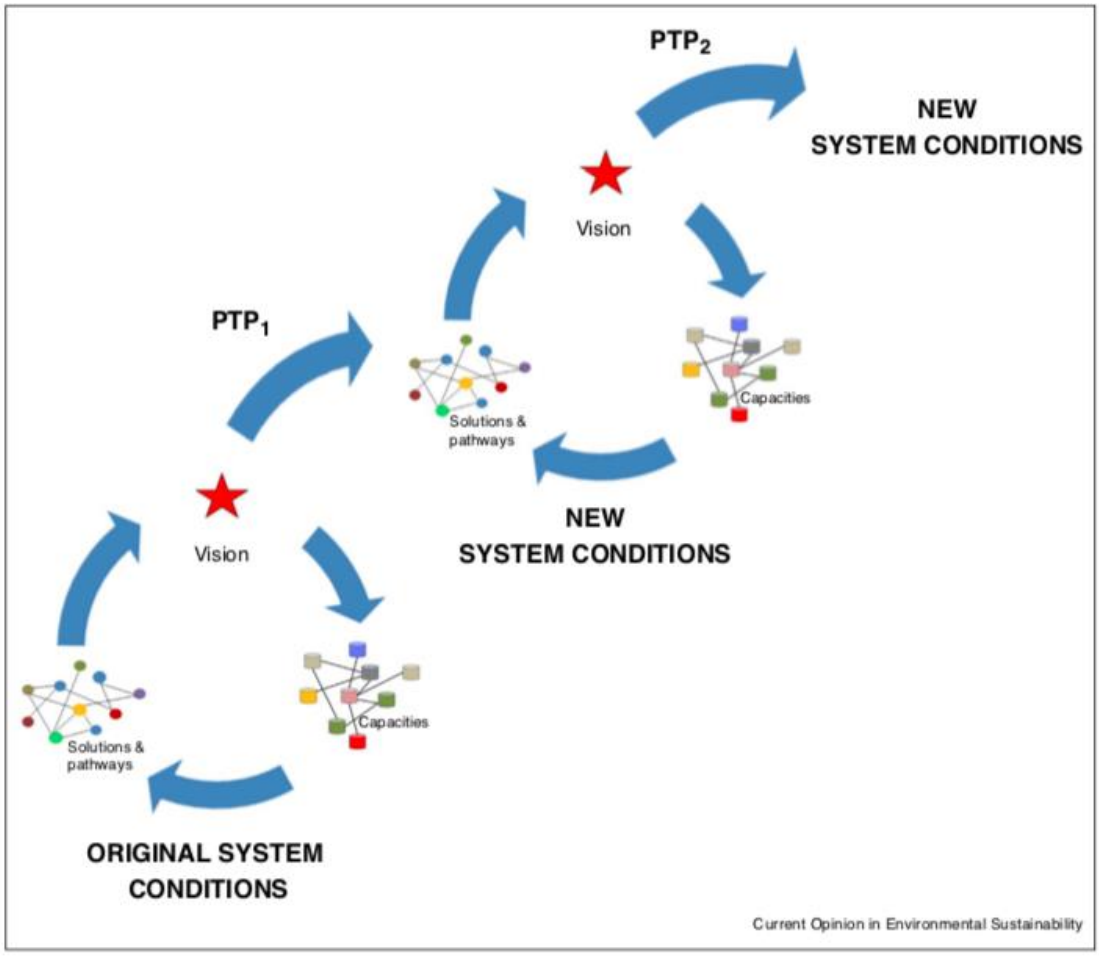
3.5. Positive tipping points and transformative capacities

In complex socio-ecological systems, transformations are uncertain, follow non-linear trajectories, and are largely unpredictable, but there is for the most part consensus that they come about as a consequence of both emergent and deliberate processes (Feola, 2015). Understanding the deliberate processes is vital as significant systems' transformations are likely to occur as a result of the intertwined dynamics of thousands of different sustainability solutions being implemented around the world, which in turn result from the visions and capacities of the agents who implement them (Tàbara, Frantzeskaki, et al., 2018, p. 2). How transformative actions are, depends on their depth (quality, intensity or systemic change), breath (distribution), and speed (how fast it has resulted in intended outcomes) (Fazey, Schäpke, et al., 2018). Transformative solutions are often endogenous developments that arise from sustainability and social learning, making "experimentation, openness, reflection, and strong collaboration central tenets for the emergence of new sustainable patterns of social- ecological interaction at planetary scale" (Tàbara, Frantzeskaki, et al., 2018, p. 2). This makes it important to understand the visions, capacities, and wider conditions under which agents, such as organisations, can develop solutions that can help trigger positive tipping points or transformations towards sustainability. In other words, understanding the capacities and environments that can

help or hinder organisations in contributing to bringing about transformations towards sustainability (Ma et al., In Review).

Positive transformations may also occur at decisive moments in time, and in particular such *positive tipping points towards sustainability* may occur when "the original conditions of a system of reference are substantially and irreversibly transformed in a way that matches or exceeds a particular desired (normative), better-off configuration or vision" (Tàbara, Frantzeskaki, et al., 2018, p. 122). This occurs quickly, for instance, when agents such as organisations have been able to build the required capacities to implement transformative solutions according to their organisational vision of change. Such capacities or competencies can be promoted through experiential learning programs that promote "more personal dimensions of sustainability competencies, such as values, motivation, and ethical imperative to act for sustainability" (Haney, Pope, & Arden, 2018, p. 29). The focus on processes and capacities is crucial as it is not possible to "anticipate when, how, where or even if such positive tipping points will occur" due to their complex, non-linear and cumulative nature, but it is possible to identify and promote capacities that could help enable the development of sustainability solutions in different contexts (Tàbara, Frantzeskaki, et al., 2018, p. 126). See Figure 3 for a visual representation of this process.

Figure 3: A positive tipping point (PTP) may be induced by boosting agents' capacities to implement pathways of solutions to achieve a transformative vision of the world



(Tàbara, Frantzeskaki, et al., 2018)

Transformative capacities is becoming a key concept in research trying to understand how transformations come about (Borgström, 2019; Hölscher, Frantzeskaki, & Loorbach, 2019; Hölscher, Frantzeskaki, McPhearson, et al., 2019; Marshall et al., 2014; O'Brien, 2012; Olsson, Bodin, & Folke, 2010; S. Wilson, Pearson, Kashima, Lusher, & Pearson, 2013; Wolfram, 2016; Wolfram et al., 2019; Ziervogel, 2019; Ziervogel, Cowen, & Ziniades, 2016). This thesis considers transformative capacities to be both relational system properties of agents as well as of the systems themselves and

therefore refers to "(1) the capacities and abilities of agents to transform the system (and themselves) deliberately and (2) the capacity, degrees of freedom and potential of the system *to be transformed* and induce continuous transformation – through learning and enhanced collective reflexivity" (Tàbara, Jäger, Mangalagiu, & Grasso, 2018, p. 3). This means that transformative capacities can be developed at individual, organisational, societal scales as well as in relation to biophysical or socio-ecological and economic systems.

A large corpus of research thus far on transformative capacities has focussed on the need to develop or improve urban governance capacities (Borgström, 2019; Hölscher, Frantzeskaki, & Loorbach, 2019; Hölscher, Frantzeskaki, McPhearson, et al., 2019; Wolfram, 2016; Wolfram et al., 2019; Ziervogel, 2019). For instance, Hölscher et al., (2019, p. 845) argues that four critical capacities are required to enable transformative climate governance which is able to mobilise "urban transformation dynamics and develop integrated and systemic climate mitigation and adaptation actions that contribute to sustainability and resilience". Whereas, Wolfram (2016, p. 126) defines urban transformative capacity as ''the collective ability of the stakeholders involved in urban development to conceive of, prepare for, initiate and perform path-deviant change towards sustainability within and across multiple complex systems that constitute the cities they relate to'' and Ziervogel (2019, p. 6) suggests that this requires "(a) wide participation and active inclusion of stakeholders from all sectors, (b) diversity of governance modes and actor networks (de-/centralized, formal/informal, multi-level, etc.), and (c) sustained and effective intermediary organizations and individuals between sectors and domains (hybridization)".

Although building transformative governance capacities of local governments is undoubtedly important, Ziervogel et al (2016) have conceptualised a set of reinforcing

foundational transformative capacities that needs to be developed in any context and at every scale: socio-ecological reconnection, healthy individual agency, and social cohesion. The existence of these capacities is likely to help enable the development of transformative urban governance. Furthermore, they are linked to the regenerative sustainability perspective outlined in section 3.3, due to a focus on regenerative participatory design which is qualitative, uses pattern thinking, focusses on living and whole systems, and what is effective (Mang & Reed, 2012). Despite growing amounts of research on transformative capacities, the literature has not yet considered the role of specific organisational forms, such as SOHOs, in building these in urban environments.

3.6. Conclusion

This chapter has outlined the theoretical foundations for understanding the organising urban sustainability transformations perspective. The section on the different strands of sustainability transformations literature reveals that not only is it necessary to transform the broader systems and individual worldviews, values, and beliefs – that is, both at macro and micro levels- , but it is also necessary to transform the way collective action is structured at the meso level – namely at the organisational level. One way of doing that is through experimenting with new organisational forms and models, such as SOHOs, and especially ones that contribute to regenerative sustainability. This is important because organisational change can be seen as a key intervention point for promoting changes in practical, political, and personal spheres of transformations. This will be further considered in Chapter Six. Furthermore, such organisations could help build transformative capacities for regenerative sustainability in wider society. Capacities such as socio-ecological re-connection, healthy human agency, and social cohesion have been argued to be foundational for transformations to come about. This framework will be applied and tested in Chapter Seven.

Chapter 4: Research design and methods

4.1. Introduction

In this chapter, I describe how I carried out the research in order to address the research aim and questions. I start by outlining how the research focus and design evolved throughout the DPhil journey. I then describe the specifics of the inductive and deductive approach as well as the qualitative research methods. In total, I spent nearly eight months in the field and collected data between 2016 and 2018 in Istanbul and Barcelona, however Istanbul is treated as an exploratory study and as such the data is not directly included in the thesis other than being briefly considered in the conclusion. Methods are described in more detail in the research chapters and therefore I focus on providing an overview and background of the overall research choices and design here.

4.2. Evolution in research focus and design

From the start of this DPhil, the rationale and motivation for my work has been to improve and add more practical knowledge about processes and agents that can help purposefully bring about transformations towards sustainability, and especially what capacities might be required to do so. In the beginning, the focus of the thesis was to better understand what capacities organisations likely require in order to foster transformations towards sustainability and how to monitor and evaluate these. This focus was conceived from my previous experience and research on climate finance and adaptation in the Pacific which found that adaptive capacities are unlikely to be sufficient in tackling the climate crisis; in fact, as found by Marshall, Park, Adger, Brown, & Howden, (2012), they could act as barriers to transformations. To investigate this, the plan was to research development assistance organisations aiming to promote transformative adaptation in the Global South. However, towards the end of my first year I had a supervisory change which enabled me to join an EU-Horizon 2020 funded

research project called GREEN-WIN and a research group studying urban transformations. This came with invaluable research support and funding for fieldwork and also prompted a change in focus from development assistance organisations – which had already received considerable research attention (Bayer & Urpelainen, 2013; Birdsall, Kharas, Mahgoub, & Perakis, 2010; Boodoo et al., 2018; Cash, 2016; Winkler & Dubash, 2016) – to identifying organisations which appeared to be key agents in driving sustainability in urban environments. Within the GREEN-WIN project we developed a framework which focussed on understanding dynamics beyond the organisation, such as whether the visions of key governance organisations, as well as socio-cultural, regulatory, organisational, and economic dynamics and factors enabled or disenabled transformations towards sustainability in the city in question (Ma et al., In Review).

Fieldwork started in Istanbul focussing on large scale state-sponsored urban renewal efforts and the role that a range of different organisations (public, private, and non-profits) played in making these processes more or less sustainable. However, it quickly became clear that although sustainability and green urban development are terms that are frequently used in urban renewal projects and plans in Istanbul, its implementation is only skin deep with transformations towards sustainability being highly unlikely in the near future. Instead, sustainability-oriented urban renewal efforts are more likely to result in processes of green-gentrification displacing or excluding existing poor residents from green urban developments – this was the conclusion of a paper that I co-authored with other GREEN-WIN researchers (Yazar et al., 2019). In Barcelona, the outlook related more directly to the intended focus of the thesis with thousands of organisations involved in sustainability efforts as well as local and regional governments increasingly funding and implementing sustainability solutions

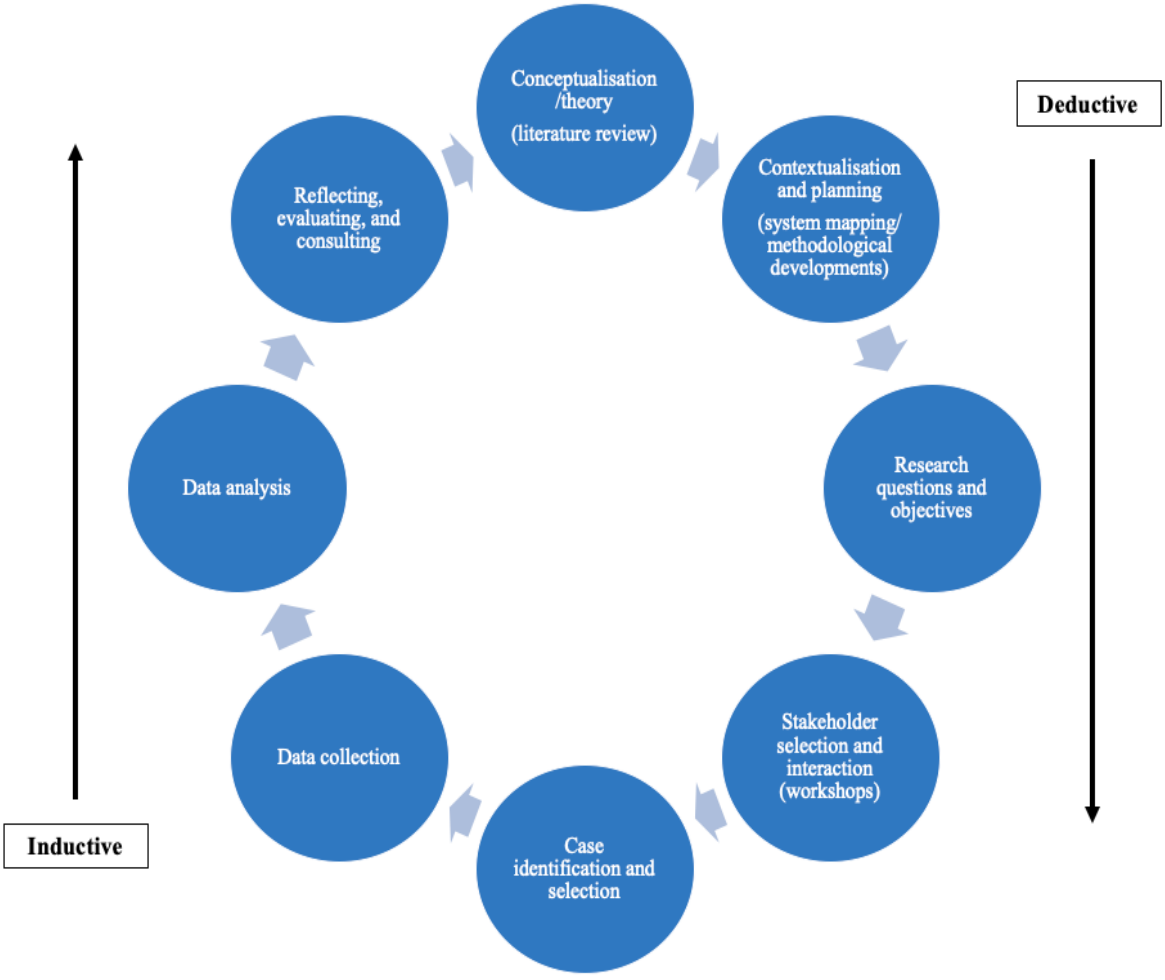
(Ajuntament de Barcelona, 2017b). Therefore, the fieldwork in Istanbul served as an exploratory study, which provided invaluable research lessons and some useful theoretical and methodological insights, however the 38 interviews conducted have not been used directly.

To showcase the work I carried out but did not include in the final thesis I have added Appendix III which includes the titles and abstracts of three papers I co-authored as part of the GREEN-WIN project related to the Istanbul case as well as presentations held during the course of the DPhil. Furthermore, I also spent 18-months on a knowledge co-production project on monitoring and evaluation of systemic activism and sustainability transformations which was not ultimately included in the thesis. The reason for this as well as a summary of the project and its outputs is outlined in Appendix IV.

4.3. Research approach

In this research, I utilise integrated forms of qualitative inquiry, based both on inductive and deductive approaches. Inductive approaches start with the specific and the empirical and then move to the general and more theoretical analyses such as through identifying patterns in data which influence the creation of new concepts or theories; whereas deductive approaches start with general theories and move to interpreting the specific empirical context, e.g., to test a theory (P. S. Gray, Williamson, Karp, & Dalphin, 2007). The combination of inductive and deductive approaches allows for detailed investigations into meanings that drive the processes and characteristics of SOHOs and their relationships the socio-ecological systems of which they are integral components. Figure 4 visually represents the specifics of the research process taken with the circle having been completed several times.

Figure 4: Research process



Chapter Six, through a literature review, develops the concept of SOHOs and distils what is already known about these organisations, especially related to their outcomes and impacts. Following the grounded theory approach, this literature review was carried out after data collection and empirical analysis (Charmaz, 2014). Whereas Chapter Seven uses empirical data to test a theory on transformative capacities and the role of SOHOs in developing these at different scales. The focus on transformative capacities therefore remains core to the thesis, albeit instead of defined specifically in terms of organisational capacities, a broader understanding and theoretical framework was applied. Here it is conceptualised as the capacity for organisations to transform

themselves as well as broader society in a conscious and deliberate manner towards a world that is within planetary boundaries and where all forms of life flourish (Ziervogel et al., 2016). Planetary boundaries refer to a framework developed by Rockström et al., (2009), who defines a 'safe operating space for humanity' consisting of ten planetary boundaries. They argue that "transgressing one or more planetary boundaries may be deleterious or even catastrophic due to the risk of crossing thresholds that will trigger non-linear, abrupt environmental change within continental- to planetary-scale systems" (Rockström et al., 2009, p. 2).

Chapter Eight takes a grounded theory approach to understanding how SOHOs might be able to help support positive transformative change towards sustainability, this includes an investigation into the complex socio-ecological components and factors that influence the ability of the organisations to reach their sustainability-oriented missions, without pre-supposing what these might be. When combined, these papers present a view that sustainability – and sustainability transformations – is an organisational challenge and the thesis provides new concepts and improved frameworks that can help better understand the organisational processes and dynamics involved in transformations towards sustainability.

4.4. Methods

The methods were chosen in order to help reach the overall aim of the research, namely, to understand the current role, abilities, and potential of new organisational forms such as SOHOs in triggering and steering transformations towards sustainability. Qualitative methods were deemed the most appropriate to answer the research questions, especially questions three (how are SOHOs supporting the development of capacities conducive to fostering sustainability transformations at the community and urban scale?) and four (how and what might make SOHOs able to support positive transformative

change towards sustainability?), as it is widely argued that 'how' questions are best answered through qualitative methods (Babbie, 2015; Flowerdew & Martin, 2005). The focus in this thesis is on understanding how and why these organisations do what they do and what their actions might lead to, rather than how many of them there are or how many do what, as such quantitative methods were not considered useful in helping answer the questions. The rationale and details of each chosen method is outlined in the below sections.

4.4.1. Case study

The thesis uses a case study approach to enable an in depth and holistic approach with data from multiple perspectives and sources applied to nine SOHOs in Barcelona (Orum, Feagin, & Sjoberg, 1991; Tellis, 1997). A common critique of the case study approach is that single cases makes it difficult to arrive at generalised conclusions (Stoecker, 1991). However, in the Gioia Methodology – the grounded theory method used in Chapter Eight – single organisational case studies are the norm and it is possible to generalise from a single case study as long as the "case generates concepts or principles with obvious relevance to some other domain" (Gioia, Corley, & Hamilton, 2013, p. 16). Hence, they emphasise the importance of identifying and researching good case studies. However, this methodology has been used to study multiple organisations in the past (Bauwens, Huybrechts, & Dufays, 2019) and several good case organisations in the same context might provide an even greater potential to identify "principles that are portable from one setting to another" (Gioia et al., 2013, p. 16). Therefore, I chose to include nine SOHOs in the grounded theory chapter. The research behind the framework that is used and further developed in Chapter Seven on transformative capacities mainly studied the effects of one organisation, however, to better understand the potentially transformative

impacts of SOHOs, identified as a new way of organising collective action, I chose to study nine organisations.

4.4.2. Literature review

Literature reviews help assess the state of the current knowledge on a topic, its key findings, and methodological and theoretical contributions. The first research chapter of the thesis is therefore a literature review. However, according to grounded theory methodology, this review was carried out after the empirical data was collected and analysed (Charmaz, 2014). However, reviews of more general organisational and sustainability transformations literatures were carried out earlier which also informed the research design and focus. Up until the point of the Chapter Six literature review, the case organisations were not referred to by a specific term; the focus was rather on understanding the dynamics, processes, and impacts of the case organisations. However, to situate my findings within the organisational literature, it was necessary to identify what term to use to describe them. During the process of reviewing the literature it quickly became clear that a term did not exist to adequately describe the range of organisations that was being researched. During the process of the review I therefore developed the term *Sustainability-Oriented Hybrid Organisations* (SOHOs) (the specifics of how this term came to be and what it means are outlined in Chapter Six). The creation of this term enabled a multi-disciplinary systematic review of literature that considers what is known about the organisations that falls within its remit.

4.4.3. Theoretical analysis

Theoretical analysis consists of applying, testing, or checking the validation of a conceptual framework or theory to gathered empirical data. This approach starts with theory and works towards data. Such a deductive approach is taken in Chapter Seven

which applies an existing conceptual framework to investigate whether SOHOs promote the development of transformative capacities in Barcelona. These capacities include (1) reconnecting social and ecological systems dynamics in a way that is harmonious, healthy, and which regenerates life-support systems; (2) fostering healthy individual and political agency; and (3) contributing to building rich community relationships and enhancing social cohesion. The foundations of this framework were developed and previously tested by Ziervogel et al., (2016) revealed that a programme for unemployed urban youth, developed and supported by a range of stakeholders and organisations, was able to promote the development of transformative capacities in a local municipality in South Africa. The data collected for Chapter Seven included 26 semi-structured interviews. 14 of which were with representatives of the nine case organisations and 12 with experts knowledgeable about the wider sustainability context in which the organisations operate. Participatory observation and site visits were also conducted. Additionally, organisational websites, reports, and documents were used which included a wide range of information about the activities of the organisations as well as processes. Many of these documents were not public but shared privately by interviewees. Numerous policy documents and legislations at the local, regional, and national level were also reviewed for this analysis. I used NVivo for Mac for the thematic analysis.

4.4.4. Grounded theory

As a methodology, grounded theory is a perspective with a package of tools and methods for generating theory from empirical data. It starts inductively, with the aim to be open to meanings created by actors in their environments and in doing so attempting to suspend prior knowledge (Charmaz, 2014). After this, the researcher examines data using abductive reasoning, investigating different explanations, before – through a creative act – landing on a potential explanation of the observed data. The "best" possible

explanation is chosen through forming hypothesis in order to confirm or disconfirm them, and to arrive at the most plausible interpretation (Reichertz, 2009). The specific grounded theory approach that was applied in Chapter Eight is the Gioia Methodology, a systematic and holistic approach to new concept development within organisation studies (Gioia et al., 2013). This approach has been developed to bring qualitative rigour to inductive research whilst retaining its creative and revelatory potential. The dominant method in organisational studies is to "execute theory development work according to the precepts of the traditional scientific method, which often leads us to engage in progressive extensions of existing knowledge as a way of discovering new knowledge", despite such a method being appropriate for considerable amounts of organisational research, Gioia et al (2013, p. 15) argues that it could also delimit what we can know. Constructs are formulated so that they can be measured whereas concepts are "a more general, less well-specified notion capturing qualities that describe or explain a phenomenon of theoretical interest" (Gioia et al., 2013, p. 16).

The way this methodology was applied was through analysing the 26 interview transcripts of representatives of SOHOs using the core methods of coding, comparative analysis, and writing memos (Charmaz, 2014). The emphasis was put on analysing the 14 interviews from representatives of SOHOs, but the 12 expert interviews also informed the analysis. This was done using NVivo for Mac as well as coding by hand. I started with open, descriptive coding with a focus on using the terms that the informants used. I then compared them to examine similarities and differences between the codes. The focus here was to ask questions about whether there were themes and concepts emerging that could help describe and explain the observed phenomena, particularly on ones that were not considered adequately in the existing literature or new concepts that seem to have particular relevance to the research context. I then moved from the more conceptual and

relational second order coding towards distilling second order aggregate dimensions. This enabled the creation of a data structure (see Figure 14 in Chapter Eight), which is a key part of the methodology as it is a useful visual aid and represents the progression from raw data to terms, themes, and dimensions.

After this analysis was conducted, I went deeper into the relevant literature. A limited literature review had been carried out prior to and during fieldwork, but according to this methodology a more detailed review is carried out after the core analysis to avoid confirmation bias. The aim of the detailed literature review is to investigate whether there is precedent for what is being observed, or whether new concepts have been discovered (Gioia et al., 2013). The research resulted in the distillation of two key factors that influenced the transformative ability of SOHOs. These dimensions and the second order themes had precedents in the literature but also included new concepts. Participatory observation, site visits, and extensive analyses of documents was also carried out to supplement the interviews, such as: organisational websites, blog posts, media articles, and internal and external reports on projects and their impacts.

Table 1: Overview of how the data was used in the two empirical chapters

Data	**Chapter 7**	**Chapter 8**
14 interviews with representatives of SOHO	Using the theoretical analysis approach these interviews were analysed to understand how the nine SOHOs were supporting the development of the three identified transformative capacities at the community and urban scale.	Through the grounded theory approach these interviews acted as the main data source to understand what makes SOHOs able to build transformative capacities and support positive transformative change towards sustainability.
12 interviews with expert knowledgeable about the Barcelona sustainability context	Analysed to verify and provide more information about the actions of the organisations and their impacts on the development of the three identified transformative capacities. These were very important for the findings of the paper.	Used to inform the wider context of the research and analysis.
Workshops	Used to identify case organisations and expert interviews and provided contextual knowledge about what	Used to identify case organisations and expert interviews and provided contextual knowledge about what enables and

	enables and disenables sustainability action in Barcelona.	disenables sustainability action in Barcelona.
Participatory observation and site visits	Used to better understand the actions and practices of three of the case organisations (La Borda, Lacol, and Eixverd).	Used to better understand the actions and practices of three of the case organisations (La Borda, Lacol, and Eixverd) but used more peripherally than in Chapter Seven
Document analysis	Extensive analyses of documents were carried out to supplement and triangulate the interview data.	Analyses of documents were carried out to supplement and triangulate the interview data but used more peripherally than in Chapter Seven.

4.5. Case studies and interviews

4.5.1. Selection of case city

My involvement in the GREEN-WIN project presented an invaluable opportunity to study organisations in diverse urban environments and to do so with the support of experienced local researchers. The cities that were of focus in the project were Shanghai, Istanbul, Barcelona, Venice, and – later – Beirut. Of these cities, Istanbul and Barcelona presented the most interesting research avenues with Barcelona standing out due to its progressive nature and for having a greater number of SOHOs. Further reasoning for the choice of Barcelona will be outlined in Chapter Five.

4.5.2. Selection of case organisations and interviewees

In organisational studies, it has been highlighted how important and difficult it can be to find good cases which generates concepts and principles that has relevance to other domains (Gioia et al., 2013). Hence, a lot of effort was put on choosing the right case study organisations. The main fieldwork in Istanbul was carried out between May and July 2016 and February and April 2017, and in Barcelona between May and July 2017. Each of these fieldwork trips started with the organisation and implementation of a GREEN-WIN workshop with key sustainability stakeholders. In Istanbul, the first workshop focussed on developing a vision for a sustainable Istanbul and identifying key steps and enabling environments needed to achieve this vision, whereas the second

workshop focussed on how to collectively increase energy efficiency in residential buildings in the city. The first workshop had 14 participants, and the second had 20 participants. The workshops in Barcelona had 16 participants who discussed urban transformations for sustainable climate action in the Metropolitan Area of Barcelona. These workshops offered unique opportunities to improve my understanding of the local contexts at the beginning of each of my fieldwork trips, and to get an overview of key organisations as well as to network with stakeholders. Several of the organisations that ultimately were chosen as case studies became known to me through these workshops. I also identified organisations and interviewees through online searches, and the "snowball method" where I asked existing contacts or interviewees for recommendations for other interesting organisations. The criteria for selection of case organisations are outlined in Figure 5. In total I carried out 14 interviews with representatives of the nine organisations. See appendix V for details about these interviewees.

Figure 5: Criteria for selection of case study organisations

Furthermore, 12 semi-structured interviews were carried out with stakeholders that are knowledgeable of, influence, or manage Barcelona's political, environmental, and sustainability related processes and/or the Social and Solidarity Economy. The rationale for this was to better understand the context and the enabling environment that the organisations operate within. These interviews were used mainly in Chapter Five but also informed Chapter Seven and Chapter Eight. See appendix V for details about these interviewees.

4.5.3. Preparation for fieldwork and conduction of interviews

Preparing for fieldwork and interviews included applying for and gaining ethics approval through the School of Geography and the Environment's Departmental Research Ethics Committee on behalf of the Central University Research Ethics Committee (CUREC). It also included making logistical arrangements for conducting research interviews, as well as considering fieldwork safety. I have previous experience with carrying out research interviews in field sites (Masters of Environment, University of Melbourne, 2012) and I also prepared by reading relevant method books (Babbie, 2015; Flowerdew & Martin, 2005) and attending a seminar on interviewing skills at the School of Geography and the Environment.

I also read extensively about the local contexts as this was required to conduct fieldwork safely and to understand the organisations context and the collected data. This included reading general books about the cities and their national contexts (Ahmad, 2014; Chislett, 2013; Errejón, Mouffe, & Jones, 2016; Temelkuran, 2016) as well as a wide range of academic articles focussed on sustainability related activities or processes within the different contexts (many of which are referenced to in Chapter Five). Close collaborations with researchers on the ground in the different cities also aided in both

logistical and substantial preparations. When requesting interviews, I made use of personal connections, as well as connections of GREEN-WIN research team members, and I also drew attention to institutional affiliations, as suggested by the methods literature (Rice, 2010). Initial contact was made over email where I emphasised the importance of the research and outlined the topics of discussion. I also made contact with interviewees in the aforementioned workshops which were then followed up with further information over email.

I further prepared by creating two interview guides (Appendix VI). Interviews – both structured and semi-structured – are frequently used in qualitative research due to their ability to collect rich data on a specific topic. This especially relates to gathering explicit conscious knowledge of the interviewee. I chose semi-structured interviews due to their ability "to obtain both retrospective and real-time accounts by those people experiencing the phenomenon of theoretical interest" (Gioia et al., 2013, p. 19). The first interview guide was designed for members of the case organisations, whereas the second interview guide was created to conduct more interviews with experts knowledgeable about the wider environment in which the organisations operate. The interview guides changed with the evolution of the research. Such revisions are a key part of the grounded theory research process as the research and the interview questions should change based on observations from the field; in fact, it has been argued that standardised protocols, which are common in traditional research, could hinder the uncovering of new concepts as they do not evolve with developments in the research (Gioia et al., 2013).

The interviews took place in person at various locations chosen by the interviewee, or over Skype. Each interview started with an informed consent procedure. The rationale behind the structure of the questions was to start with easy questions such as what their job is and what their organisations does which can elicit a lot of information,

before moving towards more specific questions. It was important to have open questions that were not leading as well as to not have too many questions. When necessary, I asked follow-up questions to elicit details about interesting points that emerged. Each interview lasted between 45 to 90 minutes and the majority of them were recorded and transcribed. Some of the interviews were considered background meetings set up in order to identify potential case organisations and as such were not recorded, however, detailed notes were taken. In Barcelona, 26 interviews were carried out and nine organisations were studied in detail.

4.6. Management of uncertainty and limitations of design

Despite a focus on designing and carrying out a robust methodology and research approach, social and sustainability science and specifically organisational studies carries with it the potential for errors, especially as a result of subjectivity or biases on behalf of the researcher in collecting and analysing qualitative data. With respect to Chapter Seven, mitigation strategies involved triangulating the data through physical observations, review of organisational and policy documents, as well as interviews both with members of the organisations as well as with other relevant experts. Interviews with external experts proved particularly valuable as it enabled outside views of the activities and processes of the case organisations.

The use of the Gioia Methodology helped mitigate uncertainty in Chapter Eight due to the large focus on being grounded in the empirical data and continually questioning the data and comparing concepts to determine whether and how they differ (Charmaz, 2014). However, it should be highlighted that this methodology is considered "a flexible orientation toward qualitative, inductive research that is open to innovation, rather than a ''cookbook.'"" (Gioia et al., 2013, p. 26). And as such I have adapted the method, using it as a general guide applying several alterations and innovations – where possible these

have been acknowledged both above and in Chapter Eight. The empirical chapters were also reviewed by numerous people knowledgeable with the context and/or wider field.

Furthermore, there are limitations regarding drawing on the same data for the two empirical chapters. If not done correctly, such practices could result in self-plagiarism, redundant publications, or overlapping publications (Martin, 2013). To avoid the 'serious offence' of self-plagiarism (Martin, 2013), I have made sure to cross-reference the papers in question. Specifically, Chapter Seven, which was submitted after the publication of Chapter Eight, cites Chapter Eight and also acknowledges the use of the same material and outlines why and how this was done. Furthermore, to avoid redundant and overlapping publications I've made sure that the questions asked, the methodological approaches, and the results and concepts of the two articles are sufficiently novel and different from each other to warrant use of the same source material. How and why the data was used for the two papers has been outlined in this chapter, including that the emphasis was on different parts of the data for the two papers. Lastly, it is worth noting that publishing multiple papers from the same source material is common in academia today, especially when working on a larger research projects, and as long as care is taken and there is transparency, it is not considered unethical (S. R. Robinson, 2014).

Additionally, for some organisations I only carried out one interview. However, most of these organisations were small (3-15 people) and the person I interviewed was either a co-founder or in the management team, and as a result brought considerable information and insights about the organisation to bear. When the organisation was larger, as with *Som Energia*, I interviewed five people, and in the case of *InEdit,* I interviewed a co-founder twice, ten months apart.

4.7. Conclusion

This chapter has outlined the evolution in the research process, focus and approach and also described how this influenced the overall research design and methods of the thesis. After an initial exploratory period investigating the main strands or work in the field of sustainability transformations, identifying key concepts, focus and cases studies, the final approach used a combination of inductive and deductive methods to finally establish that the research was to analyse a range of SOHOs in Barcelona, the results of which will be outlined in the succeeding chapters.

Chapter 5: Assessing enabling environments for sustainability transformations in Barcelona

5.1. Introduction

In this chapter I outline why I've chosen to study SOHOs in Barcelona and consider the sustainability context of this urban environment. To do so, I use a framework that helps distil to what extent the environment or context of the city is enabling the emergence of sustainability transformations looking at five key dimensions, namely: the visions of key actors; the cultural-cognitive perspective of key stakeholders; the legislative and regulatory environment; organisational networks and their capacity; and the availability and quality of financial mechanisms. I am second author on a paper that develops this Enabling Environment Framework (Ma et al., In Review) and tests it on sectors with transformative potential in Istanbul and Shanghai.

I chose Barcelona as the main case city for this research as it is undergoing rapid and, in some cases, dramatic changes in its urban dynamics both related to neoliberal developments and various degrees of social innovation driven by civil society. In recent years, there has been increasing policies and activities by governments, civil society, the private sector, and SOHOs to make Barcelona greener and more sustainable which could help enable sustainability transformations. As such, the city represents an interesting political, economic, historical, and social context, which offers fruitful ground for understanding the main aim of this thesis namely the roles, abilities, and potential of SOHOs in contributing to triggering and steering transformations towards sustainability in urban environments.

5.2. The Enabling Environment framework and method

The enabling environment refers to the context – both structural and relational – that transformations occur within. This context especially relates to the institutions or

rules that underlie human interaction (North, 1990), as these can enable or disenable sustainability transformations. Ma et al (In Review) argue that cities present different opportunity spaces for transformations through forms of innovations or intensifications of existing practices, but that for these to become reality the context of the opportunity needs to be enabling. The transformations literature has recognised the necessity for enabling environments and the role of cities in creating them. Simpson (2013) notes that the green urban economy needs cross-sectoral enabling conditions. Others highlight the importance of cities as creators (or constrainers) of enabling environments for low-carbon transitions (Hendriksen & Peereboom, 2013; While, 2013).

The Enabling Environment framework enables an assessment of the the multi-dimensional interplay between transformation towards sustainability at the agent level (individuals, communities, and organizations) and the structural level, for instance, the boarder institutional and socio-political context over time (historically continuous and changing perspective), in urban settings. It is also in line with with general principles of urban research which require a "systematic examination of the nature of political, social and economic activities, processes and outcomes at different spatial levels" (Andranovich & Riposa, 1993, p. 1). Although the dimensions of such a framework could be many, we chose to focus on five that have been considered particularly important in the literature. These dimensions, along with sub-variables and methods, are outlined in Table 2.

The main data collection processes consisted of 12 semi-structured interviews with stakeholders that are knowledgeable of, influence, or manage Barcelona's political, environmental and sustainability related processes and/or the Social and Solidarity Economy. Insights were also drawn from the 14 interviews with representatives from SOHOs. See Appendix V for details on these interviewees. In addition, two workshops were held as part of a EU Horizon funded project GREEN-WIN which focussed on

identifying the overarching system conditions for the development of win-win solutions and green businesses in the Metropolitan Area of Barcelona and how to implement potentially transformative solutions and understanding the conditions that promote long term implementation and success.

Table 2: The enabling environment framework - scope and methods

Dimension	**Scope**	**Variables**	**Methods**
Visions	Collective and effective mission building towards a sustainable future	Definition of sustainability	Analysing City Strategic Plans and relevant official documents on the city level vision-building processes. Two workshops and stakeholder interviews
		Actors and processes involved in promoting sustainability transformations	
		Conflicts in vision	
Cultural-cognitive	Stakeholders and institutions' awareness, openness and willingness to learn, to relate and to take actions to enable transformations towards sustainability	Awareness of sustainability	Two stakeholder workshops and interviews
		Existing values	
		Sustainable behaviours	
Policy-regulatory	Actual policy and regulations, as well as the continuous formal processes of policy and regulations affecting transformations towards sustainability	Sustainability of formal policies and plans	Mapping and analysing transformations towards sustainability related policies and regulations as well as interviews.
Organisational	Sustainability focus of formal and informal, state and non-state, commercial and non-commercial organisations, as well as inter-organisational capacity, multi-level and cross-sector governance, partnership and networks capacity	Existence and sustainability focus of key organisations and networks	Mapping the organisational architecture relevant to transformations and interviews with SOHOs
		Capacities and interactions of key organisations and networks	
Economic	Availability and quality of economic mechanisms affecting transformations towards sustainability	Subsidies	Identifying and evaluating existing financial mechanisms and business practices and interviews
		Private capital	

5.3. Assessing the enabling environment in Barcelona

5.3.1. Contextualising Barcelona

3.2 million people live in Barcelona and its wider metropolitan area, which consists of 36 municipalities. See Figure 6 for a map of the Metropolitan Area of Barcelona. Barcelona is the capital of the Spanish autonomous region of Catalonia, one of the wealthiest regions of Spain. Additionally, it is one of the most visited cities in the world, with over 33 million visitors each year, contributing to significant GHG emissions, especially from aviation (Rico et al., 2019). It is located on the Iberian Peninsula which has already experienced considerable climate related impacts which are likely to increase in the future, particularly related to forest fires and droughts (Barros et al., 2014). The city also has problems associated with traffic congestion, air pollution, and a lack of green space per capita (Baró et al., 2014). Furthermore, the urban energy sustainability of Barcelona is quite low, which relates to energy end-use, energy systems and flows, air quality, and energy efficiency both in buildings and transportation systems (Marquez-Ballesteros, Mora-López, Lloret-Gallego, Sumper, & Sidrach-De-Cardona, 2019).

The city has been governed by left-win political parties since the democratic turn post-Franco (1975), except for between 2011 and 2015, and is currently governed by a coalition led by *Barcelona en Comú*, which is considered 'radical left-wing' (Bianchi, 2019). The city also has a long history with anarchism and cooperativism, especially during the 1920s and 1930s – and despite oppression by Franco's regime some cooperatives survived and the anarcho-cooperativist culture had a resurgence post-dictatorship. Since that time, Barcelona's urban development is characterised by a dialectic and dualistic relationship between neoliberal development (often called the 'Barcelona-model') (Blanco, 2015), and social innovation driven by urban social

movements founded on anarcho-cooperativist principles (Bianchi, 2019; Castells & Hlebik, 2017; Royo, 2015).

Although the city was not hit as hard as many other Spanish and European cities by the 2008 global financial crisis, the austerity policies that flowed from it had negative impacts on the city, compounding levels of energy poverty, homelessness, and unemployment (Castells & Hlebik, 2017; Royo, 2015). The crisis also increased income and wealth inequality (Anghel et al., 2018). After the crisis lifted, various levels of governments have had the ability to lift their focus away from problems that are perceived as more immediate and have increased their sustainability efforts with legislations, plans, policies, and funding aiming to help green the city. This includes the Barcelona Climate Plan created by the Barcelona City Council in 2018 and the Catalan Government's *Climate Change Act* which came into effect the same year. Barcelona has also been considered one of the 'smartest' cities in Europe, having been a forerunner in promoting a number of IT-based systems to control pollutions, manage mobility, and transforming the urban habitat to improve quality of life (Bakıcı, Almirall, & Wareham, 2013). Additionally, thousands of organisations, including businesses and social enterprises are involved in the local Agenda 21 initiative *Barcelona+Sostenible*. The interactions between social movements, business entities, hybrid players like SOHOs, and governments promoting sustainability related visions and practices could enable the emergence of sustainability transformations in Barcelona. The below analysis will consider whether the wider context of the city is likely to enable or disenable the realisation of this potential.

Figure 6: Map of the Metropolitan Area of Barcelona

Source: amb.cat

5.3.2. Vision

The Barcelona City Council is run by a minority government which includes *Barcelona en Comú* and is run by mayor Ada Colau (elected 2015 and re-elected in 2019 until 2023). The Party and the Mayor emerged out of social movements such as the M-15, and their vision is one of direct democratic urban practice which creates a commons-based, green and social economy (Eizaguirre, Pradel-Miquel, & García, 2017). This vision is more along the lines of neighbourhood activism, trying to build a "more democratic urbanism capable of addressing issues and problems considered inherent to the neo-liberal model" (de Hoop et al., 2018, p. 11), including housing issues, mass tourism, corruption, and municipalisation of core city services.

This vision can be seen in contrast, and actually emerged as an alternative vision to that of the previous conservative city government (under mayor Trias 2011-2015) whose vision was to establish Barcelona as Smart City (de Hoop et al., 2018). De Hoop (2018, p. 8) argues that:

> "The ambition with the extensive portfolio of smart initiatives was to simultaneously attract and finance industrial development, such that Barcelona would become a global hub for the development of (exportable) smart city services, whilst modernizing the city itself for a smart citizenship – a citizenship comfortable using technology applications, responding to the data that they willingly contribute towards smart city services, but not necessarily demanding other rights and responsibilities."

Citizens were here seen as passive beneficiaries rather than "initiating and shaping grassroots 'smart developments'" (de Hoop et al., 2018, p. 8). Furthermore, the current Colau run City Council criticised previous smart city strategies for not adequately focussing on challenges such as climate change, resource consumption, wage inequality, employment, housing, and data rights (March & Ribera-Fumaz, 2018). As a result, the vision of the current City Council goes beyond the smart city towards a focus on technology sovereignty which could contribute to a commons-based, circular, and creative urbanism. This vision is also increasingly encompassing sustainability and climate related matters, for instance in Barcelona's Commitment to the Climate developed by the *Barcelona+Sostenible* initiative managed by the City Council and including over 1,000 organisations the vision is for "Barcelona to lead the way and act as a benchmark in climate protection" (Ajuntament de Barcelona, 2015, p. 5). The vision to make Barcelona and its wider surroundings more sustainable as well as resilient to climate change is also emerging amongst other key institutions and organisations such as the AMB (the Metropolitan Public Administration), the Catalan Government, social movements such as the Social and Solidarity Economy, and parts of the mainstream

business community (such as Foment, a confederation of entrepreneurs and businesses in Catalonia).

Notable policies and plans which were all finalised in 2018 include: the *Barcelona Climate Plan*, which aims to be an integrative vision of measures to tackle climate change up to 2030 (Ajuntament de Barcelona, 2018)[2]; the AMBs *Climate and Energy Plan to 2030*, which is a 'plan of plans' consisting of a Carbon Management Strategy, a roadmap for the Energy Transition, and a climate change adaptation plan (Direccio de Serveis Ambientals, 2018); and the Catalan *Climate Change Act* with a goal to "reduce greenhouse gas (GHG) emissions in Catalonia and foster the transition towards a low carbon economy" (own translation) (Departament de la Presidencia, 2017, p. 5)

5.3.3. Cultural-cognitive

The financial crisis contributed to sustainability, climate change, and addressing environmental problems being pushed down the agenda, especially during the worst years of the crisis. However, recently surveys such as the *European Social Survey* (Poortinga et al., 2018) have shown that awareness and concern about climate change amongst the population of Spain is high compared to other European countries (nearly 50% of the population), and the *European Investment Bank Climate Survey* found that 70% of Spaniards believe climate change is a threat to humanity (EIB, 2018). Another survey carried out by *Metroscopia* in 2016 found that 82% of Spaniards believe that cities are not sustainable (Toharia, 2016) and 95% would "impose strict controls and heavy penalties" on environmentally harmful industries (Barber & Israel, 2017). Additionally,

[2] It focusses on four strategic themes, mitigation, adaptation/resilience, climate justice, and encouragement of citizen action and it analyses how existing policies and plans relate to addressing each of the four strategic themes, including: Energy, Climate Change and Air Quality Plan for 2011-2022; Urban Mobility Plan for 2013-2018; Barcelona Green and Biodiversity Plan for 2020; and Barcelona Waste Prevention Plan for 2012-2020. Each year they publish report on the progress of achieving the plan.

90% of Catalans have been found to be concerned about the effects of climate change and 83% claim to take measures to reduce climate change (Ceres, 2018).

This awareness is also growing within regional and local governments. This can be seen through initiatives such as declaring a climate emergency which the Catalan Government did in May 2019 (Generalitat de Catalunya, 2019b) and the City Council of Barcelona did on 15 January 2020 (Barcelona, 2020). The Barcelona declaration includes a *2020 to 2025 Action Plan* to address the emergency that comes with an investment of 563 million Euros and coincides with the implementation of a Low Emissions Zone, excluding polluting vehicles from the centre of the city (Ajuntament de Barcelona, 2019).

However, awareness does not necessarily translate into action. This seems especially to be the case within the Social and Solidarity Economy which despite having a focus on environmental sustainability, the environment is the aspect in which organisations reporting to *Balanç Social* (a voluntary reporting tool used to measure the social, environmental and good governance impact of the organisations involved in the SSE) answer the least or in an unsatisfactory way. This lead an interviewee from *La Xarxa d'Economia Solidària* (XES) – an organisation supporting the SSE and manging the *Balanç Social* – to say:

> *"There's this narrative of respecting the ecological limit of the economy, but at the same time there is a gap…. There's a gap between the values and practice"*. *(Interviewee from XES)*

Furthermore, City Council representatives reported difficulties in getting the wider population as well as organisations and businesses involved in climate and sustainability initiatives.

> *"We don't know how to arrive to these organisations or people because for example when we organise meetings or presentations or things like that on this subject, we are always the same people, and it is very difficult to arrive to new people" (Interviewee Barcelona Sustainability Office)*.

Additionally, Catalonia is also experiencing high degrees of polarisation after the Catalan independence referendum in 2017 (Oller i Sala, Satorra, & Tobeña, 2019). This polarisation and political turmoil have taken up a lot of political and civil society space and increased polarisation in the city and wider country of Spain, and hence might have consequences for the prioritisation and focus on sustainability and climate related efforts in the city and the wider Catalan region. For instance, Madrid filed an appeal against the *Catalan Climate Change Act*, amongst 31 other laws passed by the Catalan Parliament, to the Spanish Constitutional Court which resulted in its suspension until April 2018. Given the ongoing nature of this turmoil, this could influence the spread of sustainability narratives as well as uptake and implementation of sustainability policies, plans, and activities.

5.3.4. Legislative/regulatory

Under the previous conservative Government of Spain, led by Prime Minister Mariano Rajoy from 2011-2018, there were a lot of legal barriers for promoting sustainability, especially related to solar energy and wider renewable energy generation and consumption. Spain went from being a world leader in solar power with a rapid growth in installed capacity until 2013, after which the growth has stalled to the point of "paralysis" with Spain falling behind many other European countries (Alonso et al., 2016). This occurred as a result of policy changes which included drastic cuts in renewable energy subsidies (Alonso et al., 2016), and also included an infamous "sun tax" introduced in 2015 by the conservative party which disproportionately taxed self-consumption of solar power and discouraged local and distributed renewable energy

generation (Prol & Steininger, 2017). However, this tax was removed by the Sanchez Government in 2018, which has since focussed efforts towards introducing more sustainability and climate friendly policies and legislations. Investments in solar panels have increased considerably, going from 235 megawatts newly installed photovoltaic power in 2018 to an expected 400 megawatts in 2019 thanks to friendlier regulations (Leton, 2019).

On the regional level, the *Catalan Climate Change Act* is believed to be a considerable legal step towards making it mandatory to mitigate and adapt to climate change by public entities including through carbon taxes. The commitments outlined in the law are to reduce GHG emissions by 40% by 2030, 65% by 2040 and 100% by 2050 on a 1990 baseline. An interviewee from the *Catalan Climate Change Office* believes this Act will end the voluntary nature that has characterised climate action in Catalonia, such as the voluntary emission reduction commitment by companies, which 150 companies have currently signed up. The *Under2 Coalition* of states and regions around the world that are committed to climate action has praised Catalonia for its ambitious climate targets (Under 2 Coalition, 2019). Furthermore, the law created a carbon tax on large vessels and business activities, which came into effect in 2019. An *Energy Transition Law* is to follow which establishes how to manage and run the transition (Generalitat de Catalunya, 2019c).

Furthermore, each of the regional autonomous governments in Spain have their own laws for cooperative organisations and Catalonia has longstanding socio-cultural support and legal mechanisms for cooperatives[3], of which there are many different

[3] Catalan law 12/2015 on cooperatives defines them as: "a business owned and controlled by people (natural persons or legal entities), that come together voluntarily to meet their common needs and economic, social and cultural aspirations through a jointly-owned and democratically-controlled enterprise. It is formed by a minimum of two partners, who will undertake their activity according to the corresponding type of cooperative business. Exceptions to this rule are consumer cooperatives and second-degree cooperatives, which must be made up of no fewer than ten natural person partners".

classifications[4] (Hooks, 2018; Lucas, 1994). However, Catalonia and Spain do not have specific legislations for social enterprise or hybrid organisational models such as benefit corporations or limited community companies (Díaz Foncea et al., 2017). Social enterprises in Catalonia can choose between four main organisational models, for profit corporation, cooperative, work integration social enterprise, or social employment centre. The latter two focusses on training and labour integration for people that have been excluded or are at risk of exclusion from the labour market, or work integration of people with disabilities. However, the Spanish law on the Social Economy (Law 5/11) does highlight that entities belonging to the social economy also includes entities engaged in economic activities and businesses with rules that relate to the principles outlined in Law 5/11. However, these principles focus solely on social goals and do not specifically mention environmental protection or sustainability. This can limit their potential to reach their sustainability-oriented missions.

5.3.5. Organisational

There are growing numbers of organisations involved in sustainability related activities and initiatives in the city. Prominent initiatives include the co-managed *Participatory Energy Plan* (PEP) initiative of three districts in the city, which amongst other things, aims to promote the development of an urban and social environment embedding human values, and to disseminate a transversal and global knowledge on energy. *Pla Buits* is a co-managed initiative where the city council invited organisations to propose activities which encouraged the public to use plots rendered vacant due to the financial crisis. Most of these plots were used for allotment or community gardens and

[4] Law 12/2015 on cooperatives have the following classifications: agricultural cooperatives, maritime, river, and lake cooperatives, insurance cooperatives, consumer cooperatives, credit cooperatives, teaching cooperatives, housing cooperatives, health cooperatives, service cooperatives, worker cooperatives, and integral cooperatives.

have been found to contribute to recreational values, place-making, and social cohesion (Langemeyer, Camps-Calvet, Calvet-Mir, Barthel, & Gomez-Baggethun, 2018). And the *Superilles*, or superblocks, project by the city council which aims to transform streets into neighbourhood and multiple-use spaces through eliminating cut-through traffic (Scudellari, Staricco, & Vitale Brovarone, 2019).

However, some of the organisations engaged in sustainability interact with each other more than others. *Barcelona en Comú* emerged out of the social movements in the city, especially the 15-M and the Social and Solidarity Economy, and as such they have a close relationship with many of the organisations within the movement, including many of the cooperative SOHOs studied in this thesis. The City Council have a number of support programs for cooperatives in the Social and Solidarity Economy and increasingly also for social enterprises, especially through *Barcelona Activa* whose goal is to promote employment and encourage entrepreneurship. There is also considerable cooperation and integration between organisations within the Social and Solidarity Economy for instance through XES as well as the Fair of the Solidarity Economy of Catalonia held annually. Interviews with social enterprises also indicated collaborations between them and universities, for instance InEdit emerged out of the Institute of Environmental Science and Technology (ICTA) at the Autonomous University of Barcelona.

However, *Barcelona en Comú* does not interact considerably with businesses, especially larger businesses or business confederations like Foment, which represents the interests of the industry and Catalan businesses to all levels of governments.

> *"Nowadays the local government is zero sensitive with business. It's like a communist party. It's really, really, extremely social oriented which is not bad, but it should be balanced with economic growth… it's like a fight, a war to the business." (Interviewee from Foment)*

This is also the case for for-profit social enterprises as highlighted by one of the SOHOs studied in this thesis: *"They (city council) don't talk to private companies, 'oh you're a company, I don't talk to you', but I have lots of things to tell you!" (Eixverd)* This in spite of many businesses in the city having been involved in sustainability efforts to date and are increasingly interested in sustainability related activities. Social and Solidarity Economy organisations are also hesitant to engage with traditional businesses, leading one interviewee to highlight that:

> *"Some of the productive economy is reluctant to other types of social economy, that hires people with less skills or disabled. But the same time the other group of companies team together very much, they have an identity, belong to a collective of doing good, and see the productive economy as the enemy. Both need to lower their pressures or their references and collaborate more". (InEdit)*

The Catalan Government are more involved with larger business actors through initiatives such as the *Program for Voluntary Agreements* where businesses or other organisations voluntarily set GHG emission targets (Generalitat de Catalunya, 2018). And an interviewee from Foment commented on the good relationships with the Catalan Government for instance through the negotiation of the *Catalan Agreement for Industry* published in 2017 which has a chapter on circular economy and sustainability measures to transform industry (Generalitat de Catalunya, 2017).

Furthermore, a lack of capacity was acknowledged by managers of the *Barcelona+Sostenible* in many of the organisations involved in the network with respect to coming up with and executing sustainability related projects. To address this the climate change office of the City Council and the secretariat has initiated support mechanisms such as coaching and personalised advice, network spaces, reports, tools, and competitions (Barcelona+Sostenible, 2019).

5.3.6. Financial/economic

The financial crisis considerably hampered investments in sustainability related activities both by the public and private sector. Very few of the plans and policies at any level of government had any financial support to help organisations achieve their sustainability related visions until 2018. The lack of funding and financial mechanisms to support sustainability initiatives was considered a major disenabling factor for many of the interviewees.

However, this might be changing as the carbon taxes which are to take effect under the *Catalan Climate Act* are expected to generate 125 million Euros a year into a *Climate Fund* which would be accessible to public, private, and civil society entities to help promote mitigation, adaptation, biodiversity, and improved air quality. This could mean a considerable input of financial support for sustainability and climate related efforts if it comes into force. Additionally, the *Catalan Climate Emergency Declaration* of 2019 came with an allocation of 58 million Euros through the *Catalan Institute of Energy* to reduce emissions in the transport and energy sector which entities can apply for. There are also smaller pots of money available such as: 1 million Euros for the development of mitigation and adaptation actions by local entities by the Catalan Government (Generalitat de Catalunya, 2019a); an annual call for applications for climate projects by the Spanish Government that encourage low carbon activities by acquiring verified emission reductions (Ministerio para la Transicion Ecologica, 2019), and climate subsidies associated with projects that fit within the framework of the *Barcelona Commitment for the Climate* by the City Council (Barcelona+Sostenible, 2018).

It is also worth noting that Spain is a part of the *European Emissions Trading Scheme*, which covers 1,100 installations (including many in Catalonia) and 45% of total GHG emissions. There are also *Innovation Coupons*, a direct financial rebate when companies subcontract advanced technological services with certified suppliers that can

help incorporate the circular economy into products or processes by the Catalan Government and corporate tax benefits from the Spanish Government regarding research and development activities which could be used for sustainability related activities (Catalonia Trade & Investment, 2019). With respect to private capital, Catalonia is considered the most attractive region in Spain for private investors, but it is unclear how much of the investment, €372m in 2015 (Shilova, 2017) goes towards or is available for sustainability initiatives. That said, there are some sustainability-oriented funds known to be active investors in the region.

Table 3: Results of the enabling environment assessment of Barcelona

Dimension	**Scope**	**Variables**	**Results**
Visions	Collective and effective mission building towards a sustainable future	Definition of sustainability	The focus is on creating a commons-based green and social economy
		Actors and processes involved in promoting sustainability transformations	Local governments (Barcelona City Council and AMB, the Metropolitan Public Administration) the Catalan Government, social movements such as the Social and Solidarity Economy, SOHOs, and parts of the mainstream business community.
		Conflicts in vision	Evolution of vision from the previous to the current government. Conflict between local government, social movements, and mainstream business community.
Cultural-cognitive	Stakeholders and institutions' awareness, openness and willingness to learn, to relate and to take actions to enable transformations towards sustainability	Awareness of sustainability	High in the general population of Spain, no Catalan or Barcelona specific data found
		Existing values	Strong environmental values in local government and social and solidarity economy
		Sustainable behaviours	Gap between sustainable values and behaviours in the SSE
Policy-regulatory	Actual policy and regulations, as well as the continuous formal processes of policy and regulations affecting transformations towards sustainability	Sustainability focus of formal policies and plans	Moved from a disenabling to a more enabling legislative environment on the national scale. Regional scale climate change law and enabling laws for cooperatives but not social enterprises.
Organisational	Sustainability focus of formal and informal, state and non-state, commercial	Sustainability focus of key organisations and networks	Strong sustainability focus amongst most organisations and networks

	and non-commercial organisations, as well as inter-organisational capacity, multi-level and cross-sector governance, partnership and networks capacity	Capacities and interactions of key organisations and networks	Strong interactions between local government and social and solidarity economy but not with business community. Low sustainability capacity amongst many organisations
Economic	Availability and quality of economic mechanisms affecting transformations towards sustainability	Subsidies	Carbon taxes going into a Climate Fund accessible to public, private, and civil society entities along with many other funding opportunities by various levels of government
		Private capital	Large private investments in Catalonia but unknown how much goes towards or is available to sustainability related initiatives

5.4. Conclusion

This chapter has presented an analysis of the enabling environment in Barcelona which has highlighted the changing dynamics of the urban socio-political environment. A summary of the results of the assessment is presented in Table 3. There is a sustainability vision which is growing in importance and collective nature and increasing numbers of organisations involved in sustainability-oriented activities. The historical and social context of the city is also a fertile ground for community and civil society initiatives, including SOHOs, to emerge. There are also more and more policies, plans, regulations, and financial mechanisms to support sustainability in the city. However, other political agendas and social priorities has tended to take precedence over sustainability and climate change related narratives and actions. Thus, the plethora of policies, plans, and laws has not yet translated into significant outcomes in the form of greenhouse gas reductions, and Spain is still lagging behind other European countries in the fight against GHG emission reductions (Planelles, 2019b). Barcelona continues to exceed EU set limits for allowable nitrogen dioxide emissions (Planelles, 2019a). As such, there remains a need for sustainability transformations but in all of the dimensions investigated, especially vision, policy-regulatory, and organisational, the context for transformations are increasingly enabling.

Chapter 6: *Sustainability-Oriented Hybrid Organisations* and their potential transformative impacts: a multi-disciplinary review

Dina Hestad, J. David Tàbara, and Thomas F. Thornton
In review in *Sustainability Science*

6.1. Abstract

Given current limitations of global and national governance arrangements in redirecting economic globalisation towards a climate-safe and sustainable world, it is crucial to understand how organisations that aim to tackle social and ecological problems using market mechanisms could contribute to fostering sustainability transformations. But who are these organisations and how do we survey them? This review identified 60 different terms or concepts for hybrid organisations with sustainability agendas which reflects a high degree of fragmentation and inconsistency in research literature to date. An important step towards consolidation of existing knowledge is therefore to generate an overview of the literature in this vast and multi-disciplinary research and practice domain. To do so, we introduce *Sustainability-Oriented Hybrid Organisations* (SOHOs) as an umbrella concept and carry out a comprehensive multi-disciplinary review of 126 scientific articles. The analysis reveals four main areas of research, namely the factors that drive and enable the creation and development of SOHOs, the actions and practices they engage in, the direct outcomes and broader impacts of SOHOs, and the barriers and challenges they face. We find that, although transforming organisations towards SOHO models has the potential to be a key intervention point for promoting sustainability transformations, they can also generate unintended negative consequences. Unless SOHOs are able to address sustainability challenges using a global, long-term, and

socially-ecologically coupled perspective, their narratives and actions could perpetuate rather than address the underlying causes of systemic problems like climate change and social vulnerability.

Keywords: global environmental change, hybrid organisations, sustainability learning, transformations, business models

6.2. Introduction

While it has been shown that economic globalisation has taken millions of people out of extreme poverty, it is also true that unharnessed market forces, combined with other global trends, are compromising the Earth's life-support systems which may seriously reduce humanities options to achieve sustainable development (Asrar et al., 2019). As shown by the failure of the UN Climate Summit in Copenhagen in 2009[5], followed by the weak and largely unattainable commitments of the UN Climate Summit in Paris in 2015[6], global and national governance arrangements seem insufficient in redirecting economic globalisation in a way that can secure a climate-safe and sustainable world. Given that the market is nearly 'everywhere', and it is almost impossible to escape from the monetary economy and exchanges in our daily lives (Simmel, 2004), it is crucial to improve our understanding of the role of new forms of economic agency, and in particular of organisational forms and entrepreneurship processes aiming to tackle both social and ecological problems using market instruments. After all, long-lasting sustainability transformations are likely to emerge from endogenous learning of the agents involved in a given complex social-ecological system (Tàbara & Pahl-Wostl, 2007). Agents aiming

[5] The fifteenth Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC)
[6] UNFCCC COP 21

to influence the course of development towards sustainability, sooner or later, will likely have to adopt or take advantage of the dominant tools, mechanisms, and incentive structures present at any given time and place, which in our globalised societies relate to global and local market dynamics.

One new and pivotal opportunity for that endeavour is hybrid organisations which combine sustainability and economic agendas. Such hybrid organisations maintain a mixture of market and mission-oriented rationales, beliefs, and practices to address social and/or environmental problems, thereby spanning traditional public, private, and non-profit sectors (Haigh & Hoffman, 2014; Schaefer et al., 2015; Smallbone et al., 2001). However, a great deal of these organisations tend to focus on addressing either social or ecological problems, not both. This is problematic as in order to promote sustainability transformations and to tackle the multifaceted problems that currently face our societies, such as climate change and social inequalities, organisations will need to consider and tackle both social and ecological problems simultaneously (Hockerts et al., 2018), and ideally implement regenerative practices that have a net-positive outcome (J. Robinson & Cole, 2015). At the very least they need to be cognisant of not creating new or perpetuating existing problems as a result of their actions. Although addressing environmental problems is inherently good for society as a whole (Millenium Ecosystem Assessment, 2005), environmental initiatives can create unintended and adverse negative effects on individuals and communities such as excluding them from ecological benefits (Martí, 2018). Or vice versa, focussing only on social problems can result in environmental damage (Hockerts et al., 2018).

A growing number of the entrepreneurs behind hybrid organisations are acknowledging and acting on this need to address both social and ecological issues simultaneously, and a myriad of concepts and terms have been used to describe their

ventures in different academic fields, including: environmentally focussed social enterprises, environmental enterprises, eco-enterprises, ecological sustainability entrepreneurship, sustainability enterprises, sustainability entrepreneurship, sustainability venturing, benefit corporations, community enterprises, prosocial organising, and triple bottom line businesses. This growing plurality of terms has resulted in diverging analyses and conflicting findings (Boyd et al., 2017; Gast, Gundolf, & Cesinger, 2017) making it hard to determine what is really known about these organisations and their direct outcomes and broader impacts on sustainability. In light of this, calls have been made to increase convergence within sub-fields of entrepreneurship research (Muñoz & Cohen, 2018b; Schaltegger & Wagner, 2011), and for research on sustainability venturing to take the step into sustainability science to better understand the socio-ecological interactions that such organisations engage in (Muñoz & Cohen, 2017). Furthermore, sustainability science and sustainability transformations research has not adequately focussed on the role of organisations, and organisational transformations, fostering transformations towards regenerative sustainability. This despite the fact that the needs of societies are met through organisations, and decisions and actions made within them have impacts on global system dynamics. Sustainability science researchers has argued for the need for 'corporate biosphere stewardship' which focusses on looking after and caring for socio-ecological systems (Folke et al., 2019), for understanding the social values that drives a corporation to engage in corporate social responsibility (Fordham & Robinson, 2019), and that investors should respect planetary boundaries and invest in solutions to environmental problems (Butz et al., 2018). These approaches rarely question the mainstream methods of which collective action is currently organised and its consequences on socio-ecological relations, but instead focusses on incremental change and efficiency gains within existing systems and organisational forms. However, some

research has acknowledged the need for more fundamental changes with Loorback & Wijsman (2013, p. 26) arguing that "becoming a sustainable business often entails an organizational transition rather than an optimization of the existing" which relates to the fact that conventional management could be counterproductive to sustainability as pre-selected goals, ready-made plans, and linear processes could make managers overlook emerging solutions (Svensson et al., 2011). We take this argument further and argue that sustainability scientists need to consider in greater depth the role of organisations and new organisational forms in promoting transformations towards regenerative sustainability.

A first step towards consolidation of sustainability knowledge about emerging organisational types is to generate an overview of existing research literature in this vast and multi-disciplinary research and practice domain. To do so, we introduce the concept of *Sustainability-Oriented Hybrid Organisations* (SOHOs). This term acts as an umbrella category for organisations that use a mixture of market and mission-oriented practices, beliefs, and rationales to tackle social and ecological issues whilst generating a sufficient amount of their income from trading in goods or services, so as to make them economically viable and self-sustaining. This umbrella term allows us to carry out a comprehensive multi-disciplinary review to analyse the state of research, identify key themes, and propose future research directions, especially on the role SOHOs can play in promoting transformations towards regenerative sustainability. Such transformations, which are fundamental changes in the attributes of natural and human systems (Field, Barros, Mastrandrea, et al., 2014), are increasingly called for both in academia and practice to tackle current unsustainable and inequitable trends in the use of the earth's resources, due to the thus far highly limited success of incremental approaches (Field, Barros, Mach, & Mastrandrea, 2014; Matyas & Pelling, 2015; O'Brien, 2012). (O'Brien

& Sygna, 2013) argues that transformations occur across three interacting and embedded spheres, namely the practical, political, and personal. It is vital to consider these in conjunction, as the personal sphere which "includes individual and collective beliefs, values and worldviews that shape the ways that the systems and structures (i.e., the political sphere) are viewed, and influence what types of solutions (e.g., the practical sphere) are considered "possible" (O'Brien & Sygna, 2013, p. 5).

The article starts with the relevant theoretical background on hybrid organisations before outlining the methods of the review and providing an overview of the literature with respect to the trends in publication, academic fields and journals, methods, and geographical orientation. Then we introduce, define, and justify the creation of SOHOs as an umbrella category, before outlining the central themes of research on SOHOs. Finally, we reflect on the current state of research and provide suggestions for future enquiry.

6.3. Hybrid organisations

According to New Institutionalism, an organisational form is an "archetypal configuration of structures and practices" which is "regarded as appropriate within an institutional context" (Greenwood & Suddaby, 2006, p. 30). Key organisational categories include public, private, and non-profit organisations and their distinctions are based on the assumption that organisations within these descriptors inhabit generic features that are 'pure" and indicate membership of these 'distinct' sectors (Billis, 2010). These sectors have specific beliefs, practices, and rationales, and aligning with these helps organisations gain legitimacy (Romanelli, 1991). Billis (2010, p.6) has outlined that the private sector is: "owned by shareholders and governed according to the principle of size of share ownership, working according to operational priorities driven by principles of

market forces in individual choice, with typical human resources consisting of paid employees in a managerially controlled firm and other resources primarily from sales and fees". Whilst the public sector is "owned by the citizens and governed according to principles of public elections with work driven by principles of public services and collective choice and as its typical human resources consisting of paid public servants in legally backed bureaux and resourced by taxation" (Billis 2010, p.6). Lastly, the non-profit sector (also often called the third sector) has as a goal to improve social and environmental problems, is membership owned, governed by elected representatives, their staff is a combination of volunteers and employees, and they generate revenue through donations, legacies, and membership fees (Doherty et al., 2014).

The boundaries between public, private, and non-profit organisations are becoming increasingly fluid and blurred (Billis 2010., Doherty et al., 2015, Battilana & Dorado., 2010). Organisations that span institutional boundaries and operate in more than one organisational logic or domain have been called hybrids (Battilana & Dorado, 2010; Battilana & Lee, 2014; Pache & Santos, 2010), defined as "structures and practices that allow for the coexistence of values and artefacts from two or more categories" (Doherty et al., 2014, p. 418). There are various forms of hybrid organisations applying various combinations of the public, private, and non-profit sectors. For instance, government owned enterprises breach the private and public sphere, for-profit cooperatives breach the private and non-profit sphere, and social enterprises combine public, private, and non-profit beliefs, practices and rationales by aiming to improve public goods such as social and/or environmental commons through market related mechanisms.

In doing so, it has been argued that hybrids are creating new institutions, in the form of new rules for governing social interactions, which pose a challenge to mainstream forms of economic organising (F. Wilson & Post, 2013). This especially stems from the

fact that the emergence of these hybrid organisational forms, such as social enterprises, come from an ideological standpoint that considers that the state is not or should not be the only or even the main agent responsible for environmental governance – due to its failure to address key sustainability issues such as halting the rapid loss of biodiversity and stopping negative trends in GHG emissions (Battilana & Lee, 2014). As such, these types of hybrid organisations are taking responsibility for various sustainability related problems that the public sector has failed to adequately address. Other reasons for the emergence of these hybrid organisations relate to a lowering of trust in corporations after the global financial crisis amongst the general public (Hiller, 2013), as well as a desire from NGOs to be less dependent on donations and subsidies (Battilana & Lee, 2014).

The number and diversity of hybrid organisations has grown significantly in the last two decades, particularly ones with both social and/or environmental missions and economic practices (Hoffman, Badiane, & Haigh, 2012) and several legal forms have come about in different countries to accommodate them. These include, among others, the LC3 Statute (Low Profit Limited Liability Company), Benefit Corporation (B-Corp) and Flexible Purpose Corporations in the US, the CIC Regulations (Community Interest Corporations) in the United Kingdom, and the Social Purpose Company in Belgium (Stubbs, 2017). Such statuses can legally protect officers and directors and allow them to balance shareholder returns with social and environmental impacts (Stecker, 2016). Given the recent emergence and growth in number of these organisations, and the divergence in research highlighted in the introduction, more research is needed to better understand hybrid organisations with both social, environmental, and economic missions and practices and their potential transformative impacts on sustainability outcomes.

6.4. Methods

Our review encompasses research that either directly or indirectly makes reference to organisational hybridity and researches organisations that aims to solve social and environmental problems through market related mechanisms. We began the search widely by looking for all articles published related to SOHOs as previously defined in an operational guise. Specifically, extensive keyword searches were conducted in ABI Inform (Proquest) among the largest business-related academic databases (Schaefer et al., 2015), as well as the more general databases of Scopus and Web of Science. Titles, abstracts and subject headings were searched using variations of the search terms: hybrid organisations and sustainability; social enterprise/entrepreneurship and sustainability; ecoenterprise/entrepreneurship, environmental/green enterprise/entrepreneurship; sustainability entrepreneurship; community enterpr*, civic enterpr* and sustainability; benefit corporations and sustainability. This search revealed over 700 peer-reviewed academic articles, the majority of which focus on addressing either social or ecological problems, not both. The titles and abstracts were then manually reviewed to determine which ones considered hybrid organisations with ecological and social missions. Articles that did not include, or only peripherally looked at organisations involved in solving both social and environmental problems using market-based mechanisms, were removed. Additionally, we only reviewed peer-reviewed journal articles hence books, book chapters, and book reviews were not included. This resulted in 77 articles. We also conducted a reverse search approach where additional papers were identified from the citations of the selected journal articles. This generated a further 49 articles. In total, 126 articles were included in the final review sample. We coded the articles for: descriptive information about the article (e.g. journal, discipline, geographical focus); conception of SOHOs (term used for the organisation); methodological details; purpose of study;

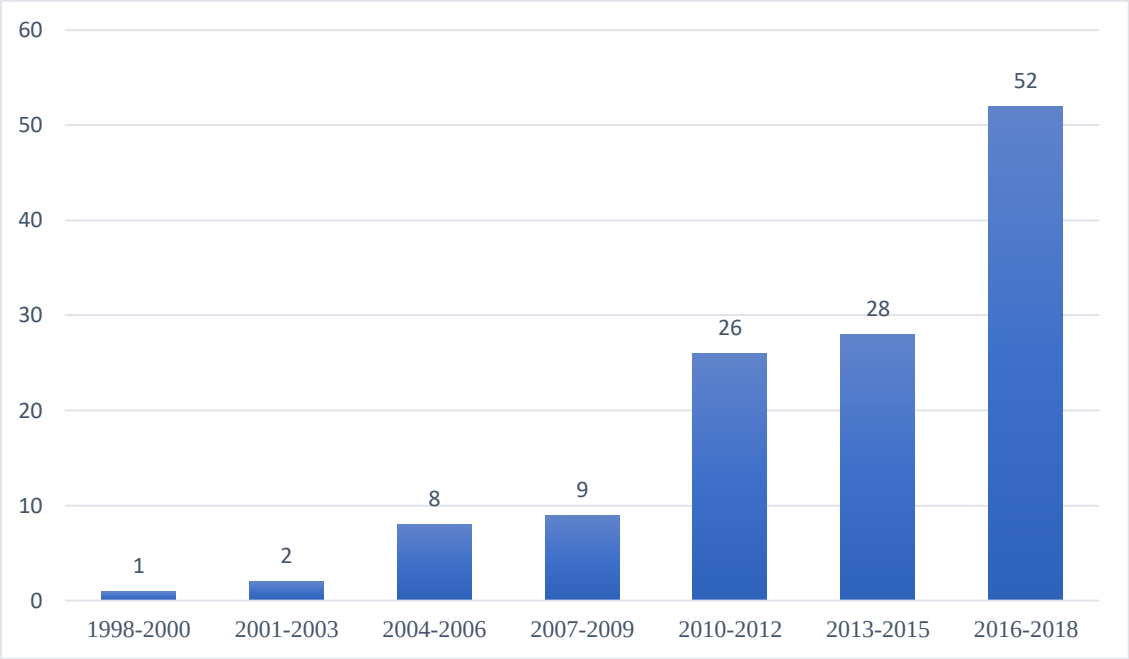
theoretical approach; and main findings. This was done to ascertain the diversity of subjects and methods related to SOHOs as well as the main focus areas within the literature.

6.5. Results

6.5.1. Publication trends

Since 1998 there has been a positive trend in the amount of papers published related to organisations with both social and ecological purposes and/or practices, with a peak in 2018 where 21 articles were published (see Figure 7).

Figure 7: Trend in publications



The majority of papers (n=126) were published in the field of business and management studies (86) with the *Journal of Business Venturing* having the most papers published (12) followed by the now discontinued *Greener Management International* (8),

the *Journal of Business Ethics* (7) and *Journal of Cleaner Production* (6). Sustainability Science was the second largest academic discipline (10) followed by geography and organisational studies (8 papers each). The rest were published within a range of social science disciplines such as development studies, sociology, and political science. The articles in the review use a variety of methodological approaches. The majority of the papers applied qualitative methods (77), whereas only eight used quantitative approaches and five applied mixed methods. Additionally, 36 papers were conceptual. Over half of the literature has focussed on or have main authors based in the Global North (82), with the Global South getting significantly less attention (28). The rest of the articles were multi-national or international studies often with case studies both in the Global North and the Global South (16). The US (29) and the UK (14) were the countries with the most publications.

We identified 60 different terms and concepts for organisations with social and ecological purposes and practices within the reviewed articles. The majority of these were variations of terms such as environmental/eco enterprise/entrepreneur/entrepreneurship, green enterprise/ entrepreneur/ entrepreneurship, social enterprise/ entrepreneur/ entrepreneurship or sustainability enterprise/entrepreneur/entrepreneurship but also terms like benefit corporations, community enterprises, prosocial organising, renewable energy cooperatives, and triple bottom line businesses. The articles were deliberately chosen for this review based on the fact that they considered organisations that aimed to reach their social and environmental missions through market-based mechanisms, thus making them hybrids that span the private, public, and non-profit realm. Figure 8 showcases that the 60 terms and concepts used in the 126 reviewed articles fit under the SOHO umbrella concept.

Figure 8: Terms used for organisations that fit under the SOHO umbrella in the reviewed articles

6.5.2. Sustainability-Oriented Hybrid Organisations as an umbrella category

The most striking finding of this review is the sheer number of terms and concepts used to describe organisations engaging in both social and ecological practices stemming from multiple academic fields. This plethora of terms and the divergences and

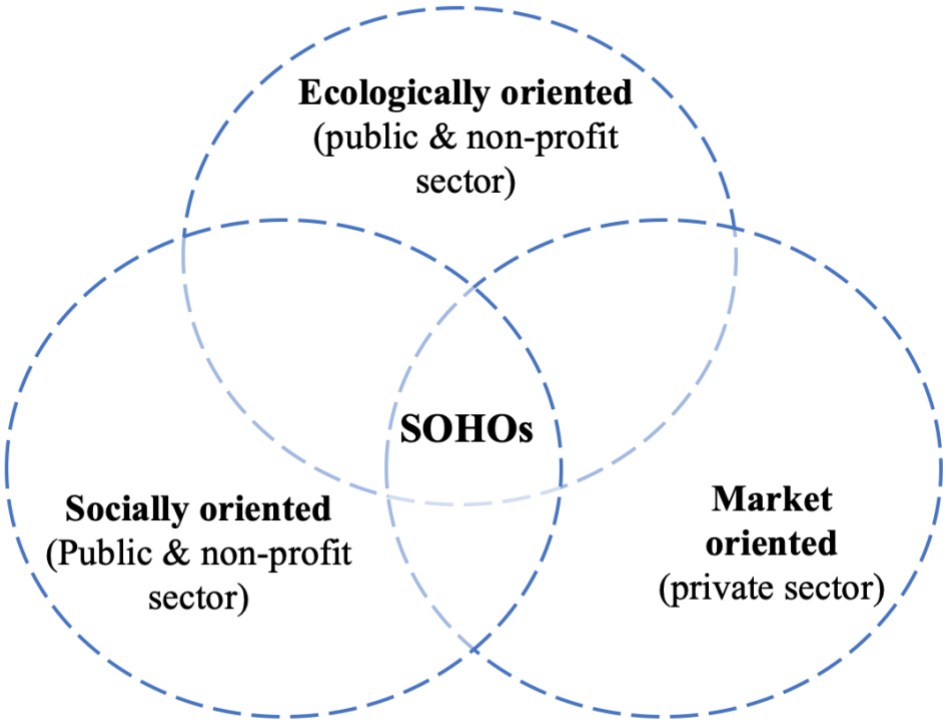
contradictions that exist within research on these organisational processes makes it challenging to consolidate what is known about their outcomes and impacts and their potential contributions to sustainability transformations. In other fields, umbrella categories have proven helpful in integrating sub-domains, identifying differences, and assessing current knowledge, such as sustainable cities (de Jong, Joss, Schraven, Zhan, & Weijnen, 2015), or purpose-driven entrepreneurship (Muñoz & Cohen, 2018b). This is the rationale for the introduction of the concept of Sustainability-Oriented Hybrid Organisations (SOHOs) as an umbrella category to describe the vehicles that entrepreneurs create to contribute to environmental quality and social well-being through market related measures.

SOHOs are sustainability-oriented because they recognise that in order to tackle the multifaceted problems that currently face our societies, such as climate change and social inequalities, organisations will need to consider and tackle both social and ecological problems simultaneously (Hockerts et al., 2018), ideally promoting regenerative sustainability (J. Robinson & Cole, 2015), or at least be cognisant of not creating new or perpetuating existing problems as a result of their actions. They are hybrids because they operate in multiple organisational domains, through aiming to solve problems which are considered to be within the realm of the public and non-profit sectors but are doing so through market related mechanisms. The market component is important due to the potential this has to provide financial sustainability. It has been argued that organisations that survive only on government grants and/or donations from philanthropists or the public would not be considered entrepreneurial (Hall, Daneke, & Lenox, 2010).

As such, this category can include sustainability-oriented organisations that utilise market instruments such as social enterprises, alternative organisations, cooperatives,

community and civic enterprises, environmental enterprises, employee-owned businesses, social firms, next-stage organisations, and sustainability enterprises, so long as they have both social and ecological missions and practices. Figure 9 highlights that SOHOs are oriented towards solving both ecological and social problems through market related practices, orientations which are typically the domain of different organisational fields, therefore making them hybrids. The circles are deliberately not closed as the gaps represent the lack of firm boundaries between the organisation and their "environments".

Figure 9: SOHOs are oriented towards solving both ecological and social problems through market related practices



Now we turn to outlining the main themes of the literature on SOHOs. These themes coalesce around four organisational dimensions: factors that drive and enable the creation and development of SOHOs; the actions and practices that SOHOs engage in;

their direct outcomes and broader impacts; and the barriers and challenges SOHOs face. Table 4 summarises the categories, sub-themes, methods and focus of the reviewed papers. All of these papers consider organisations with both social and environmental missions and that aim to reach these through market related mechanisms, and investigates issues like: why entrepreneurs create SOHOs (Gagnon, 2012; York, O'Neil, & Sarasvathy, 2016); the challenges to establishing SOHOs in different contexts (Hooi, Ahmad, Amran, & Rahman, 2016); how SOHOs challenge existing business norms and practices (Alberti & Varon Garrido, 2017; Haigh & Hoffman, 2014); and how a hybrid organisation such as an organic cotton production network learns to maintain its hybrid network and its sustainability in the face of internal and external pressures (Turcato, Barin-Cruz, & Eugenio Avila, 2012).

Table 4: Categories, subthemes, and illustrative papers

Main category	***Subtheme***	***Key papers***	***Methods***	***Focus***
Drivers and enablers	Micro (entrepreneurs)	(York, O'Neil, et al., 2016)	Qualitative	Theorizes why and how individuals engage in environmental entrepreneurship.
		(Choi & Gray, 2008)	Qualitative	Examines the venture development processes of "sustainable" entrepreneurs.
		(Gagnon, 2012)	Mixed methods	Explores the core values that drive sustainable minded entrepreneurs.
		(Meek, Pacheco, & York, 2010)	Quantitative	Develops and tests a model of the relationship between centralized and decentralized institutions on entrepreneurial activity.
		(Kibler, Fink, Lang, & Muñoz, 2015)	Qualitative	Revisits the sustainable entrepreneurship journey by introducing a 'place-based' sustainable venture path model.
	Macro (markets, industries, and other organisations)	(Cohen & Winn, 2007)	Literature review	Argues that four types of market imperfections (inefficient firms, externalities, flawed pricing mechanisms and information asymmetries) contribute to environmental degradation and provide significant opportunities for innovative business models.
		(Dean & McMullen, 2007)	Literature review	Demonstrates how entrepreneurship can help resolve environmental problems through the exploitation of opportunities inherent in environmentally relevant market failures.
		(Rossignoli, Ricciardi, & Bonomi, 2018)	Qualitative	Proposes a model that highlights the critical role of the bridging organization that can be introduced by the social entrepreneur in a previously fragmented organizational field.
		(Huybrechts & Haugh, 2018)	Qualitative	Found that to institutionalize new hybrid organizational forms, networks can contribute to overcoming the legitimacy

				challenges inherent in organizational hybridity
	Macro (politics, legislation, institutions, and cultural factors)	(David Gibbs & O'Neill, 2016)	Qualitative	Explores the narratives employed by green entrepreneurs to situate themselves within/outwith the wider green economy.
		(Pastakia, 2002)	Literature review	Presents a theoretical framework to assess the emergence of ecopreneurship in a given society or industry.
		(Rauter, Jonker, & Baumgartner, 2017)	Qualitative	Investigates business models for sustainability in order to better understand how they operate and what the drivers for developing these business models are.
		(Hooi et al., 2016)	Quantitative	Identifies the influencing factors of sustainable entrepreneurship among SMEs in Malaysia.
Actions and practices	Organisational practices	(Haigh & Hoffman, 2014)	Literature review	Defines hybrid organizations in relation to the strategic management and corporate sustainability literatures and set out ways in which hybrids challenge prevailing norms about economic growth, profit, nature, and society.
		(Yunus, Moingeon, & Lehmann-Ortega, 2010)	Qualitative	Traces the gradual development of Grameen Bank's expertise in formulating social business models, which require new value propositions, value constellations and profit equations, and as such, resembles business model innovation.
		(Muñoz & Cohen, 2017)	Qualitative	Proposes a new way to frame and understand the sustainable entrepreneurial process by elaborating on the notion of entrepreneurial synchronicity within social-ecological systems.
		(Haigh, Kennedy, & Walker, 2015)	Qualitative	Identifies why social entrepreneurs chose one legal structure over another and explains what motivates half of them to change their legal structure as they build their enterprise.
	Relationships and networks	(Diaz-Correa & Lopez-Navarro, 2018)	Qualitative	Analyses how organisations can implement a sustainability-driven hybrid business model to create positive social and environmental change.
		(Berno, 2017)	Qualitative	Explores the role of social entrepreneurs and the local food system in building community resilience.
		(Wheeler et al., 2005)	Qualitative	Researches self-reliant sustainable enterprises in developing countries with a network lens.
Outcomes and impacts	Micro outcomes	(Holt & Littlewood, 2015)	Qualitative	Outlines a methodology for hybrid organizations, and those that they work with, to qualitatively identify, map, and monitor the social, environmental, and economic impacts across different aspects of their activities through the building of contextually relevant indicators.
		(Pellicer-Sifres, Belda-Miquel, Cuesta-Fernandez, & Boni, 2018)	Qualitative	Explores the role of learning in promoting transformative strategies towards sustainability and develops a heuristic framework connecting ideas from social learning literature and Strategic Niche Management.
	Meso outcomes	(Glavas & Mish, 2015)	Qualitative	Investigates the market logic and practices of Triple Bottom Line firms to better understand how they fulfil missions and achieve goals.
		(Olofsson, Hoveskog, & Halila, 2018)	Qualitative	Explores business model innovation driven by sustainability issues at a social enterprise operating in the Scandinavian electricity retail market.
	Macro outcomes	(Partzsch & Ziegler, 2011)	Qualitative	Examines the role and authority of the social entrepreneur and their relation to water governance in general and the hydraulic mission in particular.
	Positive impacts	(Alberti & Varon Garrido, 2017)	Qualitative	Researches how hybrid organizations have developed commercially viable business models to create positive social and environmental change. Contends that hybrids

				are altering long-held business norms and conceptions of the role of the corporation in society.
		(Raufflet, Gouin, & Berranger, 2008)	Literature review	Identifies relevant models for innovative business-community partnerships to address poverty reduction and biodiversity reduction and proposes a first evaluation of these models.
		(Kearins, Collins, & Tregidga, 2010)	Qualitative	Examines the potential for visionary small-enterprise to operate with a fundamentally different conception of nature from the environmental management mode offered within the business case for sustainable development.
	Negative impacts	(Martí, 2018)	Literature review	Studies the multifarious unexpected impacts of business models, including a priori, well-intentioned ones that might end up not only neglecting "fringe stakeholders" but even further marginalizing them.
Barriers and challenges	Geographical and cultural	(Church, 2017)	Qualitative	Explores the perceptions of Brazilian women entrepreneurs concerning the approaches needed to build a sustainable business enterprise in Brazil.
		(Gunawan & Fraser, 2016)	Quantitative	To understand how to promote young and green entrepreneurship in Indonesia, where institutional support is limited.
	Financial and market	(Tilley & Young, 2006)	Literature review	Puts forward an argument for the existence of a fourth type of entrepreneur, namely the sustainable entrepreneur, and the barriers they face.
		(Kirkwood & Walton, 2014)	Quantitative	To understand more about ecopreneurs with respect to the way they manage their businesses whilst maintaining their commitment to the environment.
	Challenges with hybridity	(Jay, 2013)	Qualitative	Develops a process model of navigating paradoxes and finds that in sensemaking about paradoxical outcomes, actors grapple with the definition of success and can transform the organizational logic.
		(Ashforth & Reingen, 2014)	Qualitative	Finds that when a duality is embedded in an organization in the form of a hybrid identity, members may need to keep that duality in play over time rather than ‘‘resolve’’ it.
		(Turcato et al., 2012)	Qualitative	Investigates how an organic cotton production network learns to maintain its hybrid network and its sustainability in the face of internal and external pressures.

6.5.3. Factors that drive and enable the creation and development of SOHOs

Following Gast et al (2017) we grouped research on what drives and enables the creation and development of SOHOs into three categories, namely the micro, the meso, and the macro level. The micro-level pertains to the entrepreneur(s) that establish the organisation, the meso-level relates to markets, industries, and other organisations, and the macro level relates to politics, legislation, institutions, and cultural factors. This

research mainly stems from entrepreneurship and organisational and management research, but also includes socio-technical transitions and geographical perspectives.

Micro-level

The entrepreneurs behind SOHOs differ from traditional entrepreneurs as they seek to change society through addressing social and environmental issues through organised initiatives (Muñoz & Cohen, 2018b). They can be driven by immediate local environmental shocks and stresses, (Berno, 2017; Dutta, 2017), or wider green motivations, which makes them less likely to be constrained to actions within their own countries as they want to make the wider world a better place to live (Seyed & Rialp-Criado, 2018). They have been labelled as environmental champions (Taylor, Cocklin, & Brown, 2012); policy entrepreneurs (Huitema, Lebel, & Meijerink, 2011); transformative or visionary leaders (Olsson, Folke, & Hahn, 2004); institutional entrepreneurs (Grimm, Hofstetter, Muggler, & Peters, 2011; Jolly, Spodniak, & Raven, 2016; Tracey, Phillips, & Jarvis, 2011); or moral entrepreneurs (Antadze & McGowan, 2017). Additionally, they have been found to be an "unusual breed with unconventional backgrounds, who strategically obtain financing from non-professional sources and employ unorthodox, yet sound human resource management practices" (Choi & Gray, 2008, p. 1). They are also often good at marketing, efficient in the way they run their environmental operations (Choi & Gray, 2008), and have a more comprehensive set of relevant stakeholders (Schlange, 2006).

The values of the entrepreneurs has been considered particularly important in driving and enabling their actions, because values impact behaviour through their influence on cognition and attitudes (Hofstede, Hofstede, & Minkov, 2005; Rokeach, 1973; Schwartz, 1992). Therefore, understanding what values are the most salient can

help explain why individuals are attached to sustainability and create SOHOs in the first place (Gagnon, 2012). Values that are perceived as important when it comes to sustainability are: continuous improvement, frugality, holistic cognition, and morality (Gagnon, 2012). Other factors relate to the identities of the founders of SOHOs, which are based in both in commercial and ecological logics (York, O'Neil, et al., 2016), and their interactions with wider social norms (Meek et al., 2010). Additionally, entrepreneurs have been found to be influenced by attachments to the place where they operate, traditional entrepreneurs tend to be driven by instrumental attachment which relates to using the place, whereas entrepreneurs behind SOHOs are motivated by emotional attachment where they care about the place (Kibler et al., 2015).

Meso-level

Some researchers argue that a driver for the establishment and development of SOHOs is to address market imperfections, especially related to the fact that the current market externalises the social and environmental costs of economic activities (Cohen & Winn, 2007). These market imperfections have been identified as an opportunity for sustainable ventures (Dean & McMullen, 2007). Such perspectives focus on opportunity development and interactions with markets as key drivers and enabling factors for SOHOs.

Another key enabling factor for the development and success of SOHOs relates to the role of organisational networks and support organisations. For instance, bridging organisations can "develop an innovative co-creation logic that can serve as a common ground to enable collaboration between actors from diverse and even conflicting institutional logics" (Rossignoli et al., 2018). Whereas networks can contribute to key learning processes and help institutionalise and legitimise new organisational forms such

as renewable energy cooperatives (Huybrechts & Haugh, 2018). However, understanding the interactions within these networks and between actors and how they influence SOHOs is weak (Muñoz & Cohen, 2018b).

Macro-level

With respect to macro factors, it is clear that the dynamics that influence the emergence of SOHOs differ depending on where you are in the world. For instance, Mair and Martí highlight that "social entrepreneurship has different facets and varies according to the socioeconomic and cultural environment" (2006, p. 40). This especially relates to the narratives SOHOs engage in, as they change depending on circumstances, especially related to the state of the mainstream green economy discourse (O'Neill and Gibbs, 2016). As such, the impacts of SOHOs depend on how they adapt their practices and solutions to the cultures and contexts in which they operate (O'Neill Jr, Hershauer, & Golden, 2006). Furthermore, a key enabler relates to the power of the ostensible "discerning consumer" and a marked increase in societal and environmental awareness (Pastakia, 2002), which can motivate entrepreneurs to set up sustainable ventures or help existing ventures thrive. It can also influence the emergence of policies and regulations that all organisations have to comply with (Rauter et al., 2017), especially international environmental regulations (Hooi et al., 2016; Pastakia, 2002).

6.5.4. Actions and practices of SOHOs

This focus area mainly considers the actions and practices that SOHOs engage in, and how they differ from hybrid organisations and traditional business organisations. This relates to their organisational practices and the relationships they build with various stakeholders as well as how they engage with other organisations.

Organisational practices

The goal of SOHOs is not to become less unsustainable – e.g. by doing less harm – but to become more sustainable (Haigh & Hoffman, 2014), for instance by contributing to net positive effect as well as improvement and restoration of natural and social capitals (J. Robinson & Cole, 2015). As such, they design their businesses, economic models, and strategies in a way that allows them to address a particular sustainability challenge rather than "greening" existing practices (Nielsen & Samia, 2008). In so doing they "seek to create social and environmental improvements through their practices and products" (Haigh & Hoffman, 2012). They involve socially-oriented stakeholders, and are explicit about their intended social profits (Yunus et al., 2010). However, they can be similar to traditional business models in the way they innovate as they still require the formulation of new value propositions, value constellations, and profit equations (Yunus et al., 2010).

Research on sustainability venturing has found that some SOHOs can intentionally synchronise their venture activities with the natural cycles of the social and ecological contexts in which they operate (Muñoz & Cohen, 2017). The more embedded they are in the socio-ecological systems, the more likely they are to be synchronised or in tune with socioeconomic and biophysical cycles. A key example is *Planting Empowerment* a Panamanian-American forestry company who "works with Panamanian farmers living on deforested land to re-forest and generate sustainable household income" (Muñoz & Cohen, 2017, p. 2).

Furthermore, SOHOs use legal structures as a tool to serve their missions and to be economically sustainable, and these can change over time depending on needs (Haigh, Kennedy, et al., 2015). They can be legally structured as non-profit organisations or for-profit enterprises, or both, and often have cooperative ownership forms or are employee-

owned enterprises (Vickers & Lyon, 2014). Examples of legal structures and organisational forms include: Benefit-Corporations (or B-Corps) (Kurland, 2018; Liao, 2013; Nicholas & Sacco, 2016; Stubbs, 2017); small scale bottom up renewable energy cooperatives (Becker, Kunze, & Vancea, 2017); and green social cooperatives (Osti, 2012). Additionally, it has been highlighted that the way SOHOs are organised and run is often different from traditional organisations, especially related to being more democratic (Vickers & Lyon, 2014), recruiting suppliers and staff who are aligned with their values (Stubbs, 2017), and being more transparent with their goals and outcomes (Clark & Vranka, 2012).

Relationships and networks

SOHOs tend to have close and committed relationships with various stakeholders, distributors, and the local community (Haigh & Hoffman, 2014). This can mean that SOHOs "create close relationships with communities by employing local people, involving them in decision-making, training them in specific sustainable techniques (such as low impact agriculture and reforestation), and paying above-market wages that enable a better quality of life" (Haigh & Hoffman, 2014). For instance, this has been found to result in the building of social capital and stronger connections and a "spirit of trust and collaboration" (Diaz-Correa & Lopez-Navarro, 2018, p. 13), and the strengthening of local communities and increased natural resource awareness (Allen & Malin, 2008). There is evidence that SOHOs help build community resilience and social capital after disasters (Berno, 2017). There is also potential for building of social capital through multinational companies investing in community enterprises, such as in the water sector in Nigeria (Nwankwo, Phillips, & Tracey, 2007). However, their beneficial outcomes increase when they form part of networks such as the Sustainable Local Enterprise

Network (SLEN) which can result in outcomes such as "(1) profits and reliable returns on investment, (2) local economic development and trade, (3) enhanced quality of life, including human development and ecological enhancement, and (4) individual and community economic self-reliance" (Wheeler et al., 2005, pp. 35-36)

6.5.5. Direct outcomes and broader impacts of SOHOs

This focus area relates to understanding the direct outcomes and broader impacts of SOHOs and 40 of the 126 articles directly or indirectly address this. For operational purposes, we differentiate between outcomes and impacts as outcomes are often a finite and measurable medium term change that come about as a direct result of actions (e.g., production and sale of green products, renewable energy service, or social interventions), whereas impact are broader effects, and can be thought of as the longer-term consequences of an outcome. In this context, the outcomes and impacts relate to the effects SOHOs have on local as well as global socio-ecological processes and dynamics. Given the measurable and finite nature of outcomes we consider these on micro, meso and macro scales.

Outcomes

On the micro-scale, SOHOs and their practices have been found to generate both positive and negative outcomes for individuals and neighbourhoods in different contexts. Both positive and negative outcomes were highlighted by Holt and Littlewood (2015) who have carried out a comprehensive study on the outcomes and impacts of SOHOs in sub-Saharan Africa. They found that in their twenty cases all resulted in significant economic benefits for their respective stakeholder groups, including going beyond those who worked for the organisation and towards their families and communities. However,

they can also result in negative outcomes as found in the case of Cookswell (a SOHO in Kenya who produces, markets, and sells innovative energy saving charcoal and wood-fuelled stoves and ovens), such as insecure employment for workers, increased savings resulting in increased overall consumption, still some particle pollution and tree cutting, and no medical benefits provided to workers (Holt & Littlewood, 2015).

Furthermore, an outcome that has been found to emerge on the micro scale relates to learning in individuals that can come about as a result of the way SOHOs organise themselves. In a case study on *Som Energia*, a Spanish renewable energy cooperative, Pellicer-Sifres et al., (2018, p. 110) found that not only did first order learning emerge but so did second order learning where members started "questioning established values and reconsidering issues such as sustainability, power, justice and personal social relations". This is important as sustainability cannot be imposed, only learned (Tàbara & Pahl-Wostl, 2007), and therefore such learning outcomes could result in broader positive impacts.

On the meso-scale SOHOs have also been found to have beneficial outcomes on organisations, communities, cities and regions, including on local and regional markets as well as biophysical dynamics. This stems from the fact that SOHOs do not only consider their impacts on the contexts in which they operate but that they "proactively work to shape this" through "forming new markets, influencing peers, and changing societal perceptions" (Glavas & Mish, 2015, pp. 630-631). Furthermore, SOHOs "seek to diffuse acceptance of their business model throughout the institutions and markets in which they operate" (Haigh & Hoffman, 2014). They encourage emulation by other companies and see it as a sign of success and do not create barriers for other companies to follow in their footsteps as is common in the mainstream market. Therefore, when they enter new sectors and markets they often have significant outcomes on the markets

themselves as well as the incumbents within them as found by (Olofsson et al., 2018) in the Scandinavian electricity market.

The review found hardly any research on outcomes that SOHOs have on the macro scale, namely the national and international level. This includes a focus on global markets, systems of governance and wider socio-ecological dynamics. This highlights a clear gap.

Impacts

The literature has identified a number of broader and longer-term impacts, both actual and potential, that come about as a result of the actions and practices of SOHOs. One of the biggest potential impacts of SOHOs relate to changing institutions and the wider rules of the game (Haigh & Hoffman, 2014). Specifically, this relates to SOHOs contribution to changing the way people view and conceive of the role of corporations in society, away from corporations that treat profit as the only mission, towards enterprises focussing on making their socio-ecological missions profitable (Alberti & Varon Garrido, 2017). This has also been highlighted by Gismondi & Cannon (2012, p. 70) who argue that SOHOs are "shifting the definitions of sustainability in a paradigmatic way, introducing a combined ethos alongside a blended return on investment, placing the focus on deeper social transformation, which generates new questions at the grassroots and civic levels and suggests alternate policy directions for governments and institutions".

Furthermore, it has been found that SOHOs that have close interactions and focus on mutual benefit can result in more sustainable and stable long-term supply of natural resources (Haigh & Hoffman, 2014). When SOHOs partner with communities and governments they have the potential to help achieve a balance between humans and nature (Raufflet et al., 2008). This is linked to the fact that the entrepreneurs in visionary small-

enterprises have been found to "readily make connections between nature and their businesses and were aware of value judgments they made either in favor of nature, or with some regret against it where supporting infrastructure was absent, or economic rationalities prevailed" (Kearins et al., 2010). This nature-centred outlook has been considered a key element for businesses that are aligned with a new ecological paradigm (Kearins et al., 2010).

However, even though SOHOs might aim to create positive environmental and social impacts through their business models they have been found to also generate negative unintended impacts. Yet, only a few articles have investigated the negative consequences of environmentally and socially oriented business models thus far (Duke, 2016; Martí, 2018; Nahi, 2016; Sanchez & Ricart, 2010). Two categories of business models that can promote negative effects are: business models for oppression or depletion; and exclusionary business models (Martí, 2018). This is the case because they "reinforce power structures that marginalize the poor, deplete resources, or exploit particular communities; or conversely address specific societal problems, but unintentionally exclude some of the stakeholders they intend to positively impact" (Martí, 2018, p. 973). One example of an exclusionary business model is the waste collection and recycling scheme which is outlined as having beneficial outcomes on the micro scale earlier in the paper. These have been found to act as exclusionary as those residents that cannot pay for collection services are not included in decision-making processes and the focus shifts towards areas where people can pay for the service (Frediani, Walker, & Butcher, 2014).

6.5.6. Barriers and challenges

Barriers and challenges to the creation and development of SOHOs and their solutions was also a focus within the reviewed literature. This research is dominated by geographical and cultural challenges, market and financial challenges, and challenges associated with the hybridity of the organisations.

Geographical and cultural

This strand of work has included investigating barriers and challenges within different countries, including Indonesia (Gunawan & Fraser, 2016), the Philippines (Santiago, 2013), Finland (Ruggiero, Martiskainen, & Onkila, 2018), Turkey (Vatansever & Korhan, 2016) and Brazil (Church, 2017). For instance, in Turkey societal dynamics related to cultural and political heritage and lack of implementation of legislations were seen as a barrier (Vatansever & Korhan, 2016). Lack of environmental awareness in the general population in the country in question has also considered a key barrier (Church, 2017; Gunawan & Fraser, 2016). Such focus on place and context has been highlighted as very important in understanding SOHOs and their processes (David Gibbs & O'Neill, 2016). And entrepreneurship research has been criticised for a lack of focus on context and place (Muñoz & Cohen, 2017). There is also a lack of geographical diversity in current research on SOHOs, with the majority of the literature focussing on SOHOs in the Global North, particularly in the US and the UK.

Finance and market-orientation

Lack of, or inadequate, institutional and financial support is outlined as a substantial challenge and barrier for the creation and development of SOHOs (Church, 2017; Gunawan & Fraser, 2016). A bias towards other less sustainable forms of enterprise

and entrepreneurs has also been noted (Tilley & Young, 2006). SOHOs can experience a shortage of suppliers and market data as well as a scarcity of skilled workers and professionals (Church 2017). However, it has been argued that the barriers of entry for people wanting to become ecopreneurs is small due to the fact that they can run their green businesses "without really challenging entrepreneurship and current economic systems" (Kirkwood & Walton, 2014). It has also been argued that the current adopters of the B-Corp model are the 'low hanging fruit' due to their values already being strongly aligned with that of the B-Corp movement and that there is a lack of interest from "iconic, large and publicly listed companies" and that a reason for this might be a focus on financial returns by such companies (Stubbs, 2017, p. 343). Furthermore, Munoz, Cacciotti and Cohen (2018) found that if purpose is imprinted in an organisation before its business model is validated by the market it can end up being detrimental and reduce its potential success and societal benefit.

Challenges associated with hybridity

Although hybrid organisations apply multiple logics in order to gain support from different stakeholders and generate an organisational identity which balances between such logics (Battilana & Dorado, 2010), a great deal of research has found that hybrid organisations often drift away from their social and ecological missions towards commercial activities and as such need to manage the dualities and tensions associated with their hybrid logics (Lee & Battilana, 2013; Pache & Santos, 2013; Parrish, 2010; W. K. Smith, Gonin, & Besharov, 2013). It has been argued that hybrid organisations can "face unintended consequences of that institutional complexity… which may impede their efforts" to address social or environmental problems (Jay, 2013). It often becomes a "balancing act between short-term economic objectives and long-term sustainability

objectives" (Jolink & Niesten, 2015, p. 293). As such hybrids might have to maintain this duality rather than resolve it (Ashforth & Reingen, 2014). They have to manage it and one way of doing so is through learning how to "engineer a compromise among internal members and to enforce change among external institutions to maintain its sustainability" (Turcato et al., 2012, p. 38).

6.6. Discussion and future research suggestions

In this section we discuss some of the main insights revealed through the review which relate to the role and potential of SOHOs in contributing to sustainability transformations. Overall, changing mainstream organisations towards organisational forms such as SOHOs has the potential to be a significant intervention point for sustainability transformations as they breach the three spheres of transformations outlined by O'Brien & Sygna (2013). Interactions across the three spheres are considered to have the largest potential for non-linear transformations (O'Brien & Sygna, 2013). Organisational change is especially important because organisations are where behaviours and technical solutions are realised, where social systems and institutions are re-produced or evolve, and where individuals enact discourses and paradigms. Emerging organisational forms such as SOHOs could contribute to "explicitly transforming self and society by providing products and services in a way that is healing ecological, psychological, and social ills" (Reynolds, 2017, p. 141). As such, we support Haigh and Hoffman's (2014) assertion that they are a step in the right direction towards sustainability. However, as this discussion will show more research is required in most of the themes identified in order to better understand the role and potential of SOHOs in promoting transformations towards sustainability.

Much of the research related to the creation and development of SOHOs, mainly stemming from entrepreneurship research, has a very strong belief in the ability of entrepreneurs to enact positive change towards sustainability. However, such a belief has been criticised for not having a very nuanced view of individual and collective agency (O'Neill & Gibbs, 2016). Pacheco et al (2010) argues that sustainability-oriented entrepreneurs have the agency to alter or create new institutions in order to exploit sustainable opportunities and improve the competitiveness of sustainable behaviours. As outlined by O'Neill and Gibbs (2016) this implies that if only the world had more of these entrepreneurs, problems like climate change and social vulnerability would be solved. However, this tends to assume that entrepreneurs can choose a future for their organisation as well as for institutions and that they will succeed as long as they have the right capabilities, knowledge, and resources to confront their 'environments' (Mowles, 2016, p. 239). This strong view of entrepreneurial agency has been criticised for not being dynamic or based on empirical evidence, as well as not adequately paying attention to context but instead creating static categories of entrepreneurship (O'Neill & Gibbs, 2016). Alternatively, it has been suggested that green entrepreneurship should be viewed as relational and that its enactment depends on considerations of time and space. Entrepreneurs are not static, their narratives and the green entrepreneur's themselves change depending on circumstances, especially related to the state of the mainstream green economy discourse (O'Neill & Gibbs, 2016). This also relates to how entrepreneurs interpret and respond to the threat of socio-ecological problems (Haney, 2017). Therefore, researching narratives is important for understanding what actually drives sustainable entrepreneurs (Muñoz & Cohen, 2018a). Following this we suggest that SOHOs can be understood as representations of larger trends or discourses in society over time, such as sustainable development or the green economy, and its entrepreneurs are

frontrunners trying to experiment and learn simultaneously. Their orientation is towards sustainability rather than profit maximisation, but the outcomes of their actions are unpredictable and uncontrollable.

A debate is ongoing which relates both to the emergence of SOHOs and their actions and processes. Earlier work sees SOHOs primarily as value creating entities that emerge as a result of motivations to take advantage of opportunities such as market imperfections to address social and environmental problems (Cohen & Winn, 2007; Dean & McMullen, 2007). However, this approach has been criticised for not being able to explain the complex nature of this process (Muñoz & Cohen, 2018b). Muñoz & Dimov (2015) argues that this is due to the tendency of the literature to take a piecemeal approach to explaining the factors that influence the development of SOHOs instead of considering the venture process as a holistic analytical unit. Taking sustainable venture theory a step further into sustainability science, Muñoz & Cohen (2017) have argued that sustainable entrepreneurs need to be seen as embedded in socio-ecological systems as well as in economies, as this could lead to new insights regarding how opportunities for sustainability arise. We support this assertion and propose that the focus of research on SOHOs needs to shift from seeing the organisation as a separate social entity and instead be viewed as integral components of complex socio-ecological systems which means interrogating the socio-ecological processes and interactions they engage in. This follows suggestions for further research by Hockerts et al., (2018, p. 326) who argue that empirical research in this domain could research how venture processes "works in connection to social and ecological systems or the role some critical (yet unexplored) components may play in bringing the entrepreneurial process closer to or further away from both systems". Such a view moves beyond the focus on specific internal and external factors that influence the creation and development of SOHOs.

There is a great deal of optimism about the potential impacts and contributions SOHOs can make to sustainability transformations in the organisation and management literature, especially through the relationships between entrepreneurship and sustainable development (Hall et al., 2010). For instance, it is claimed that SOHOs can "solve social, economic, and environmental problems by using the entrepreneurial engine and the profit instrument" and ultimately make capitalism anti-fragile (Hysa, Zerba, Calabrese, & Bassano, 2018). However, the research related to the outcomes and impacts of SOHOs is characterised by a lack of frameworks and methods that are able to adequately measure and analyse the outcomes and impacts of SOHOs processes and activities, especially whether they are resulting in net-positive benefits for social and ecological systems. This poses serious limits on the ability to assess whether they are contributing to bringing about sustainability transformations. More rigorous theoretical frameworks and methods are needed.

Additionally, questions have been asked regarding whether SOHOs are able to address the systemic and underlying causes of global environmental change (Westley & Antadze, 2010). Identifying and addressing these underlying causes are deemed vital for achieving fundamental systems transformations (O'Brien & Sygna, 2013). If these underlying causes are not addressed SOHOs business models could result in the perpetuation of existing systemic problems and generate unintended negative effects. For instance, business models on waste collection and recycling have been found to promote a citizen as consumer model which does not encourage development of collective strategies to manage public spaces and instead perpetuates privatisation of basic services where social needs are transformed into market opportunities (Frediani et al., 2014; R. R. Sharma & Mukherji, 2015). In fact, these types of enterprises have been called 'neoliberalism by stealth' due to its contribution to the marketisation and privatisation of

the welfare state (Nicholls & Teasdale, 2017). As such, it is important to have a holistic view of what is considered net positive impacts and not only focus on proximate, and short-term positive outcomes as these could result in unintended negative impacts longer term and at higher scales. More research is needed on understanding root causes in different contexts and whether and how SOHOs are tackling the underlying root causes of issues like climate change and social inequality or are in fact perpetuating them.

Furthermore, the majority of the research that considers impacts on the system scale is conceptual and focuses on potential impacts of SOHOs rather than being based on empirical evidence. Therefore, more empirical research and improved framework and methods are needed to better understand whether the outcomes of SOHOs activities and processes are resulting in net-positive impacts for social and ecological systems and ultimately contributing to transformative change. This is not an easy challenge given the non-linear, cumulative, and complex dynamics associated with sustainability transformations. However, interesting research avenues in this domain could investigate whether SOHOs contribute to building transformative capacities in society, such as re-connecting social and natural systems, healthy human agency, and social cohesion (Ziervogel et al., 2016). This is important as such capacities have been identified as vital components in helping bring about sustainability transformations (Tàbara, Frantzeskaki, et al., 2018).

6.7. Conclusions

In this paper, we have introduced the term *Sustainability-Oriented Hybrid Organisations* as an umbrella concept for organisations that aim to address both ecological and social issues through market related measures. This term has enabled a systematic review of 126 scientific articles that bridges disciplinary divides and as such

highlighted what different fields say about these organisations and revealed previously unknown insights. Such a review is important due to the emerging and fragmented nature of this research and helps lay the groundwork for future research on SOHOs. We found that research on such organisations coalesce around four main areas, namely: the creation and development of SOHOs, the actions and practices they engage in, their direct outcomes and broader impacts, and the barriers and challenges they face. Certain limitations apply to this review which warrant consideration. Given the number of concepts and terms used for these organisations in different disciplines, this review does not aim to be so comprehensive as to have covered all the relevant articles. However, it is believed that the rigorous approach taken has revealed the main themes in the literature which has enabled consideration of how SOHOs could contribute to promoting sustainability transformations.

Although we argue that transforming organisations towards SOHO models has the potential to be a key intervention point for promoting sustainability transformations, the transformative effect of new business modes depends on the extend they can significantly change detrimental and toxic relationships between individuals, communities, societies, and biophysical systems and put them on positive pathways of development. Despite many SOHOs being designed with good intentions and positive impacts, these can also result in unintended negative consequences. These negative effects may derive from rebound effect of extending consumption to new populations or even excluding people and communities from ecological benefits now reserved for the few or exploiting poor distant communities for their cheap labour. Unless SOHOs are able to address these sustainability challenges using a truly global, long-term and socially-ecologically coupled perspective, their narratives and actions could well be perpetuating rather than addressing the underlying causes of systemic problems like climate change

and social vulnerability. If these negative consequences can be fully addressed, e.g. through institutional innovation and mobilisation, SOHOs could play a decisive role of organising collective action to push global systems towards regenerative sustainability.

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Chapter 7: The role of Sustainability-Oriented Hybrid Organisations in the development of transformative capacities: the case of Barcelona

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Submitted to *Cities*

7.1. Abstract

Organisations can play a decisive role in steering societies towards sustainable and regenerative pathways of development. However, little is known empirically about how they do so in practice. This research examines the role of *Sustainability-Oriented Hybrid Organisations* (SOHOs), which use market related practices to solve social and environmental problems, in building foundational transformative capacities that promotes regenerative sustainability. We further develop an existing framework and operationalise transformative capacities according to three critical dimensions: (1) reconnecting social and ecological systems dynamics in a way that is harmonious, healthy, and which regenerates life-support systems; (2) fostering healthy individual and political agency; and (3) contributing to building rich community relationships and enhancing social cohesion. Through this lens we explore the practices, activities, and strategies of nine SOHOs in and around the Metropolitan Area of Barcelona. We show that SOHOs are decisive in initiating the building of transformative capacities within communities but that their strategies and associated actions can harm the development of these capacities at the urban scale. We conclude that broader institutional innovations, enabling environments, as well as a continually adaptive and critical learning approach is needed to avoid unintended negative consequences arising from the actions of SOHOs.

Keywords: Global environmental change, hybrid organisations, sustainability, transformations, transformative capacities, cities

7.2. Introduction

Calls for fundamental transformations in the organisation of contemporary societies are growing due to the realisation that humans are inducing rapid negative and irreversible environmental changes on earths life-support systems, and that business-as-usual pathways of development will not only be insufficient but will make things dangerously worse. Deliberate transformations based on integrating grounded knowledge about sustainability solutions and strategies which work in practice are required. Such transformations involve fundamental and coordinated changes in multiple systems rather than incremental, partial and small-scale approaches (Feola, 2015). Issues such as climate change and new socio-ecological vulnerabilities call for taking such a systemic and ethical perspective as otherwise instrumental and bounded-rationality actions are likely to perpetuate existing structures, exacerbate, and extend negative impacts and vulnerabilities across the globe (Nalau & Handmer, 2015).

To promote transformations able to address the current pressures and challenges which have to do with the growing unsustainability of development and climate change, agents and institutions need to not only develop capacities to adapt but also capacities to transform. This entails capacities for individuals and organisations to transform *themselves* (e.g., the individuals within the organisations change their values, worldviews and beliefs which determine their consumption and action preferences and expectations) and their societies in a conscious and deliberate manner towards a world that is within planetary boundaries and where all forms of life flourish (Ziervogel et al., 2016). This goes beyond the doing less harm approach of mainstream narratives and instead promotes

regenerative sustainability and net-positive outcomes (J. Robinson & Cole, 2015). This also goes further than building capacities that enable adaptation to changes that are already underway or expected, such as those associated with climate change (O'Brien, 2012). Adaptation and adaptive capacities are likely to be insufficient now that the unsustainability of global system trends has reached the point where human impact on the biosphere have ushered in the Anthropocene era (Zalasiewicz et al., 2010). The challenge therefore is to understand and foster the development of *transformative capacities*, especially in urban environments, which are increasingly contributing to global unsustainability (Borgström, 2019; Hölscher, Frantzeskaki, & Loorbach, 2019; Hölscher, Frantzeskaki, McPhearson, et al., 2019; Wolfram, 2016; Ziervogel, 2019).

The importance of building transformative capacities becomes clear when considering that it is not possible to predict, if, when, how or where the accumulation of positive effects derived from sustainability-oriented actions will flip a broader socio-ecological system trajectory towards a positive pathway - or positive tipping points. However, it is possible to identify, characterise, and appraise what capacities could help the emergence of transformative solutions in different systems at different scales (Tàbara, Frantzeskaki, et al., 2018). In this research, building on a framework developed by (Ziervogel et al., 2016) three foundational transformative capacities are examined, namely: (1) reconnecting social and ecological systems dynamics in a way that is harmonious, healthy, and which regenerates life-support systems; (2) fostering healthy individual and political agency; and (3) contributing to building rich community relationships and enhancing social cohesion.

Sustainability-Oriented Hybrid Organisations (SOHOs) represent an emerging organisational form with the potential to help promote transformations towards sustainability (Haigh & Hoffman, 2012, 2014; Schaefer et al., 2015). This is due to their

core purpose of addressing both social and environmental problems whilst generating a sufficient amount of income which allows them to be economically viable and self-sustaining (Hestad, Tàbara, & Thornton, In Review-a). Or in other words, profit is not an end by itself, but a means to achieve their broader social and ecological purposes. There is a growing amount of research on these organisations (Alberti & Varon Garrido, 2017; Boyd et al., 2017; Haigh & Hoffman, 2012, 2014; Haigh, Walker, Bacq, & Kickul, 2015; York, Hargrave, & Pacheco, 2016), but empirical research into the actual and potential outcomes and impacts arising from their specific actions, processes, and strategies remains limited (Hestad et al., In Review-a). Therefore, the purpose of this research is to understand how SOHOs are supporting the building of capacities conducive to fostering sustainability transformations at the community and urban scale. Specifically, through the aforementioned framework and a case study approach we explore how practices, activities, and strategies of nine SOHOs in and surrounding the Metropolitan Area of Barcelona[7] support the development of these three foundational transformative capacities.

7.3. Transformative capacities for regenerative sustainability

Transformative capacities are both relational system properties of agents as well as of the systems themselves and therefore refers to "(1) the capacities and abilities of agents to transform the system (and themselves) deliberately and (2) the capacity, degrees of freedom and potential of the system *to be transformed* and induce continuous transformation – through learning and enhanced collective reflexivity" (Tàbara, Jäger, et al., 2018, p. 3). This means that transformative capacities can be developed at individual,

[7] One case (Som Energia) is based in Girona, north of Barcelona, but has local groups and hundreds of members in Barcelona

organisational, and societal scales as well as in relation to biophysical or socio-ecological and economic systems. In this sense, organisations are especially important, and often neglected in sustainability research, despite the very blunt fact that in contemporary societies all individuals meet their needs through organisations. Global systems accumulate and create new dynamics as a response to the effects, not necessarily expected or intentional, of actions and decisions taken within organisations. Organisations can therefore promote or hinder the development of capacities that help promote sustainability transformations in individuals, political institutions, or other wider societal structures.

Most of the research thus far on transformative capacities has focussed on the need to develop or improve urban governance capacities (Borgström, 2019; Hölscher, Frantzeskaki, & Loorbach, 2019; Hölscher, Frantzeskaki, McPhearson, et al., 2019; Wolfram, 2016; Wolfram et al., 2019; Ziervogel, 2019). Wolfram (2016, p. 126) defines urban transformative capacity as ‘‘the collective ability of the stakeholders involved in urban development to conceive of, prepare for, initiate and perform path-deviant change towards sustainability within and across multiple complex systems that constitute the cities they relate to’’. This requires things such as wide participation and inclusion, diversity of governance models, inclusion of intermediary organisations and individuals that bridge sectors and domains.

Although building transformative governance capacities, especially of local governments, undoubtedly is important, this paper follows the Ziervogel et al., (2016). conceptualisation of a set of reinforcing foundational transformative capacities that needs to be developed or strengthened in any context and at every scale in order to promote sustainability transformations. The existence of these capacities is likely to help enable the development of transformative urban governance. This framework was originally

developed and tested empirically through a transdisciplinary research project focussing on civil society, business, and government organisations involved in urban sustainable development in South Africa. This research revealed that a programme for unemployed urban youth, developed and supported by a range of stakeholders and organisations, was able to promote the development of transformative capacities in a local municipality in South Africa (Ziervogel et al., 2016). The building of the specific capacities are based on a view that they contribute "to a conceptualisation of human society and evolution that is deeply participatory and co-creative, and where each human being is viewed as a creative agent of change in their own right" (Ziervogel et al., 2016, p. 7). These foundational transformative capacities are not exhaustive but are seen as key due to their mutually reinforcing nature. If these capacities are unbalanced, or one is missing, then sustainability transformations are unlikely to eventuate. The existence of these capacities relate to the degree to which the wider socio-cultural-political environment is enabling for the emergence of sustainability transformations, especially in cities (Ma et al., In Review).

However, in order to promote sustainability transformations, it is critical to promote regenerative sustainability, wherever possible and worthwhile (J. Robinson & Cole, 2015). This focuses on sustainability being net-positive and maximising benefits (J. Robinson & Cole, 2015), as "merely eliminating further negative impacts is not enough" (Maggs & Robinson, 2016, p. 186). This applies a procedural view of sustainability (J. Robinson, 2004), where sustainability is seen as a process which is based on understandings and decisions about the nature of the world that is provisional. Below we adapt and further elaborate the framework originally provided by Ziervogel et al., (2016) in order to apply it to help understand and analyse the role that SOHOs play in building

transformative capacities for regenerative sustainability at the community and urban scale.

7.3.1. Socio-ecological re-connection

People living in modern cities do not produce their own food, collect their required water and resources for subsistence or manage their own waste, but rely on vast complex organisational and informational systems to provide such services (Morton, 2007; Mumford, 1970). The consequences of this physical disconnection, or "ecological alienation", is a "cognitive disconnection between people's understanding of the impacts of their activities and biophysical reality" (Ives et al., 2018, p. 4). Although the reasons for this physical and cognitive disconnection are complex, it has been argued that a growing division and specialisation of labour based on performing narrowly defined tasks away from direct biophysical experiences, characteristic of highly urban and industrial contexts, is an important contributor to it (Cumming et al., 2014; Lin et al., 2014). It has therefore been argued that re-connecting with what sustains us is an imperative for long term sustainability (Folke et al., 2011; Tàbara & Chabay, 2013), both with natural systems and man-made life support systems (Ziervogel et al., 2016) and that this is a basic precondition for learning how to leverage transformations in socio-ecological systems (Ives et al., 2018), especially to address problems like climate change.

Socio-ecological connections operate along a spectrum from external and material connections to internal ones that include emotions, beliefs, and worldview connections (Ives et al., 2018). In accordance with Meadow's conceptualisation of deep versus shallow leverage points to transform a system (1999), Ives et al., argue that addressing 'inner' connections such as philosophical and cognitive ones, is necessary and has the biggest potential to help bring about sustainability transformation. Strengthened 'outer'

connections, such as improved material and experiential connections resulting in shorter and more sustainable flows of goods and materials from nature which reduces environmental impacts, "can potentially play supporting roles, but, by themselves, are unlikely to bring about transformative change" (Ives et al., 2018, pp. 5-6). However, these dimensions interact with and are influenced by each other and need to occur simultaneously for sustainability transformations to occur with organisations being key social mechanisms that mediate such relationships.

7.3.2. Fostering healthy individual and political agency

We understand agency as the ability of people to impact and influence their world, either intentionally through choices or via the unintended consequences of their (bounded rationality) actions. Although humans are dependent on and conditioned by stable and continual social systems and the institutions they have created over time, they are capable of changing these systems deliberately (Westley & Antadze, 2010), particularly when their political rights and standing is recognised. It has been argued that transformations towards sustainability can be significantly accelerated if healthy individual agency is enacted as "everyone is part of a system, and everyone has a sphere of influence" in it (O'Brien, 2018, p. 158). However, lack of political autonomy and civic recognition can foster unhealthy agency where people see themselves as victims of organisational traps with little room to manoeuvre and enact creativity and self-realisation. As such, they are instead assigned the roles of passive and dependent consumers or employees (Scranton, 2015) in a larger structure of creation of means and products without understanding what such means or products are for. This lack of collective and individual agency may be compensated by a persistent focus on individual differentiation through consumption as a relative source of happiness (Ziervogel et al., 2016). In these conditions, individual

agency tends to be limited to what the social and economic division of labour restricts individuals to do rather than enabling a healthy enactment of agency where people actively and creatively engage in transforming and co-creating new forms of organisations and patterns of relating towards different societal goals, e.g. regenerative sustainability.

Empowering healthy individual agency can be achieved through building self-awareness and independence through reflexive practices, and by promoting compassion, introspection as well as undertaking complex tasks (Ziervogel et al., 2016), which often occurs in organisational environments. While it has been pointed out that various forms of entrepreneurial processes have transformative potential, its eventual realisation remains context dependent (Westley et al., 2013). This emphasises the need to understand the relationships and dynamics between agency and institutional contexts in fostering transformations towards sustainability and the role of political agency in these dynamics. Political agency relates to peoples "capacity to positively influence the collective future through transformative change" (O'Brien, 2015, p. 1170). Individuals and organisations can contribute to transformations through changing worldviews and behaviours but also through influencing systems and structures. Individual and collective change is deeply connected through the notion that individual actions, which might seem small, having widespread global effects due to the fact that cooperative behaviours of individuals can influence others within organisations or social networks (Xie et al., 2011). As such, "individuals can effect change by engaging with ideas, activities, and conversations that trigger reflection and collaborative action" (O'Brien, 2015, p. 1171). This makes the recognition and development of political agency of individuals inside and outside organisations a key transformative capacity for regenerative sustainability.

7.3.3. Building rich community relationships and social cohesion

Building rich community relationships and social cohesion within it enables people to trust and collaborate with each other based on a set of shared norms and values (Chan, To, & Chan, 2006, p. 298). However, social cohesion, may also lead to social exclusion if not managed in an open way, e.g. by taking advantage of the social learning and social innovation opportunities derived from including social diversity and new sources of values, knowledge, and reflexivity. Social cohesion and inclusion can promote sustainability through generating strong social networks which can help build resilience to climate related stress (Adger, 2003), generate reciprocity and trust which increases wellbeing (Putnam, 2000) and influence pro-environmental attitudes (Uzzell, Pol, & Badenas, 2002). In fact, it has been shown that social cohesion has been the most significant factor associated with community resilience to natural disasters such as earthquakes (Patel & Gleason, 2018). This is a reason why Ziervogel et al., (2016, p. 9). argue that "trusting one's neighbour is as much a survival imperative as re-connecting to the Earth systems that sustain life". Supporting local economies at the community level - now threatened by globalisation forces - has also been argued to be a key component for achieving sustainability transformations (Fazey, Carmen, et al., 2018). Some outline that the weakening of trust in some spheres may be due to processes related to globalisation (Chan et al., 2006), migration (Putnam, 2000) or new information and communication technologies which change how social relationships are being carried out (Beauvais & Jenson, 2002). Social cohesion is closely linked to social capital, but whereas social capital is mostly developed at small group levels, social cohesion often refers to larger scales such as in corporate organisations, communities, or societies (Klein, 2013).

A key feature of practices aimed at supporting social cohesion is an orientation towards the common good, and intangible and historical assets composed by collective

and individual civic rights and responsibilities which citizens feel the need to protect and constantly renew and extend (Schiefer & van der Noll, 2017). This includes new forms of hybrid solidarity being institutionalised through social welfare systems or directly through individuals willingness to give to charity and help others (Schiefer & van der Noll, 2017), e.g., through the creation of hybrid organisations. This common good orientation increasingly extends to embracing the rights and responsibilities towards the biophysical world provided the growing collective realisation of socio-ecological interdependences. In short, organisations can play a decisive role in fostering social cohesion by creating spaces where people can learn from each other, and overcome previously adverse relationships (Hamdi, 2004), although this is often conditioned by the extent they maintain an open dynamic structure.

7.4. Case context and research methods

7.4.1. The Metropolitan Area of Barcelona

The Metropolitan area of Barcelona, home to 3.2 million people, is situated in a region that has already experienced climatic changes and is expected to experience severe climate change pressures in the future, especially related to droughts and forest fires (Barros et al., 2014). Barcelona also suffers from high air pollution, traffic congestion and has a low ratio of green space per inhabitant compared to other European cities (Baró et al., 2014). The 2008 Global Financial Crisis and the austerity policies that came with it have also had severe negative impacts on the city for instance through worsening problems related to energy poverty, homelessness and unemployment (Castells & Hlebik, 2017; Royo, 2015). The crisis also increased income and wealth inequality (Anghel et al., 2018). Spain overall is one of the worst offenders when it comes to greenhouse gas emissions in Europe, increasing its own emissions by 17.9% between 1990 and 2017 (EU

Commission, 2019). This strongly indicates the need for transformations of key systems and social processes in order to make Barcelona more sustainable and equitable.

Barcelona and its wider metropolitan area is a unique place to explore the development of transformative capacities by SOHOs due to the innovative nature of the city and its organisations (Castells & Hlebik, 2017, p. 162). Social innovation has been especially driven by local movements, which were emboldened by the global financial crisis (Royo, 2015) with the number of SOHOs increasing, especially cooperative organisations (Ajuntament de Barcelona, 2017b). One of Barcelona's most innovative and largest social movements is the Social and Solidarity Economy (SSE), which focusses on changing the economic system towards one that is of service to people and provides for people's needs sustainably and equitably. There are over 4,718 initiatives in the SSE, most of which are cooperatives, and who together generate around 8% of the cities employment and 7% of its GDP (Ajuntament de Barcelona, 2017b). Additionally, the city has a growing number of social enterprises with a large number of incubators and start-ups, particularly related to IT and Smart City developments (Bakıcı et al., 2013). Given the growing number of SOHOs both within and beyond the SSE the question is whether and how these organisations are contributing to the development of transformative capacities in their communities and in the wider urban environment.

7.4.2. Case selection and data collection

This research is a part of a wider study on SOHOs and their role, abilities, and potential to contribute to transformations towards regenerative sustainability where nine SOHOs in and surrounding the Metropolitan Area of Barcelona are studied, along with their wider contexts. In this paper the focus is to study how these contribute to building the three transformative capacities outlined above. The nine organisations (see overview

in Table 5) were selected based on them fitting under the SOHO umbrella (having social and environmental missions and practices and engaging in market related activities that make them economically self-sufficient and sustainable), that there was indication of them having had positive impacts, that they were a micro or small and medium sized enterprise, and that they had ideally operated for more than five years.

Two workshops were held with sustainability stakeholders as part of the Horizon 2020 GREEN-WIN project in May 2016 and 2017, each with 16 participants, which assisted in identifying the case organisations. In addition, online searches and the snowball method was applied. Of the case organisations five of them are active members of the SSE whilst three are operate within the wider economy and identify as social enterprises. When an organisation aims to create social and/or environmental benefits though commercially related strategies they are defined as a social enterprise (Doherty et al., 2014). However, social enterprises often focus on either environmental or social missions, not both, but when they do, they fit under the SOHOs umbrella category. Interviews were carried out with between one to five people in each organisation (n= 14) as well as with experts knowledgeable about the wider socio-ecological and political context of Barcelona, Catalonia, and Spain (n=12). In total, 26 interviews were conducted. See annex V for details of these interviewees.

Due to the fact that this research forms part of a larger study, the same organisations along with some of the data that formed the basis for analysis in this article has informed the findings of an already published article (Hestad, Tàbara, & Thornton, 2020). However, to avoid redundant and overlapping publications (Martin, 2013), it has been made sure that the questions asked, the methodological approaches, and the results and concepts of the two articles are sufficiently novel and different from each other to warrant use of the same source material. Additionally, the two articles focussed on

different parts of the data, with the present article putting more focus on the sustainability expert interviews and the document analysis than the Hestad et al., (2020) paper where the organisational interviews were the basis of most of the analysis. Given the organisations are the same for both studies, Table 5 has previously been published in the aforementioned paper (Hestad et al., 2020).

Table 5: Key information about the studied organisations

Organisation	**Organisational model**	**Year established**	**Staff/members**	**Organisational mission**	**Data collection**
Som Energia	Non-profit renewable energy consumer cooperative	2010	~65 000 partners as of February 2020 68 staff	Change the Spanish energy model to achieve 100% renewables and democratize the energy system	5 interviews Participation in workshop Document analysis
Lacol	Non-profit worker owned cooperative	2009: Informal collaboration 2014: formal cooperative	14 partners	Work with architecture to promote social transformations, and use it as a tool to critically intervene in local environments	2 interviews Document analysis
Celobert	Non-profit worker owned cooperative	2010	7 partners 6 staff	Adapt or construct buildings with minimal ecological footprint and energy consumption, and build socially cohesive communities and neighbourhoods	1 interview Document analysis
La Borda	Social housing cooperative	2012-2017: planning 2017-2018: construction	50 residents 36 on waiting list 50 collaborators	Harmonizing the need for access to decent, social, affordable and environmentally sustainable housing with the will to promote new forms of coexistence and generate community through the interrelations between neighbours	2 interviews Participant observation and site visit Document analysis
Tarpuna	Non-profit worker cooperative	2002: Limited company 2012: cooperative	9	Social innovation at the service of the community, through local transformative projects with sustainability criteria	1 interview Document analysis
Unico	Second degree for-profit cooperative	2010	10 corporations and cooperatives ~70 staff/partners	Offer projects and integral solutions to improve energy efficiency and savings	1 interview Document analysis
InEdit	For-profit social enterprise	2009	~20	Engaging with organisations of tomorrow and accompanying them as they manage the changes that come with the circular economy	2 interviews Participation in workshop Document analysis
Eixverd	For-profit social enterprise	2015	~4	Improve social fabric, air quality and reduce carbon emissions	1 interview Participation in workshop Site visit

					Document analysis
Roots for sustainability	For-profit social enterprise	2010	3 partners 5 staff	Inspire and support sustainable enterprises with positive social and environmental impact	1 interview Document analysis

7.4.3. Data analysis

The lens and analytical framework of foundational transformative capacities was used to guide thematic analysis of the data from the nine case organisations. Both "interior validity claims (e.g., asking how one feels)" and "exterior validity claims (e.g., measuring what one does)" are required to assess transformative capacity (O'Brien & Hochachka, 2010, pp. 92-93). This research focussed on assessing a combination of the two through semi-structured interviews, document analysis, participatory observation, and site visits. Examination of exterior validity claims were further assessed through interrogating other studies focussing on quantitative measurements of the specific actions the organisations engaged in, as well as the twelve interviews with other sustainability experts knowledgeable about the efforts of the organisations, in order to triangulate the data. Specifically, the interviews with the sustainability experts were important to understand the wider context of Barcelona as well as getting outside perspectives on the actions and impacts of the studied organisations. The data was coded and analysed using NVIVO to identify whether and how the processes and actions of each SOHO contribute to building the identified foundational transformative capacities at the community and urban scale.

7.5. Results

7.5.1. Socio-ecological re-connection

To answer the research question of how SOHOs are supporting the development of capacities conducive to fostering sustainability transformations at the community and

urban scale, we started by analysing the activities and processes that the organisations engaged in. This revealed that their activities and processes can be grouped into a few categories, namely: designing and constructing sustainable buildings with local materials and using co-creation and participation methods; greening the city through activities like urban or peri-urban organic agriculture and/or gardening and green roofs; decentralised renewable energy commercialisation, generation, and energy efficiency; promoting a circular economy; and being member owned and run or having open organisational environments.

With respect to designing and constructing sustainable buildings with local materials and using co-creation and participation methods to do so (Celobert, Lacol, La Borda, and Tarpuna), it was found that these efforts contribute to developing the first of the foundational transformative capacity: socio-ecological re-connection. This particularly through improving material socio-ecological re-connections through more sustainable and shorter distances between resources and consumption. Projects such as La Borda also increase experiential re-connection with man-made life support systems through residents being a part of building their own homes. For the Tarpuna Foundation increasing various forms of socio-ecological re-connection, and especially cognitive and emotional re-connections, was an explicit goal for all of their activities as they see the role of their projects as *"weaving networks of relationships between people and nature"*(Ajuntament de Barcelona, 2017a, p. 1). However, for an interviewee from La Borda, conscious cognitive re-connection was not an explicit goal, instead his focus was on helping people live more sustainably without knowing it:

> *"La Borda is a platform for a transformative or sustainable lifestyle… It's a platform to make this lifestyle really, really easy. And for me most importantly it is not necessarily intentional or conscious". (La Borda)*

The second group of activities and processes related to greening the city through activities like urban or peri-urban organic agriculture and/or gardening and green roofs were promoted by the Tarpuna Foundation, Eixverd, InEdit, La Borda, Celobert, and Lacol. Some of these activities contribute to material re-connection through reducing food miles (A. Smith, Watkiss, Tweddle, & McKinnon, 2005), and experiential re-connection through greening the city, as well as helping promote the development of biophysical awareness and knowledge in others (Andersson et al., 2014). Eixverd was set up with the sole purpose of promoting and selling green roof systems in the city. Whereas InEdit, Celobert, Lacol and La Borda have had projects which include or relate to green roofs. This is especially important in Barcelona as it is a city with high building density, and as a result there is limited potential to increase green spaces on the ground level.

Tarpuna and Eixverd are well versed in local ecosystem dynamics and how to farm locally and share this through teaching with the aim to promote more pro-environmental attitudes, behaviours, and learning. Environmental and sustainability learning has been found to occur in similar initiatives like community gardens or micro nature reserves (Bendt, Barthel, & Colding, 2013; Tàbara & Pahl-Wostl, 2007) and can also build resilience capacities and social cohesion (Firth, Maye, & Pearson, 2011). The Tarpuna Foundation has helped establish 14 urban or social farming projects in or surrounding Barcelona with a focus on the therapeutic and emotional benefits their participants get from these projects. Specifically, in one of their projects called Revolta which focusses on promoting a circular agricultural process whereby farmers can directly pick up organic waste from customers, in this case schools, and use it as fertilisers on their farm, they found that this had: *"A great impact on the knowledge and the perception of the students of the process of management of the organic matter"* (Tarpuna, 2017, p. 1).

Decentralised renewable energy commercialisation, generation, and energy efficiency is the third major activity that several of the organisations engaged in (Som Energia, Celobert, La Borda, InEdit, Tarpuna). This contributes to generating shorter and more sustainable energy flows. Some of the activities also help promote experiential re-connection through including people in generating their own renewable energy and cognitive re-connection through increasing people's knowledge and awareness of energy consumption and the costs both environmentally and economically of consuming more energy than you need.

Furthermore, several of the organisations engage in circular economy activities which has the potential to promote material socio-ecological re-connection in the form of shorter and more sustainable flows of materials and resources from nature (InEdit, Tarpuna, Eixverd, Unico). InEdit works with major corporations as well as local governments to support a transition towards a circular economy and some of their projects are of significant size and potential such as helping fundamentally re-designing the business model of multi-national companies in different sectors towards one that is circular, sustainable, and profitable. This potential to positively develop socio-ecological re-connection at the urban scale can also be shown through the case of Som Energia which has grown from 100 members in 2010 to nearly 65 000 members and over 110 000 contracts in February 2020 with a goal to invest 100 million euros by 2020 in renewable energy generation, and as such it is reaching more and more people and is becoming an influential player in the renewable energy space in Spain.

7.5.2. Fostering healthy individual and political agency

Some of the activities and processes SOHOs engaged in were also found to help promote the fostering of individual and political agency both within and beyond the

organisations. Renewables decentralisation and production helps empower people to become prosumers rather than consumers as well as being more self-sufficient. Specifically, the members of Som Energia's local groups are empowered to help identify and suggest the development of new renewable energy projects in specific areas. The members of the cooperative were also invited and encouraged to invest directly in energy projects that will supply them with electricity as well as creating new renewable energy cooperatives as highlighted by one interviewee:

> *"Our interest is not to be a very big cooperative, our interest is to change the economic electricity market. And to do so, the best way is replicate our model or facilitate the growing of other cooperatives". (Som Energia, Interviewee A)*

An example of building and enacting political agency within and beyond the organisation also relates to Som Energia which spends no money on advertisement, instead the membership has grown through word of mouth and promotion by engaged members, especially in the local groups. There are currently over 60 local groups across Spain. Research conducted with people in these groups have revealed that they are experiencing second order learning where they questioned the current energy and political paradigm, became more aware of how political power influences energy systems, and how energy is linked with the climate change crisis (Pellicer-Sifres et al., 2018).

Som Enegia has also inspired the development of similar models in the mobility and mobile connectivity sector[8] as well as helped create other renewable energy cooperatives. Tarpuna, Roots for Sustainability, Lacol, and InEdit have also been involved in incubators that have produced dozens of sustainability related initiatives

8 In the mobility sector, Som Mobilidad aims to make the travel of their partners more sustainable and to reduce the number of cars in cities, and in the communication sector Som Connexio aims to transform the unfair, unsupportive and unsustainable business model of telephone and internet communication

which could lead to further development of transformative capacities at the urban as well as higher scales, which relates to their enactment and building of individual and political agency.

Another key process of the organisations relates to being either member owned and run or having open organisational environments. This is important as such cooperative environments promotes the enactment of healthy individual and political agency within the organisation. This was especially the case in the cooperatives which range from a completely flat organisation to a hybrid between horizontal and hierarchical, but where individuals have a clear voice and ability to instigate and enact new ideas or projects.

> *"So basically, all the decisions are taken by consensus". (Lacol)*

> *"It's not totally horizontal because it doesn't work but it's not totally pyramidal because it doesn't work either". (Celobert)*

Through these environments there are several examples of members creating new projects and organisations. For instance, UniCo, a second-degree cooperative, enabled the merging of two of their member organisations into a new non-profit cooperative called Energia por la Igualdad (EPI). EPI trades energy through bulk buying electricity and reselling at what they call good prices and earn commission through doing so from energy companies. The profits go towards fighting energy poverty through donating the money to energy poverty initiatives. The social enterprises were also found to have high degrees of openness with examples of more junior staff coming up with ideas and taking responsibility for their implementation.

> *"It's a very flat organisation, it was in the last year we designed the chart of the organisation, cause of the growth, needed to be more efficient decision making*

and clarifying who is responsible for the tasks that we need to define the chart, job description so that everyone knows their place". (InEdit)

"For instance, we offer them (junior staff) the opportunity to develop a strategic plan for an idea… for instance for impact metrics, you can define that, if this idea is really going well you can be managing this area…. and even develop new services in that area". (Roots for Sustainability)

Some of the organisations are also enacting and building political agency in a way that is changing legislations and promoting policies that can affect a greater proportion of the city. For instance, Lacol and La Borda contributed to changing the regulations of the City of Barcelona away from mandating that all social housing has underground car parks. They also helped develop the social housing plan of the city. The wider Social and Solidarity Economy can also be seen as enactment as well as a process of building of political agency and social cohesion where people come together under the guise of collective purpose and values and collaborate with each other to promote these. The SSE movement is growing within the city and now accounting for 7% of its GDP with increasing amounts of organisations focussing on both social and environmental problems (Ajuntament de Barcelona, 2017b).

7.5.3. Building rich community relationships and social cohesion

Our results further confirmed the interconnected nature of these transformative capacities, as outlined by Ziervogel et al., (2016). Specifically, we found that the creation and success of these organisations occurred through the enactment of healthy individual and political agency as well as strong community relationships and social cohesion. Additionally, they also further developed these capacities through their activities and especially the creation of new SOHOs. For instance, an interviewee from Lacol highlighted that:

> *"So, in the beginning we managed to resist during the crisis because we were young you could share apartments and we could survive with a small salary. So, we didn't have to ask for creditor debt. We could rely on our precarity to grow or to survive for a couple of years. During that time, we managed to find our clients but also to gain a name inside the Social and Solidarity Economy in Barcelona and in the neighbourhood, because we were tied to successful projects like in Can Batlló. We helped there as volunteers, in return we obtained some publicity for us. We did it as neighbours because we live here now". (Lacol)*

La Borda was the first sustainable social housing cooperative in Barcelona and has inspired several new sustainable social housing cooperatives in the city. Along with Lacol, a few members of La Borda started La Dynamo, an organisation supporting the establishment of social housing cooperatives. Celobert created a similar support organisation for cooperatives and are designing a sustainable social housing cooperative called La Cireres. Furthermore, these SOHOs emerged out of community initiatives or groups with strong social cohesion and has subsequently continued to build this. Lacol and La Borda was established by people engaged within social movement in the district of Sants, particularly in Can Battlo, and continue to be deeply engaged in and develop this community and its social movements. As an interviewee from La Borda highlighted:

> *"We build housing to build community. Our community of 40 something people who are going to live here we build community by giving back to Can Batlló. We build community by creating a network so that we end up like in Denmark, where 30 per cent of the housing market is owned by co-operatives and they are actually a market power to regulate prices... But what I think is also really transformative is this level of community in the house. La Borda, it's for me the social structure which is a physical structure for sustainability in the 21st century and also what this means is family… this is my family". (La Borda)*

The activities related to greening the city showed explicit actions oriented towards building rich community relationships, social cohesion, and inclusion. For instance, Tarpuna's urban farms involve communities setting up and managing gardens for their own consumption of food, sometimes also selling meals or produce if there is excess in

order to bring people together. Whereas their social farms focus on teaching people at risk of social exclusion how to run an organic farm and sell their own produce to make a living. Eixverd hires people with intellectual disabilities to manage several of their projects.

7.5.4. The importance of sustainability strategies

A key question of this research was to what extent these organisations built these transformative capacities at different scales, namely the community and urban scale, to which we found that this ability relates to the sustainability strategies they adopt as well as their hybrid nature. The processes and the groups of activities that the organisations engage in matter less than the rationales and practice of how they are implemented, which is tied to their overall strategies. We identified two predominant strategies.

The first strategy is adopted by the social enterprises who focus on greening existing business and institutional practices and thereby is more akin to conforming to the current system rather than fundamentally changing it. They work within the current economic system and collaborate with a range of organisations, especially large corporations, to help them become more sustainable. Despite all of these organisations aiming to address social and environmental issues through market related measures, financial profit is the main measure of success – i.e. how many projects they have had in the last year and how much money that has resulted in. It is believed that fewer and bigger projects will have bigger impacts.

> *"In total we are doing more projects, but they are larger as well. So, when we started in 2009 projects where for a few thousand euros, and then we were seeing dozens or tens of thousands and now we're starting to do some projects of hundreds of thousands. We want to head towards this, doing less projects but with larger impact." (InEdit)*

These organisations do not thoroughly monitor and evaluate the immediate outcomes of their projects nor do they consider the wider impacts of their activities which can compromise their ability to understand whether and how they are contributing to sustainability. The most common form of monitoring and evaluation that is or will be carried out by the organisations (Eixverd, InEdit and Roots for Sustainability) is energy and carbon audits which reveal and how much CO2 is emitted and saved through their projects which is only able to assess material re-connection.

The second strategy is adopted by the cooperatives who focus on going beyond reformist approaches to established practice and instead aim to disrupt the existing system and construct new economic, social, and political structures driven by people with the aim to fulfil human and environmental needs rather than maximising profits. In this way, they engage with markets in a different fashion through beyond-profit economic practices and view the economy as "a complex space of social relationships in which individuals, communities, and organisations generate livelihoods through many different means and with many different motivations and aspirations" (Miller, 2006, p. 13). With respect to these organisations there was little evidence to suggest that social cohesion and inclusion is being promoted beyond the community level, in fact polarisation might increase within the wider city and beyond as a result of the actions of these organisations. This is because the cooperatives tend to interact and collaborate with people who already share their worldviews, values and, sustainability strategies whereas the social enterprises engage more widely within the economy. Some of the case organisations also engage in enemy narratives.

> *"Some of the productive economy is reluctant to other types of social economy, that hires people with less skills or disabled. But the same time the other group of companies team together very much, they have an identity, belong to a collective*

of doing good, and see the productive economy as the enemy. Both need to lower their pressures or their references and collaborate more". (InEdit)

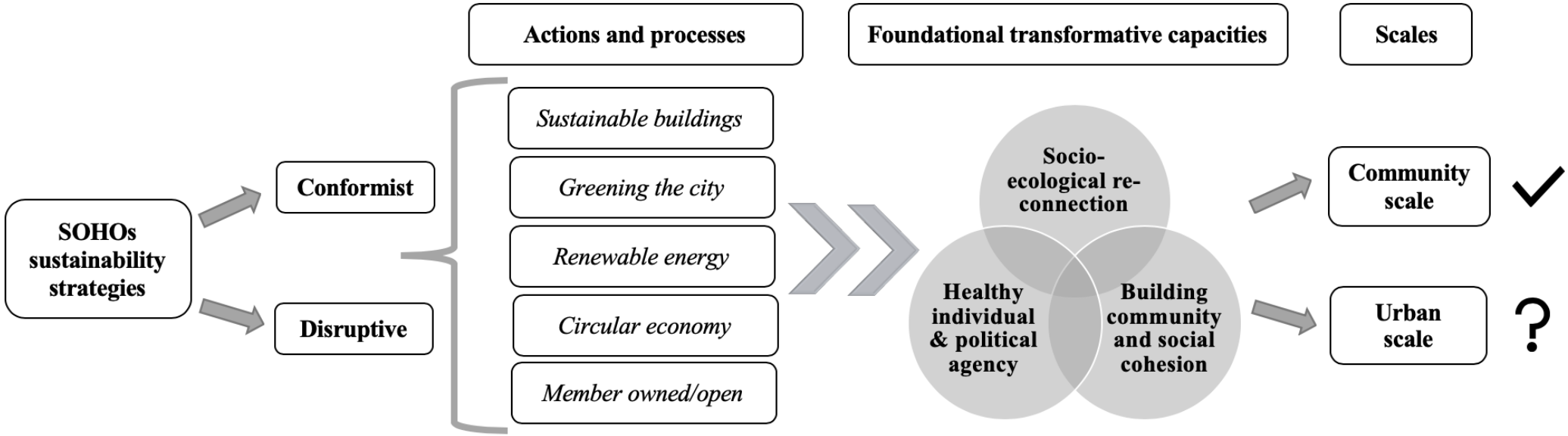
"So, we are quite integrated with what we call the third sector in general, foundations, associations etc… Actually, this third sector is a potential client to Celobert, most of these organisations prefer to work with architects and engineers who are a cooperative rather than someone in the normal market". (Celobert)

"The big ones (energy corporations) are the enemy". (Som Energia, interviewee B)

Evidence also showed that these organisations struggle with balancing social, environmental, and financial goals. This can be seen through the results of the *Balanç Social*, a voluntary reporting tool used to measure the social, environmental and good governance impact of the organisations involved in the SSE. In these reports, the environmental components are the factors that are answered the least or in an unsatisfactory way. This lead an interviewee from XES, an organisation supporting the SSE and manging the *Balanç Social* to say: *"There's this narrative of respecting the ecological limit of the economy, but at the same time there is a gap…. There's a gap between the values and practice"*.

Figure 10 showcases the theory of how the two identified strategies influences how SOHOs implement their activities and processes, and how these affect the development of the foundational transformative capacities at different scales.

Figure 10: The strategies and actions of SOHOs help develop foundational transformative capacities at the community scale but may compromise their development at the urban scale



7.6. Discussion

Our results show that SOHOs have the potential and effective ability to build transformative capacities within the immediate context of their organisations, especially in individuals, communities, and partner organisations. We suggest that the existence of transformative capacities within certain communities in turn help the emergence of the case SOHOs, which highlights the importance of these capacities. This is akin to a virtuous cycle or a positive feedback loop which are critical for the emergence sustainability transformations. And as will be outlined later in this discussion, a potentially significant intervention point for governments that are aiming to promote transformations towards sustainability is to create enabling environments for the emergence of such organisations to feed this positive feedback loop.

However, we found that the sustainability strategies and key activities that the organisations engage, as well as their hybrid nature, could be harming the development of these capacities at the urban and regional scale – which has implications for how SOHOs go about achieving their social and environmental missions. The two strategies we identified are the conformist strategy which is adopted by the social enterprises is aligned with ecological modernisation perspective (Hajer, 1995), and the disruptive strategy which fits within a more deep-green view of sustainability and is adopted by the cooperatives (Cato, 2012). Earlier research has found that such ecological modernisation policies as well as deep green visions and energies influence the growth of environmentally-motivated social enterprises (Vickers & Lyon, 2014).

With respect to the conformist strategy there has been considerable debate regarding the size and role that market based mechanisms can and should play in solving social and environmental problems at the societal scale (Hoffman et al., 2012). It has been argued that the unfettered and highly complex global market economy is a key source of

current unsustainability problems and that this needs to be fundamentally changed or curtailed by adequate governance systems (Pelling et al., 2012). Therefore, it has been questioned whether hybrid organisations such as social enterprises are only able to address the symptoms of environmental degradation instead of dealing with the ultimate driving forces and causes (e.g. capitalist markets) of the problems they are trying to address (Westley & Antadze, 2010). Hybrid organisations have also been found to focus mostly on win-win solutions whilst ignoring broader system tensions and trade-offs (Byl & Slawinski, 2015), despite the fact that there is likely to always be tensions and trade-offs between the environment and development as not everyone perceives win-win situations (Thornton et al., 2019). This often stems from the fact that many SOHOs are for-profit entities and – although they have considerable sustainability goals and missions – their ultimate success is determined by their financial profit. This 'mission drift' is common amongst hybrid organisations (Alberti & Varon Garrido, 2017; Busco, Giovannoni, & Riccaboni, 2017), including the SOHOs investigated in this paper, which can significantly influence their transformative potential and even perpetuate existing drivers of unsustainable trends of development like economic growth. This poses questions regarding their ability to develop meaningful socio-ecological re-connections. Furthermore, the focus on traditional means of success and growth applied by the social enterprises can make them neglect deep community engagement and consultation compromising their ability to promote healthy individual and political agency, as well as building community and social cohesion, beyond the community scale.

With respect to the disruptive strategy, it has been claimed that the Social and Solidarity Economy, which focuses on constructing an alternative socio-economic system "pushes the envelope of social and systemic transformation" through its emphasis on issues of redistributive justice, deep sustainability, participatory democracy and

emancipatory politics (Utting, 2015, p. 2). However, as the results showed, environmental sustainability, not to mention regenerative sustainability, is left by the wayside by many of the organisations within the SSE of Barcelona. Furthermore, since the cooperatives tend to collaborate with individuals and organisations that share their worldviews and values, and some engage in enemy and identity narratives, they are unlikely to build community and social cohesion with people or organisations that do not share their views. This is problematic as transformations towards sustainability likely require inclusion of different political ideologies, viewpoints, values, and experiences (Gillard et al., 2016). People, corporations, communities, and governments need to come together to develop new kinds of capacities to solve problems related to global environmental change – polarisation and divergence is not conducive to creating long-term solutions. For social cohesion and inclusion to be developed beyond the organisation and their communities, it is important that SOHOs contribute to overcoming persistent dualisms that can restrain sustainability such as 'us versus them', 'the present versus the future' or those that engage in creating enemy or identity narratives instead of contributing to creating spaces for sustainability reflexivity and sharing (Tàbara & Pahl-Wostl, 2007). To do so, SOHOs should endeavour to identify and act according to foundational and universal human values; those that bring people together rather than divide (M. Sharma, 2007). Understanding and acting according to the moral foundations of different political views can help avoid exclusionary identity politics and confrontational narratives and decrease polarisation (Haidt, 2012). As such, it is unlikely for these SOHOs to build transformative capacities beyond the community scale.

One reason for the limited ability of SOHOs to build these three capacities beyond the community scale relates to lack of institutional and legal arrangements that allow for the spread and support of such organisations as well as for monitoring and evaluating

their outcomes and impacts. For cooperatives[9], of which there are many different classifications[10], the legal and policy environment in Catalonia is considered enabling due to the existence of longstanding socio-cultural support and legal mechanism (Hooks, 2018; Lucas, 1994). Each of the regional autonomous governments in Spain have their own laws for cooperatives and it has been found that cooperatives in Barcelona engage with and receive significant support from local and regional governments (Hooks, 2018). However, the sector has a way to go before it adequately considers and integrates environmental sustainability in their practices and actions.

Additionally, Catalonia and Spain do not have specific legislation for social enterprise or related hybrid organisational models such as benefit corporations or limited community companies (Díaz Foncea et al., 2017). Social enterprises in Catalonia can choose between four main organisational models: for profit corporation, cooperative, work integration social enterprise, or social employment centre. As a result, a lot of SOHOs end up choosing a for-profit model. As highlighted above, this is problematic as these organisations put less focus on measuring and achieving their social and environmental missions as achieving profit is a legal obligation. The development and implementation of legal models such as Benefit-Corporations (US and Canada) or Community Interest Company (UK) might help address this problem. Such legal models have a dual mission of both profit and social and/or environmental value (depending on the model) and the existence of such models help legitimise these hybrid organisations

[9] Catalan law 12/2015 on cooperatives defines them as: "a business owned and controlled by people (natural persons or legal entities), that come together voluntarily to meet their common needs and economic, social and cultural aspirations through a jointly-owned and democratically-controlled enterprise. It is formed by a minimum of two partners, who will undertake their activity according to the corresponding type of cooperative business. Exceptions to this rule are consumer cooperatives and second-degree cooperatives, which must be made up of no fewer than ten natural person partners".

[10] Law 12/2015 on cooperatives have the following classifications: agricultural cooperatives, maritime, river, and lake cooperatives, insurance cooperatives, consumer cooperatives, credit cooperatives, teaching cooperatives, housing cooperatives, health cooperatives, service cooperatives, worker cooperatives, and integral cooperatives.

(Cetindamar, 2018). Such laws require the organisation to write down its specific benefits, for what and to whom they are accountable, and produce an annual benefit report prepared by a third-party standard to present their performance (Clark & Vranka, 2012), and directors can be sued by shareholders for not carrying out their mission (Cetindamar, 2018). Although there has been issues with enforcing benefit corporation laws (Cetindamar, 2018), and that issues with hybridity still persist, it has been argued that they can "expand the boundaries of the firm, create common pool claims to corporate resources, and compel a different analysis of the role of law to create incentives for effective management" (Hiller & Shackelford, 2018, p. 51).

The findings presented in this paper also have implications for research related to the development of transformative capacities. Previous research has highlighted the positive aspects of developing transformative capacities within and between organisations at the community scale and has also highlighted the interconnected nature of the capacities, which the results of this research also support (Ziervogel et al., 2016). However, our findings suggest that this might not be straightforward as tensions and trade-offs arise between the development of transformative capacities at the community and urban scale which could compromise the emergence of transformations towards regenerative sustainability in the long run. Understanding the role of different organisations in developing such capacities is therefore important, and future research should investigate how different organisations as well as governments can help overcome such tensions and trade-offs.

However, this study has not measured the development of transformative capacity over time, which is necessary to better understand the role of SOHOs in fostering regenerative sustainability. Therefore, more longitudinal research of SOHOs in different

contexts is required to better understand the dynamics between the development of these foundational transformative capacities at local and urban scales.

7.7. Conclusion

This paper has explored the role of *Sustainability-Oriented Hybrid Organisations* (SOHOs) in contributing to developing three foundational transformative capacities, namely: (1) reconnecting social and ecological systems dynamics in a way that is harmonious, healthy, and which regenerates life-support systems; (2) fostering healthy individual and political agency; and (3) contributing to building rich community relationships and enhancing social cohesion. Despite transformative capacities being urgently required to address accelerated global environmental change and to enable positive tipping points towards climate-responsible and sustainable trajectories, little has been explored empirically within the field of organisational studies or sustainability science to understand how this can be done in practice. The cases examined in this paper highlight that SOHOs thus far are more likely to develop the identified transformative capacities at individual or community scales where face-to-face relations and social capital can develop, and the existence of transformative capacities was found to help the emergence of SOHOs creating a virtuous cycle promoting sustainability transformations. However, the transformative impact of SOHOs appears to be limited at a broader systemic level and unintended negative consequences could emerge as a result of the strategies and actions they adopt as well as due to institutional and structural constraints. Two main sustainability strategies were identified. The first is a conformist strategy adopted by the SOHOs that have taken on a social enterprise model, which aims to green existing business and institutional practices. The second is a disruptive strategy adopted by the cooperative SOHOs within the Social and Solidarity Economy which aims to construct

new economic, social, and political structures. The SOHOs with a conformist strategy showed problems related to profit becoming their main goal thus compromising their ability to reach their original socio-ecological goals, especially at the urban scale. And the SOHOs with the disruptive strategy mostly engaged with individuals and organisations that share their worldviews and values as well as actively excluding interactions with government entities and corporations and thereby large parts of the population of the city. This could perpetuate pervasive "us versus them" dynamics compromising the dimension of building community and social cohesion at the urban and higher scales.

Therefore, we argue for a continually adaptive and critical learning approach by these organisations, for instance through developing consistent monitoring and evaluation systems that are able to assess their actual outcomes and impacts, according to their ethical missions and objectives. Such holistic and systems focussed monitoring and evaluation systems, based in complexity perspectives, could help promote legitimacy and trust in the ability of these organisations to promote regenerative sustainability beyond the immediate scope of the organisation. Furthermore, to increase the positive and transformative impacts of SOHOs, new enabling institutional frameworks and legal instruments are required. This could include the introduction of social enterprise legislations, such as Benefit-Corporations or Community Interest Companies, specifically adapted to the new hybrid, multi-objective forms these organisations take, and the complex local and urban contexts in which they operate.

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Chapter 8: Transcending unsustainable dichotomies in management: Lessons from Sustainability-Oriented Hybrid Organisations in Barcelona

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8.1. Abstract

Transformations towards more sustainable consumption and production cannot be achieved through mainstream organisational management rationales and practices. These management rationales and practices tend to impose rigid, fictitious dichotomies between what occurs internally within the organisation and what occurs 'out there' in biophysical systems, economies, and the broader social world. Such abstract divides not only create strong limitations on organisations' responsibilities to address the complexity of accelerated global change, but also further exacerbate unintended negative consequences on environmental sustainability. However, new organisational forms are emerging aimed at overcoming such split rationalities with the overall goal to couple in a more sustainable manner their daily organisational practices in relation to biophysical systems. In this inductive research, we ask how *Sustainability-Oriented Hybrid Organisations* (SOHOs) can successfully promote positive transformations towards sustainability. We analysed nine SOHOs in the Metropolitan Area of Barcelona and found that their transformative abilities relate to how they: (1) promote and apply complex socio-ecological worldviews where individuals and organisations are seen as integral components of socio-ecological systems; and (2) create enabling collaborative environments which include synergetic connections and substantive relationships 'beyond' the organisation. We found that the complexity of socio-ecological worldviews varies within the organisations which impacts

the consistency to which they implement sustainability-related activities and experience mission drift.

Keywords: organisational theory, hybrid organisations, sustainability transformations, sustainability science, Metropolitan Area of Barcelona

8.2. Introduction

Sustainability can fundamentally be seen as an organisational challenge. Throughout history, humans' ability to collaborate and organise around common needs or myths has been key to human development (Harari, 2014). The growth of economic and political organisations – such as corporations and governments – have also boosted the growth of bureaucratic regulations and organs designed to facilitate organisational goals according to their own logics and distributed responsibilities, including that of exploiting global resources. This organisational evolution, which includes specialisation and divisions of labour, has not only helped clarify the scope of individuals' actions in increasingly complex societies but it has also limited peoples' duties – and that of the organisations in which they operate – to their contractual obligations (Grey, 2017). In what could be considered a 'Weberian tragedy' (Weber, Roth, & Wittich, 1978), the human capacity to organise every aspect of contemporary societies is leading to a situation where humans are rationally organising (e.g., through perpetual economic growth targets) social institutions towards an irrational end (e. g., societal and ecological destruction).

This is linked to the fact that, too often, situated and bounded organisational rationalities do not take into account larger socio-ecological systems, thus separating the organisation, its resources, as well as cultural and managerial practices from biophysical

and socio-economic systems. This is especially the case with respect to corporations, which facilitate ideological and cultural detachment or a rift from the biophysical world and allow for the dissipation or removal of responsibilities derived from their environmental impacts (Foster, Clark, & York, 2011). Limited Liability corporations is an example of this where personal liability is limited and instead it is the social construct of the corporation that is responsible and, in some places, even have the legal rights of a person. This enables corporations to externalise costs, remove personal responsibility from the equation, and can act as an incentive for risky behaviour (Maizes, 1996). For instance, the 100 companies that are responsible for 71% of industrial greenhouse gas emissions since 1988 (Griffin & Heede, 2017) are not taking requisite responsibility or being held accountable for the considerable damages that result from their actions. This situation, in the case of the 'risk society' has already been described as the collective organisation of irresponsibility at unprecedented scales (Beck, 2009). The negative effects of such rigid organisational dichotomies are especially apparent with respect to climate change, where failing to resolve conflicting rationalities between individual or corporate responsibilities and the rights of future generations or the preservation of the global commons could have negative effects that could last for millennia (Field, Barros, Mach, et al., 2014). This is perpetuated by the tendency of many organisational scholars to want to remain "within" the organisation when carrying out their research (Czarniawska, 2013), thus not seeing the consequences of the actions of the organisations they study.

In contrast, new forms of sustainability-oriented organisations are emerging which aim to overcome such split rationalities and practices and to couple in a more harmonised and ethical way organisational worldviews and activities with broader sustainability goals. This is especially the case with Sustainability-Oriented Hybrid

Organisations (SOHOs) which it has been suggested are more likely to engender genuine steps towards sustainability transformations (Haigh & Hoffman, 2012, 2014; Schaefer et al., 2015) and have been found to be decisive in supporting sustainability transformations at local scales (Hestad, Tàbara, & Thornton, In Review-b). SOHOs is an umbrella term for organisations that "use a mixture of market and mission oriented practices, beliefs and rationales to tackle social and ecological issues, while generating a sufficient amount of their income from trading in goods or services to allow them to be economically viable and self-sustaining" (Hestad et al., In Review-a, p. 3). It has also been suggested that they challenge unsustainable dichotomies such as those between biophysical systems and human systems (often referred to as 'nature vs society') by promoting diversity and quality environments and bringing "traditionally external elements into their value creation systems" (Haigh & Hoffman, 2014, p. 223). A good example of a SOHO is *Planting Empowerment* which is a Panamanian-American forestry company which partners with farmers to reforest degraded land and generates sustainable incomes for the households. It has been put forward as an example of a SOHO that is aligned with socio-ecological systems and that is synchronised and embedded in these systems (Muñoz & Cohen, 2017).

There has been growing amounts of research on SOHOs within multiple fields, especially in social, environmental, and sustainability entrepreneurship (Hestad et al., In Review-a). However, the literature has been characterised as disparate, with a wide range of different terms used to refer to them and a number of conflicting findings and analyses (Boyd et al., 2017). Despite much of this literature having made great steps towards understanding SOHOs abilities to create social, economic, and environmental value (Hall et al., 2010), and understanding the tensions and mission drifts that are prevalent in such organisations (Battilana, Sengul, Pache, & Model, 2015; Schmitz, 2015; Siegner, Pinkse,

& Panwar, 2018), it has been criticised for being compartmentalised and not adequately considering the intimate connections between SOHOs and their socio-ecological context (Muñoz & Cohen, 2017). This relates especially to the mainstream focus on understanding SOHOs through the lens of separate internal and external factors that influence the actions and success of SOHOs (e.g. Kiefer et al 2018). Instead, more dynamic and holistic theorising is required to understand why and how these organisations might be able to help support positive transformative change towards sustainability. Sustainability transformations involve a fundamental change in socio-ecological systems which addresses the root causes of unsustainability and have been called for in order to tackle current unsustainable trends of development (Barrett, 2013; Matyas & Pelling, 2015; O'Brien, 2012; Winkler & Dubash, 2016), especially in cities (Ernst, de Graaf-Van Dinther, Peek, & Loorbach, 2016). To answer this question we utilise inductive research methods, specifically the Gioia methodology, which is a systematic and "holistic approach to inductive concept development" (Gioia et al., 2013, p. 17). We do this through exploring the missions and practices of nine SOHOs in the Metropolitan Area of Barcelona, which has a growing number of SOHOs whose actions have been found to help promote sustainability transformations at local scales (Hestad et al., In Review-b).

The paper proceeds as follows. First, we review contemporary management theory in relation to the consequences of unsustainable managerial dichotomies for achieving sustainability goals. Then, we look at new perspectives and practices that challenge these, namely SOHOs working in different domains of economic production, mostly in urban environments. Thirdly, we outline the case-study contexts, the methods used in the exploration of the selected organisations before outlining our findings relating to the SOHOs abilities to promote and apply complex socio-ecological worldviews where

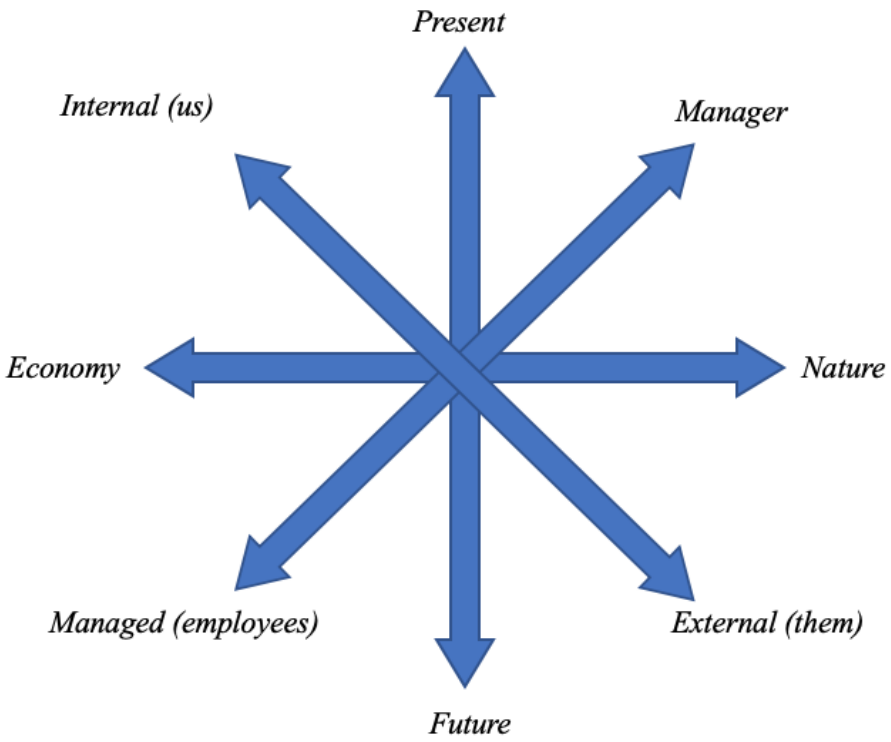
individuals and organisations are seen as integral components of socio-ecological systems; and create enabling collaborative environments which includes close and constant relationships 'beyond' the organisation. Lastly, we consider the implications of these findings for both organisational theory and practice, especially how SOHOs could help transcend existing unsustainability dichotomies in management and help promote transformations towards sustainability, including if they are able to overcome tensions and mission drifts within the organisation.

8.3. Unsustainable managerial dichotomies

Classical organisational theory, mainstream management literature and practice has contributed to the creation and perpetuation of a range of unsustainable and artificial dichotomies and conflicts between different kinds of rationalities (Merton, 1936) resulting in numerous unintended negative consequences of social action. In classical organisational theory (the remnants of which is still prevalent in today's mainstream organisational management research and practice), workers are often seen as participants of an economic treadmill operating in an environment of perfect competition that can be managed towards increased productivity, efficiency and profitability through levers such as culture, values (Smircich, 1983), or financial incentives (Braverman, 1998). Theories and practices within such approaches tend to promote bounded instrumental rationalities where the focus is on efficiency of means rather than the efficacy of the ends (Shenhav, 1999). This has contributed to dichotomies which include pitting the present against the future (for instance through high future discount rates), 'us versus them' (the organisation's goals take priority over the goals and wellbeing of people and other organisations), 'the manager versus employees' (leaders manage and control employees towards desired outcomes) or the 'economy versus nature' (economic growth against

ecosystem health or environmental sustainability) (Latour, 2012; Tàbara & Pahl-Wostl, 2007). These dichotomies are increasingly ingrained in management theory and practice and are contributing to the perpetuation and accumulation of unintended negative consequences on global ecosystems including climate change, the neglect and destruction of biodiversity, and increased social inequalities (Grey, 2017). Figure 11 depicts the how the aforementioned unsustainable dichotomies are opposites.

Figure 11: Unsustainable dichotomies prevalent in management and organisation research and practice



Key amongst these dichotomies is a widely held belief that when organisations engage in activities to achieve their goals they are influenced by internal and external factors. This belief creates an artificial division between the resources, culture and practices within the boundaries of the organisation and what occurs 'out there', e.g., in biophysical systems, the economy and the social world. It is recognised that internal and

external factors influence each other but conventional management practices such as management control systems (Guenther, Endrikat, & Guenther, 2016; Lueg & Radlach, 2016), and human resource management (Bratton & Gold, 2017) assumes that organisations, people and the "environment" somehow can be controlled towards desired ends by the use of specific strategies, which in turn can be formulated in advance by expert managers or leaders with the right skillsets (Mowles, 2016).

On the one hand, key external factors that are considered to influence organisations relate to regulations, environmental shocks and stressors, partnerships, and wider socioeconomic trends including consumer preferences, market imperfections or market collapse (Cohen & Winn, 2007; Dutta, 2017; Gliedt & Parker, 2007; B. J. Gray, Duncan, Kirkwood, & Walton, 2014; Pastakia, 2002). This view of external factors perpetuates the long held view that social and ecological systems operate separately from organisations, and especially corporations (Haigh & Hoffman, 2014). In traditional management theory 'nature' or more specifically biophysical systems are merely seen as a production factor, as limitless "bundles of resources" to be exploited (Shrivastava, 1994); or as a sink that can absorb all kinds and quantities of waste (Cohen & Winn, 2007; Hart, 1995). Thus, natural ecosystems have little intrinsic value other than for their extrinsic utility (Bell et al., 2012). The consideration of scarcity in natural resources can even be a valuable resource attribute as it can help a company be competitive if it is the first in acquiring, substituting, or transforming it into a profitable commodity (Barney, 1991). Notably, this internal/external dichotomy is also prevalent within corporate sustainability literature as it is used to analyse how organisations interact with the "external" systems within which they operate such as the economy, nature, or institutional environments (Byl & Slawinski, 2015; Corbett et al., 2018; Milne & Gray, 2013).

On the other hand, internal factors including organisational capacities, culture and resources are seen to influence organisations ability to act and be successful within the "environment" in which they operate. It is often assumed that: "…managers and leaders can choose a future for an organisation, which includes choosing the right culture and behaviour for its employees. They do this by applying technical skills to analyse and diagnose what the organisation needs in order to make it evolve and fit with its environment." (Mowles, 2016, p. 239). As long as an organisation, and especially its leaders, have the right capabilities, knowledge and resources to confront the 'world out there' the organisation will succeed. This conventional view of management is increasingly criticised, especially by scholars within critical management studies (Etzion, Gehman, Ferraro, & Avidan, 2017; Grey, 2017), as well as by complexity based organisational management perspectives (Stacey, 2003; Stacey et al., 2000). These perspectives challenge the notion that it is possible to 'manage' or control people and systems, to plan and implement organisational change, and that there is a divide between internal and external organisational dynamics. For instance, the theory of *complex responsive processes of relating* holds that change within and beyond an organisation cannot be designed, planned, and implemented in the way commonly prescribed in management research as too much is occurring at the local interpersonal level which cannot be controlled (Stacey, 2003; Stacey et al., 2000). Instead, they argue that micro interactions within and beyond the organisational realm often result in unpredictable patterns with unknown outcomes both at organisational and societal levels (Stacey, 2003; Stacey et al., 2000). Furthermore, conventional management approaches have been criticised for not being able to tackle large-scale sustainability issues due to the fact that the necessary precondition for the application of such approaches, such as organisational goals being attained through orderly and linear planning, acquisition, execution, and

monitoring, is simply not present (Etzion et al., 2017). Conventional management could instead be counterproductive to sustainability because the focus on pre-selected goals, ready-made plans, and linear processes could cause managers to overlook emerging solutions (Svensson et al., 2011).

Additionally, conventional management approaches tendency to think of an organisation as separate from context has also been criticised as "organisations are both a cause and a consequence of, and so inseparable from culture and economics" (Grey, 2017, p. 106). In fact, it has been argued that organisations cannot be viewed separately from either social or ecological systems, they are instead integral components of both (Hockerts et al., 2018). This suggest that there are no clear borders between internal and external organisational dynamics, especially considering that individuals move between different organisations on a daily basis and are always a part of complex broad socio-ecological dynamics.

8.4. Sustainability-Oriented Hybrid Organisations

Due to increased awareness of the growing complexity and interconnectivity of both global and local challenges, a new cohort of entrepreneurs are creating many different organisations that fit under the SOHO umbrella and which have the potential to challenge these dichotomies. This relates especially to their tendency to "develop business models that consciously internalize elements of the social/and or natural systems in which they exist" (Haigh & Hoffman, 2014), and as such moves beyond the triple bottom line approach, commonly applied by larger corporations, which has been argued to practice a "change-but-no-change rhetoric for sustainability" (Milne & Gray, 2013, p. 14). It has been argued that such sustainable business models "can serve as a vehicle to coordinate technological and social innovations with system level sustainability"

(Bocken, Short, Rana, & Evans, 2014, p. 44). However, a significant amount of research has identified that SOHOs often experience considerable challenges with achieving their goals due to tensions arising between their multiple goals and organisational logics (Battilana et al., 2015; Mangen & Brivot, 2015; W. K. Smith et al., 2013). The reality of the organisation often becomes a "balancing act between short-term economic objectives and long-term sustainability objectives" (Jolink & Niesten, 2015, p. 293). As such, the complexities of their institutional logics can get in the way of them addressing social and ecological problems (Jay, 2013).

Despite this, it has been argued that they still have the potential to overcome unsustainable dichotomies and challenge the notion of organisations as separated from their "environments" (Haigh & Hoffman, 2014). However, research on these organisations so far has had a tendency to perpetuate the internal/external divide. Considerable amounts of research related to SOHOs tends to be compartmentalised and the "intimate connection between their enterprising actions and the human and biophysical context is absent" (Muñoz & Cohen, 2017, p. 2). Instead of SOHOs being seen as integral components, intimately embedded and synchronised with socio-ecological systems, they are often seen as value-creating artefacts, where their socio-environmental context are "frequently treated as the sources of problems, the beneficiaries of the solution or the institutional environment facilitating or constraining entrepreneurial action" (Muñoz & Cohen, 2017, p. 2).

Specifically, research on SOHOs tends to perpetuate the internal/external dichotomy through research focussing on things such as: (i) how sustainable ventures arise out of entrepreneurs' awareness of the imperfections of existing markets (Pacheco et al., 2010); (ii) the role of government incentives (Meek et al., 2010); the influence of social norms (Meek et al., 2010); (iii) organisational design and processes (Parrish, 2010);

(iv) the role of business model designs in achieving sustainability related goals (Hahn, Spieth, & Ince, 2018); (v) wider institutional environments (Dean & McMullen, 2007); (vi) the role of entrepreneurial orientation, social salience, and business planning (Cheah, Amran, & Yahya, 2019); (vii) organisational capabilities for sustainable innovations (Berkowitz, 2018); and (viii) the influence of wider social and environmental problems and contexts (York & Venkataraman, 2010). Furthermore, some authors specifically use the term internal and external factors when conducting their research, such as Kiefer, Del Río González, & Carrillo-Hermosilla., (2018, p. 1) who argues that firms are influenced by "internal factors (resources and capabilities) and external factors (e.g., regulation) when taking the decision to eco-innovate" and investigates how internal factors such as resources, competencies, and dynamic capabilities influence eco-innovation.

Some research has helped depict a more nuanced picture of such organisations. For instance, through researching the Planting Empowerment SOHO highlighted in the introduction, Muñoz & Cohen (2017) have shown that such organisations are deeply embedded within socio-ecological systems and succeed through synchronising their entrepreneurial rhythm with both biophysical and socioeconomic cycles. Through another study of SOHOs in Barcelona, it has been found that such organisations have the ability to help promote sustainability transformations through the development of a set of foundational transformative capacities, especially at the community scale (Hestad et al., In Review-b). This relates to capacities such as socio-ecological re-connection, healthy individual and political agency, and community and social cohesion (Ziervogel et al., 2016). This is significant as such capacities are vital for developing transformative sustainability solutions (Tàbara, Frantzeskaki, et al., 2018). However, research has not considered how SOHOs can successfully promote sustainability transformations in practice. Furthermore, research has also not considered empirically how SOHOs' modes

of operating might help overcome the unsustainable dichotomies outlined above in management research and practice. As such, this research aims to both improve theoretical understandings and actionable knowledge on these two topics.

8.5. Methods

8.5.1. Research context and case selection

Barcelona and its wider metropolitan area is an interesting context in which to study SOHOs due to the innovative nature of the city (Castells & Hlebik, 2017) and it large number of hybrid organisations (Ajuntament de Barcelona, 2017b). The Social and Solidarity Economy (SSE) is one of the most prominent of the alternative cultures in the city, emerging out of social movements, particularly associated with the World Social Forum (Bergeron et al., 2015). The SSE is an umbrella term for "forms of economic activity that prioritise social and often environmental objectives, and involve producers, workers, consumers and citizens acting collectively and in solidarity" (Utting, 2015, p. 1). Barcelona has 4,718 SSE initiatives, which represent 2.8% of the total number of enterprises in the city and generated around 8% of the cities employment and 7% of its GDP (Ajuntament de Barcelona, 2017b). Most of these organisations can be classified as hybrid organisations as they operate across public, private, and non-profit logics aiming to solve environmental or social problems through market related mechanism, with nearly 70% of organisations practicing environmental sustainability through waste management, energy saving or renewable energy generation (Miró & Anna Fernàndez, 2016). However, the financial crisis resulted in various levels of Government and civil society pushing environmental and climate change action down the agenda, which might be why there were not many organisations within the SSE that fall under the SOHO umbrella when this research took place. Other than the SSE, the city is considered an emerging hub

of social entrepreneurship with a large number of incubators and start-ups in different sectors, especially IT, Smart City development and increasingly sustainability (Bakıcı et al., 2013). SOHOs in Barcelona are mostly cooperative legal entities, which can be both for or non-profits, or for-profit enterprises due to the lack of official hybrid legal forms in Spain. Examples of hybrid legal forms include Benefit-Corporations (or B-Corps) in the US or Community Interests Corporations in the UK.

The article uses comparative case studies which are contrasted against each other to allow for theoretical development (Eisenhardt, 1989). The research forms part of a larger study on SOHOs and their role, abilities, and potential to contribute to sustainability transformations. The case organisations were chosen based on the following criteria: (i) having social and environmental missions and practices; (ii) engaging in market related activities; (iii) being economically self-sufficient and sustainable; (iv) indications of positive impacts in the form of developing transformative capacities at different scales; (v) being a micro enterprise or small and medium sized enterprise; and (vi) ideally, having operated for more than five years. Two workshops with sustainability stakeholders were carried out as part of the Horizon 2020 supported GREEN-WIN project in spring of 2016 and 2017, each of which had 16 participants, which in turn helped identify organisations and stakeholders for interviews as well as reveal enablers and barriers for sustainability action. Other organisations were identified through interviews and online searches. Nine organisations were chosen – see Table 6 for details on each case. Five of these organisations are cooperatives engaged mostly within the SSE and three are social enterprises who engage in the wider economy. Social enterprises are here understood as organisations that use commercial strategies to create social and/or environmental benefits (Doherty et al., 2014). When social enterprises have both social and environmental missions and practices they are defined as SOHOs. Only

relatively smaller organisations in Barcelona were found to have addressed both social and environmental goals as their main purpose and mission.

Table 6: Key information about the case organisations and data collection

Organisation	**Organisational model**	**Year established**	**Staff/members**	**Organisational mission**	**Data collection**
Som Energia	Non-profit renewable energy consumer cooperative	2010	~58 000 partners as of July 2019 68 staff	Change the Spanish energy model to achieve 100% renewables and democratize the energy system	5 interviews Participation in workshop Document analysis
Lacol	Non-profit worker owned cooperative	2009: Informal collaboration 2014: formal cooperative	14 partners	Work with architecture to promote social transformations, and use it as a tool to critically intervene in local environments	2 interviews Document analysis
Celobert	Non-profit worker owned cooperative	2010	7 partners 6 staff	Adapt or construct buildings with minimal ecological footprint and energy consumption, and build socially cohesive communities and neighbourhoods	1 interview Document analysis
La Borda	Social housing cooperative	2012-2017: planning 2017-2018: construction	50 residents 36 on waiting list 50 collaborators	Harmonizing the need for access to decent, social, affordable and environmentally sustainable housing with the will to promote new forms of coexistence and generate community through the interrelations between neighbours	2 interviews Participant observation and site visit Document analysis
Tarpuna	Non-profit worker cooperative	2002: Limited company 2012: cooperative	9	Social innovation at the service of the community, through local transformative projects with sustainability criteria	1 interview Document analysis
Unico	Second degree for-profit cooperative	2010	10 corporations and cooperatives ~70 staff/partners	Offer projects and integral solutions to improve energy efficiency and savings	1 interview Document analysis
InEdit	For-profit social enterprise	2009	~20	Engaging with organisations of tomorrow and accompanying them as they manage the changes that come with the circular economy	2 interviews Participation in workshop Document analysis
Eixverd	For-profit social enterprise	2015	~4	Improve social fabric, air quality and reduce carbon emissions	1 interview Participation in workshop Site visit

					Document analysis
Roots for sustainability	For-profit social enterprise	2010	3 partners 5 staff	Inspire and support sustainable enterprises with positive social and environmental impact	1 interview Document analysis

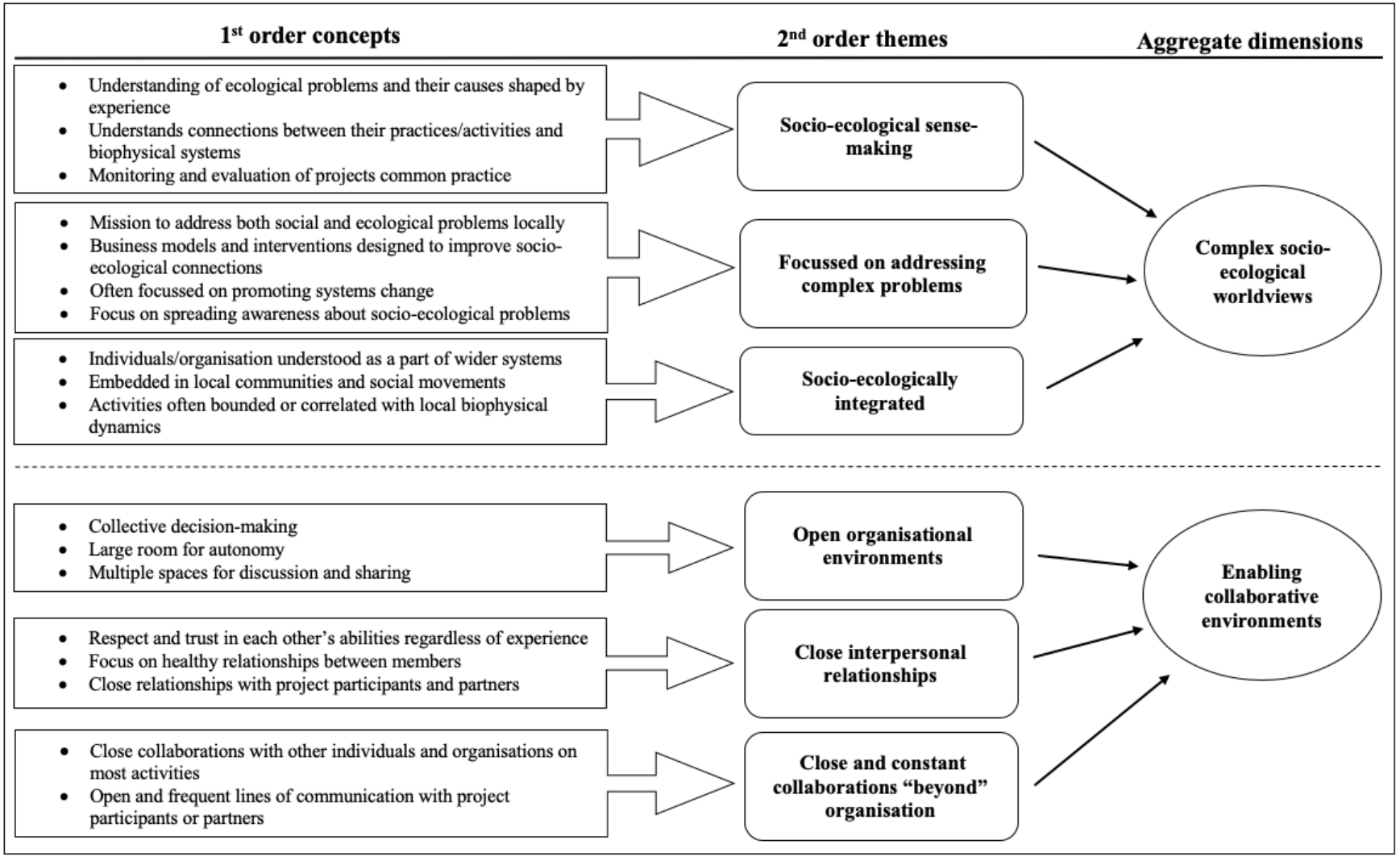
8.5.2. Data collection and analysis

Data was collected through semi-structured interviews with between one to five people in each organisation who were either founders or key members of the organisation (n=14) as well as experts knowledgeable about the wider political environment and sustainability in the city and wider regional and national contexts (n=12). In total 26 interviews were conducted. The main data collection occurred between May-July 2017. Additionally, skype interviews were carried out at later points. Extensive analyses of documents were also carried out to supplement the interviews, such as: organisational websites, blog posts, media articles, and internal and external reports on projects and their impacts. Participant observation and site visits were also conducted.

We identified the missions and practices of the organisations, as well as considered their wider contexts, in order understand why they might be able to help support positive transformative change towards sustainability at the local scale. To do this we drew on the Gioia Methodology which creates a systematic and holistic approach to new concept development and the articulation of grounded theory within organisation studies (Gioia et al., 2013). Instead of focussing on only one case organisation, which is the most common within the Gioia Methodology, we have chosen to explore nine SOHOs, as this will help us contrast the organisations and consider differences and similarities in what enables or disenables them from developing transformative capacities. The Gioia Methodology has previously been used by researchers to study multiple organisations, for instance by (Bauwens et al., 2019).

This method starts with first order coding of raw data to identify concepts, then outlining of second order themes before articulating conceptual categories or aggregate dimensions. This is done as the researchers continually works with the data to understand emerging themes. This involves comparing data from different organisations to identify similarities and differences. After examining the data for first order concepts we identified themes from the codes which aggregated around two dimensions related to worldviews and collaborative environments. Based on the understanding to date of the components influencing the organisations we conducted another examination of the codes and themes by looking at the elements or instances relating to them. Following the standard in grounded theory research we then carried out a literature review to see how the findings related to existing research (Charmaz, 2014). This resulted in the refinement of two key factors: complex socio-ecological worldviews; and enabling collaborative environments. Figure 12 illustrates the inductive reasoning that led to the identification of two key dimensions influencing the transformative ability of SOHOs in Barcelona.

Figure 12: Illustration of the inductive reasoning that led to the identification of two key dimensions influencing the transformative ability of SOHOs in Barcelona



8.6. Findings

8.6.1. Complex socio-ecological worldviews

Worldviews are the assumptions and beliefs of an individual or a group which influences their perceptions of the world as well as their behaviours and decision-making criteria (Kearney, 1984). As such what an individual or in fact an organisation does is intimately related to the worldviews of the members. It has been argued that the worldviews of individuals and groups influences what they think about sustainability problems such as climate change and how this is addressed (O'Brien & Hochachka, 2010; O'Brien & Wolf, 2010; Tàbara & Chabay, 2013). In this research we found that the interviewees as well as their wider organisations show signs of inhabiting a complex socio-ecological view of the world which would fall within a broader postmodern/pluralistic worldview (O'Brien & Hochachka, 2010).

Firstly, this relates to the connections the organisations make between social and ecological problems, in fact all of the organisations were created to solve sustainability related challenges and have missions or practices that aim to promote social and environmental sustainability. In fact, their business models and interventions are often designed with the goal to not only address complex socio-ecological problems but to transform systems towards sustainability. This supports findings by Stubbs (2017) who found that Benefit Corporations focus on profits as a means to achieve social purpose ends but with these SOHOs the purpose is transformation.

> *"The main purpose is to change how the electrical market works in Spain and change it towards more renewable energy in the grid. And that energy is controlled by and sold to the very same costumers that use it" (Som Energia, Interviewee 1).*

> *"We do architecture for social transformation" (Lacol)*

The organisations tend to not see themselves as separate or distinct from nature but instead as integrated and embedded in socio-ecological systems and where their business practices are bounded and dependent upon local biophysical dynamics. For instance, Eixverd and Tarpuna uses local seasonal plants and soils and Celobert and La Borda mostly procures local sustainably sourced wood materials. Tarpuna sees their role as *"weaving networks of relationships between people and nature"*. Five of the organisations were established by people who have a deep understanding of socio-ecological interactions, including the connections between their activities and biophysical dynamics (Eixverd, Tarpuna, InEdit, Som Energia, Celobert). This socio-ecological sense-making is often based on personal experiences.

> *"What's behind Eixverd is a motivation to contribute to addressing climate change in my own way. Without waiting for others to get their act together... Barcelona is the prettiest city I've been, but it needs more green. The only place to put more green is the rooftops. So, I put one and one together and adding more green and the helping making the buildings more efficient." (Eixverd)*

Furthermore, this integration also relates to embeddedness in social systems, especially local community contexts and social movements, which was the case for several of the organisations (La Borda, Lacol, Celobert, Tarpuna, and Som Energia).

> *"During that time (financial crisis), we managed to find clients but also to gain a name inside the Social and Solidarity Economy in Barcelona and in the neighbourhood, because we were tied to successful projects like in Can Batlló. We helped there as volunteers, in return we obtained some publicity for us. We did it as neighbours because we live here now". (Lacol)*

Related to their socio-ecological sensemaking is the practice of monitoring and evaluating the environmentally related outcomes of their projects, especially on energy and carbon dioxide audits of projects (InEdit, Celobert, Lacol, and Eixverd). Several of

the organisations (Lacol, Celobert, Unico, and La Borda) also engage in wider assessments of their organisations through methods such as the *Balanç Social* which is a voluntary reporting tool for members of Barcelona's Social and Solidarity Economy to assess their social, environmental, and good governance impacts. Roots for Sustainability also carries out the B-Corp assessment to estimate and improve their impacts. However, all of the interviewees from the case organisations emphasised the need for further monitoring and evaluation to better understand the wider impacts of the organisation and whether they are helping or hindering the achievement of their missions. However, how to do this often remains a question.

> *"The evaluation of Tarpuna, this is very important question, we could improve this in the future, we have a memory (an annual report)… with the impacts of every project, both social impacts and environmental impacts, but we can improve this". (Tarpuna)*

> *"We don't know, we know the impact of our activities, we measure the carbon footprint of our activity, but of course, it would be better at the end of the year if we were able to say that thanks to our work we have saved 10 tonnes of CO2, created 7 jobs or 70. But we don't have direct relationships, it is not direct and easy to assess our work and the consequences, it not immediate, we could account for the potential but its complex." (InEdit)*

The organisations also often have a focus on spreading awareness, empowering, and educating people about socio-ecological problems. Many of the organisations do this by virtue of their actions whereas others have specific initiatives and projects related to enhancing awareness, empowerment, and education (Som Energia, Eixverd, Tarpuna). One example is 'fab labs' set up by the Tarpuna Foundation:

> *"The aim is to empower the community and solve social problems, not to develop programmers… The principal idea is not the technology, it is social participation and creating dynamics for innovation and co-creation." (Tarpuna)*

However, not all the interviewees exhibited strong socio-ecological sense-making with respect to more global socio-ecological dynamics. For instance, one interviewee from Lacol believes that climate change is "too big for us" as their interventions are "not related to the rise of the sea or anything", despite many of their activities contributing to the reduction of GHG emissions and the interviewee having a strong sense of local socio-ecological connections. Furthermore, several of the organisations identify themselves as mainly socially oriented (Lacol, La Borda, Tarpuna, UNICO, and Roots for Sustainability) which sometimes results in their environmental values not being upheld and them engaging in unsustainable practices. Lacol, Roots for Sustainability, Tarpuna, and UNICO have taken on non-sustainability related projects to increase profit or remain economically viable.

> *"The problem is that the economic sustainability is very difficult for us… my most important preoccupation is the economic sustainability, and this is one problem, because when a lot of preoccupation is on the money it takes away focus from the social impact and other environmental impacts." (Tarpuna)*

This correlates with previous research on hybrid organisations which has found that hybrid organisations often struggle balancing their social, environmental, and economic missions with the latter often taking precedence (Alberti & Varon Garrido, 2017; Hahn et al., 2018; Schmitz, 2015; Siegner et al., 2018).

8.6.2. Enabling collaborative environments

The studied SOHOs were found to engage in what we have called enabling collaborative environments (Ma et al., 2016). This relates to having an open organisational environment which enables people to have productive and engaging conversations, take decisions together either in the entire organisation or in teams, as well

as respect and trust each other's individual agency and ability to manage their work and seek out help when needed (Reynolds, 2017). This was especially the case in the democratically-oriented cooperatives which often focussed considerably on the well-being of their members, their inter-personal relationships, and the ability of people to enact individual and collective agency. For instance, Som Energia has what they have affectionately called the 'happiness department' to facilitate healthy interpersonal relations and Celobert brings in an organisational psychologist once every six months to manage relationships and facilitate open dialogue. Lacol also focusses on creating open spaces for sharing and building or maintaining relationships:

> *"In these meetings we have every few months we give a lot of space to talk about how we're feeling. For instance, if somebody is in a really big stress because they have too many projects or doing projects that he doesn't enjoy lately, or all of this is too much". (Lacol)*

Interviews indicated that open and enabling environments such as these helped contribute to a range of new ideas and projects being experimented with, such as Som Energia's energy efficiency platform. Additionally, the organisation changes organically which is influenced by the nature of the collaborative environment:

> *"So, we'll create something shared with the team get feedback and sort of work organically from there. I mean if we look at how the teams was structured half a year ago and what it looks like now there are teams that have been taken off the list cause they weren't working or they just served their purpose and now there's no need for them anymore and there's new one sprouting. We usually just go by needs… There's usually an e-mail, or in a team meeting we ask who wants to work on this. And then we set up a commission which is more temporary, to scope if there is a team that can be permanent… Normally these groups are people who are interested in this question." (Som Energia, Interviewee 4)*

In the enterprises, there were also signs of autonomy and openness. For instance, in Roots for Sustainability junior staff have been known to come up with new ideas and carry them out.

> *"For instance, we offer them (junior staff) the opportunity to develop a strategic plan for an idea… for instance for impact metrics, you can define that, if this idea is really going well you can be managing this area…. and even develop new services in that area". (Roots for Sustainability)*

Furthermore, the focus on strong communicative interactions goes beyond the immediate scope of the organisations as they tend to continue these in their activities and projects. This is especially the case for Lacol, La Borda, Celobert, Som Energia, InEdit, and Tarpuna who have open and frequent lines of communication with project participants or partners. A prime example of this is Som Energia's over 60 local groups all over Spain, which are run independently but in connection with the organisation's HQ. In these groups, members come up with ways of spreading information about the cooperative (the cooperative spends no money on advertisement) and come up with new ideas for renewable energy generation projects.

Additionally, the SOHOs that seem the most able to support sustainability transformations engages in close and constant collaborations "beyond" the organisation. For instance, UNICO is a second-degree cooperative of 10 cooperatives and corporations in similar fields came together at the start of the economic crisis in order to help them survive and this deliberate entanglement enabled some of their business ventures to thrive during and after the crisis. Som Energia works with different electricity and energy cooperatives to purchase energy together and are supporting the creation of a new cooperative through purchasing electricity for them as "at the moment they don't have enough capacity".

Additionally, the most successful service organisations - whose entire business model revolves around helping other organisations improve the sustainability of their practices – were those that emerged out of and grew their connections to other organisations and/or community contexts. Notable examples include InEdit, Celobert and Lacol which emerged out of university, community, or activist circles and focussed on growing organisational connections and/or community involvement during the economic crisis which later eventuated in significant growth in demand for their services. For instance, an interviewee from InEdit characterised this as "planting seeds" that now have started growing. On the other hand, Eixverd had limited connections in Barcelona and has thus far struggled to get enough collaborators and clients to do more than survive, in fact the interviewee highlighted that unless things change the organisation "cannot last much longer".

8.9. Discussion

Our findings indicate that many SOHOs inhabit and promote the development of complex socio-ecological worldviews. This involves having the capacity to see human systems not as separate from socio-ecological systems but instead, as socially and ecologically integrated in holistic and dynamic ways and acting accordingly (Tàbara & Chabay, 2013). Such complex worldviews have been deemed vital for the promotion of transformations towards sustainability as they influence how people and organisations act (O'Brien, 2012; O'Brien & Sygna, 2013). We found that all of the cases show signs of inhabiting a degree of complex socio-ecological worldviews and often promote complex systems perspectives beyond the immediate scope of their organisations. The studied organisations showed a holistic and locally oriented view of the role and purpose of business, whereby they see profit as a means to achieve social and ecological

sustainability, but it is not the main reason for their existence. Such local embeddedness has previously been considered a precondition for social enterprises to have non-monetary missions (Becker et al., 2017). As such, these organisations move beyond the common post-modern "critique of anything modern/corporate" and instead allow for business or market related mechanism to have a place amongst the solutions to climate change (O'Brien & Hochachka, 2010, p. 97). For example, they have contributed to the materialisation of hybrid concepts such as pro-sumption in local contexts (Schill, Zerrahn, & Kunz, 2017), such as in the case of Som Energia where members have the opportunity to generate or invest in their own renewable electricity. Additionally, organisations with more complex worldviews were also found to establish original learning practices that promoted the implementation of more adaptative practices such as through the local groups of Som Energia (Pellicer-Sifres et al., 2018) and the empowerment focussed projects by the Tarpuna Foundation.

However, the complexity of organisations' worldviews and the interviewees understanding of socio-ecological interactions vary, and the organisations with the least complex understanding tended to not consistently implement sustainability-related practices. They often drifted from their missions and financial objectives or survival took precedence at certain moments in time or were the only objective that was monitored and evaluated. This finding could inform the growing literature on mission drifts, tensions, and trade-offs in hybrid organisations (Battilana et al., 2015; Mangen & Brivot, 2015; Schmitz, 2015; Siegner et al., 2018), especially on performance tensions (W. K. Smith et al., 2013), as lack of a complex socio-ecological worldview might be a key reason why commercial activities take precedence over the socio-ecological missions of hybrid organisations. For instance, Battilana and Dorado (2010) found that micro-finance social enterprises drifted from their social missions when they hired staff from the financial

sector to increase financial efficiencies. A reason for this might be that people from this sector have a modern (O'Brien & Hochachka, 2010) and arguably less socio-ecologically complex worldview.

Enabling collaborative environments were also found to be a key factor influencing SOHO's ability to help promote sustainability transformations. Enabling collaborative environments relates to the ability of people to have productive and engaging conversations and communicative interactions. Such open communicative interactions enable organisations to harness people's collective intelligence to let them experiment with new ideas and be reflexive enough to change their modes of acting when needed (Reynolds, 2017). Importantly, these kinds of collaborative interactions do not stop at the edge of the organisation, instead they continue in their activities and projects. In fact, the organisations that had the most positive socio-ecological impacts were those deeply connected, and their innovative and potentially disruptive practices correlated with those of other organisations that share their ethical and sustainability related values. So much that they often created or inspired the establishment of new organisations or initiatives in the same and/or different sectors with similar sustainability goals. Examples include La Borda, Lacol and Celobert who helped create two foundations (La Dynamo and La Collaborativu), aimed at promoting the implementation of the transfer of use social housing model pioneered by La Borda and La Cireres.

These results suggest that SOHOs represent a promising organisational form for promoting sustainability transformations through their potential for generating positive ecological and social outcomes through their entire value chain. They move away from traditional management practices (Etzion et al., 2017), and integrate socio-ecological dynamics into their business models and therefore challenge the unsustainable dichotomies perpetuated by management theory and practice. Individuals within most

SOHOs have a better understanding than mainstream corporations of both positive and negative socio-ecological interactions. Instead of seeing nature, people, and organisations beyond the immediate organisational scope as "external" to clearly defined organisational boundaries, individuals in SOHOs see themselves as embedded within local socio-ecological contexts and connected to other organisations. The practices and worldview of the individuals in these organisations therefore suggest that the abstract and fictitious social construct about the internal/external divide, entrenched within the mainstream management literature, is not based in any socio-ecological reality. There are no clearly defined and separated internal and external factors that influence organisations, instead these are deeply interconnected and indistinguishable. This therefore poses questions regarding the tendency that many organisational scholars have to want to remain "within" organisational boundaries (Czarniawska, 2013). We are unlikely to understand how hybrid organisations and corporations can promote sustainability, let alone transformations, unless we move away from the view of organisations as value-creating artefacts separated from socio-ecological systems. Instead, we agree with the call from Munoz and Cohen (2017) that sustainability entrepreneurship research and organisational and management scholars interested in sustainability should move into and collaborate with sustainability science scholars to better understand the connections between organisations, socio-ecological contexts, and sustainability – particularly regenerative sustainability (J. Robinson & Cole, 2015).

8.10. Conclusion

This research highlights the emergence of new organisational forms and practices aimed at reorienting and extending organisational duties in a way that helps overcome conflicts between individual and organisational logics and broader systemic goals, such

as global sustainability. SOHOs, which not only operate in more hybrid spaces but also help transform existing conditions toward more fluid and open institutional arrangements, appear to transcend unsustainable dichotomies perpetuated by traditional management theory and practice. In fact, this research showcases that more and more people and organisations have begun to realise the perverse effects of bounded organisational rationalities which perpetuate unsustainable dichotomies in the organisational and management realm. This is because these dichotomies contribute to 'production of benefits' for the few and create multiple negative system irreversibilities, as those derived from insurmountable amounts of chemical waste or single-use plastics and therefore puts present 'utility' above future generations rights to a safe and clean environment. Instead, SOHOs focus on delivering socio-ecological outcomes which do not compromise the needs of future generations and which has the potential to contribute to sustainability transformations. As such most of the SOHOs investigated were found to promote social learning and the cultural adoption of complex socio-ecological worldviews where individuals and organisations are seen as integral components of socio-ecological systems. However, the complexity of the worldviews of the organisations varied which appeared to be a key reason why some of the organisations engaged in unsustainable activities to survive financially or increase their profits. Moreover, the SOHOs were found to contribute to sustainability through creating enabling collaborative environments which include close and constant relationships 'beyond' the organisation. Lastly, further research and more in-depth case studies are necessary to validate these findings, especially regarding the role of worldviews influencing tensions and mission drifts in SOHOs, as well as interrogations about how and why SOHOs apply different strategies in different contexts, e.g. in non-urban, non-Western, and in areas with large proportions of poor people.

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Chapter 9: Conclusion

9.1. Introduction

This chapter brings together the main insights from the thesis and how they relate to the overall aim of the research, particularly the role as well as current abilities, and potential of SOHOs in triggering and steering transformations towards sustainability in urban environments – including transformations aimed at achieving regenerative sustainability. Additionally, the conclusion assesses to what extent the specific research questions of the thesis has been addressed: How are organisations contributing to (un)sustainability? What is known about hybrid organisations for whom the main purpose is not to maximise economic profit but to achieve social and ecological missions, and how could they help bring about sustainability transformations?; how are SOHOs supporting the development of capacities conducive to fostering sustainability transformations at the community and urban scales?; and how and what might make SOHOs able to support positive transformative change towards sustainable development? This section does not repeat the discussions of the papers, but instead focusses on presenting the core claims and conclusions of the thesis, as well as lessons learned about organising urban transformations towards sustainability and the role SOHOs play in this. It will also present possible implications for policy and research, outline future research directions, and consider the limitations of the research.

9.2. Summary of core insights and conclusions

Table 7 summarises the insights, claims and conclusions of each of the research chapters, and how they address the research aim as well as relate to the research questions. Chapter Six introduced the SOHOs concept based on a comprehensive multi-disciplinary

review and described what is known about such organisations. It particularly emphasised the need for more research on how new, more complex and fluid organisational forms such as SOHOs can contribute to promoting sustainability transformations. Chapter Seven explored how nine SOHOs in Barcelona have built transformative capacities, in particular for regenerative sustainability. Thus, it integrated regenerative sustainability ideas into an existing framework on transformative capacities and found that SOHOs can play a decisive role in building such capacities at the local scale. However, there are challenges and unintended negative consequences that could compromise their ability to build such capacities at the urban scale or beyond. Chapter Eight explored what makes SOHOs able to support sustainability transformations and argues that their complex socio-ecological worldviews and enabling collaborative environments that move beyond the organisation, make them able to challenge unsustainable dichotomies perpetuated by mainstream management theories and practices.

Table 7: Summary of core insights and conclusions from research papers

Paper	Key insights	Link with research aim and questions
Sustainability-Oriented Hybrid Organisations: a multidisciplinary-review A comprehensive multi-disciplinary review of literature on organisations that aim to tackle social and ecological problems using market mechanisms. Introduces the SOHOs concept	• The literature on SOHOs converge around: (a) the factors that drive and enable the creation and development of SOHOs; (b) the actions and practices they engage in; (c) their direct outcomes and broader impacts; (d) and the barriers and challenges they face. • There is a lack of frameworks and methods able to adequately measure and analyse the outcomes of SOHOs processes and activities. • Research on SOHOs needs to shift from seeing the organisation as a separate social entity and instead be viewed as integral components of complex socio-ecological systems which means interrogating the socio-ecological processes and interactions they engage in.	• The literature on SOHOs is characterised by fragmentation and inconsistencies. • To promote sustainability transformations SOHOs should ideally implement regenerative activities that have net-positive outcomes and address the underlying causes of unsustainability as not doing so could lead SOHO business models to perpetuate existing systemic problems.
The role of Sustainability-Oriented Hybrid Organisations in the development of transformative capacities: the case of Barcelona Analysis of how nine SOHOs in Barcelona are supporting the development of transformative capacities for regenerative sustainability	• Two main sustainability strategies were identified amongst the case SOHOs. The first is a conformist strategy adopted by the SOHOs that have taken on a social enterprise model, which aims to green existing business and institutional practices. The second is a disruptive strategy adopted by the cooperative SOHOs within the Social and Solidarity Economy which aims to construct new economic, social, and political structures. • A continually adaptive and critical learning approach is needed by SOHOs, for instance through developing consistent monitoring and evaluation systems that are able to assess their actual outcomes and impacts, according their ethical missions and objectives. • Improved institutional and legal arrangements are needed to allow for the spread of SOHOs.	• SOHOs have the ability to build transformative capacities within the immediate context of their organisations, especially in individuals, communities, and partner organisations. • The existence of transformative capacities within certain communities helped lead to the emergence of the case SOHOs who again helped promote these capacities creating a virtuous cycle that could be key in promoting sustainability transformations. • The transformative impact of SOHOs appears to be limited at a broader systemic level and unintended negative consequences could emerge as a result of the strategies and actions

		they adopt as well as due to institutional and structural constraints.
Transcending unsustainable dichotomies in management: Lessons from Sustainability-Oriented Hybrid Organisations in Barcelona A grounded theory exploration into what makes SOHOs able to contribute positive transformative change towards sustainability	• SOHOs move away from traditional management practices and integrate socio-ecological dynamics into their business models and as such challenge the unsustainable dichotomies perpetuated by management theory and practice. • The complexity of socio-ecological worldviews varies within the organisations which impacts the consistency to which they implement sustainability-related activities and experience mission drift.	• SOHOs transformative abilities relate to how they: o promote and apply complex socio-ecological worldviews where individuals and organisations are seen as integral components of socio-ecological systems; and o create enabling collaborative environments which include synergetic connections and substantive relationships 'beyond' the organisation.

9.3. Lessons

9.3.1. Organising urban sustainability transformations

This thesis started by outlining that mainstream organisational rationales, logics, and practices have played a key role in bringing about the ideological context that legitimises the organisation of collective actions which have contributed to current trends in global unsustainability. This is especially relevant in urban environments, being the net consumers of global resources and generation of pollution. As such, transforming organisations is key to achieving sustainability and can be seen as an intervention point that spans the three spheres of transformations (practical, political, and personal) (O'Brien & Sygna, 2013). In fact, I argue that mainstream organisational rationales, logics, and practices can be seen as a cultural root cause of current unsustainability problems. The harmful nature of mainstream organisations' ways of proceeding and their lack of accountability has been identified by many academics and practitioners, and has been one of the impetuses behind the emergence of new and more sustainability-oriented organisational models and ventures (Muñoz & Cohen, 2017). However, the academic literature that considers such organisations is fragmented and riddled with inconsistencies which is why the first paper of this thesis introduces the term SOHOs to enable a comprehensive multi-disciplinary review. This review revealed a lack of empirical research into the sustainability outcomes and impacts of these organisations. It also outlined that SOHOs should be understood as representations of larger trends or discourses in society, such as sustainable development or the green economy, and its entrepreneurs are forerunners trying to experiment and learn simultaneously. Their orientation is towards sustainability rather than profit maximisation, but the outcomes of their actions are unpredictable and uncontrollable.

There is a lot that is not well understood about transformations towards regenerative sustainability due to their complex and unpredictable nature, evidenced by a large number of theories and perspectives about them in the literature (Feola, 2015). However, the concept of transformative capacities is emerging as key in enabling transformations to come about. This is why I built on an existing framework of foundational transformative capacities to explore empirically how SOHOs in Barcelona develop such capacities (Ziervogel et al., 2016). It found that they have the ability to build these capacities at the community scale but could be compromising their development at the urban scale. This can lead to a range of unintended negative consequences which will be further elaborated on in section 9.3.3. Yet, SOHOs represent a promising organisational form with the potential to promote regenerative sustainability in urban environments. This ability is especially influenced by their: (1) promotion and application of complex socio-ecological worldviews where individuals and organisations are seen as integral components of socio-ecological systems; and (2) creation of enabling collaborative environments which include synergetic connections and substantive relationships 'beyond' the organisation. As such they move beyond rigid and fictitious dichotomies between what occurs internally within the organisation and what occurs 'out there' in biophysical systems, economies, and the broader social world. Transforming mainstream organisations into new forms such as those now being implemented and tested by SOHOs could be a significant step in the right direction towards regenerative sustainability.

9.3.2. The critical role of enabling environments in making SOHOs sustainable at the socio-ecological system scale

In order for numerous SOHOs to emerge and for their activities to help promote large-scale sustainability transformations, wider enabling environments are required. The need for specific dimensions to promote enabling environments has been theorised and tested by Ma et al., (In Review), and an analysis was carried out of Barcelona in Chapter Five. This analysis made it clear that the socio-political environment of Barcelona is generally enabling for SOHOs and that there is great potential for significant sustainability related progress to be made in the near future. This relates to both the emergence of SOHOs, but also to the fact that the different levels of government are increasingly involved and interested in addressing sustainability and climate change issues in the city and beyond. Furthermore, SOHOs can also positively influence the wider enabling environment, as can be seen through the example of Lacol and La Borda changing the legislation for underground parking for social housing. However, the volatility of the political situation in Spain and Catalonia is already influencing this environment and could have negative consequences in the future.

It is also necessary to consider a bit more in depth how the wider context of Barcelona and its enabling environment influences the empirical results of the thesis. With respect to the foundational transformative capacity of healthy individual and political agency, Barcelona's history of anarchism, corporativism, and direct democracy influences why these organisations emerged and why this transformative capacity is strong in the individuals within the SOHOs. The anarcho-cooperativist culture promotes individual and community action to solve local problems, especially through urban social movements such as the SSE and their associated sustainability strategies (Bianchi, 2019; Castells & Hlebik, 2017; Royo, 2015). This legacy has resulted in a strong enabling

environment for cooperatives, with longstanding socio-cultural support and legal mechanism (Hooks, 2018; Lucas, 1994). This legacy also influences the enabling collaborative environment that was outlined in Chapter Eight, where the organisations were found to have an open organisational environment where people take decisions together either in the entire organisation or in teams and there is a high level of trust in each other's agency.

Another key influencing factor for the emergence of the SOHOs is the disenabling environment of the financial and economic system, especially after the 2008 global financial crisis. The crisis resulted in a wide range of problems, both directly and as a result of austerity as outlined in section 5.3.1. These problems caused high rates of frustration with the system with many individuals blaming financial neo-liberalism and responding by creating alternative practices that aim to solve problems and bring more meaning to people's lives (Castells & Hlebik, 2017). Such frustrations played a role in the establishment of most of the case organisations, which were all created during or immediately after the crisis. This especially is the case for Som Energia, Celobert, and Lacol. These organisations attributed their growth and success to the fact that their frustrations with the system were shared with a great number of other people. For instance, Som Energia grew from 100 to nearly 65,000 members in the space of 10 years.

Furthermore, a combination of the anacho-cooperativist culture and the frustration and challenges the current system presented is a key reason for the establishment of several of the organisations. For instance, the crisis made it difficult to find regular jobs and the frustration with the current system made many unwilling to work for organisations they saw as part of the problem. Therefore, cooperatives were seen as the best alternative to both survive the crisis and implement solutions. UNICO was created with the sole purpose to enable organisations in the renewable energy, energy efficiency,

and IT sectors to survive by collaborating in a second-degree cooperative. Lacol was created by 14 architecture students that could not find jobs in companies that shared their values, so they created their own cooperative. As such, the enabling cultural environment already existed, and the financial crisis provided the trigger that enabled a resurgence of both existing and new sustainability practices and organisational forms. This finding supports arguments already made about economic crisis' as a game changer (Loorbach et al., 2016).

The research that was carried out in Istanbul revealed a different situation. Istanbul is undergoing large-scale urban renewal processes driven mainly by the national and local governments which often aim to re-organise entire districts in order to maintain or increase the profit margins of the construction sector and make the current housing stock more resilient to earthquakes (Türkün, 2011). However, such processes also offer opportunities to make Istanbul more sustainable and resilient through green buildings and more sustainable infrastructure (Ma et al., In Review) and there are multiple organisations involved in pursuing this opportunity including green building start-ups (Ma et al., 2019). That said, the socio-political and economic environment was considered disenabling for wider sustainability action and as a result; very few SOHOs had emerged and the sustainability efforts of organisations rarely eventuated in real progress towards sustainability (Ma et al., In Review).

This can be seen in a paper I co-authored where mainstream organisations as well as SOHOs attempted to promote sustainable transformations in the Gaziosmanpaşa district of Istanbul, but instead is likely to result in green gentrification displacing large numbers of local vulnerable inhabitants (Yazar et al., 2019). The process in Gaziosmanpaşa was started by the Mayor of the district who hired a local urban planning and architecture firm which fits under the SOHO umbrella. This SOHO was supported

by an international firm who jointly created a master plan which "took an integrated, strategic, and sustainable approach to transforming the district, including a LEED Neighbourhood development vision" (Yazar et al., 2019, p. 8). However, in 2014 the mayor of the district changed, and the plans changed with him. The new plan focussed on increasing the density of buildings and only introduce sustainable aspects in projects with high market value. Both the local SOHO and the international firm withdrew from the project siting that the new plan was no longer in alignment with their original vision and organisational values. The wider urban environment in which this occurred is one with strong dissonance between visions outlined government plans and actions on the ground and where a 'shadow' system is in operation where key actors close to the government are the only ones able to influence it (Ma et al., In Review). Furthermore, in a survey about the beliefs of sustainability-oriented residents and graduate students in Istanbul Thornton et al., (2019) found that: they have a cynical view of the potential to include sustainability unto rapid urban development; they believe that sustainability is not a part of the vision of their city; there is a lack of political will on behalf of the government to act; and most organisations don't have the capacity to make transformative changes towards sustainability. They argue that such "cultural models of and for green development may either enable or inhibit transformations in urban systems according to local conditions" (Thornton et al., 2019, p. 1). As such, it is more likely that SOHOs emerge, spread, and play a significant role in sustainability transformations if the wider environment is enabling and if there are strong foundational transformative capacities within the city.

Overall, this section goes to show how important it is for sustainability science scholars to study and bring organisations into the picture when studying transformative processes and how important it is for organisational scholars studying sustainability-

oriented organisations to consider the wider environment that the organisations operate within.

9.3.3. Unintended negative consequences

Another key lesson relates to the fact that the actions of SOHOs can generate unintended negative consequences which could be detrimental to promoting transformations towards regenerative sustainability. This insight was first found in the review paper with respect to addressing the underlying causes of climate change and social vulnerability. Although these underlying causes can be contextual (Romero-Lankao et al., 2018), and there is an ongoing debate about what these root causes are, questions have been posed regarding whether SOHOs are able to address the systemic and underlying causes of global environmental change identified as related to economic growth and perpetuating the capitalist system (Westley & Antadze, 2010). The review also suggested that whilst SOHOs might be able to promote proximate, short term benefits, these could have negative longer-term consequences, which was confirmed in Chapter Seven when investigating the role of SOHOs in building transformative capacities for regenerative sustainability.

Chapter Seven found that although SOHOs can build such capacities at the local scale they might be harming their development at higher scales. This depends on the kind of sustainability strategies adopted by SOHOs, where two main ones were identified, namely one that is conformist (adopted by the social enterprises) and one that is disruptive (adopted by the cooperatives). The organisations which applied the first strategy often prioritised profit, thus compromising their ability to fulfil their original socio-ecological goals. Whereas the organisations adopting the second strategy tended to perpetuate pervasive "us versus them" dynamics compromising the dimension of building

community and social cohesion at the urban and higher scales. This relates to the tendency of SOHOs within the Social and Solidarity Economy to mostly engage with individuals and organisations that share their worldviews and values, as well as actively excluding interactions with government entities and corporations and thereby large parts of the population of the city.

Overall these unintended negative consequences could have serious ramifications for the promotion of transformations towards regenerative sustainability. To avoid this, broader institutional innovations, enabling environments, as well as a continually adaptive and critical learning approach is needed, and these will be elaborated on in section 9.4.

9.4. Policy and practical implications

SOHOs can be seen as the enactment of political agency as defined by O'Brien as people's "capacity to positively influence the collective future through transformative change" (O'Brien, 2015). As such, creating organisations such as SOHOs could be a way for individuals and small organisations to have a much larger influence in addressing climate change alongside other urban sustainability related issues. The current predominant narrative is that some of the most important political acts an individual can do in this regard is to vote, protest, or change their behaviour, especially with respect to consuming less meat, flying less, or buying more sustainable products (O'Brien, 2015). These actions are undoubtedly important, but they reflect the 'doing less harm' narrative of sustainability criticised by (J. Robinson & Cole, 2015) for not adequately engaging people and for not taking enough of a systemic view of sustainability problems. Furthermore, it also does not go far enough in highlighting the influence that organisational arrangements have on sustainability. Creating a SOHO could well

constitute a way for people to literally reorganise social-ecological relationships for sustainability, creating not only livelihoods but regenerative lively systems for themselves and others in solving sustainability related problems, thus having a positive view of human activity.

However, for a greater number of SOHOs to emerge in different countries and in particular within urban contexts there is a need for institutional and legal frameworks that support them. As could be seen from the Barcelona case there is a longstanding enabling environment for cooperative organisations which have led to a great number of them. However, Catalonia does not have the same enabling environment for social enterprises, as outlined in Chapter Seven. Given that more and more legal mechanisms are emerging throughout the world, such as Benefit-Corporations, to keep up with innovations in this field, there is a clear need for Spain and autonomous regions such as Catalonia to create enabling legal frameworks which help the emergence of such new forms of sustainability-oriented enterprises. Improved relationships between the Barcelona City Council and both large and small businesses is also likely needed. The current "war" on business by the City Council as one interviewee called it (see Chapter 5 p. 85) is likely to be harmful for bringing together all of the actors that are required to promote transformations towards regenerative sustainability.

Appropriate legal frameworks for SOHOs could also help improve monitoring and evaluation of the outcomes of these organisations as most of these require reporting of their activities to their stakeholders. However, legal mechanisms such as Benefit Corporations have shown to have problems with living up to their social purpose, as well as their accountability and transparency goals due to loosely defined legal enforcement (Cetindamar, 2018), which suggests a need for more holistic and comprehensive frameworks which adequately monitor and evaluate the longer-term impacts of SOHOs.

However, M&E frameworks are often based on positivism and grounded in economics-based models, which are inadequate in exploring, accounting for, or supporting potentially transformative social innovations (Weaver & Kemp, 2017). In fact, it has been argued that traditional evaluation methods will not be sufficient to "address transformational systems change on a global scale" (Patton, 2019, p. 113). Although complexity-based evaluation methods exist, for instance developmental and empowerment evaluations (Patton, 2010, 2017), they require the help or hiring of an evaluation expert over an extended period and are most appropriate when organisations want to develop and modify a program over the long-term due to shifting needs and/or context. These methods require more time and resources than smaller SOHOs have, highlighting a need for more intermediary methods. This could include a toolkit which is comprised of methods to set a baseline, as well as lighter M&E tools for quick and regular checks of key variables that can capture adaptations and change in states as well as a more comprehensive endpoint assessments (Douxchamps, Debevec, Giordano, & Barron, 2017).

9.5. Research implications and future research directions

9.5.1. The potentials associated with the SOHO umbrella concept

The boundaries between sustainable entrepreneurship research and sustainability science is getting increasingly blurred (Muñoz & Cohen, 2017), which is a step in the right direction towards deepening reflections of the interactions between SOHOs and socio-ecological systems. This is crucial for understanding the role they play in sustainability transformations. However, thus far the sustainability venturing literature has tended towards compartmentalisation and the intimate connections between SOHOs and their socio-ecological context are not adequately considered (Muñoz & Cohen, 2017). As such, further theorising has been called for that helps bridge sustainability

entrepreneurship and sustainability science research (Muñoz & Cohen, 2017). This thesis has contributed to such theorising, and the SOHOs concept provides further potential with respect to integrating sustainability science and sustainable entrepreneurship research. This especially relates to the fact that the SOHOs umbrella concept enables insights to be derived from a much larger spectrum of research than previously. The 60 terms for such organisations found in the thesis highlights this. Future research utilising the SOHOs concept could focus on, *inter alia:*

- Gathering more empirical evidence from different contexts on their strategies and dynamics, from different cities as well as in rural areas, and assess whether the outcomes and impacts of SOHOs promote regenerative sustainability;
- Studying the social-ecological interactions of SOHOs across national borders especially when they are involved in social movements such as the Social and Solidarity Economy;
- Conducting longitudinal studies of SOHOs in different contexts to understand whether there are generalisable lessons to be learned for how to promote regenerative sustainability; and
- Exploring whether SOHOs are contributing to the creation of hybrid forums to support institutional innovations and new enabling environments. In such social spaces experts and citizens together could then experiment and learn about solutions that could bring about sustainability transformations (Callon, 2009). It has been argued that such dialogic democratic spaces are "an appropriate response to the increasing uncertainties engendered by the technosciences – a response based on collective experimentation and learning (Callon, 2009, p. 18).

9.5.2. SOHOs and socio-ecological entanglement

Questions have been posed regarding whether "we are currently underestimating our capacity to transform society at the rate and scale that is called for by climate change science and mandated by the 2015 Paris Agreement under the United Nations Framework Convention on Climate Change" (O'Brien, 2016, p. 1). This potential underestimation stems from the fact that the worldviews or paradigms which support theories of climate change action is based on assumptions of classical physics instead of quantum physics which is considered the most successful theory that physics has ever produced (Wendt, 2015). Classical physics and the social ontologies that are derived from materialist and deterministic views assume that agents are "discrete individuals or self-interested states that interact through local causation, with little or no role for subjectivity, consciousness, intentionality, and free will" (O'Brien, 2016, p. 2). However, researchers have found that quantum effects have relevance in biological systems (McFadden & Al-Khalili, 2016) and others conjecture that they also hold relevance in social systems (Wendt, 2015). For instance, quantum decision-making may be able to explain and predict the decisions of individuals better than methods based on expected utility theory (Haven & Khrennikov, 2013). As such, quantum social theory is the only social science approach that takes the theory of quantum physics seriously. Quantum social science "provides a physically based, holistic perspective on conscious and intentional actions by 'entangled' individuals who can collectively influence systems and structures that appear stable or entrenched" (O'Brien, 2016, p. 2). The consequence of this is the understanding that people are the solution to climate change as "humans can and do consciously and internationally transform this (the earth) system through their intra-actions" (O'Brien, 2016, p. 6).

The evidence presented in this thesis has suggested that SOHOs are deeply entangled, both with respect to the individuals within and beyond the organisations, as

well as deeply embedded in place and ecological systems. The entanglement metaphor could be useful for understanding and describing the dynamics of the type of organising that SOHOs engage in. For instance, SOHOs seem often to be so connected that it is not possible to understand their practices and solutions, let alone their transformative potential, without analysing the connections and correlations between the organisations and actions from which they emerged. The degree and type of organisational entanglement, including their shared consciousness and narratives, is therefore directly associated with their potential to help foster transformations towards sustainability in their specific contexts. This metaphor could be especially helpful in transcending organisational boundaries as it promotes a view of actors and organisations as deeply connected and linked across space and time. This "draws attention to the possibility for individuals to contribute to collective impact and a quantum leap to sustainability" (O'Brien, 2016, p. 6). As such, a future research avenue would be to investigate SOHOs and their connected nature through the lens of quantum social science and entanglement. This could be done through explorations into how members of SOHOs make sense of their relationship with social and ecological systems.

9.5.3. Balancing on the edge of communicative chaos

It has been argued that the types of communicative and conversational interactions members of organisations engage in influence their emergence, success and ultimately their transformative potential (Stacey, 2003). This follows the argument that social and especially organisational change does not come about as a result of abstract idealising or the practical application of visions, plans or policies instead it emerges in the "daily exploration of similarities and differences as people co-operate and compete..." (Mowles, 2016, p. 8). This is outlined by the theory on *complex responsive processes of relating* which holds that the source of change is interaction itself, as even slight differences in

communications can lead to novel and discontinuous change and therefore be its own "transformative cause" (Stacey, 2003, p. 163). In order to fully understand SOHOs and their transformative potential, it is therefore important to interrogate the dynamics of everyday conversations and the types of communicative interactions held within the organisations. Novelty in the form of new sustainability related initiatives can stem from conversations that have the simultaneous capacity to provoke excitement and anxiety and are felt as being alive, fluid and full of energy as well as having members grasping for coherence and meaning. These types of conversations have been described as analogous to balancing on "edge of chaos", and in order for the chances of these types of conversations to take place it is necessary to have sufficient amounts of diversity of opinions and experience amongst members of the organisation (Stacey, 2003). On the other side of the spectrum of conversational dynamics there are communicative interactions that are habitual and lifeless (which can become common in highly bureaucratic organisations) or chaotic and borderline psychotic (which can occur in contexts which is lacking organisation). Within the scope of this study there was not enough time to explore the conversational dynamics of the organisations in great detail, however, interviews suggested that the organisations which experienced the most success were those that had enough diversity of opinions and worldviews amongst their members to experience conversations on "the edge of chaos". This especially is the case with *Som Energia* which has been found to generate both first and second order learning, which entails deep reflection and questioning of current paradigms, through communicative interactions amongst its members (Pellicer-Sifres et al., 2018). As such, a fruitful future research avenue is to explore the daily communicative dynamics of SOHOs to understand how these influence the types of activities they engage in and their results. Specifically,

this research could explore the role of balancing on the edge of communicative chaos in organisations for promoting adaptive or transformative action.

9.6. Limitations

As with most research this project and its results has some limitations that are important to highlight. The research is focussed mainly on organisations in one urban environment, namely the Metropolitan Area of Barcelona, which might present problems for generalising the results and the conclusions, especially to organisations and cities outside Spain and Europe. However, I originally drew on fieldwork and evidence from Istanbul that justified and supported the final context of the study and approach taken to highlight the importance of enabling environments for the emergence and success of SOHOs. Furthermore, as highlighted by Gioia et al, it is possible to generalise from a single case study as long as the "case generates concepts or principles with obvious relevance to some other domain" (Gioia et al., 2013, p. 16).

I carried out interviews with nine SOHOs, as well as stakeholders knowledgeable about the wider urban context, over a relatively short time period (May 2017 to March 2018). A more longitudinal approach would have revealed more insights on how the SOHOs are changing subject to the increasing sustainability and climate change focus in the city, and also how the SOHOs are influencing this increase. A longitudinal approach could also have revealed how the organisations change as they go from rather new or young organisations towards being more established and how this influences their ability to build transformative capacities and promote regenerative sustainability. However, time and financial pressures did not allow for further fieldwork. Instead, detailed examinations of organisational websites and documents, as well as news sources and official government documentation, were examined in detail at a later stage to expand the

horizon. There were also challenges associated with isolating particular factors, such as the foundational transformative capacities, or complex socio-ecological worldviews and enabling collaborative environments, when context and the subjective perspectives of interviewees can significantly affect evaluations of such factors.

The interviews were carried out in English, as the members of the organisations all spoke it fluently. However, many organisational documents and websites were in Spanish or Catalan, which I do not speak. So, I had to either use online translation services (of a very high standard) or get help from colleagues who spoke the language. Importantly, one of my supervisors is Catalan and has lived most of his life in the Metropolitan area of Barcelona, giving him a deep cultural understanding and knowledge about the city which greatly benefited the research.

As outlined in the methods chapter, there are also limitations regarding drawing on the same data for the two empirical chapters, as this could result in self-plagiarism, redundant publications, or overlapping publications (Martin, 2013). To avoid self-plagiarism, I made sure to cross-reference the papers in question. Chapter Seven (which was submitted after the publication of Chapter Eight) cites Chapter Eight and also acknowledges the use of the same material and outlines why and how this was done. Furthermore, to avoid redundant and overlapping publications I've made sure that the questions asked, the methodological approaches, and the results and concepts of the two articles are sufficiently novel and different from each other to warrant use of the same source material. How and why the data was used for the two papers has been outlined in the methods chapter, including that the emphasis was on different parts of the data for the two papers. Lastly, it is worth noting that publishing multiple papers from the same source material is common in academia today, especially when working on a larger research

projects, and as long as care is taken and there is transparency it is not considered unethical (S. R. Robinson, 2014).

9.7. Conclusion

Each of us interact with multiple and diverse organisations everyday of our lives, and many of them are directly harmful to our future existence on this planet. It is therefore a growing imperative to transform the way collective action is organised towards one that promotes regenerative sustainability. For this to happen there needs to be a move away from seeing organisations as environments in and of themselves, towards one where organisations are seen as within – and integral components of – complex socio-ecological environments. Organisations should no longer be a root cause of unsustainability, but instead potentially adaptive (and adapting) solutions of promoting regenerative sustainability. One emerging organisational form which has the potential to be such a solution is SOHOs. This thesis has found that these organisations have the potential to play a critical role in triggering and steering transformations towards sustainability, including transformations aimed at regenerative sustainability, especially if they have the ability to apply and promote complex socio-ecological worldviews and create enabling collaborative environments. However, it could be that they presently have a larger potential to trigger rather than steer sustainability transformations, due to the fact that they don't adequately monitor and evaluate their work and rarely see the bigger picture of what is going on in specific systems and design interventions accordingly. However, due to the size of most SOHOs being at the scale of a micro enterprise or SME it might not be their role nor their responsibility to do so, at least not as individual organisations. Instead, support organisations (such as *XES* in Barcelona and the B-Corp movement internationally), should play a bigger role in questioning and assessing the overall impact

of these hybrid organisational forms and whether and how their interventions could help steer systems towards positive tipping points and transformations towards regenerative sustainability.

The thesis started by answering research question 1 *(how are organisations contributing to (un)sustainability?*) through a literature review. This review was presented in Chapter Two and focussed on mainstream organisational and management literature related to the natural environment. This found that that mainstream organisational and management theories, logics, and practices can be seen as one of the cultural root causes of global environmental change due to their tendency of viewing organisations *as* environments in and of themselves. Additionally, more contemporary "greener" and sustainability-oriented organisational theories and practices which aim to be *for* the environment, the economy, and society or *adapting to* the environment have not gone far enough in addressing this unsustainability. The review also highlighted an emerging view where organisations are seen as *within* environments, and it is this view which most hybrid organisations, especially SOHOs, adopt. As a result of this review I decided to focus my research on SOHOs.

Research question 2 *(what is known about hybrid organisations for whom the main purpose is not to maximise economic profit but to achieve social and ecological missions, and how could they help bring about sustainability transformations?)* was answered through a comprehensive literature review outlined in Chapter Six. This review resulted in the introduction of the SOHOs concept and described what is known about such organisations. It highlighted that the literature is characterised by fragmentation and inconsistencies and that there is a lack of frameworks and methods able to adequately measure and analyse the outcomes of SOHOs processes and activities. It concluded that to promote sustainability transformations SOHOs should ideally implement regenerative

activities that have net-positive outcomes and address the underlying causes of unsustainability as not doing so could lead SOHOs business models to perpetuate existing systemic problems.

Research question 3 was answered through an empirical study of SOHOs in the Metropolitan Area of Barcelona *(how are SOHOs supporting the development of capacities conducive to fostering sustainability transformations at the community and urban scales?)* presented in Chapter Seven. Through applying and further developing an existing theoretical framework this chapter explored how nine SOHOs in Barcelona build three foundational transformative capacities for regenerative sustainability. Thus, it couples regenerative sustainability ideas with the transformative capacities concept and found that SOHOs can play a decisive role in building such capacities at the local scale. However, their strategies and actions could result in the development of unintended negative consequences that could compromise their ability to build such capacities at the urban scale or beyond. Therefore, their strategies need to be critically examined and likely altered for SOHOs to fully enact their transformative potential.

Lastly, research question 4 was considered in Chapter Eight *(how and what might make SOHOs able to support positive transformative change towards sustainable development?).* This chapter took a grounded theory approach to understanding what might make SOHOs able to contribute to sustainability transformations. The same nine SOHOs were investigated in the Metropolitan Area of Barcelona with the finding that their transformative abilities were influenced by: (1) the promotion and application of complex socio-ecological worldviews where individuals and organisations are seen as integral components of socio-ecological systems; and (2) the creation of enabling collaborative environments which facilitate synergetic connections and substantive relationships 'beyond' the organisation. In conclusion, SOHOs challenge harmful and

unsustainable dichotomies perpetuated by mainstream management logics and practices, especially the internal/external divide. Therefore, creating and supporting the development of SOHOs, in cities and beyond, could be a key leverage point for promoting transformations towards regenerative sustainability.

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Appendices

Appendix I. Co-Authorship statements

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20 September 2019

Dear Director of Graduate Studies, School of Geography and the Environment,

Regarding candidate Dina Hestad's papers submitted the DPhil thesis, for which I serve as supervisor, I certify that the majority of that work is her own.

Yours sincerely,

Thomas F. Thornton, Ph.D.

icta Institut de Ciència i Tecnologia Ambientals • UAB

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To: School Of Geography And The Environment
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25 September 2019,

Dear Director of Graduate Studies, School of Geography and the Environment,

Regarding candidate Dina Hestad's papers submitted in the DPhil thesis, for which I serve as supervisor, I certify that the majority of that work is her own.

Yours sincerely,

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Appendix II: Notes on different sustainability transformations perspectives

There are a number of different theories and perspectives related to sustainability transformations in the literature, and in this appendix, I consider a few in order to situate the thesis. These perspectives are socio-technical transitions, socio-ecological resilience, and social transformations. I've chosen to consider these perspectives due to their prominence in the literature and also as they stem from different ontological backgrounds (Geels, 2010a). Understanding the ontological underpinnings of different approaches to the study of transformations towards sustainability are important as they highlight the assumptions the theories explicitly or implicitly make about how change happens. Furthermore, ontological considerations about where society is placed with respect to the natural environment results in very different governance and political recommendations (Gillard et al., 2016). Overall, what these three perspectives have in common is that they do not adequately focus on understanding the role of organisations or the process of organising social systems plays in driving global environmental change and sustainability transformations. Instead, different theoretical perspectives have focussed on the need to transform socio-ecological systems, institutions, technologies, governance arrangements, policies, behaviour, or management practices (O'Brien & Sygna, 2013).

Socio-technical transitions

ST transitions research generally focusses on climate change mitigation related approaches, and especially on understanding how sustainability innovations emerge and become sustainable through the interrelations between technical and social processes (Geels, 2004; Haxeltine et al., 2013). The most common approach within SE transitions is Transitions Management (TM) which aims to foster and upscale niche level innovations

whilst destabilising the current regime through strategic, tactical, operational and reflexive levers (A. Smith & Stirling, 2010). Both of these approaches are based on the multi-level perspective. This is a framework that aims to provide a multi-dimensional view of complex changes in socio-technical systems (Geels & Schot, 2007; Rip & Kemp, 1998) through looking at three analytical levels: niches (the source of radical innovations); socio-technical regimes (locked in and stable on multiple dimensions); and socio-technical landscape which is exogenous (Geels, 2002). The theory postulates that transitions emerge from the interaction of processes within and between the niche, regime, and landscape levels and do not happen easily but when they do, they occur through innovations that are incremental and move in predictable trajectories. The perspective considers that radical innovations or struggles between niches and regimes come about as a result of the dedicated efforts of interpretive actors (Rip & Kemp, 1998).

The focus is on understanding processes and developments over time and it is therefore argued that it can explain both incremental and radical change (Geels, 2010a). Agents are knowledgeable and they interpretively and creatively apply rules within constraints and retention pertains to not only retaining what works but a process of institutionalisation that is interpretive, contested, and negotiated (Geels, 2010a). The multi-dimensionality of the different levels in the MLP and the interactions between them is arguably a strength as it enables considerations of both agent and system dynamics (Geels, 2010a). However, the multi-dimensionality and interactions are quite general and practically oriented and despite intentions to consider institutional, personal, and political drivers of change there is a tendency in the literature "towards reductive methodologies that quantify, model, and control" institutions and actors (Gillard et al., 2016, p. 3). The simultaneous goal of destabilising regimes and fostering and upscaling niche level innovations through management and governance mechanisms also neglects the insights

from complexity sciences (which ST transitions also draws from) regarding the non-linearity and unpredictable nature of change (Gillard et al., 2016). Additionally, it's been criticised for not adequately taking into account the role power relations, institutional ideas, discourses, and conflict play in provoking, mediating or resisting social change (Shove & Walker, 2007). For instance, transitions management holds that only a few actors are required to enact change, and as these individuals are likely to control the envisioning process and influence the degree of change the initiative can achieve (Kern & Smith, 2008), this could reproduce existing power relations which could harm the already marginalised (Scrase & Smith, 2009). Furthermore, it has been criticised for its emphasis on technology at the expense of organisational and social innovation (Seyfang & Haxeltine, 2012) along with a lack of focus on the details of transitions, especially regarding new institutions meant to govern transition management reflexively (Shove & Walker, 2007).

Socio-ecological resilience

SE resilience focusses on climate change adaption and especially explores societal and ecosystem interdependencies and the need for adaptive capacity to achieve successful responses to climate change (Folke et al., 2010; Folke, Hahn, Olsson, & Norberg, 2005). This focus emphasises the interdependence between societies and ecosystems and draws heavily on systems theory and ecology. It holds that through the adaptive cycle model coupled socio-ecological systems can maintain their vital functions through cycles of creative destruction and recourses use to establish multiple states of equilibrium (Holling, 1973). Transformations are here seen through the lens of regime shifts and through active and forced transformations. Active transformation is understood as the "deliberate initiation of phased introduction of one or more new state variables (a new way of making

a living" at lower scales, while maintaining the resilience of the system at higher scales as transformational change proceeds" and forced transformation is an "imposed transformation of a socio-ecological system that is not introduced deliberately by actors" (Folke et al., 2010, p. 3). Additionally, adaptive co-management is an approach within this realm which pursues SE resilience through "polycentric, participatory, and accountable processes – thereby achieving a diversity of input, good compatibility between knowledge and context and safeguard against overlooking issues of social justice" (Gillard et al., 2016, p. 255). Here change is caused by disturbances emanating from external environments that disrupt equilibriums, create tensions, and change the needs of systems. The system itself then adjusts through changing its goal-attainment and adaptation functions and settles in a new equilibrium. For deliberative transformations, the goals are set by leaders and experts and enact changes that adjust economic sub systems which then is anchored in new behavioural norms and values (Folke, 2006; Folke et al., 2010; Olsson et al., 2010).

Socio-ecological resilience approaches as well as complex systems theory are based in functionalism and focusses on studying existing systems and how they adapt to external shocks and stresses. The functionalist ontology at the base of this approach emphasises the social system as the causal agent with the causal mechanism being the "fulfilment of system needs/goals by actors who fulfil functions, tasks or roles" (Geels, 2010a, p. 506). This has been criticised as tending towards a "top-down 'cockpit' view' with benevolent leaders and experts adjusting systems in appropriate directions (technocracy)" (Geels, 2010a, p. 506).

SE resilience also builds on dynamic systems theories (emerging from natural and technical sciences) such as complex systems theory (Holland, 1995), especially through its focus on the interactions between the system elements that functionalism has helped

define and distinguish. Here the causal mechanisms that explain the interaction between the system elements are largely abstract and metaphorical, such as negative or positive feedbacks or tipping points, self-organisation, emergence, and attractors. SE resilience approaches have applied such concepts and metaphors uncritically and abstractly to social systems leading to criticisms about them generating simplistic assumptions about where change emerges from in agency-structure dynamics and the production of managerial governance prescriptions (Cote & Nightingale, 2012; Gillard et al., 2016). It's been argued that this literature cannot adequately answer why certain socio-ecological systems appear more viable than others due to their use of the descriptive terminology of multiple equilibrium and creative destruction (Gillard et al., 2016).

The strengths associated with this approach is associated with its much clearer interlinkages with natural systems than the socio-technical transitions approach. However, its focus on producing management strategies have also been criticised for not recognising their place within political structures and institutions, how they are interpreted by different actors and for not paying enough attention to human livelihoods (Berman, Quinn, & Paavola, 2012; Plummer, 2013). In fact, It's been argued that social change in socio-ecological systems research focusses too much on structures/institutions and their functionality at the expense of understanding their political, historical and cultural dimensions (Cote & Nightingale, 2012). Understanding the role of power and politics is crucial as resilience in the short term may not necessarily lead to adaptation in the long term as unsustainable or undemocratic social and political systems can also be resilient (Rose, 2011). Furthermore, this emphasises the tendency of this literature to depoliticise climate change whilst emphasising neo-liberalism and its governing systems which is responsible for escalating socioeconomic inequality and vulnerability (Swyngedouw, 2010).

Social transformations

The social transformations approach was described as such by (O'Brien & Sygna, 2013), who argues that this is a discrete way to study transformation within the context of climate change. However, it is not a mid-range or clearly defined theory like the above approaches. Instead, it is an approach that focusses on identifying and addressing the root causes and structures as actions which perpetuate structures and systems that cause climate change and vulnerability will not lead to true and long term adaptation (Matyas & Pelling, 2015; O'Brien, 2012; O'Brien & Sygna, 2013; Pelling & Blackburn, 2014; Pelling & Manuel-Navarrete, 2011; Tanner & Bahadur, 2013). The perspective holds that climate change adaption occurs when politics are liberating and inclusive and open to more alternative views and responses than traditional politics (O'Brien & Selboe, 2015). There is a focus on intentional human agency as well as political agency which entails "the capacity to positively influence the collective future through transformative change" (O'Brien, 2015, p. 1170). This agency is not just individual but rather collective as power is viewed to be found in the ability to people to act collectively and collaborate to create sustainable and equitable alternatives (O'Brien & Selboe, 2015). It considers that organisations and networks of people that collaborate can generate capacities which exist in collectives instead of individuals (Jordan, 2011). Causal mechanisms to achieve such social transformation are processes such as emancipation, challenging and changing beliefs, mind-stets, values, identity and power, managing conflict towards resolution, quantum leaps, and collective self-consciousness.

The social transformations approach is based on a crossover between different ontologies, namely power and conflict ontologies as well as influenced by process ontologies and integral theory. Conflict and power ontologies sees the causal agent as

collective actors which differ in terms of goals and interests leading to power struggles and conflict. Power and conflict ontologies that have influenced social transformation research includes neo-Marxist and Gramscian theory. The relational ontological perspective as well as integral theory relates to the focus on internal transformation through the continual reconfiguration of individual identify, interests, power, beliefs and worldviews which influence the interactions, relationships and practices in which the individual takes part (Callon, 1998).

The strengths of this approach relate to its focus on collective agency as well as internal transformations. For social transformations to occur its necessary to for changes to occur in both personal, political and practical spheres (O'Brien & Sygna, 2013), however the ST transitions and SE resilience theories focus on the practical and political spheres but neglect changes in personal spheres such as beliefs, values, worldviews and paradigms which it's been argued is the most promising and catalytic source of change (O'Brien, 2018). However, this perspective has not adequately considered the role of organisations, and organisational change, in advancing or hindering sustainability transformations.

Appendix III. Co-authored papers and presentations

From urban sustainability transformations to green gentrification: urban renewal in Gaziosmanpaşa, Istanbul

Mahir Yazar, Dina Hestad, Diana Mangalagiu, Ali Kerem Saysel, Yuge Ma, & Thomas F. Thornton

Published in Climatic Change in 2019 in special GREEN-WIN issue

Abstract

Processes aiming to achieve urban transformation that includes sustainability can result in green gentrification and thus promote exclusivist, private green spaces. At the same time, they compromise the ability of cities to promote more systemic sustainable development. Istanbul has long been a site of planned gentrification and displacement through urban renewal and regeneration projects, which have recently touted a sustainability angle. While sustainable urban renewal can have positive impacts on human health and well-being and is critical for addressing climate change and other environmental challenges, the benefits are rarely evenly distributed. Through an examination of sustainability-oriented urban renewal projects in Istanbul's Gaziosmanpaşa district, this study shows that vulnerable residents have been displaced by the planned gentrification and that such consequences are likely to be amplified by visions of green sustainability. It also illustrates that plans to harness the city's drive for economic growth and urban development risk making large parts of the "green" districts affordable only for relatively well-off citizens. Based on semi-structured interviews, non-participatory observation, and analysis of project and municipality- level documents, we find that even though seismic vulnerability and energy efficiency are cited as reasons for these transformations towards sustainability, policymakers are not paying sufficient attention to the political ecology of social exclusion and an increase in inequality that can result from sustainability-oriented urban renewal.

Enabling Environments for Urban Sustainability Transformations: Comparing Shanghai and Istanbul

Yuge Ma, Dina Hestad, Thomas F Thornton, Diana Mangalagiu, Mahir Yazar, Ali Kerem Saysel, & Dajian Zhu

In review in Climatic Change in special GREEN-WIN issue

Abstract

Sustainable transformations in megacities promises high mitigation and adaptation potential to address the effects of anthropogenic climate change. However, the emergence of such transformations relies on the existence of enabling environments. In a comparative case study of the megacities of Shanghai and Istanbul, we assess the challenges of realising transformational opportunities through an Enabling Environment framework. The case study focuses on potentially transformative processes in two sectors: the disruptive business model innovations of the sharing economy in Shanghai's mobility sector and green practices developed alongside the intensification of Istanbul's building sector through the process of urban renewal. We find that without adequate enabling environments, transformations may fail to achieve effective climate action and sustainable development goals. We also show that while deliberate and collective efforts are underway from multiple stakeholders within and beyond the two megacities, the enabling environments for transforming critical sectors toward sustainability, like building and transport, remain insufficient primarily due to conflicting priorities among key actors in the urban systems.

Co-Creation, Co-Evolution and Co-Governance: Understanding green businesses and urban transformations

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In review in Climatic Change in special GREEN-WIN issue

Abstract

Green businesses based on economic, social and technological innovations are engines of green growth and climate change adaptation across the world. However, without proper interactive mechanisms with the city, green businesses are particularly vulnerable in today's fast-changing socio-economic and political urban contexts. Existing research on climate change adaptation and low-carbon transitions have not explained the crucial components and mechanisms involved in realising sustainable transformations through green businesses in cities. Synthesizing the latest green innovations and urban transformations literature, the paper analyses four distinctive urban green business cases: free-floating bike sharing in Shanghai (Mobike), a renewable energy cooperative in Girona (Som Energia), urban agriculture in Venice and green building start-ups in Istanbul. Based on a comparative analysis, we theorize a 3-Co model to explain the city-green-business transformations process consisting of: first, co-creation of sustainable values between green business and the respective society; second, co-evolution between the business ecosystem and the city's visions and policies; and third, co-governance of sustainable trade-offs during the business development and implementation process.

Presentations delivered during the DPhil

Embedded and Entangled: Exploring what makes Sustainability-Oriented Hybrid Organisations transformative. Alchemy of Adaptation Conference. Tjøme, Norway. 2019.

The role of Sustainability-Oriented Hybrid Organisations in the development of transformative capacities: The case of Barcelona. ETH Academy on Sustainability and Technology. Switzerland. 2019.

Organising socio-ecological re-connection in Barcelona. Rethink the City: Resilience in Post-Conflict Cities Conference. ESA Business School, Beirut. 2018.

The dynamics of transformative organisations in Barcelona: developing capacities for systems change towards sustainability. Action for Climate: Narratives, WIN-WIN Solutions and Climate Finance Conference. Autonomous University of Barcelona. 2018.

Social transformations towards sustainability requires transformative organisations: preliminary evidence from Catalonia. Transformations2017 Conference. University of Dundee. 2017.

Social transformations towards sustainability: an interdisciplinary social science approach to studying transformative organisations in Catalonia and Barcelona. Interdisciplinary Seminar Series on Human Well-Being and the Environment. University College London. 2017.

Appendix IV. Summary and outputs of project on systemic activism

A key focus from the start of this thesis was to improve knowledge about how to monitor and evaluate organisations and activities that promotes transformations towards sustainability. Organisations that have started considering this includes a group of Civil Society Organisations (CSOs) involved in systemic activism in Europe. This led me to reach out to Micha Naberhaus, the convener of the Smart CSOs Lab, to explore opportunities for a joint action research project. We started working together in the summer of 2017 during my fieldwork in Barcelona, where he is based. This involved engaging in a project with the Guerrilla Foundation for over a year, who's aim is to help activists and grassroots movements build pockets of resistance that will contribute to larger societal transformations towards a living, circular economy with a deeply democratic society that prioritises social and ecological wellbeing. To achieve this goal the Foundation awards small sums of money to activists around Europe. The goal of our project with them was to co-develop and experiment with new tools and practices that can help promote sustainability transformations (the Great Transition is the term they use) as we identified a lack of practical and theoretical knowledge regarding how to achieve this.

We chose to focus on developing a theory of systems change for the Guerrilla Foundation which started with developing a set of Systemic Selection Criteria which can aid the staff and the board of the Foundation in assessing whether an applicant has the potential to generate systemic impact. These criteria were used for one of the funding rounds of the Foundation and Micha and I were part of assessing the applicants. The board and staff of the foundation reported that the criteria were useful and had some influence despite having difficulty grasping their complexity at times. However, in the end some of the grantees were in contradiction to our criteria. Furthermore, as the project proceeded,

differences in views and opinions about what types of activism is likely to promote sustainability transformations became starker and starker. To the point where it was no longer preferable to continue the collaboration with the Guerrilla Foundation. Around the same time as this project concluded (May 2018) the School of Geography and the Environment decided to reduce the number of required papers for a DPhil from four to three. As such, I decided that instead of collecting more data (which would have involved interviews with key staff and board members) and writing a paper about this experience, I would leave this for another time and focus on the other more developed papers presented in this thesis.

However, this project did result in a number of non-academic outputs which are highlighted below:

- A blog post co-authored by me and Micha Naberhaus on the Guerrilla Foundation experience: Hestad, D. & Naberhaus, M. (2019). Learning how to build capacity in grant-making organisations to tackle systemic crisis. Found here: https://www.smart-csos.org/blog-on-theory-and-practice/213-learning-how-to-build-capacity-in-grant-making-organisations-to-tackle-systemic-crises
- A presentation and group exercise at the Agora for the Great Transition conference in Paris: Hestad, D. Naberhaus, M. (2018). Effective Leverage Points for the Great Transition. Overview and results found here: https://www.smart-csos.org/images/Documents/Leverage-Points-Session-at-Agora.pdf

Appendix V. Interviewee details

Category	Organisation	Number of interviews
SOHO representatives		
Senior managers and staff	Som Energia	5
Co-founder	Lacol	1
Co-founder	Celobert	1
Member	La Borda	1
Co-founder	Tarpuna	1
Senior management	Unico	1
Co-founder	InEdit	2
Founder	Eixverd	1
Co-founder	Roots for Sustainability	1
Sub-total SOHO interviews		14
Sustainability experts		
Business	Foment and a serial entrepreneur in the energy space	2
Local government	Barcelona Sustainability Office, and Barcelona + Sostenible	2
Regional government	Catalan climate office	1
NGO/social movement	La Xarxa d'Economia Solidària (XES), Cooperativa Integral, and a time bank	3
Researchers	Autonomous University of Barcelona	4
Sub-total sustainability expert interviews		**12**
Total number of interviews		***26***

Appendix VI. Interview guides

Guide 1: questions for members of SOHOs (example)

1. What is your job? How long have you worked here?
2. What is the purpose of your organisation? (When and why was it founded?) Has it been successful? What is your vision for the future?
3. How do you think your activities are addressing climate change and social vulnerability?
4. What enabled the foundation and/or success of your organisation?
5. What is the legal structure of the organisation and how do decisions come about?
6. Does your organisation work closely with other organisations, either public, private or non-governmental? How is your engagement with authorities?
7. How is your engagement with the communities in which you operate?
8. Does your organisation receive the support you need from the different levels of government to enable the implementation of your solutions?
9. If you are unhappy with something or you have an idea, who do you speak to about it? Are there mechanisms for dialogue, information sharing and collaboration?
10. What are the challenges associated with your work and the work of your organisation? How have you addressed these challenges?
11. How does your organisation assess its performance (indicators/bottom lines)? How do you know whether you are achieving your purpose?
12. What do you think are the main causes of climate change and social vulnerability in Barcelona?
13. In your opinion does your organisation have enough money and staff to carry out your purpose?

14. Would you say you and your organisation is motivated to achieve your purpose and do you think you are able to achieve it?

Guide 2: Interview questions for sustainability experts about the enabling environment of Barcelona (example)

1. What is your job and how long have you worked here?
2. What is the purpose of your organisation? What is your vision for the future? Has it been successful in achieving this?
3. How do you aim to address climate change and social vulnerability?
4. What are the most important measures to create a climate resilient Barcelona?
5. How does your organisations relate to other organisations? In the public and private sector?
6. Is your focus on doing things yourselves or assisting others in creating solutions that address climate change, or both?
7. Do you think there is adequate attention to climate change and sustainability in Barcelona at present?
8. What factors do you think enable and disenable actions on climate change and sustainability in Barcelona?
9. Who are the most innovative and important organizations driving climate action?
10. Do you see the social and solidarity economy as important players in this field?