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Exploring the nexus between sustainable tourism governance, resilience and complexity research

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ABSTRACT
Governance and complexity have increasingly become subjects of interest within research on sustainable tourism. Governance has been marked by a turn to more corporatist and networked policymaking structures. At the same time, the use of the concept of complexity in research on tourism destinations and governance is gaining momentum in an effort to address the links in increasingly networked systems as well as the interrelatedness of the multiple features of a tourist destination. Meanwhile, resilience has emerged as a new buzzword in research on sustainable development and governance which denotes the ability of a destination to cope with and adapt to change. This article reviews the literature on destination governance to identify critical issues and trends, and discusses the relevance of complexity approaches. Evolutionary studies and research on resilience in a sustainability context are becoming part of this discussion. The review sheds light on the limitations and merits of each of these concepts, as well as on their nexus. The article concludes with some key areas for future research on destination governance. The aim of the review is to contribute to conceptual clarity and to advance the application of complexity approaches in research on destination governance.

Introduction

Despite the general recognition of the importance of sustainable development within tourism, for instance in relation to the United Nations’ Sustainable Development Goals (SDGs), there is very little evidence of progress regarding its implementation (Sharpley, 2020). While it is recognised that sound policies to implement sustainable tourism are required, at an operational level more knowledge is also needed (Hall, 2011; Lew et al., 2016). The traditional role of public policy and government has been to encourage and regulate tourism development through subsidies or taxes, marketing and planning (Ruhanen, 2013); however, this role has shifted in recent times towards governance characterised by more managerial and corporatist approaches, with less state intervention and the encouragement of public-private partnerships (Liu et al., 2012). This corporatist, neo-liberal approach to governance has, though, been criticised (Hall, 2011; Ruhanen et al., 2010). Nevertheless, the importance of effective governance in achieving sustainable tourism has been underlined (dos Anjos & Kennell, 2019; Nunkoo, 2017). Torres-Delgado and Palomeque (2012) argue that it is the fourth component balancing its environmental, social and economic ones, the ‘missing link’ to sustainability. Good governance can make a significant contribution to sustainable development by democratising policymaking through wide participation and ensuring the appropriate institutional arrangements are in place (Bramwell, 2010; Bramwell & Lane, 2011). Research on destination governance has looked at the shift in public policy towards governance and its complex role, the role of networks, and the changing role of destination management organisations (DMOs) (dos Anjos & Kennell, 2019). This research has been done from two distinct disciplinary perspectives: a corporate management research approach and a political science one (Adu-Ampong, 2019). The corporatist approach sees destinations as an amalgamation of firms and emphasises the role of elite individuals and key players on destination competitiveness. The political science approach, in contrast, emphasises collaborative planning and public-private partnerships, through critical analysis of ideologies, structures and social relations of power (Adu-Ampong, 2019; Amore & Hall, 2016).

Much as ‘governance’ has become the new buzz word in relation to tourism policy, ‘resilience’ has emerged as a new buzz word in relation to sustainability. Resilience has

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been used in tourism research to understand destinations’ adaptive capacity with regard to: global and local challenges, crises and disasters (Bhati et al., 2016; Calgaro et al., 2014; Filimonau & De Coteau, 2019); organisational and business ability to cope with changes and shocks (Biggs et al., 2012; Dahles & Prabawa Susilowati, 2015); vulnerability and climate change (Dogru et al., 2019; Espiner & Becken, 2014; Luthe & Wyss, 2016; Scott et al., 2016); and planning and governance systems (Dredge, 2019; Gill, 2018; Nalau et al., 2019; Robinson & Carson, 2015; Saarinen & Gill, 2019). Although some scholars argue that resilience is a suitable replacement for the fuzzy concept of sustainability (McCool et al., 2013), others warn of its ambiguity and its overuse as another contested buzz word (Hall, 2019; Reid & Botterill, 2013). Although resilience is firmly connected to both sustainability and governance, and good destination governance is often considered to enhance resilience and contribute to the sustainable development of destinations (Saarinen & Gill, 2019), issues of conceptual clarity and empirical research remain on the agenda and need attention (Cheer & Lew, 2018; Espiner et al., 2017; Hall, 2019).

At the same time, complexity approaches in tourism governance research are increasing. Complexity approaches address the interlinkages in increasingly networked systems as well as the interrelatedness of the multiple components which feature in a destination. Complexity approaches in governance emphasise the evolving, adaptive character of policymaking in a constantly changing environment to cope with uncertainty and complexity (Baggio et al., 2010; Hartman, 2016; Nijis, 2015). Bramwell et al. (2017) identified governance and complex systems as areas of increasing interest in research on sustainable tourism. Similarly, Farrell and Twining-Ward (2004) recognised the contribution of complexity approaches to destination governance and sustainable development. It is argued here that more integrative studies would contribute to the field. Resilience, although emanating from research on complex adaptive systems, is not always explicitly related to complexity approaches in tourism research, while conceptual challenges regarding resilience remain. Even when explicit links to complex systems are made, the terms ‘resilience’ and ‘complex adaptive systems’ are often used interchangeably, which exacerbates the fuzziness, and therefore, conceptual confusion.

Now more than ever, system approaches which embrace the complexity of the world are important for sustainability. Global crises such as the Covid pandemic, and the slower but increasingly evident climate change point in the direction of interdisciplinarity and complexity. Although the world is now focusing on resilience as it seeks to bounce back from a crisis, resilience should be examined in the wider Anthropocene context (Dredge, 2019) and as a dimension of sustainability. According to several scholars, we live in a transformative moment when we need to redefine our understanding and scholarship of development, community, and resilience for the ‘new normal’ after the pandemic (Gretzel et al., 2020; Hall et al., 2020; Higgins-Desbiolles, 2020; Ioannides & Gimóthy, 2020). This invites a transformative change in the tourism industry and destinations worldwide. The transformation of a destination embraces the presence of competing ideas (Saarinen, 2004) and it is argued here that it is better understood in complexity approaches.

Complexity approaches allow for the co-existence and incorporation of diverse, even conflicting views in the local community (McDonald, 2009). These views then become not only visible but understood as a resource for sustainability which enables multiple trajectories through self-organisation, emergence, and adaptation. Complexity approaches allow also cross-sectoral and cross-scale understanding of policies, enabling a wide dialogue and the incorporation of a whole-systems perspective (Meekes et al., 2017). Ultimately, they can contribute to the democratisation of governance and its transformation from a neo-liberal reductionist process to a powerful collaborative one. Also, an understanding of how people assign meaning to their environment can be incorporated within complexity approaches (Meekes et al., 2020). Democratisation then expands to include non-dominant discourses of the human-environment relationship and the Anthropocene.

This article reviews the literature on complexity approaches in destination governance. Evolutionary studies and resilience are becoming part of the discussion on sustainable tourism, and the review not only sheds light on the limitations and merits of each concept when taken separately, but also on the synergy between them. The article concludes with some key areas for future research. The aim is to advance the application of complexity approaches in research on destination governance, in part by providing some conceptual clarity in relation to resilience, destination governance and complexity approaches. This in turn will facilitate interdisciplinary research on sustainable tourism.

### Governance research in tourism

Interest in governance has flourished among tourism scholars since the 2000s, as has interest in the notion of sustainability. The community participation and collaborative policymaking inherent in sustainable tourism have led to a proliferation of research on collaborative planning. Public-private collaborations have been at
the centre of this attention (Gursoy et al., 2015), while early research looked into collaboration between governmental agencies (Lovelock, 2001), between different levels of government (Dredge & Jenkins, 2003) and at local policymaking (Vernon et al., 2005). The role of collaboration in destination sustainability and the representativeness of the stakeholders participating in the planning process have also been the subject of research (e.g. Araujo & Bramwell, 1999; Byrd, 2007; Currie et al., 2009). Most of these studies adopted a stakeholder theory approach to incorporate inclusivity and morality in the discussion of policymaking.

Parallel to the development of collaborative policy models, a global shift in the policy environment has given rise to the dominance of neo-liberal policy agendas. For Vernon et al. (2005), the shift to collaborative planning resulted in governments becoming ‘enablers’ rather than ‘providers’ under the influence of neo-liberalism. This shift has contributed to the development of a corporatist model in public administration and the adoption of public management, with a shift from government and public policy to governance (Ruhainen et al., 2010). The term ‘governance’, however, lacks clear definition, and its use in tourism research is often ambiguous (Bramwell & Lane, 2011). Several scholars agree, though, that governance is broader than government and involves less governmental control, a lack of hierarchy, and multiple stakeholders – market actors as well as public sector actors – and that it activates both formal and informal agencies (Bramwell & Lane, 2011; Farmaki, 2015; Nunkoo, 2017; Wray, 2015). Governance in this sense would reflect a rather pluralistic approach to policymaking, with wide participation from several state and non-state actors. However, it has also been argued that, in practice, governance diminishes the role of the state (Hall, 2011; Ruhainen et al., 2010) while, conversely, the participation of non-industry actors has been criticised as being weak and remaining at a consultancy level, providing feedback on well-developed ideas and plans rather than formulating them (Joppe, 2018). For Hall (2011) the predominance of governance over government has been related to the globalisation of the tourism industry, neo-liberalism, the increasing power of public-private partnerships and the importance of networks in this changing environment, with profound implications for sustainability and the way that policy agendas are set.

Governance systems, processes and their contribution to sustainability have been the subject of research. Several of these studies criticise governance as following weak approaches to sustainable development and claim there is a lack of evidence-based policies for sustainable tourism. For example, Farmaki (2015) examined the effectiveness of governance partnerships with regional tourism organisations in Cyprus and found that they follow a weak approach to sustainability, with heavy dependence on international tour operators and an emphasis on the economic agenda. Wray (2015) analysed regional policies in New South Wales, Australia, and concluded that regional tourism governance gave emphasis to economic growth rather than sustainability. Higgins-Desbiolles (2011) analysed the development of a luxury eco-lodge in a pristine area in Kangaroo Island in Australia and criticised the local governance system for trading off environmental protection to economic growth. Shone et al. (2016) suggested that local government had a contested role in the development of sustainable tourism in Hurunui, a rural district in New Zealand. Moscardo (2011) conducted a content analysis of tourism plans from several countries and concluded that they had a weak approach to sustainability; again, economic growth dominated the agenda and there was limited – if any – involvement of local communities in the planning process. Jamal and Camargo (2018) argued that questions related to the efficiency of and processes in governance in relation to communities and residents, although a research trend, should incorporate equity and justice to include marginalised groups, such as women, migrants, or youth. They argued for a re-envisioning of collaborative understanding in policy, where diverse and broad participation is not seen merely as a process but rather as a policy goal and an end in itself.

Indeed, power imbalances in collaborative planning and governance have been widely researched also as part of network approaches. The shift from government to governance and the transfer of traditional public government policymaking to public-private partnerships has resulted in an increased interest in the role of networks in this new policy environment (Dredge, 2006a; van der Zee & Vanneste, 2015). Network approaches in destination governance research were seen as more appropriate to address the complexity of destinations and the need for more adaptive, flexible governance systems that incorporate a multiplicity of public and non-public actors (Beaumont & Dredge, 2010) and give a better understanding of the tensions in collaborative planning (Dredge, 2006a). Which actors have influence in tourism development, their values and interests along with their relationships and connections have been studied (Beritelli & Bieger, 2014). Power imbalances and the relations between the actors in policy networks for sustainable tourism have also been examined (e.g. Bramwell & Meyer, 2007; Pför, 2006). A significant part of the research on governance networks has focused on the inter-organisational collaboration of private or
semi-private actors in formal or informal networks and the role of these partnerships in the competitiveness of destinations (Dredge & Jenkins, 2003; Elbe et al., 2018; March & Wilkinson, 2009; Timur & Getz, 2008; van der Zee & Vanneste, 2015; Zach & Racherla, 2011). Fewer studies have looked specifically at policy systems and the role of partnership in policymaking on sustainability (e.g. Baggio, 2017; Dredge, 2006a; Gibson et al., 2005; Volgger & Pechlaner, 2015) or the role of the private sector in policymaking (e.g. Dredge, 2006b; Erkuş-Öztürk & Eraydin, 2010; Kimbu & Ngoasong, 2013). In such studies, destinations are seen as networks of stakeholders with diverse interests and goals, and the role of prominent actors has been examined. Research has looked also at the structure and the operations of networks to identify weaknesses in the cohesion of destinations and how these influence policymaking (Baggio, 2017). Beaumont and Dredge (2010) studied three different local governance networks – one led by a council, one led by participants and one led by the local tourism organization – and found that they were underpinned by four key trade-offs that affected their effectiveness. Strobl and Peters (2013) found that entrepreneurs with a good reputation and who were well connected in governance networks had a larger degree of influence on policy; they concluded that social capital gave these highly influential actors access to the policymaking process. Social capital and trust are issues which, according to Baggio (2017), have not been so widely researched. Joppe (2018) is critical of the overemphasis on networks in tourism (and especially destination) governance, on the grounds that such networks rarely incorporate residents, but rather ‘industry’ representatives instead.

Most network research in tourism draws from social network and collaboration theories to gain an understanding of how actors’ relationships, collaboration and structures influence the competitiveness and sustainability of destinations, although some studies have taken a political economy approach in discussing power relations in policy networks. However, it is usually the case that reductionist, linear cause–effect approaches are taken, and so fail to take account of the complexity of destination governance. Consequently, an increasing number of authors underline the importance of complexity theory, notably integrating it with network analysis (e.g. Baggio et al., 2010; Luthe & Wyss, 2016; van der Zee & Vanneste, 2015). These studies are discussed below.

Complexity adaptive systems

Complexity theory and complex adaptive systems (CAS) are increasingly recognised as a useful framework in tourism research generally, and tourism and destination governance more specifically (Dredge, 2019; Farrell & Twining-Ward, 2004). Lélé (1998) argued that only complexity approaches can address the non-linearities apparent in policymaking on sustainability. CAS approaches imply a continuous interaction between stakeholders in formal institutions or informal networks, with these interactions affecting tourism development and the final outcome of policies. Often, outcomes in one policy arena spread to another, with the emergence of new features and new interactions in unpredictable ways. Thus, a complex system is an aggregation not merely of its components but also of the outcomes of complex interactions between those components. Interactions thus become an important element of the system which exacerbates its complexity and unpredictability. It is in the multiplicity and localised nature of these interactions (between actors, institutions, processes, policy issues) that diversity is found, and it is exactly that diversity and high interconnectivity that foster learning, self-organisation and adaptation in the system (Hartman, 2016). Complexity theory encapsulates the uncertainty and unpredictability emanating from adaptations and their cumulative effects in a complex world (Meekes et al., 2017). Examining and managing a destination as a CAS mandates an experimental, adaptive model of governance where decisions are taken collectively and strategies are evaluated after their implementation, with this new knowledge becoming a new input into the system (Baggio et al., 2010).

Early complexity approaches in tourism research focused on conceptualising tourism development within complexity science and discussing the contribution of those approaches. McKercher (1999), Russell and Faulkner (1999) and Farrell and Twining-Ward (2004), for example, discussed tourism systems as complex systems and argued for the need for alternative theoretical frameworks, such as complexity and chaos theories, to understand and manage their non-linear complex dynamics. Thereafter, a number of scholars advocated the use of complexity approaches in understanding the evolution of destinations (Schianetz & Kavanagh, 2008; Zahra & Ryan, 2007). For example, Russell and Faulkner (2004) discussed the role of entrepreneurship in the evolution of two destinations in Australia using as their framework of analysis complexity and chaos theory. Olya and Gavilyan (2017) used complexity theory as an alternative to social exchange and social representations theory to develop a model for understanding community support for tourism. Although these authors advocated the use of complexity approaches in tourism research, they generally applied such approaches to tourism development and
destination evolution, rather than the governance system. A notable exception was the study by Baggio et al. (2010), which examined the role of governance in complex systems such as destinations. For Baggio et al., the governance system is the mechanism allowing destinations to adapt to change and evolve, and this system needs to be adaptive, following an experimental path to governance, to test scenarios, monitor and evaluate outcomes, and incorporate this and other new knowledge as it continuously evolves and adapts. Those authors underlined the contribution of network analysis in understanding and managing this complexity. Indeed, the use of network analysis in the study of destination governance has flourished within complexity approaches and has added an important perspective on the role of interactivity and connectedness of actors. For example, van der Zee and Vanneste (2015) examined the role of trust and reciprocity among actors in networks in Flanders, Belgium, and found that networks in which managers engaged in trust-building activities were reported to be more resilient to external pressures. Luthe and Wyss (2016) examined resilience at different governance network scales in Switzerland using network analysis and concluded that higher-scale organised networks (e.g. regional) demonstrate greater innovation and capacity for adaptation. These studies underline the importance of network approaches in understanding destinations as complex systems whose governance is based on high interactivity and limited hierarchy between stakeholders (van der Zee & Vanneste, 2015).

Besides network analysis, a number of studies used a CAS approach to examine destination governance. Speakman and Diaz-Garay (2016) examined Acapulco as a CAS and concluded that the failure of policymakers to apprehend the particularities of the complex system resulted in poor management. Boukas and Ziakas (2014) used a chaos theory approach to describe the evolution of tourism in Cyprus and the role of policy in crisis management. These studies employed complex systems theory to understand destinations as complex amalgamations of actors, interactions and products, in which governance, as an adaptive process, was essential for the sustainability of the system. McDonald (2009) discussed the merits of complex systems theory in understanding the sustainable development and governance of an urban natural tourism resource in Perth, Australia. McDonald examined the role of conflicting values in governance and concluded that although they had created turbulences in the governance system, their understanding might in the long run stimulate self-organisation to find solutions. What a complexity approach brings to the study of governance of destinations, thus, is, according to that author, the acknowledgement of complex interactions between policy considerations and the advantages of more adaptive management, seeking multiple outcomes, in contrast to reductionist management pursuing a single outcome. Besides destinations or destination governance networks, sustainable tourism policies themselves are complex systems, in that they integrate environmental, social and economic considerations, and involve trade-offs and unpredictable policy outcomes and trajectories (Walker et al., 1998). Walker et al. developed a tool to help policymakers understand the links between ecosystems and tourism and to assist policymaking for nature-based tourism in Queensland, Australia. Farsari et al. (2011) elaborated on complexity in policy issues in their research on sustainable tourism in Greece and concluded that policies are better understood as networks of interrelated components with multiple trajectories rather than linear means–ends chains. Farsari et al. (2010) developed a conceptual model of tourism policy on mature destinations within the Mediterranean region and argued that policies on sustainable tourism should be viewed as complex systems comprising divergent paths which involve trade-offs and strategic choices spreading from one policy area to another.

Planning for sustainable tourism has been described in the planning literature comprising ‘messy, wicked problems’ (Hall, 2000). Wicked problems are value-driven, with no absolute normatively right or wrong solutions. Instead, they have adaptive policy options and their outcomes cannot be predicted with certainty, unlike in the rational science paradigms (Rittel & Webber, 1973). Indeed, there is growing support within academia for the view that the governance of messy, wicked problems such as sustainable tourism requires complexity approaches (Dredge, 2019). In turn, complexity approaches in tourism research have been closely interwoven with evolutionary and resilience approaches, as discussed below.

**Complexity, evolution and resilience**

Although the concept of CAS emanated from the natural sciences, and ecology in particular, it was later applied in socio-economic and socio-ecological studies. In relation to tourism, the discipline of geography, or more precisely evolutionary economic geography (EEG), has examined complexity and tourism (Saarinen & Gill, 2019) and in doing so has integrated resilience with complexity approaches. For Dredge (2019), evolutionary economics offers a framework to analyse and understand destinations as CAS, which are subject to continuous change and disruptions, and to understand the
adaptive mechanisms which help these systems be resilient. Hartman (2016) also argues that complex systems theory can integrate resilience and evolutionary approaches. Evolutionary approaches incorporate the dimension of time and so are well suited to capturing the evolving character of these systems as they adapt to change.

Boschma and Martin (2010) comment that there are three overlapping but distinct frameworks in EEG: neo-Darwinism emphasises evolutionary concepts such as variety, selection, novelty and continuity; the path-dependence framework uses the concepts of self-reinforcing dynamics, contingency and lock-in; and complexity theory takes account of the multiplicity of interactions, internal structures, non-linearity, self-organisation and adaptation, and emergence. These properties examined within the complexity framework are common in CAS and thus these approaches see tourism as an economic system that co-evolves with other economic and ecological systems, one that is much better understood as dynamic rather than as being in steady-state equilibrium (Sanz-Ibáñez & Clavé, 2014). Research has emphasised path-dependence in examining tourism, governance and resilience (e.g. Bramwell & Cox, 2009; Brouder & Fullerton, 2015; Gill & Williams, 2014; Mellon & Bramwell, 2018; Sanz-Ibáñez & Clavé, 2014). Although complexity is often seen in these studies as inherent to destinations, they have not always explicitly addressed it. While a strong emphasis in tourism research remains on the second framework, there has been growing research interest in the third direction, integrating evolution, resilience and complexity theory (Dredge, 2019). For example, Meekes et al. (2017) used complexity theory in EEG to examine leisure developments in the Frysland region of the Netherlands, together with institutional changes across time and space. This approach helped them understand the role of individual initiatives as a driver of adaptation and emergence in the region, over which planners had little control. For Brouder and Saarinen (2019), although methodological considerations mean that in practice researchers often have to choose between these three approaches, EEG implies a holistic epistemology that embraces the consideration of all three approaches in research designs. For example, Hartman (2016) combined a path-dependence evolutionary approach with CAS and discussed the relevance of both in understanding destinations as complex systems and the role of governance in stimulating diversity and learning to increase the adaptive capacity of destinations.

For Brouder and Saarinen (2019), research is turning from post-hoc analysis of path-dependence to identify stages in governance, to studies of change management and path creation. Indeed, change is seen as inherent in both EEG and in resilience approaches. CAS approaches offer a framework for understanding these changes as part of adaptive cycles. Rather than emphasising equilibrium and steady-state, CAS emphasise interconnectivity, self-organisation and adaptation, and emergence in an evolving system comprising sub-systems that lack an overall hierarchy and overall purpose in adaptive cycles. Resilience is the term used to describe this adaptive capacity of the system (Holling, 2001). However, resilience is also a term which has been widely used in evolutionary approaches as well as in sustainability studies. Although it could be a convergence point between different approaches, the term has created much debate and much confusion. For Saarinen and Gill (2019), resilience is intrinsically an evolutionary concept embracing change that has its origins in tourism in Butler’s Tourist Area Life Cycle model. For Dredge (2019), the concept of resilience is ultimately based on a complex systems approach; while its use has evolved and matured from ecological to socio-ecological contexts, the challenge now is to move forward from normative discussions to more detailed understandings of resilience, incorporating the complexity of the world and the Anthropocene. Cheer and Lew (2018) consider resilience as a simplified version of the more complex, though more integrated understanding provided by a CAS approach. It is argued here that evolutionary approaches to resilience based on firm CAS conceptualisations can add to tourism governance research. Accordingly, the role of resilience in government and complexity research is briefly reviewed below.

Resilience and sustainability

Resilience is a well-received concept in the study of complex systems and sustainability, while its roots can be traced to ecological studies. Holling (2001) was the first to use the term to describe the ability of an ecosystem to adapt to its changing environment and absorb any changes without major structural changes. This ecological understanding emphasises the ability of the system to reorganise and reach a new equilibrium; in contrast, engineering resilience emphasises the steady state and the return of a system to its original equilibrium (Amore et al., 2018; Robinson & Carson, 2015). Ecological resilience has influenced the understanding of socio-economic and socio-ecological systems, including tourism, as complex systems ‘that constantly adapt to sustain their development paths’ (Robinson & Carson, 2015, p. 2). Socio-ecological resilience thus acknowledges the presence of multiple equilibria.
(Saarinen & Gill, 2019) and CAS evolve and self-organise based on a multiplicity of interactions which determine this new dynamic state of the system (Holling, 2001). Instead of focusing on ecological resilience and the ability of the system to absorb changes while retaining its original structure and characteristics, socio-ecological resilience embraces adaptive cycles (Baggio, 2018). For Perrings (1998, p. 221), the adaptation of the resilience concept from ecology to socio-ecological systems is ‘one of the most interesting and potentially useful outcomes of the collaboration between natural and social scientists concerned with sustainability’. Socio-economic and socio-ecological systems are, however, different from ecological systems. CAS, for example, are characterised by the ability to change their internal structure, self-organise and adapt to changing environments. The self-organisation and adaptation take place without any system-level conscious intention or central control. However, human complex systems are different, in that they have the capacity for foresight, intentional action, communication and technology (Holling, 2001). Human intentional actions dominate socio-ecological systems and so the ‘adaptability of such systems is mainly a function of the individuals and groups managing them’ (Walker et al., 2006, p. 15). Dredge (2019) and Hall (2019) also reject the idea of resilience as a bouncing-back mechanism which enables destinations to resist shocks, adapt and rebalance, or even as protective mechanisms against future shocks. Instead, Dredge claims that one should consider the wider human-ecological system in the Anthropocene, as it embraces the possibility for new equilibria and considers the roles of governance and human agency within it.

Adaptation and resilience are inherently connected to sustainability, with sustainability often carrying the same conceptual ambiguity as resilience (Hall, 2019). For Holling (2001, p. 390), sustainable development refers to the goal of facilitating and enhancing the adaptive capabilities of human systems which are apparent in the small, critical, self-organising processes and transformations during their evolution. Munn (1989), on the other hand, discussed sustainability in industrialised countries and concluded that if development is to be sustainable, resilience needs to be one of its core characteristics.

For Saarinen and Gill (2019), conflicting views are evident also in the tourism literature regarding the relation of sustainability to resilience. Some scholars (e.g. McCool et al., 2013) argue that sustainability is a means to support resilience in destinations, while others (e.g. Espiner et al., 2017) see resilience as a constituent of sustainability but not vice versa. Resilience has often been conceptualised as a new framework, an approach, or thinking to address development and sustainability. For Dredge (2019), for example, resilience is the solution to the inherent problems and contradictions in the notion of sustainability. For Dredge, although sustainability remains the framework to set the long-term goals for development, resilience offers a new approach to sustainability, which can now be understood as comprising several small entities which need to be managed adaptively. What this view implies is the need for a CAS approach, where complexity is seen to be the result of a small number of local interactions which can lead to self-organisation, adaptation and emergence. What CAS approaches imply is a post-modern view of the world: several local realities do not necessarily sum to a single centrally controlled outcome (Cilliers, 1998). The understanding of these local realities and divergent paths becomes thus essential for the management of CAS and for sustainable development (Holling, 2001). Although resilience thus becomes important in understanding and managing complexity in governance for sustainability, it should not be an end goal or a normative concept in the way sustainable development is. Resilience is inherent in a CAS approach to sustainability or, in other words, understanding sustainable tourism development from a CAS perspective naturally brings in the concepts of evolution, multiple equilibria and adaptation and thus of resilience as their ability to adapt. However, resilience is not always inherently good; for example, resilient systems can be capable of sustaining or exacerbating unjust power imbalances and marginalisation, and in such cases government intervention and policy decisions should seek their disruption in order to reduce inequalities and challenge the status quo (Baird et al., 2017). For Amore et al. (2018), sustainability and resilience, although related, are essentially different concepts and should not be used interchangeably. Similarly, Lew et al. (2016) argued that although resilience and sustainability are often viewed as only slightly nuanced concepts, there are distinct characteristics between them. For Lew et al., sustainability is a static concept favouring a steady state while resilience emphasises the dynamic, evolving nature of socio-ecological and socio-economic systems. However, sustainable tourism development has long been conceptualised as a dynamic, adaptive process involving multiple developmental trajectories and policy options rather than as an end goal (Farsari et al., 2011). It is argued here that in a CAS approach, resilience is better seen as a property, one characteristic among others, necessary for a destination’s journey towards more sustainable trajectories rather than an end goal or an overarching framework. Or as Holling (2001) described it, resilience is the third dimension (the other two being connectedness and potential) turning
the panarchy of adaptive cycles from a two- to a three-dimensional model. Saarinen and Gill (2019) likewise argue that instead of examining resilience and sustainability as alternative approaches, resilience should be seen as a necessary part of sustainable tourism which invites better governance in destinations. It is the ability to change and adapt to a dynamic environment which is essential for sustainable development. The ability to adapt in complex socio-economic systems, unlike in ecological systems, is founded on human intentions, as reflected in policy options and decisions (Baggio et al., 2010; Walker et al., 2006). Understanding these intentions and interactions in tourism policy contributes to the understanding of the adaptive trajectories of human societies towards sustainable development (Hall, 2011). Resilience in socio-economic systems is ultimately the capacity to self-organise, evolve and adapt in new dynamic equilibria. Essential in these adaptive routes is the role of human agency and governance. In complex socio-economic or socio-ecological systems, resilience can be seen in the way societies self-organise in informal or formal institutional and governance structures to adapt to change at minimum cost. Haisch (2019) used the concept of human agency to relate human (individual or collective) intervention to adaptive cycles. He found that the development of a joint strategy as a result of an iterative learning and communication process between local actors, community, and formal and informal institutions was essential for collective agency. Collective agency was necessary for long-term adaptation and resilience, while individual agency was more relevant to short-term adaptation. Human agency is related to entrepreneurship and individual or collective action. For Hall (2019), however, the emphasis on human agency reflects the prevalence of a normative approach to socio-ecological resilience, influenced by a neo-liberal understanding – a view shared by Joseph (2013). For Joseph, resilience ultimately emphasises individual responsibility and perpetuates neo-liberal governmentalism. That is, it emphasises the role of individuals in taking action and responsibility while reducing the role of the state to flexible public-partnership arrangements. Nonetheless, resilience is very much related also to social and collaborative learning and adaptive governance which emphasises bottom-up approaches and local community, as examined in the next section. CAS evolve and adapt through learning, self-organisation and emergence, relying on a diversity of actors and interactions (Holling, 2001).

**Resilience and adaptive governance**

(Boyd & Folke, 2012a). Bramwell and Lane (2011) note that the integration of evolutionary and adaptive approaches in tourism governance research is the result of the increasing need to incorporate social learning and local knowledge into governance. For Bramwell and Lane, the ability of a local socio-economic system to learn through interactions and knowledge exchange is a prerequisite for the system’s resilience. This social learning is both interactive and iterative. It is interactive in being collaborative in inviting wide stakeholder participation and interaction, and it is iterative in being adaptive and following a learning-by-doing approach (Islam et al., 2018a, b). It is the ability of the system to learn through interactions, collaboration and self-organisation that generates its adaptive capacity (Luthe & Wyss, 2014). Adaptive co-management emphasises the importance of high interconnectivity to increase diversity and enable adaptation. For Hartman (2016), adaptive capacity is evident in the diversity (of firms, products, experiences) at a destination as well as in governing diversity. Governing diversity, which can be seen in policy options and divergent developmental trajectories, is essential for destinations in order to avoid lock-in and be able to adapt (Hartman, 2018). Thus, social learning (as seen in interactions, collaboration and knowledge exchange) together with diversity (as seen in developmental and policy options) are essential for the adaptive capacity of the destination. Reed (1999) examined adaptive management as a form of collaborative planning, where social learning contributed to tackling issues of power in local communities. Wray (2011) implemented adaptive, transactive planning in two communities in Australia with wide participation and iterative integration of social knowledge into tourism planning. Twining-Ward and Butler (2002) reported on adaptive management in Samoa, where social learning was integrated into the development of indicators and measurements. All these studies integrate social collaborative learning in adaptive cycles to address uncertainty and complexity in what Plummer and Fennell (2009) called adaptive co-management. For Plummer and Fennell, adaptive co-management integrates governance and CAS by bridging collaborative and adaptive approaches to the management of socio-ecological systems. Research has proliferated on adaptive co-management in the governance of tourism in protected areas and adaptive co-management has been widely used in destination governance more generally (Islam et al., 2018). It brings to the forefront the need for flexibility on the part of institutions and governance to cope with uncertainty and complexity in the interactions between social and ecological systems (Boyd & Folke, 2012b). Adaptive governance is essentially a new form of bottom-up, multi-level, collaborative planning, enabling local groups to exchange knowledge and plan adaptively.
for the management of socio-ecological systems. Linking it to resilience has added depth to both concepts by emphasising the co-evolution of social and ecological systems and interconnecting their dynamics (Boyd & Folke, 2012b).

Discussion
Conceptual clarity to foster interdisciplinarity and empirical research

The review of the literature reveals certain aspects which need consideration in setting the research agenda for destination governance and sustainable tourism. A starting point in this discussion is the need for a conceptual clarity for the terms ‘resilience’, ‘sustainability’ and ‘complexity approaches’. The three concepts emanate from different fields and epistemological traditions and suffer from conceptual ambiguity. The intersection of them requires greater clarity to facilitate implementation and empirical research. The use of resilience as a synonym for sustainability or ‘as an ensemble of ideas and theories on how to understand and analyse dynamics of complex systems’ (Baggio et al., 2015, p. 8), although appealing, would need to gain conceptual clarity and specific methodological tools are needed for the advancement of relevant research. Interdisciplinarity is key in this discussion. Dredge (2019), Hall (2019) and Baggio et al. (2015) discuss the concept of resilience as a boundary object or a bridging concept, a flexible one that is easily understood across disciplines and by different actors, and so facilitates communication and understanding. However, in a bibliometric analysis, Baggio et al. (2015) found that this was not the case and ‘resilience’ was used only as a vague concept, with each discipline retaining its own interpretation of the term, with little evidence of it acting as a bridging concept. Similarly, both Hall and Dredge are critical both of the conceptual vagueness of the term ‘resilience’ and of the way that tourism academia has embraced it as something normative and inherently good. It is argued here that more solid CAS approaches are needed which encapsulate resilience as a part of their adaptive cycles rather than resilience being an approach in its own right or a normative term. Research would benefit from a more explicit conceptualisation and elaboration of non-linearities and complexity in tourism systems and thus a more solid anchoring in the study of complex systems. That is, tourism research should move from general resilience approaches and resilience thinking to CAS approaches, incorporating change and evolution in the context of uncertainty, limited knowledge and complexity.

Inter- and cross-disciplinary research is needed to develop and test research methods for the study of complexity in destination governance. There are examples of such inter-disciplinary research, with contributions from computational physics and network analysis (e.g. Baggio, 2017), from cognitive mapping in policy analysis (e.g. Farsari et al., 2011) and from EEG in combining the spatial dimension and evolution with discourse analysis (e.g. Meekes et al., 2020). Nevertheless, more is required. Socio-ecological and socio-economic systems are interdisciplinary research domains and resilience can indeed act as a bridging concept (Espiner et al., 2017) to facilitate the discussion of dynamic complex systems and contribute to innovative theoretical and empirical understandings (Baggio et al., 2015, p. 8).

Integrated evolutionary CAS approaches

Further to this argument, research on destination governance would benefit from the nexus of evolutionary and CAS approaches. Although CAS incorporate the time dimension with their properties such as memory and learning, self-organisation and adaptivity, and emergence, evolutionary approaches can make this explicit and advance complexity studies with a historical dimension to better understand these properties, how change takes place and the adaptive routes in the system. The appreciation and understanding of adaptive routes in governance can contribute in turn to the development of tools and institutions to manage change (Boyd & Folke, 2012a). Baggio et al. (2010) commented on the limited amount and nature of research on networks and the temporal evolution of tourism systems, while Farsari et al. (2011) commented on the need to incorporate temporal understanding into CAS to gain a better understanding of these complex systems in tourism policy research. Jamal and Camargo (2018) also argued that attention to inclusive governance, although necessary to advance governance studies, is not enough: it needs to be coupled with an evolutionary understanding, with clear historical and social references. While resilience and evolutionary approaches emphasise the temporal and spatial dimensions and the need to look into the history of the system, CAS approaches make learning, self-organisation, emergence and the non-linearities explicit. Indeed, CAS approaches can bring the necessary operationalisation of resilience and advance empirical studies. For example, if we take a closer look at the properties of CAS it is evident that diversity in relationships as well as learning and memory are essential for social learning and the adaptive capacity of a destination. Diversity has a crucial role, as learning is stored...
in relationships, meaning that the more relationships there are, the more experience will be available. Such experience can be a vital resource when a system (such as a tourist destination) requires recovery options (Cilliers, 1998; Mitchell, 2009). What learning and memory also imply, however, is that CAS have a history and that they depend on past experiences for their adaptation and resilience, and thus evolutionary approaches are particularly relevant. Furthermore, diversity and high interconnectivity together with learning and memory stimulate self-organisation and adaption even in unfavourable conditions. In social systems, this adaptability depends on human intention (as reflected in policy options and decisions), as well as on entrepreneurship and human agency (Walker et al., 2006). History, that is, evolution and change, provides a better understanding of how adaptation occurs (Farsari et al., 2011). Self-organisation and adaptation can in turn lead to the emergence of new interactions, leading the system to new trajectories and new equilibria. Emergence, another property of CAS, dictates the synergistic character of interactions between a system’s components or between sub-systems or between systems and how the social world interacts with the natural world in unpredictable ways. Although for Meekes et al. (2017) self-organisation and the emergence of a new order happens without collective intent or action but, rather, cumulatively, as a result of individual agency and entrepreneurship, governments do have a role to play as they can create bifurcations (e.g. with new infrastructure or other investments, new institutions or new collaborations), leading to new trajectories. CAS approaches can extend resilience studies to incorporate non-linearities and complex ramifications and the role of human agency, entrepreneurship, cross-scale policies, and adaptive governance with an evolutionary understanding. A solid CAS approach would also enable the examination of resilience as a component rather than a wishful end, and this in turn would increase understanding and enable disruptive policies and innovations to break any negative resilience in the destination system.

**Collaborative planning, the role of local communities, and the turn to critical studies**

In relation to governance for sustainability, there has been a revitalisation of interest in collaborative planning and the role of residents. Although collaborative planning within governance has been well studied, there are scholars who criticise the limited character and scope of this research, which has tended to emphasise market-based approaches in governance and the role of powerful actors and networks rather than local communities (Bichler, 2021). Bichler advocated instead on the role of design, co-creative, and social-learning approaches which facilitate locals’ participation in governance. Involvement of the local community is becoming increasingly important due to the changing reality in destinations and the blurred boundaries between locals and visitors fostered by the platform economy. Higgins-Desbiolles et al. (2019) take a step further in their radical proposal for the ‘degrowth’ of tourism, where local communities’ rights and needs are placed above the profits of the industry.

However, current approaches do not adequately capture the changing and complex social relations in destinations because they focus on local communities’ capacity and strategies to cope with crisis and bounce back to sustainable trajectories. Janusz et al. (2017), for example, argue for the inclusion of locals’ perspectives in the governance of destinations experiencing overcrowding. Overcrowding, and the emergence of social innovations and virtual platforms, calls for the involvement of residents in destinations’ governance, and consequently for new approaches to research, incorporating political, sociological, gender, and critical studies in the analysis of destination governance (Jamal & Camargo, 2018). There is a need for more inclusiveness and a more just representation, one that includes marginalised and less powerful groups in the ethical production, consumption and decision-making of tourism; that would amount to transformative tourism if that representation is not limited to the inclusion of just one marginalised group but rather all of them, in a meaningful way (Scheyvens & Biddulph, 2018). Power issues remain one of the most important aspects of governance for sustainable tourism (Saarinen & Gill, 2019), and wider participation could help in that regard, as a counter-balance to public-private partnerships and a corporatist understanding of efficiency and the legitimacy of decisions. Complexity theory can be an alternative to the currently widely used theories to analyse and understand complex dynamics and the role of local communities in destination governance (Olya & Gavilyan, 2017).

Critical approaches and action research which link governance, inclusivity and the practice of tourism is a direction worth further attention. Joppe (2018) argues that research on tourism policy has been of little use for decision-making and action-taking. Indeed, more work is needed on the dissemination of research results and adoption by policymakers and on bringing real-world knowledgeable solutions to existing problems. For example, by adopting critical studies and disruptive methods, research could bring practitioners, residents and policymakers into consortia to discuss...
the meaning and usefulness of the results and to engage them in finding solutions and to empower them in decision-making. For Bramwell (2011), the presence of critical approaches in research on tourism governance is intrinsically good and is necessary in order to challenge dominant approaches and contribute to theoretical advance. Transformative, collaborative approaches in governance involving social-learning are very promising in addressing the complex reality of destinations (Koen et al., 2019) and base governance on innovative understandings which do not perpetuate the status quo and current shortcomings but rather embrace differences, contradictions and opposing viewpoints in adaptive ways. The coupling of social-learning transformative governance with political economy is also worthy of attention, as it might encourage a shift from managerial to political science approaches in research on tourism governance (Adu-Ampong, 2019; Joppe, 2018).

Conclusions

This article has reviewed the literature related to sustainable tourism, destination governance, resilience, and complexity approaches in tourism research to understand and conceptually delimit these concepts and their nexus in an integrative approach. It has argued that although tourism governance research has flourished in various, often overlapping directions, greater clarity in the above concepts would enhance empirical research. The contribution of this article is through its meticulous examination of those concepts and their discussion from a CAS perspective. This in turn can contribute to reducing the emphasis on approaches which favour a neoliberal understanding and a perpetuation of present policies. Governance models embracing flexible relations between the state and the tourism industry, in the forms of networks and public-private partnerships, have been criticised as expressions of neoliberalism regarding the role of government and the way policymaking is done. At the same time, resilience has been criticised as a notion favouring individual action at the expense of government policies, and this, again, enhances the role of neoliberalism. Collaborative planning and governance often adopt weak approaches in sustainability and emphasise the tourism industry rather than the local community, diversity or ecology. Partnerships with powerful actors with clear pro-growth goals for ‘resilient’ destinations are the norm in destination governance, as the literature review has noted. Conceptual clarity would contribute to whole systems approaches and to the advancement of interdisciplinary research on tourism governance and sustainability.

Interdisciplinary approaches and understandings with a firm conceptualisation of complexity approaches could contribute to their implementation, as well as epistemological and methodological advances. Inter- and trans-disciplinarity research is important in addressing the complex reality of destinations and the forms of governance required for sustainable tourism. CAS approaches can contribute to conceptual clarity by examining resilience as part of adaptive cycles responding to uncertainty and complexity. Here, resilience is a property, not an end in its own right, nor a normative concept. Furthermore, resilience underlines the importance of evolutionary understanding to advance empirical research; that understanding can in turn help provide better tools and institutions and thus improve governance. The nexus between evolutionary and complexity approaches could contribute to a deeper understanding of change at destinations and in the systems of governance adopted, adding depth and operational tools in the understanding of this change.

Collaborative planning should be redefined and evolve to address the complex social realities at destinations and the need for just, inclusive governance. By adding to the clarity of the examined concepts and their framing in CAS approaches, a democratisation of governance (through wider participation and inclusivity) is suggested. Resilience has been criticised as a neoliberal concept that favours individual responsibility and diminishes the role of government, and networks research based on a CAS approaches has to some extent aligned with this view of resilience. Nevertheless, these approaches allow social learning and diversity to be incorporated within destination governance. CAS approaches are particularly good at advancing knowledge of the interactions between social, economic and natural systems - and thus implementation of collaborative governance for sustainable tourism. CAS approaches backed up with critical approaches can thus contribute to the democratisation of governance at destinations. Such an example is transformative governance. That governance model integrates wide participation and divergent views to address the complex social reality in destinations, disrupt the status quo and bring innovations in governance and the sustainable development of destinations in the Anthropocene.

Such approaches are becoming increasingly important in the global, interconnected world we live in. This was brought into clear focus by the global COVID-19 pandemic, which from March 2020 led to a sharp turn from over-tourism to under- or even non-tourism. Resilience will be required for destinations to bounce back from the crisis and operate in the ‘new normal’. Nevertheless, normality was a disputable notion even...
before the pandemic. Tourism scholars, destination managers, local communities and not least consumers/visitors need to actively redefine what the new normal will be, and CAS approaches to governance will help this to happen.

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References


